



*A Letter from  
the Director,  
Office of Science Policy*

The last few months have been busy for OSP as we successfully launched the public Web sites for both the Science Inventory and the CREM Knowledge Database. We continue to receive good reviews on both our efforts and the content of the sites. In addition, the annual ALD/ACD meeting was held the second week of February with a full agenda focused on important issues such as understanding and addressing the PART in the Multi-Year Plan context, the roles of the newly established National Program Directors, and a well developed strategy on how to better communicate the results of our diverse research program.

Internally, all managers and supervisors participated in a 360 degree evaluation survey designed by the Center for Creative Leadership (CCL). Thanks to all who provided feedback; this is an invaluable tool at both the individual and office-wide level. And finally, we are gearing up for our implementation of ORD's Total Cost of Ownership (TCO) efforts and anticipate the arrival of the leased computers in the next few months.

Thanks to all for the excellent work!!

**EPA Science Inventory Launched to the Public**

To make EPA's quality science available to the public, Acting Deputy Administrator Steve Johnson and EPA Science Advisor and Assistant Administrator for Research and Development (AA/ORD) Paul Gilman launched the EPA Science Inventory for public access on November 18, 2003. The Science Inventory is a searchable, Agency-wide database of more than 4,000 scientific and technical work products. Database records provide such information as project descriptions (abstracts), contacts for additional information, and electronic links to final reports and related research. Although the Science Inventory has been used for years within EPA to coordinate scientific work, this is the first time it has been made publicly available. Individuals and organizations now will be able to pick a topic of interest to them and conduct a keyword search.

Americans invest hundreds of millions of dollars every year in EPA's human health and environmental science. Now that very science is easily accessible to anyone with a link to the Internet. "The public launch of the Science Inventory is another example of open, transparent government," said Steve Johnson.

Further, Paul Gilman stated, "Researchers at colleges and universities, in state and local government, industry, students, attorneys—anyone with a use for EPA's science—now have access to our valuable tools. The Science Inventory also provides another window for the world to see the science EPA uses to inform our decision-making."

*EPA Science Inventory* continued on p.3

**CREM Models Knowledge Base**

The public release of two key products from EPA's Council for Regulatory Environmental Modeling (CREM) was announced by Steve Johnson, EPA Acting Deputy Administrator, and Paul Gilman, EPA Science Advisor and AA/ORD, at a January 28, 2004 press conference. These products will increase the transparency of science used by the EPA, providing the public with an understanding of the science that supports policy. The first

product, the Draft Guidance on the Development, Evaluation, and Application of Regulatory Environmental Models (known as the Guidance for Environmental Models) provides recommendations for model development, evaluation, and application. The second product, the Models Knowledge Base (KBase) is a database of information about models

*CREM Models* continued on p.6

**What's Inside**

EPA Science Inventory Launched to the Public .....	1
CREM Models Knowledge Base .....	1
National EPA-Tribal Science Council's November Meeting .....	2
ORD/OPPTS Seminar Series .....	3
Region/ORD Science Summit III .....	4
RARE/RM Highlights .....	4
FTTA Process .....	5
Total Cost of Ownership .....	5
Staff Corner .....	7
EPA Science Forum .....	7
Program Support .....	7
Word Scramble .....	10



## National EPA-Tribal Science Council's November Meeting

The National EPA-Tribal Science Council's (TSC) November 19-21, 2003 meeting in Las Vegas, NV, was held to discuss organizational issues, recently funded "subsistence" STAR grants, a proposed spring TSC workshop, and the national tribal science priorities. The Las Vegas Laboratory Directors—John Lyon (ORD-NERL), Jed Harrison (ORIA), and Bryan Brandt (EMT-West), welcomed the group and provided an overview of their respective laboratories. In addition, Annabelle Allison, Director of the Tribal Air Monitoring Station Center (TAMS), gave a presentation on the Center and its resources.

