

**Date:** December 4, 2009  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Director  
**Subject:** Agenda Item M, Informational Item: Director's Dialogue  
December 10-11, 2009 EQC meeting

**Sustainability and the Natural Step at DEQ**

In August 2008, DEQ's Executive Management Team adopted the Natural Step Framework. The Natural Step is a non-profit organization founded in Sweden in 1989. The Natural Step Framework is a widely used approach for helping organizations become more sustainable. Since adopting the Natural Step Framework, DEQ has provided training to managers, held planning sessions to identify our vision, goals and actions, trained DEQ staff to be internal trainers and developed a comprehensive draft sustainability plan. The internal trainers have developed a training curriculum for all staff, which will be available starting in January 2010. DEQ plans to train all staff in the fundamentals of the Natural Step through 2010 and have a draft sustainability plan. Trainers will integrate the plan into all sessions, and hope to engage staff to develop additional action items for near-term goals and help refine longer-term goals and objectives. DEQ would like EQC to remain involved in the development and implementation of a sustainability plan at DEQ, and will bring a full informational item on this topic to the February EQC meeting.

**Lower Umatilla Basin groundwater management area**

The end of December marks 12 years of implementation of a groundwater nitrates action plan in parts of Umatilla and Morrow Counties. The action plan, developed by a local advisory committee, requires a quantitative evaluation of program effectiveness at the end of 12 years. DEQ plans to complete this evaluation in spring 2010. This will be the first evaluation based on an area wide water quality trend analysis, and will likely show steady or worsening levels of nitrates in groundwater. The plan states that if DEQ determines that the voluntary nature of the program is not effective that additional controls, including potential mandatory regulatory controls, may be necessary. In that situation, DEQ and the Oregon Department of Agriculture will work with the local advisory committee to develop and implement the additional controls. On December 2, Phil Richerson and Mitch Wolgamott presented at the annual Hermiston Farm Fair, one of the largest gatherings of the agricultural community in the area. Their presentation noted that stating that in 2010 DEQ will likely need to begin discussing additional controls, and, because irrigated agriculture is by far the largest contributor of nitrogen, these controls will need

to address nitrogen application by agriculture. Other successful programs for reducing nitrates were discussed at the presentation, and the audience engaged in positive discussion on ways to identify potential reduction measures in Umatilla and Morrow Counties. DEQ expects to complete the trend analysis by spring 2010, and can bring that information to the commission for feedback before drafting the final report.

**Liquefied natural gas projects: Bradwood Landing, Jordan Cove and Warrenton**

The proposed Bradwood Landing liquid natural gas project would be located on the Columbia River between Astoria and Clatskanie. The Federal Energy Regulatory Commission has approved the project, but challenges to Clatsop County's land use approvals for the project are ongoing. DEQ continues to gather information on the potential environmental impacts of the project for use in processing air and water discharge permits for the facility. DEQ and the National Marine Fisheries Service have requested additional data collection and analysis to complete each agency's regulatory process. In early 2010, DEQ may hold a local public information meeting to share information, answer questions and provide an opportunity for the people to give us information to consider in developing the draft permits and certificate. DEQ will not issue the draft permits and certificate for public comment until all information requested from the project has been received and analyzed.

The proposed Jordan Cove terminal would be located on the north spit of Coos Bay and the 234-mile pipeline would originate at the facility and travel through Coos to Douglas, Jackson, and Klamath Counties, terminating in Malin, Oregon. FERC published a draft environmental impact statement for the project in August 2008. Because of the coordination complexities among the project's three applicants, the US Army Corps of Engineers published a joint permit application for public comment in August 2009. The Corps and DEQ section 401 water quality certification public notices are currently open for comment with an extended deadline of December 27, 2009. Copies of all project materials received to date are available to the public at DEQ offices in Portland, Coos Bay and Medford. Water quality and several Western Region staff have been coordinating with other state and federal agencies and the applicants. The applicants have not yet filed air or water discharge permit applications with DEQ, but they have been working with DEQ's air quality program to prepare the model for the Title V permit. Depending on applicant responses to information requests, DEQ may hold a public meeting in Coos Bay in spring or summer of 2010.

