

Date: September 18, 2003
To: Environmental Quality Commission
From: Stephanie Hallock, Director
Subject: Agenda Item D, Rule Adoption: Oregon Air Toxics Rules
October 9-10, 2003 EQC Meeting

Department Recommendation The Department recommends that the Environmental Quality Commission (EQC, Commission) adopt the proposed Oregon Air Toxics Program rules as presented in Attachment A.

Need for Rulemaking Air Toxics are generally defined as air pollutants known or suspected to cause cancer and other serious health problems. These pollutants include gases like benzene and formaldehyde, metals like chromium and nickel, and fine particles like diesel particulate. Recent studies indicate that air toxics are at concentrations of concern statewide. While new and proposed federal standards for industries, auto and truck engines and other sources will reduce some emissions over time, unacceptable levels of risk from air toxics will remain. A comprehensive health-based approach is necessary to identify and reduce these risks statewide. The chart in Attachment I illustrates the relationship between the elements of the federal and proposed state air toxics programs.

Effect of Rule The proposed rules establish a framework the Department will follow to:

- determine concentrations of concern, or “benchmarks,” for toxic air pollutants (Attachment A, p. 4-5);
- prioritize and select geographic areas with the highest risk of harmful health effects from these air toxics (Attachment A, p. 6-7); and
- develop and implement plans and strategies to reduce the release of these chemicals (Attachment A, p.8-9).

Benchmarks would be adopted as rules, with opportunity for public comment. Geographic area plans would be developed by a local advisory committee and approved by the Commission following a public comment period. The proposed rules also provide criteria the Department will use to develop strategies to reduce emissions from groups of similar air pollutant sources (Attachment A, p. 5-6). Further, the proposed rules address the rare cases of individual industrial sources of toxic air emissions that are not addressed by

the program, but have the potential to cause harm to public health (Attachment A, p. 11-12). The Air Toxics Advisory Committee Report (Attachment C) contains a full explanation of the proposed program.

Commission Authority The Commission has authority to take this action under ORS 468.015, 468.035, 468A.010, and 468A.025.

Stakeholder Involvement Between 1998 and 2003, the Department worked with two advisory committees to develop the proposed rules. The Hazardous Air Pollutant Consensus Group (HCG) and Air Toxics Advisory Committee (ATAC) were composed of representatives from the public, environmental justice community, environmental groups, local government, state and local health departments, small businesses, large businesses, Associated Oregon Industries, Oregon Business Association, Gasoline Marketing Association, and Oregon Economic and Community Development Department. The June 2002 report from the ATAC, as well as a membership list can be found in Attachment C. The February 2000 HCG report is available upon request.

The advisory committees recommended that the Department use a foundation of good science to address multiple air toxics and cumulative exposures on a geographic basis with the participation of community stakeholders. All advisory committee members expressed interest in an effective and pragmatic program to reduce health risk. Industrial stakeholders sought to ensure that toxic emissions would be reduced from sources in proportion to their contributions to the problem. Public interest stakeholders sought to reduce risk in a timely and accountable fashion. Local government stakeholders worked to ensure flexibility in the planning process.

Public Comment The Department has conducted two public comment periods for the proposed air toxics rules. After the first public comment period in August 2002, the Department delayed the rules to respond to budget and timing issues. The Department re-proposed the rules this year, with a public comment period extending from April 16 to May 30, 2003, including public hearings in Bend, Medford, Eugene, Portland and La Grande. The major issues raised during both comment periods are summarized below under “Key Issues.” Attachment B, the summary of Public Comments and Agency Responses, provides the detailed results of the most recent public input and corresponding rule changes. The 2002 Summary of Public Comments and Agency Responses is available upon request.