The Council discussed and reached preliminary agreements or had initial recommendations on how to improve a number of organization/process issues. The major items discussed were:

- A new proposal for tribal administrative support during TSC meetings.
- Two TSC in-person meetings at tribal locations and one at an EPA facility.
- Meetings with tribal communities and tribal elders to gather information on tribal science topics.
- Ensuring TSC conference calls are tribal-driven.
- Terms for the Agency co-chair (2 years) and tribal co-chair (1 year).
- Use of (official) alternates for both EPA and tribal representatives.
- Opportunities and mechanisms that will better promote priority science issues within the Agency.

Nigel Fields (ORD-NCER) provided an update on the projects being funded under the "Lifestyles and Cultural Practices of Tribal Populations and Risks from Toxic Substances in the Environment" STAR

grant. Four projects were approved for funding, two of which are underway. The TSC indicated that it would like to review the progress of these projects as they mature, invite grantees to present their research at future TSC meetings, and conduct other possible activities (e.g., workshop). The TSC tribal representatives also indicated that they would identify priority science issues that ORD could use to develop a future research program.

The nature and scope of the proposed spring workshop (June 2004) on risk assessment and the health and well-being paradigm also was discussed. The workshop will tentatively contain the following components: (1) an elder or tribal leader circle or ceremony; (2) EPA frameworks for integrated risk and cumulative risk; (3) frameworks for risk and human health that are derived outside of EPA, such as HHS Healthy People 2010; and (4) a case study (e.g., the reassessment of lindane) to compare the process EPA uses for risk assessment (e.g., toxicological endpoints, exposure) with what would occur using a health and well-being paradigm.

The TSC updated the status of the priority science issues that were identified during the September 2002 meeting, i.e., traditional lifestyles, including tribal-related risk assessment, endocrine disrupting compounds, dioxin reassessment, cumulative impacts, pollutant and toxics reduction, indoor toxic mold (e.g., black mold), pharmaceuticals in the environment (all media), and tribal research topics (e.g., global warming/climate change monitoring). New action items also were determined at the meeting.

Claudia Walters, OSP, is the executive secretary for the National EPA-Tribal Science Council and also serves as ORD's Senior Indian Program Manager. For more information on the TSC, contact Claudia at 202-564-6762 or [walters.claudia@epa.gov](mailto:walters.claudia@epa.gov). ■

## Tribal Grants Team Honored

EPA's Tribal Grants Team received the Suzanne E. Olive Equal Employment Opportunity Award at the Agency's National Honor Awards Ceremony on May 15, 2003. The all-ORD team was honored for its achievement of outstanding civil rights results by establishing the first environmental grants program focused on tribal populations. The team's first five grants, four of which are funded through EPA's STAR program, were officially announced at the September meeting of the EPA-TSC.

The team members include Nigel Fields (coordinator), Christopher Saint, Elaine Francis, and James Gentry from the National Center for Environmental Research (NCER); Claudia Walters from OSP; and Suzanne McMaster and Hal Zenick from the National Health and Environmental Effects Research Laboratory (NHEERL). The team has been working together for more than 2 years to develop a novel research program supporting indigenous peoples in investigating the impact of environmental toxins they might encounter in a subsistence lifestyle.

ORD has given tribes an opportunity to design, implement, and evaluate new research proposals that are critical for tribal health. Working with tribal scientists and elders, and in partnership with academic or nonprofit institutions, each STAR grant totals up to \$450,000, creating stable, new employment opportunities for aspiring tribal scientists. Another benefit will be the educational opportunity for promoting the value of traditional knowledge in improving tribal health.



## ORD/OPPTS Seminar Series

**November 5, 2003**—A Multi-Endpoint Strategy for Determining Mechanism of Action of Thyroid Active Chemicals

**Author:** Sigmund J. Degitz, Ph.D., National Health and Environmental Effects Research Laboratory (NHEERL)

To facilitate the process of identifying the mechanisms by which stressors from outside the body (xenobiotic) affect the thyroid pathway, ORD scientists have adopted a multiple endpoint strategy using the amphibian model, *Xenopus laevis* (frog). The research approach differs somewhat from that used for the estrogen/androgen pathway in that little emphasis was placed, and only on a case-by-case basis, on examining stressor-receptor interaction. A recent workshop on thyroid hormone disruption concluded that there is very little evidence that thyroid pathway disruption occurs

through direct action on the thyroid hormone receptor and that disruption generally occurs elsewhere in the thyroid pathway. Given the fact that the xenobiotics may have their action at different points in the thyroid pathway, it is advantageous to develop a suite of endpoints that allows one to ascertain where in the pathway impact is occurring.