In October 2008, Oregon LNG filed an application with FERC to build a facility in Warrenton. DEQ received an application for an air emissions permit at that time, but the accompanying land use compatibility statement was not adequate for issuing an air permit. Recently, Oregon LNG shared initial information with DEQ related to the water discharge permit application and the company has stated intent to submit the application soon. The 401 water quality certification process has not yet begun on this project. If applications and permitting for the project move

forward, DEQ will begin planning for public meetings in Warrenton to share information with community members and hear local perspectives and concerns.

### **Portland municipal wastewater permit**

On January 29, 2009, DEQ sent copies of municipal wastewater permits to EPA Region 10 for consideration. The permit holders include the city of Portland, city of Tillamook, US Forest Service for Multnomah Falls Lodge, city of Warrenton, Shoreline Sanitary District and Sundown Sanitary District.

In March 2009, EPA sent a letter to DEQ that outlined general objections to certain conditions in the permits, and followed with a letter in May 2009 with more detailed objections to the permits. The bulk of EPA's objections were common to all seven permits and centered around permit provisions that allowed infrequent sanitary sewer overflows during large storm events. DEQ worked with EPA and the permit holders to resolve the sanitary sewer overflow permit language for these particular permits and, with the exception of the Portland permit, EPA lifted its objections in late August 2009. DEQ renewed the six permits in November 2009 and continues to work with EPA and the city of Portland to resolve EPA's objections to the Portland permit.

EPA's objections to the Portland permit center on what EPA considers to be combined sewer overflow related bypasses at Portland's Columbia Boulevard wastewater treatment facility. In order to resolve the remaining issues with the Portland permit, the city will submit a "no feasible alternatives analysis" that, if approved by DEQ, will address EPA's remaining objections. This analysis was submitted December 4, and DEQ will review the analysis in concert with EPA over the next several weeks.

### **Dan Desler and Western States Land Reliance Trust: Asbestos abatement and solid waste removal in Sweet Home**

In mid-November, EPA completed a month-long removal of asbestos-containing debris from an old sawmill at 2210 Tamarack Street in Sweet Home, currently owned by the Western States Land Reliance Trust and managed by trustee, Dan Desler. EPA, along with construction contractor Environmental Quality Management and asbestos abatement sub-contractor ATEZ, removed more than four million pounds of asbestos-containing debris from the 153-acre site. Ecology & Environment, a technical support contractor, performed all of the air, water and meteorological sampling, analysis and collection.

E&E had eight air monitoring stations set up, with four along the fence line across the street from residences on Tamarack Street. Air monitoring analysis was performed daily. Of the approximately 280 air samples that were taken during the cleanup process, only two had any type of elevated levels and they were minor. All of the asbestos-containing waste material was

wrapped in "burritos" the size of a dumpster each, and taken to the Coffin Butte Landfill. More than 200 burritos were removed from the site.

Demolition of the site by Dan Desler originally began in December 2007 and piles of mostly uncovered materials remained within yards of nearby houses until the EPA cleanup. The cleanup costs totaled approximately \$1.1 million, with about \$700,000 in cleanup costs and \$300,000 in sampling analysis costs. EPA bore the cost through Superfund monies and will seek reimbursement from Western States Land Reliance Trust.

Criminal charges against Desler relating to asbestos contamination remain unsettled. Desler was arrested in May after a months-long investigation by the Oregon State Police and EPA, and was charged with felony and misdemeanor counts of unlawful air pollution and reckless endangerment of a contractor.

Washington-based Weyerhaeuser Co., through Eugene's Lane Forest Products and Sweet Home Sanitation, has volunteered to clean up two massive illegal industrial solid waste dumps, one on Western States Land Reliance Trust's former mill property in Sweet Home, the other on Desler-owned land about four miles northwest of Sweet Home. The Sweet Home mill site contains 37,000 cubic yards of fiber and plastic waste and other contaminants, while the site on the Santiam Highway to the northwest of Sweet Home contains 47,000 cubic yards of waste pulp and shredded mixed plastics.

Desler and a former business partner were paid by Weyerhaeuser to transport many hundreds of tons of waste plastic and pulp to licensed landfills. Instead of taking the waste to the landfills, Desler and his partner dumped the garbage on the Sweet Home properties that Desler controls. Even with hauling away 30 truckloads a day, six days a week, the cleanup will take about four months. The waste is going to a Corvallis landfill. Weyerhaeuser's cleanup removes the waste from the sites, but Desler is still liable for the \$192,343 in fines DEQ issued to Desler and his companies last December.