Key Issues

A. Key Issues Raised during the 2002 Public Comment Period

The rules that were proposed and received public comment this year benefited from the many thoughtful comments the Department received last year. During the initial review process, the most significant comments related to the Geographic Program. Commenters expressed concerns about the ability of local advisory committees to develop timely and effective air toxics emissions reduction plans. The rules were changed to allow a one-time extension of the planning process as long as the Department believes that reasonable progress is being made. Changes were also made in the Department's review of plan implementation to include a contingency plan. The revised proposal directs the Department to implement contingency measures at the six and nine year milestones if air quality goals are not met. New language was added to ensure that plans would treat sources and source categories fairly, seeking reductions commensurate with their contribution to the problem. A complete copy of the Department's summary and responses is available upon request.

B. Key Issues Raised during the 2003 Public Comment Period

1. The Need for the Proposed Rules

Most commenters support adoption of a state program to address the ever-increasing information about air toxics risks in Oregon. However, some stakeholders still question whether air toxics problems are sufficiently defined and whether federal programs will eventually provide adequate coverage.

EPA's National Air Toxics Assessment (NATA) results show that concentrations of at least sixteen air toxics in Oregon exceed generally acceptable health risk levels. While some stakeholders question whether NATA provides adequate technical support for the proposed Oregon program, the Department has verified the national modeling study with Oregon-specific monitoring and modeling. The Department conducted air toxics monitoring for over a year at five sites in the Portland area, and the model-to-monitor comparisons have shown that NATA results are reliable. In addition, a recent project that modeled air toxics on a refined scale in the Portland area also shows similar concentrations of concern. Based on this information, the Department believes that air toxics pose a significant public health risk in Oregon.

a. Need for the Geographic Program

The monitoring and modeling data show that while air toxics pose health risks throughout the state, the risk is highest in more populated or urban areas. This is due to the cumulative effects of air toxics emissions from many sources. Addressing these cumulative effects was the critical concern that led the HCG to recommend the Geographic Approach as the primary tool to reduce air toxics risk in Oregon.

The federal air toxics program primarily relies on technology-based emission standards – known as Maximum Achievable Control Technology or MACT – to reduce air toxics emissions from major industrial sources. These standards, while important to reducing emissions from major sources, do not consider the cumulative effects of multiple small and large sources in populated areas. EPA’s strategy to address cumulative effects relies on state and local programs like the proposed rules. Thus, without the local geographically-based approach in the proposed rules, there is no other tool to address cumulative effects.

b. Need for the Source Category Program

The Department expects the federal program will adequately address risk from major sources and from new motor vehicle engines. However, the federal program will not adequately address air toxics from smaller and area sources (e.g. open burning) and in-use mobile sources (e.g. existing diesel engines). The source category element of the proposed rules would direct the Department to pursue voluntary and regulatory approaches to source categories that are not addressed by the federal program but contribute to local or state-wide health risks. Oregon’s Clean Diesel Initiative is an example of a categorical approach that will significantly reduce health risks by encouraging voluntary retrofit of existing diesel engines with modern pollution-control technology.

c. Other Needs Addressed by the Proposed Rules

While the Department believes that the Geographic and Source Category approaches in the proposed rules will address most of the gap in the federal air toxics program, there may be a small

number of point sources that fall through the cracks and create unacceptable local health risks. The Safety Net Program in the proposed rules will fill this gap by providing a procedure for identifying and assessing the risk from sources that are not subject to risk analysis under the federal program and are not otherwise addressed by the Oregon program. In addition, the federal program is limited to specifically listed hazardous air pollutants. The proposed rules establish a process for the Commission to adopt health-benchmarks for other pollutants that may be identified as causing significant health risks in Oregon.

2. Regulatory Authority

Some commenters have noted that the proposed air toxics rules are not required by state or federal law. While there is no specific legislative mandate directing the Department to develop an Oregon air toxics program, existing statutes clearly authorize the Commission to adopt the program. ORS 468A.010 and 468A.015 state a purpose and policy to restore and maintain the state's air quality by controlling, abating and preventing air pollution, as practicable, consistent with overall public welfare.