This strategy makes use of recently developed molecular approaches in combination with classical animal (*in vivo*) testing methods. These approaches include analysis of thyroid pathway specific gene expression, analysis of differential protein expression, and advanced biochemical analysis of the endogenous hormone, the related synthetic precursors and degradation products.

These endpoints are being assessed following challenges with thyroid active chemicals with known mechanisms of

action to determine if the responses have characteristic patterns that can be used as signatures of the given mechanism. Once characteristic patterns have been elucidated for this suite of model chemicals, efforts will focus on testing chemicals whose mechanisms of action have yet to be defined.

The presentation is available at <http://intranet.ord.epa.gov:9876/development/RCT/PestToxRCT.nsf/1d97341def1e57d185256a5c006ee712/83c3b658536553aa85256dcf00632e85?OpenDocument>.

**November 12, 2003**—Testing of School Supplies under the Buy Clean Initiative

**Author:** Zhishi Guo, Ph.D., National Risk Management Research Laboratory (NRMRL)

*Seminar Series* continued on p. 9

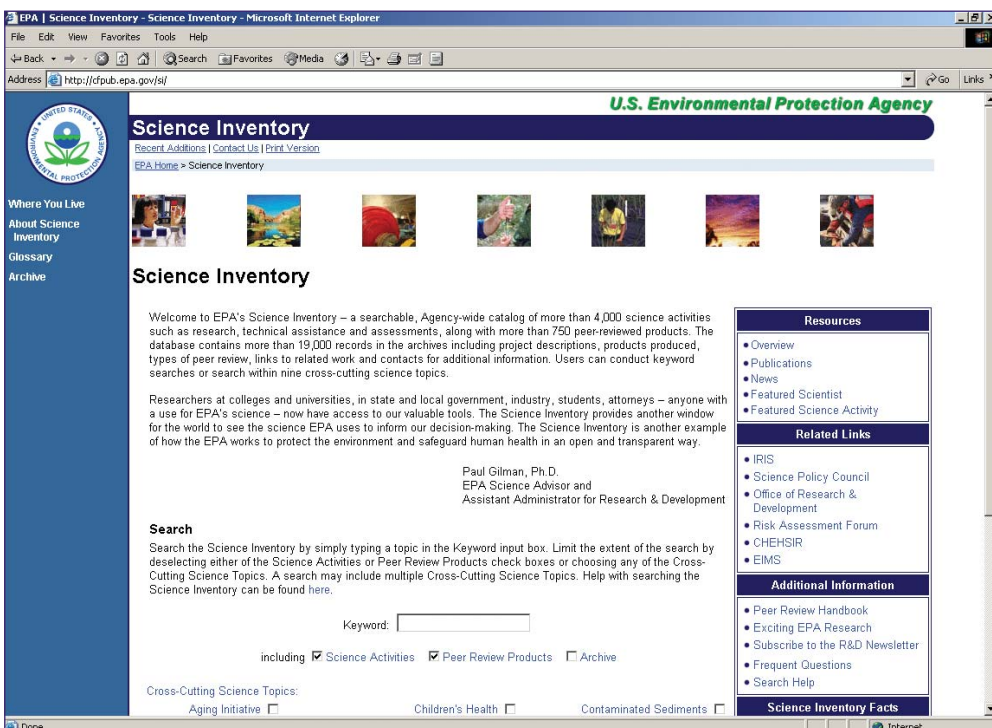
## EPA Science Inventory

Continued from p. 1

The Science Inventory is on the Internet at <http://www.epa.gov/si>. Users can conduct keyword searches or search within nine cross-cutting science topics: aging initiative, contaminated sediments, ecological assessment tools, genomics, tribal science, children's health, cumulative risk, environmental justice, and non-indigenous species.