#### **DEQ penalizes Bandon Pacific Inc. \$208,554 for wastewater discharge permit violations at its facility in Bandon**

Last week, DEQ issued \$208,554 in penalties to Bandon Pacific Inc., which operates a seafood processing and retail sales facility in Bandon, for numerous water quality permit violations between 2004 and 2009. The bulk of the violations centered on failure to monitor wastewater discharges into the Coquille River and failure to provide results of the monitoring to the state.

The Bandon Pacific facility, a subsidiary of Pacific Coast Seafood, operates under a National Pollutant Discharge Elimination System general permit at 250 SW First St. in Bandon. That permit allows the facility to discharge wastewater from its fish processing operations.

DEQ's investigation found the following violations by Bandon Pacific:

- Failing to monitor its wastewater and report the results of its monitoring to DEQ on more than 2,800 occasions from Jan. 1, 2004 through Jan. 31, 2009, as required by its permit (\$174,766 penalty)
- Discharging wastes (fish carcasses) into the Coquille River on nearly 1,000 occasions between 2004 and 2009 without a permit. (\$18,000 penalty)
- Failing to pass its wastewater through a 40-mesh screen or equivalent control device prior to discharge to the Coquille River (\$15,788 penalty)

### **Toxics reduction workshop**

DEQ held a toxics reduction opportunities workshop November 17 to generate strategies for reducing toxics in Oregon's environment. Over 150 people participated in the workshop, with a very diverse range of interests represented including neighborhood advocates, manufacturing industries, environmental and public health advocacy groups, tribes, agriculture and forest industries, state agencies and local governments. Chair Blosser, Vice chair Williamson and Senator Jackie Dingfelder participated in the workshop. In addition to hearing from local experts who have experience with successful toxics reduction programs, a long list of potential future reduction actions was produced at the gathering. DEQ is reviewing and evaluating these ideas for inclusion in the agency's toxics reduction strategy and Senate Bill 737 report to the legislature. An update on the strategy will be provided at the February EQC meeting.

### **Senate Bill 737**

DEQ will issue a proposed rulemaking for trigger levels in January. A trigger level is the concentration of a pollutant in municipal wastewater treatment plant or water pollution control facility effluent, which, if exceeded, "triggers" the preparation, by the facility, of a persistent pollutant reduction plan for that pollutant. DEQ will hold hearings across the state on the rulemaking in January, as noted below:

- January 19, 5 p.m., Eugene DEQ Eugene Office, Willamette Conference Room
- January 20, 5 p.m., Medford, City Hall, Room 330
- January 26, 5 p.m., Pendleton, City Hall, Community Room
- January 28, 5 p.m., Portland, DEQ headquarters, 10<sup>th</sup> Floor, room EQC-A

This rulemaking is on schedule and DEQ expects to bring the final rule to the EQC for consideration at the June 2010 meeting.

### **Update on human health water quality standards rule revisions**

DEQ is continuing to meet with its advisory rulemaking work group to discuss changes to water quality regulations to implement the revised toxic criteria for human health. As part of the EQC directive to the DEQ, DEQ's water quality program added stakeholders with agricultural, forestry, and county interests to its existing work group. DEQ held a meeting with this group on

November 18 to initiate specific discussions about what water quality regulatory changes or actions could be made in order to improve the ability of non-NPDES sources to implement toxic pollutant reduction measures that would lead to positive environmental impacts. DEQ's initial charge to this work group is to assist DEQ with identifying short-term, high priority items that are appropriate to include in the current water quality standards toxics rulemaking. DEQ working with the workgroup to finish up work developing various NPDES permit implementation tools related to proposed toxic criteria for human health. The group will meet in January and February, and DEQ will present an informational item to EQC in February to describe the group's work and progress.