In addition, ORS 468A.025 governing air quality standards and treatment and control of emissions specifically authorizes the Commission to adopt emission standards by rule. ORS 468A.025(3) authorizes the Commission to adopt these standards for different pollutants and source categories, and to adopt standards for the entire state or an area of the state. ORS 468A.025(4)(e) directs the Commission to adopt rules applicable to a source category, pollutant or geographic area necessary to protect public health or welfare for pollutants that are not otherwise regulated by the Commission or as necessary to address cumulative impacts.

While federal law does not require the Commission to adopt the proposed program, EPA has encouraged the Department to submit the air toxics program upon adoption for approval under the federal Urban Air Toxics Program. The federal Urban Air Toxics Program, which EPA is developing for implementation by the states, calls for states to adopt strategies to meet risk goals statewide, in urban areas, and near stationary sources. ("Urban" areas may include both large and small

cities, depending on the general density of the populated area.) The EPA has not yet finalized a framework to administer the Urban Air Toxics Program, but has indicated that it would approve qualifying state programs or operate the programs itself. The Department believes the proposed rules meet the intent of the federal Urban Air Toxics Strategy and will qualify for approval.

Over the last twenty years, many other states have developed successful risk-based air toxics programs that focus on industrial point sources and reviewing new sources of air toxics. Numerous states and cities are now conducting air toxics modeling or monitoring projects to assess community risk, and plan for local emission reduction measures. Elements of these programs and projects are aligned with the goals of EPA's Urban Air Toxics Strategy. However, at this time, Oregon is the only state proposing a comprehensive air toxics program that addresses risk statewide, in communities, and near sources. Oregon's proposed air toxics program has often been presented as a viable model that other states could use to meet the goals of the Urban Air Toxics Strategy.

3. Exemptions for Regulated Stationary Sources

The Department received several comments that industrial sources subject to costly MACT requirements should receive an exemption from all or parts of the proposed air toxics program.

The Safety Net Program provides a specific exemption for sources subject to MACT because EPA's Residual Risk Program will eventually evaluate and address health risk near MACT sources. This exemption previously applied only to specific emissions reduced by the MACT. Upon learning that EPA plans to extend residual risk analysis facility wide, even for pollutants not specifically controlled by the MACT, the Department expanded this exemption to include all facilities that must comply with a MACT for which EPA will perform a residual risk analysis.

However, the Geographic and Source Category Programs do not contain specific exemptions for sources subject to MACT, although they include consideration of factors, such as technical feasibility, cost effectiveness and equity, to avoid duplicative regulation. Because of these considerations and the potential need to address remaining risks, the proposed rules do not include specific exemptions for these sources.

In the Geographic Program (Attachment A, p. 6-9), a local committee must design emission reduction plans that are “commensurate with source contributions” and consider toxicity, technical feasibility, cost effectiveness and equity. Given these criteria, it is very unlikely that MACT sources with low emissions or low contributions to risk would be required to make further emissions reductions.

In the Source Category Program (Attachment A, p. 5-6), the Department will consider whether emissions are not or will not be addressed by other regulations or strategies, including the Geographic and Safety Net Programs, as well as federal MACT standards. Any future source category rulemaking must clearly involve analysis of regulatory burdens and economic impacts along with specific environmental benefits.

4. Benchmark Criteria

In addition to comments urging the Department to set ambient benchmarks that are protective of sensitive populations, commenters raised two issues related to exposure. First, commenters felt that ambient benchmarks should reflect annual average concentrations, rather than short term concentrations. Second, the rules should state that plausible upper bound, or reasonable maximum exposures should be considered when developing the ambient benchmarks.

The Department expects that initial ambient benchmarks will be based on chronic or long term exposures, and, so, will be expressed as annual average concentrations. However, future studies may show that benchmarks, especially those protecting sensitive individuals or critical periods of development, should also address acute or short term exposures. For this reason, the proposed rules do not limit ambient benchmarks to annual average concentrations. The Department will specify the averaging period when proposing each benchmark for adoption. (Attachment A, p. 4-5).