EPA's Office of Research and Development manages the Science Inventory, with oversight by the EPA Science Policy Council.

For more information on the Science Inventory, contact Paul Zielinski at 202-564-6772 or [zielinski.paul@epa.gov](mailto:zielinski.paul@epa.gov).



EPA Science Inventory Web Site, located at <http://www.epa.gov/si/>.



## Region/ORD Science Summit III

Dr. Paul Gilman and Stan Meiburg (DRA - Region 4) opened the Region/ORD Science Summit III on January 15 in Washington, DC. This event marked the third such meeting of ORD and the EPA Deputy Regional Administrators to discuss ways to enhance the ORD Regional partnerships and build science capabilities in the Regions. Brief highlights of accomplishments since last year's meeting included:

- The Regions completed a report on Science in Regional Decision Making;
- ORD doubled the Regional Applied Research Effort (RARE) budget;
- A new Regional Research Partnership Program was established;
- Biosketch, a directory to ORD expertise, was created; and
- The Hazardous Substances Technical Liaison (HSTL) Program was expanded to include every Region.

Together, the Regions and ORD:

- Established an ongoing STAR seminar series in the Regions;
- Set up a Forum for Environmental Monitoring (FEM) under the Science Policy Council;
- Initiated a modeling seminar series in the Regions as a component to the CREM; and
- Designed and deployed a Regional Science Portal—a "one-stop-shop" for science information useful to Regional scientists.

Brief updates were provided on the current and future status of the Regional Environmental Monitoring and Assessment Program (REMAP), CREM, FEM, EPA

Environmental Technology Council (ETC), and Homeland Security Research Center (HSRC). It was agreed that further discussion was necessary on how best to accredit EPA and state laboratories, especially the issue of EPA's role as an accrediting organization. In light of the interest expressed by Administrator Leavitt in the development and deployment of environmental technologies, the goals and objectives of the ETC were a focus of the summit, with general agreement that the Council should be modeled after the CREM and FEM, i.e., another SPC-sponsored committee with high-level Agency membership, to ensure its success. There also was extensive interest in the operations of the HSRC.

Alan Antley (Region 4) presented the progress to date of the Agency workgroup charged with responding to the 45 recommendations in the Science in Regional Decision Making report, which are being condensed into 6 general topics. Cross-Agency workgroups are being formed to further develop, prioritize, and implement the recommendations. Kevin Teichman highlighted some of the actions already taken by ORD in response to the report's recommendations, including the establishment of:

- A new Watershed and Water Quality Modeling Technical Support Center to provide access to technically defensible tools and approaches that can be used in the development of Total Maximum Daily Loads (TMDLs), waste load allocations, and watershed protection plans for Regions, states, and local governments.
- An Environmental Technology Opportunities Portal (ETOP) for information on the existence of and funding for new environmental technologies.

---

*Science Summit III* continued on p.6

## RARE/RM Highlights

Check out the newly funded projects in two of ORD's premier research collaboration efforts—the Regional Applied Research Effort (RARE) Program and the Regional Methods (RM) Program. The focus of these featured programs is to provide the Regions with near-term research to address high-priority science and methods needs, while improving collaboration between the Regions and ORD.

The RARE Program provides the Regions with a mechanism to receive funding for applied research proposals through the expertise of ORD Laboratories and Centers. The budget for the RARE program was doubled in 2003, from \$1 million to \$2 million.

The RM Program provides the Regions with a mechanism to receive funding for measurement-related issues they may face when implementing Agency programs, for which near-term solutions are needed. The FY 2003 budget for the RM Program was \$600K.