### **E-Cycles**

The Oregon E-Cycles program has surpassed the minimum annual collection goal of 12.2 million pounds. The program collected 14.3 million pounds of televisions, computers and monitors for recycling and reuse during the first three quarters of 2009 – which is approximately 52,000 pounds of computers, monitors and TVs *each day*. These recycling efforts have kept nearly one million pounds of lead out of landfills and incinerators and prevented the release of greenhouse gases equivalent to the annual emissions of more than 28,000 cars. A total of 25,198 units have been diverted for reuse. In addition to operating the program, DEQ, industry and local governments are preparing for the upcoming January 1, 2010 disposal ban of computers, monitors and televisions.

### **Willamette Valley field burning rule revisions**

DEQ and the Oregon Department of Agriculture are developing rule revisions to implement Senate Bill 528, which was adopted by the 2009 Oregon Legislature. This bill reduced Willamette Valley field burning from 40,000 to 20,000 acres in 2009 and, with some exceptions, eliminates Willamette Valley field burning in 2010. The exceptions include 15,000 acres per year for fire-dependent identified species and burning on steep terrain, and a provision for 2,000 acres per year for emergency burning. Shortly after the bill was adopted, ODA conducted temporary rulemaking to incorporate the new acreage limitations into their rules prior to the 2009 field burning season. Although operation of the field burning program has been delegated to ODA, both agencies are required to have permanent field burning rules to implement Senate Bill 528. DEQ's rulemaking will address the emergency burning provision, which allows the commission to approve burning for disease and pest control reasons. The rulemaking will implement provisions of Senate Bill 528 that prohibit field burning in critical nonburn areas, such as areas under power transmission lines, double registration and burn fees for the remaining burning, and phase-out propane flaming and stack burning by 2013. Both ODA and DEQ will be using an advisory committee, scheduled to meet December 15, 2009 in Salem, and will hold a public comment period for the proposed rules in February 2010. DEQ will bring proposed rules for commission consideration at the June 2010 meeting.

### **EPA's Enforcement and Compliance History (ECHO) website**

On Friday, November 6, 2009, EPA released a new Clean Air Act and Resource Conservation and Recovery Act website aimed at increasing transparency of EPA programs and actions. The website, called ECHO, contains performance data and includes state inspections and enforcement actions. DEQ reviewed the website and found significant problems with the air quality data. Of 45 Oregon facilities listed in ECHO as having Clean Air Act violations during the last three years, only 11 actually had periods of noncompliance and most of these were resolved more quickly than shown in ECHO. As a result, DEQ sent an addendum to EPA with corrected information. EPA posted state addendums, including Oregon's, on their website at [http://www.epa-echo.gov/echo/trends/state\\_data\\_corrections.html](http://www.epa-echo.gov/echo/trends/state_data_corrections.html). DEQ is working to improve communication between DEQ and EPA databases to prevent these data issues in the future.

### **National Ambient Air Quality Standard for sulfur dioxide**

EPA is proposing a more stringent primary sulfur dioxide National Ambient Air Quality Standard to protect public health. The proposal is for an hourly average standard between 50 and 100 parts per billion, to replace the existing standards of 140 parts per billion 24-hour average and 30 parts per billion annual average. Initial determinations of attainment will be made in June 2012 using existing monitored data. DEQ expects Oregon to be well below the proposed range of 50 to 100 parts per billion based on past monitoring in Portland, Hermiston and Toledo.

Oregon will be required to add one or two monitoring sites by January 1, 2013, and report both the one-hour averages and maximum five-minute averages in each hour of the day. Nationally, this new monitoring is expected to cost over \$13 million per year, and EPA has not yet identified a source of funding for this work. EPA is currently accepting comments on the proposal, and expects to issue a final rule by June 2010.

### **Federal climate change legislation**

On November 5, the Senate Environment and Public Works Committee passed the Clean Energy Jobs and American Power Act, also known as the Kerry-Boxer bill, by an 11-1 vote, which included no Republican members of the committee. Since the Republicans on the committee boycotted markup sessions on the bill, senators were not able to vote on any amendments to the bill due to committee rules. The bill is now in the Senate Finance Committee, with at least four additional committees planning to consider the bill. Senate Majority Harry Reid announced recently that he plans to take the bill to the Senate Floor in early 2010. Senators John Kerry, Joe Lieberman and Lindsey Graham have announced that they are holding conversations with administration officials and other legislators in an effort to broaden support for a climate bill by adding provisions from a recently passed energy bill, among other changes.