The Department agrees that the benchmark process should refer to plausible upper bound or reasonable maximum exposures, and has added this reference to the proposed rules (Attachment A, p. 4). The Department plans to develop a protocol for benchmark adoption, including a hierarchy of preferred information sources, data

prioritization, and consistent criteria for decision-making. This protocol will be developed as a Department policy in consultation with the Air Toxics Science Advisory Committee (ATSAC).

5. Identifying Geographic Areas

The proposed rules describe steps for screening, identification and selection of high priority Geographic Areas, or areas with risk more than ten times above ambient benchmarks (Attachment A, p. 6). These three steps would be based on modeling, emission inventory and, when available, monitoring information. Commenters stated that the Department should not identify high priority areas without quality monitoring data. Because of their belief that designation as a high priority area could result in economic disadvantages, commenters felt that it should be supported by actual measurement of air toxics.

In response to this concern, the proposed rules now require the Department to use representative monitoring data to select an area for emission reduction planning (Attachment A, p. 6 and 7). The Department will select high priority areas when measured air toxics concentrations from individual pollutants are more than ten times above ambient benchmarks. The Department will still follow screening and identification steps – using modeling and emission inventory data – to decide which high priority geographic areas to monitor. Monitoring will be conducted using EPA monitoring guidance.

Based on EPA's 1996 National Air Toxics Assessment, potential high priority Geographic Areas under consideration for monitoring and subsequent selection are: Portland Metro Area, Medford, Salem, La Grande, McMinnville, Baker City, Eugene/Springfield, Albany/Millersburg and Klamath Falls. The next release of the National Air Toxics Assessment, expected in 2003, could revise risk estimates for some of these areas, causing them to fall below the high priority level of ten times above the benchmark.

Selecting Geographic Areas through monitoring means that the areas will be selected over several years as monitoring resources allow, rather than at once through modeling as initially proposed. Although the Department expects to identify very few Safety Net sources, this change in selecting geographic areas means more sources are potentially subject to the Safety Net Program. This is because the

Safety Net Program only applies outside of selected high priority Geographic Areas. However, monitoring will still be required under the Safety Net Program to demonstrate the need for a health risk assessment.

Next Steps

With Commission adoption, the Oregon Air Toxics Program will be effective upon filing by the Secretary of State in November 2003. The Department will submit the program for approval by EPA. In early 2004, the Department will appoint the Air Toxics Science Advisory Committee (ATSAC) and begin work on ambient benchmarks. The Department expects that the first set of ambient benchmarks will be presented to the Commission for adoption in early to mid-2005, and the first Geographic Area will be selected shortly afterwards. Geographic planning will proceed first in Portland, with a local emission reduction plan due by the end of 2006.

Between 2004 and 2005, the Department will work with the ATSAC to develop a risk assessment protocol for the Safety Net Program, and develop forms, templates and a training plan for regional staff. The Department will implement the Oregon Air Toxics Program using existing, reprioritized and additional resources. The legislature authorized three new federally funded positions to perform toxicology, emission inventory and planning work in air toxics. The full implementation plan is available upon request.

Attachments

- A. Proposed Rule Revisions
- B. 2003 Summary of Public Comments and Agency Responses
- C. Air Toxics Advisory Committee Report and Membership
- D. Presiding Officers' Reports on Public Hearings
- E. Cover Memorandum for Public Notice
- F. Relationship to Federal Requirements Questions
- G. Statement of Need and Fiscal and Economic Impact
- H. Land Use Evaluation Statement
- I. Elements of the Federal and State Air Toxics Programs

Available Upon Request

- 1. Legal Notice of Hearing
- 2. 2002 Summary of Public Comments and Agency Responses
- 3. 2002 and 2003 Written Comments Received
- 4. Rule Implementation Plan
- 5. HAP Consensus Group Report and Membership

Approved:

Section: _____

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