For more information on RARE and RM, and to view the FY 2003 funded projects, please visit <http://www.epa.gov/osp/regions.htm>. ■

### OSP Update Contributing Writers

- Sarah Bauer
- Neil Stiber
- Paul Zielinski
- Terry Simpson
- Kathleen Graham
- John Miller
- Ruth Partridge
- Megan Grogard
- Claudia Walters
- Greg Susanke
- David Klaunder

For more information on the *OSP Update*, contact Susan Peterson at 202-564-1077 or [peterson.susan@epa.gov](mailto:peterson.susan@epa.gov)



## FTTA Process

Did you know that a portion of the royalties earned through the licensing of patented technologies goes to the EPA inventor and another portion goes directly to the laboratory? When an EPA employee submits a patent for an invention or otherwise takes steps to protect intellectual property (at no cost to the employee), EPA laboratories can partner with outside entities to bring technologies to the marketplace. Laboratories also can enter into Cooperative Research and Development Agreements (CRADAs)—negotiated agreements between government laboratories and private-sector organizations to conduct collaborative research—either in conjunction with a license agreement or as a separate effort.

The Federal Technology Transfer Act (FTTA) provides this mechanism for cooperative research and development partnerships with outside parties such as industry, academia, trade associations, and state and local agencies. In addition to providing government agencies with the opportunity to conduct joint research

with industrial or institutional organizations, the FTTA provides procedures to protect intellectual property that may be developed. The alliance that is formed through the FTTA program enhances the quality and scope of each partner's research program by removing barriers to collaboration, supports and improves U.S. competitive positions worldwide, and encourages cooperative research and development with the goal of commercialization.

In FY 2003, the EPA established 39 new CRADAs and 9 new license agreements. CRADA partners and licensees brought in more than \$1.5 million in cash contributions to EPA laboratories and inventors in FY 2003, and \$6.75 million in in-kind resources. The FTTA Office has set a goal of increasing the numbers of these agreements in FY 2004, and is focused on establishing new CRADAs that have a strong link to the Agency's priority research, as specified in the Multi-Year Plans and EPA's Strategic Plan.

To assist in the development of CRADAs and licenses, the FTTA Office in OSP helps

to identify appropriate technologies and research partners, provide training to EPA personnel, negotiate specific terms of such agreements, distribute draft agreements to the appropriate Media Manager for review, and review the agreements to ensure their conformance with the requirements of the FTTA. Through a cooperative agreement, the FTTA Office also can provide market assessments of specific technologies to determine whether there are commercial applications.

Do you or scientists you work with have ideas for research projects that could benefit from partnering with organizations outside the Agency? Don't miss out on a great opportunity to collaborate with others on innovative research, or receive a patent and license a technology.

For more information on the FTTA, contact Laurel Schultz at 202-564-3917 or [schultz.laurel@epa.gov](mailto:schultz.laurel@epa.gov), or Kathleen Graham at 202-564-2678 or [graham.kathleen@epa.gov](mailto:graham.kathleen@epa.gov). ■

## Total Cost of Ownership

Information technology (IT), a critical part of almost every aspect of ORD's operations, is also one of ORD's largest investments, totaling approximately \$50 million in 2003 and growing, with Federal IT spending anticipated to rise 65% over the next 5 years. Because of the importance of IT to each of us, and the size of our investment in it, you should be aware of several initiatives, collectively called Total Cost of Ownership (TCO), that are underway to manage our costs, while preserving or enhancing the quality of services.

TCO was developed as a concept and methodology in the late 1980s, because organizations wanted to better understand where their money was going in

terms of IT investments, including its acquisition, deployment, operation, support and final disposition (surplus). Many indirect and continuing costs frequently were not considered when equipment or projects were being planned. TCO was introduced to ORD in a memo from Henry Longest on August 14, 2003, as a means to achieve significant cost savings within ORD's computing infrastructure.

The most noteworthy aspect of the TCO effort is the CONSOLIDATED HARDWARE/SOFTWARE LEASE decision taken to simplify the IT computer environment and take advantage of quantity discounts. The final outcome will be that all of ORD-Washington (Immediate Office of the

Assistant Administrator [IOAA], Office of Resources Management Administration [ORMA], National Center for Environmental Assessment [NCEA], National Center for Environmental Research [NCER], and OSP) will have desktops which will be standardized with a common operating system (Windows XP) and the same versions of software applications that then can be supported at a significantly reduced cost. This should not introduce much of a change in procedures at ORD desktops in Washington because they have been somewhat standardized for the past several years. This migration began with the NCEA staff move to

**Total Cost** continued on p.8



## CREM Models

Continued from p. 1

intended to be a living demonstration of the recommendations from the Guidance for Environmental Models.