DEQ is participating in multi-state efforts to ensure that federal legislation addresses key concerns of states, and that states will participate fully and effectively in administering any

resulting federal programs to reduce emissions. Oregon, along with other states, wants to ensure that federal legislation does not reduce the amount of resources available for state energy efficiency programs, nor preempt state and local emissions reduction efforts. Both the House and Senate versions of the bill preempt states from running cap and trade programs for five or six years. Oregon also wants to ensure that allowance distribution formulas do not penalize states with relatively aggressive emissions-reduction programs, nor nullify their efforts by freeing up additional allowances for less-aggressive states.

### **Federal greenhouse gas regulations**

EPA released an endangerment finding for greenhouse gas in April 2009, and has announced that it plans to take action soon on this finding. EPA will also soon issue regulations under the Clean Air Act to control greenhouse gas emissions from light duty vehicles. Once EPA takes these actions, greenhouse gas will become a regulated pollutant under the Clean Air Act, and will automatically trigger federal permitting requirements under the Title V and construction approval programs. Title V permits regulate operation of major sources while construction approval programs require best available control technology for new and expanding major sources. Applying these programs to greenhouse gas emissions using the default definition of major source would affect a large number of small sources and create an unmanageable permitting workload for state and local air agencies.

To address this problem, EPA announced on September 30 a proposal to set new thresholds for triggering the Title V and construction approval permits for greenhouse gas emissions. The proposed thresholds are known as the greenhouse gas tailoring rule because they would tailor the permit programs to limit the number of facilities that would be required to obtain permits for their greenhouse gas emissions. Without the tailoring rule, the default thresholds under these programs would be 100 and 250 tons per year, while the proposed tailoring rule would set the threshold at 25,000 tons per year for greenhouse gas. Those thresholds would include larger sources like power plants, industrial boilers and cement plants, and ensure that office buildings, restaurants, small farms and other types of small businesses are not affected.

Nationally, even with the tailoring rule, permitting agencies expect the new requirements to double or triple the number of sources subject to permitting. DEQ has begun scoping the tasks needed to implement the new requirements. EPA is currently taking public comment on the proposal.

### **Greenhouse gas reporting**

The greenhouse gas reporting advisory committee has held three meetings, which have focused on options for year-one reporting fees and information related to including more types of emission sources in greenhouse gas reporting. The committee reviewed a number of fee options and recommended setting the fees based on a percentage of a source's current permit fee. As

proposed in DEQ's temporary rulemaking, the fee would be 15 percent of a source's permit fee, with a cap of \$6,000. If adopted by the commission, 2010 greenhouse gas reporters would be invoiced for this reporting fee in January 2010. The committee will continue to meet in early 2010 to discuss recommendations for a permanent rulemaking that would address future years' fees and expand greenhouse gas reporting requirements to include electricity importers and fuel suppliers as authorized by Senate Bill 38.

DEQ is working to finalize emission quantification methods to be used for reporting 2009 emissions. DEQ originally planned to use methods developed by the Western Climate Initiative, but on September 22, 2009, EPA finalized federal rules and emission quantification methods for greenhouse gas reporting. The federal rule requires reporting beginning with 2010 greenhouse gas emissions from sources that emit 25,000 tons per year or more, as compared to 2,500 tons per year or more under Oregon's program. On October 9, 2009, DEQ proposed to use the new federal methods instead of the WCI methods. DEQ sought comments on whether facilities have collected the data needed to comply with the proposed methods for 2009 reporting. Those comments were due November 9, and DEQ received comments from 32 facilities and organizations. The vast majority of commenters indicated that they could use the EPA methods in some form for 2009 reporting, while a few companies submitted alternative calculation methodologies. The most common request was for an exemption to the fuel meter calibration requirements in the EPA methods, which is not required under Oregon's rules. One organization, the NW Pulp and Paper Association, requested exclusion of greenhouse gas from biomass combustion as part of determining whether a source is over the reporting threshold. Inclusion of biomass is required by Oregon's reporting rule, so this cannot be changed at this time.

DEQ will address the comments submitted and formally approve the list of emission quantification methods for sources to use for their 2009 greenhouse gas emission reports. The reports are due to DEQ due by March 2010, or another date established by a facility's permit. DEQ plans to hold training sessions across the state in January to help prepare sources for calculating and reporting their greenhouse gas emissions.