In his remarks at the press conference, Steve Johnson stated, "We believe that these complementary products will work in tandem to describe and document good modeling practices." By providing access to our tools and methods, the EPA hopes to improve the public's understanding of how sound science is used to make environmental decisions. These products enable the EPA to "build the black box out of plexiglass," according to Paul Gilman.

The Guidance for Environmental Models prescribes some best practices for modelers; but in the words of Pasky Pascual, CREM Team Leader, the Models Knowledge Base is where the "rubber meets the road." Without a dynamic inventory of model information, the recommendations in the Guidance for Environmental Models are mere words. Each model's record in the Models Knowledge Base may include information about:

- Model Science—conceptual basis, scientific detail, and model evaluation. Models can be identified and selected by three tools: listing of all available models, keyword search, and browse

for models by selecting environmental indicators.

- Model Use—requirements for use, download information, User's Guide, and basics of use.
- General Information—abstract, contact information, and a link to the model's homepage.

The Models Knowledge Base currently includes 90 models, which the CREM expects to augment in the coming months

through internal and external encouragement. Wide participation is the key to success for these CREM projects and for the broader efforts to use sound science at EPA.

The KBase and draft guidance are scheduled for review by an independent panel of experts established by EPA's Science Advisory Board. The recommended changes will be made by the CREM and published in a Federal Register Notice requesting public comment. Both products are available on the CREM Web Site at <http://www.epa.gov/crem>.

For further information on these CREM products, please contact Pasky Pascual at 202-564-1566 or [pascual.pasky@epa.gov](mailto:pascual.pasky@epa.gov). ■



The draft CREM Guidance is located on the web at <http://www.epa.gov/osp/crem/library/>.

## Science Summit III

Continued from p. 4

- An ORD Product Expo to be held at the 2004 EPA Science Forum followed by expos in interested Regions.
- FY 2004 Regional Science Topic Workshops 14, 15, and 16 on environmental indicators, the science of environmental justice, and animal feeding operations.
- An announcement for the FY 2004 Regional Research Partnership Program.
- The soon-to-be-filled Hazardous Substances Technical Liaison (HSTL) positions in Regions 5 and 6.
- A new CREM-sponsored Regional Modeling Seminar Series.
- Efforts ongoing in the ORD Management and Science Councils to expand the Technical Qualifications Board criteria for getting promotions within ORD to include a greater emphasis on support to Program Offices and Regions.

Tom Barnwell (NCER) presented information on how the Regions can participate in the 2004 EPA Science Forum. Finally, Alan Hecht (ORD-IOAA) highlighted the key components of the new Sustainability Initiative and encouraged the Regions to respond to the forthcoming request for sustainable laboratory project proposals.

The meeting closed with statements of commitment by Paul and Stan to the priority programs and projects and a call to all to identify and publicize the successful uses of sound science in environmental decision making.

For further information on the Summit, please contact David Klauder at 202-564-6496 or [klauder.david@epa.gov](mailto:klauder.david@epa.gov). ■

## December '03 thru February '04

### New Research Coordination Staff Chief

**Mimi Dannel** has been selected to permanently fill the position of the Research Coordination Staff Chief. Mimi previously served as OSP's Water Research Coordinator and brings to her new position a wealth of experience and an extensive network of contacts within ORD and across the Agency. Congratulations and welcome to your new role in OSP, Mimi!

### Details/Training Assignments/Students/Internships/Fellowships

**Mojgan (Maggie) Javdan** is serving as the Acting Water Research Coordinator through April 25th.

**Erik Winchester** is serving in the LEGIS Fellows Program working on the staff of a member of Congress or Congressional Committee through December 31, 2004.

**Cynthia Roberts** has joined OSP on a detail assignment to work with our Program Support Staff Water Team through June 30th. She comes to us from the Office of Science and Technology, Office of Water. Welcome Cynthia!

**Lawrence Martin** is serving as the Acting Air Research Coordinator through April 25th.

**Laurel Schultz** is serving as the Acting FTTA Manager through April 25th.

**Heather Drumm** has rejoined the Research Coordination staff and will be a member of the Planning Coordination Team. She also will be resuming her Webmaster duties for OSP. Welcome back, Heather!

**Terry Simpson** is serving on a detail assignment to the Office of Resources Management and Administration, ORD through May 30, 2004. ■

## EPA Science Forum

Registration for the 2004 EPA Science Forum is officially open, as invitations went out to more than 6,000 people on January 30! The theme of this year's event is **Healthy Communities and Ecosystems**.

The Forum is scheduled to be held June 1-3, 2004, at the Mandarin Oriental Hotel in Washington, DC. The Mandarin currently is accepting online reservations only.

This is the 3rd Annual Agency-wide event, which is designed to demonstrate EPA's commitment to quality science, showcase EPA's scientific accomplishments, and highlight the impact of science in EPA decision making.

For more information about the Forum, including how to register, please visit the Forum Web Site at <http://www.epa.gov/ord/scienceforum>.

## Program Support

As a core office in EPA's Action Development Process, ORD is required to participate in the development of most Tier 1 and Tier 2 activities. From September to December 2003, ORD elected to participate on 23 of the 42 newly tiered actions. New Tier 1 and 2 activities identified for ORD's participation include:

- NESHAP for Flexible Polyurethane Foam Production Residual Risk Standards
- NESHAP for Pharmaceuticals Production Residual Risk Standards
- NESHAP for Oil and Natural Gas Production Residual Risk Standards
- NESHAP for Total Facility Low Risk Determination for Residual Risk
- Strategy for Addressing Air Emissions from Animal Feeding Operations
- EPA's Small Business Strategy Implementation Plan
- Petition to Delist a Hazardous Air Pollutant from Section 112 of the Clean Air Act: Methyl Isobutyl Ketone
- 5-Year Review of MACT Standards for Large Municipal Waste Combustion Units
- Revisions to Regional Haze Rule to Address Concerns Raised by DC Circuit

Court Regarding Best Available Retrofit Technology.

ORD also is participating in the development of 14 new EPA Tier 3 activities.

Program Support Staff activities include the development of two-page fact sheets (affectionately called two-pagers!) designed to increase awareness of how much Agency science influences the EPA's regulatory and non-regulatory actions. So far, 13 information sheets have been developed and are available on the OSP shared drive, and 2 others are expected in the near future. The Program

*Program Support* continued on p.8





---

## Total Cost

*Continued from p. 5*

---

Judiciary Square and is expected to be completed with minimal disruptions by April 2004, with the move of NCER to the former Woodies Building, OSP's consolidation and move into vacated NCER space, and finally, ORMA's and IOAA's adjustments to OSP's move.

Additional Total Cost of Ownership initiatives include:

### **CONSOLIDATED HELPDESK SUPPORT**

Eventually, the current 16 Help Desks at 13 locations will be consolidated into one centralized call center, the Consolidated Call Center (CCC), that ORD staff will call for all IT related issues and which will assist users with their issues or questions, forward some calls to other appropriate groups (e.g., in the case of telephone support), or transfer the call to the local service desk at the user's location. The point of calling the CCC first is so that common issues or questions can be

addressed promptly, the calls are logged centrally, and patterns or other trends can be identified. The TCO for this consolidation will make a significant impact in reducing duplication and costs, while maintaining the same (or better) response to users. The location of the CCC has not yet been decided.

### **NETWORK OPERATIONS CENTER (NOC)**

Similarly, under ORD's TCO plan, server operations and management will be standardized and controlled centrally at one location, which has not yet been determined. To provide network security and a reliable network environment, it is more important than ever that all critical patches be applied to users' workstations, and that any new virus definitions be updated in a timely manner. With centrally managed servers employing tools like Microsoft Operations Management (MOM), Software Update Services (SUS), and Systems Management Server

(SMS), desktops (and local servers) can be maintained and administered in a consistent way, providing a secure and stable environment for users to perform their job functions without worrying about having the latest fixes and updates on their workstations.