#### **Air Toxics Science Advisory Committee appointments**

The air toxics rules adopted by the commission in October 2003 established a standing technical committee, called the Air Toxics Science Advisory Committee. This committee has provided valuable scientific advice on the air toxics program, specifically on the ambient air quality goals, called ambient benchmark concentrations. The committee will be considering DEQ's recommendation to amend the current benchmarks for manganese and mercury at its next meeting December 14, 2009.

By rule, committee members are selected with experience in specific disciplines relevant to air toxics: toxicology; environmental science or engineering; risk assessment; epidemiology or

biostatistics; public health medicine; and air pollution modeling, monitoring meteorology or engineering. DEQ is requesting commission concurrence on my re-appointments to three-year terms for the current members of the Air Toxics Science Advisory Committee. DEQ is also requesting commission concurrence on appointments of two new members, Dr. David Farrer and Ms. Laurel Peterson, to three-year terms as well. Members' areas of expertise are noted in the brief bio-sketches attached to the end of this document.

The public had an opportunity to comment on the new appointments through an announcement to our air toxics interested persons mailing list and information provided on the air toxics website: <http://www.deq.state.or.us/aq/toxics/atsacform.htm>. No comments were received.

## Air Quality Air Toxics Science Advisory Committee member biographies

### **Current Members**

#### **Brian Patterson, Ph.D.**

Dr. Patterson is currently employed as an environmental consultant with Golder Associates Incorporated in Lake Oswego, Oregon. He has served as a member of the ATSAC since its inception in 2005 and was elected Chair of the Committee in May 2008. He holds a bachelor's degree in Chemistry and a doctorate degree in Physical Chemistry. His areas of expertise include risk assessment, air dispersion modeling, air receptor modeling, environmental regulatory review and air quality permitting. Over his 19 year career as an environmental consultant, Dr. Patterson has completed numerous air quality risk assessments in accordance with U.S. EPA guidance for plywood and composite wood products manufacturing facilities, human health risk assessments under the California AB2588 program, multi-media contaminated site human health risk assessments, and a two-year comprehensive human health risk assessment for the Lawrence Berkeley National Laboratory to meet California Environmental Quality Act requirements.

#### **William Lambert, Ph.D.**

Dr. Lambert has served as a member of the ATSAC since its inception. He is an Associate Professor in the Department of Public Health and Preventive Medicine at Oregon Health and Science University (OHSU). From 1987-2000, he held faculty and research positions at the University of New Mexico School of Medicine. He received his Ph.D. from the Department of Epidemiology and Environmental Analysis at the University of California, Irvine and a BA degree from the Department of Biology at the University of California, Los Angeles. His areas of expertise are air pollution epidemiology, exposure assessment, toxicology, and biostatistics. He has served on a number of advisory/regulatory committees, including Chair of the City of Albuquerque/Bernalillo County Air Quality Control Board, a principal author of state of the science reviews for the American Thoracic Society's Environmental Health Committee, and as member of the Childhood Lead Poisoning Taskforce, Children's Environmental Improvement Project, and Turning Point Environmental Health Initiative, in New Mexico. Currently, he is Chair of the Board of Directors for the Josiah Hill III Clinic in Portland. His community service has been recognized by several organizations, including the Clean Air Award of the American Lung Association of New Mexico and the Lifesaver Award of the New Mexico Chapter of the American Cancer Society.

#### **Kent Norville, Ph.D.**

Dr. Norville is an Associate Atmospheric Scientist and project manager at Air Sciences Inc. in Portland, Oregon. He also is an original member of the ATSAC. He specializes in air quality dispersion modeling, data analysis, and model development. He has considerable experience with a wide variety of models for a number of different public and private sector modeling applications. Applications include regulatory permit modeling, risk assessments, and

environmental impact statements; dust fall and deposition studies; accidental release dispersion modeling; visibility modeling; water vapor cloud assessments; odor assessments; transportation conformity and hot spots dispersion modeling; meteorological data processing and assessments; specialized modeling; and custom model development. He has provided modeling assistance to a number of industrial clients, including aluminum producers, wood product facilities, pulp and paper facilities, metal processors, cement plants, mining operations, food producers, electric power producers, composting facilities, and waste treatment facilities.

Dr. Norville is experienced with risk assessment methods and applications and has worked on a variety of different risk and toxics projects, including EPA superfund sites, public municipalities, and private industries across the United States. He holds a Ph.D. degree in geophysics from the University of Washington and a B.S. degree in physics from the California Polytechnic University, San Luis Obispo.

### **Natalia Kreitzer, P.E.**

Ms. Kreitzer received a B.S. degree in chemical engineering from Oregon State University and has been employed as an air quality engineer, first as a consultant and more recently as an air quality regulator. She is also an original ATSAC member. Her relevant engineering experience includes knowledge of sources of toxic emissions to the air, emission control strategies and current and future EPA regulations affecting toxics air emissions.

For the past six years she has worked for the Southwest Clean Air Agency (SWCAA) in Vancouver, Washington and has been the air toxics coordinator at SWCAA since 2000. In addition, her duties include writing Air Discharge Permits for industrial facilities, inspecting industrial facilities and determining compliance with all applicable air regulations including Washington's toxic rule "Controls for New Sources of Toxic Air Pollutants." In 2002, she participated as a member of Washington's Mercury Chemical Action Plan Advisory Committee and assisted in the development of a plan to reduce mercury in the state of Washington.

### **Dean Atkinson, Ph.D.**

Dean B. Atkinson is an Associate Professor of Chemistry at Portland State University in Portland, OR. He received his Ph.D. in Physical Chemistry from the University of Arizona in Tucson in 1995, where he studied the low-temperature kinetics of atmospherically relevant reactions (primarily involving OH radicals) with Dr. Mark A. Smith. He had a two year NRC Postdoctoral Research Assistantship at NIST in Gaithersburg, MD, where he worked with Dr. Jeffrey W. Hudgens on methods for measuring reaction kinetics of free radical reactions, predominantly using pulsed laser photolysis/cavity ring-down spectroscopy. After starting at PSU, he built on that work and became one of the acknowledged experts in the application of the cavity ring-down method, particularly as applied to environmentally related measurements. Since much of his work at PSU has centered on atmospheric chemistry and physics, he has developed some expertise in this area, particularly in methods used to measure atmospheric species (e.g.,

trace gases, radicals, particulate matter.) He is familiar with the methods used to model the atmosphere, although his research has not involved the application of those methods to date.

The Atkinson group is currently funded by NOAA to produce a new type of airborne cavity ring-down instrument for measuring the optical properties of the aerosol aloft. The measurements made possible by this instrument should help to clarify both the direct and indirect radiative forcings associated with particulate matter, currently the largest single unknown in the estimation of global climate change. A prototype of the instrument was used for an EPA funded field study in Portland investigating the ambient aerosol optical properties and whether they can be used as a "signature" for diesel PM. This instrument was also used in the TRAMP (TexAQS II Radical and Aerosol Monitoring Project) portion of the TexAQS II field intensive during the summer of 2006. Current research projects focus on the use of the cavity ring-down technique to investigate air quality and climate change in the context of aerosol effects and the measurement of ambient atmospheric benzene levels in Portland.

### **New Appointments**

#### **David G. Farrer, Ph.D.**

Dave Farrer is a public health toxicologist for the Oregon Department of Human Resources where he has worked for two years on human health risk assessment, risk communication, and production of public health assessment documents for the general public, with a special focus on Superfund and other hazardous waste sites. Much of that work has been providing assistance to Oregon DEQ and EPA. He received his BS degree from Brigham Young and his MS and PhD in Toxicology from the University of Rochester and has authored several peer-reviewed and numerous government publications. He has been an Associate Member of the Society of Toxicology since 2002.

#### **Laurel Peterson**

Ms. Peterson is currently employed as an associate engineer with Hoefler Consulting Group, located in Salem. She holds a bachelor's degree in Chemical Engineering from Lafayette College. She has six years of relevant experience which includes air permitting, regulatory compliance, emission control strategies, and knowledge of Federal Reference source testing methods. She has been an active member of the Air and Waste Management Association, recently as Vice Chair of the Oregon Chapter and Secretary of the Pacific Northwest International Section. Starting in 2010, Ms. Peterson will serve a three year term as a Director on the Air and Waste Management Association's Board of Directors.