As a user, you should:

- Begin organizing and cleaning up files (both on PCs and in your office).
- Make a list of the specialized software installed on your workstation.
- Locate the licenses and installation media for any nonstandard applications on your desktop.

For further information on Total Cost of Ownership, please contact John Miller at 202-564-1564 or [miller.johne@epa.gov](mailto:miller.johne@epa.gov) ■

---

## Program Support

*Continued from p. 7*

---

Support Coordinators also have enlisted assistance from the ORD Laboratories and Centers. The two-pagers will be posted on the ORD intranet site in the near future.

In addition, Program Support Staff reviewed and commented on various Agency documents, attended meetings in support of the Program Offices with the Office of Management and Budget, the Science Advisory Board, the FIFRA Science Advisory Panel, the National Environmental Justice Advisory Council, and the National Academy of Sciences.

They participated in briefings to the Assistant Administrator for Air and Radiation on the following three rules: Plywood Maximum Achievable Control Technology (MACT) Rule; the United Nations Environmental Program (UNEP) Global Mercury Program; and the Tertiary Butyl Acetate (TBAC) decision-making process. Briefings also were made to the Acting Administrator for Water on the Clean Water Act Toxic Pollutant List regarding: Ferric Ferrocyanide, and Acting Deputy Administrator Steve Johnson on the Asbestos in Schools Research Plan.

With Laboratory/Center help, OSP reviewed and commented on a variety of documents including: analytic blueprints, risk assessments, peer review charge questions, Federal Register notices, Agency guidance documents, and Reports to Congress. Program Support staff continued to provide a significant amount of support to the Office of Air and Radiation on its residual risk program and to the Office of Water on its response to the National Research Council's report on biosolids.

---

**Program Support** continued on p.9

---





## Seminar Series

*Continued from p.3*

EPA's Buy Clean Initiative involves partnering with key stakeholders to promote the purchase of products and services that promote healthy indoor environments in schools and to identify effective incentive mechanisms for the development, marketing, and procurement of lower risk products. To support this initiative, NRMRL is evaluating three types of consumer products widely used in schools: water-based hard-surface cleaners, hot laminators, and wet markers. These products were selected based, in part, on the Source Ranking Database (SRD) developed by the Office of Prevention, Pesticides and Toxic Substances (OPPTS). The scope of this project includes determination of emission characteristics, development of quantitative structure-activity relationship (QSAR) models, and analysis of opportunities for pollution prevention and risk management. EPA also has an agreement with the General Services Administration (GSA) to provide assistance for environmentally preferable purchasing (EPP).

Some water-based hard-surface cleaners (e.g., disinfectants, odor neutralizers, bathroom cleaners) used in large quantities in schools have strong odors. More than 20% of cleaners surveyed contain a co-solvent known as 2-butoxyethanol, a

Clean Air Act hazardous air pollutant (HAP), which when inhaled, may cause eye, nose, mouth, and throat irritation. In addition to numerous chemicals used in the product formulations, there also is the potential to form secondary air pollutants including formaldehyde (low levels can cause irritation of the eyes, nose, throat, and skin), and peroxides; some fragrant chemicals (e.g., limonene) in the formulations may react with ozone to also produce formaldehyde. Emissions testing for selected cleaners was performed in environmental chambers in forms of liquid pools and films, and the data are being used to develop QSAR models for predicting pollutant emissions from these cleaners.

Although there is no information regarding the use of hot laminators in schools, complaints have been made regarding odors associated with their use. NRMRL's preliminary test results suggest that they are a source of styrene, which when inhaled in high levels for a short time can result in nervous system effects and possibly eye, nose, and throat irritation. Fine particulate matter and a fluorinated chemical thought to be used as a water and dust repellent were somewhat unexpectedly detected among other pollutants in the emissions. A significant

difference in emission strengths among different types of laminating films suggests that some products are much cleaner than others.

Wet markers contain organic solvents, some of which are odorous, and when used, can be a very "effective" pollution source because of the close proximity to school children. Work is underway to determine the types of solvent used and their emission factors.

This presentation included brief demonstrations of two computer programs developed by the author. The presentation is available at <http://intranet.ord.epa.gov:9876/development/RCT/PesTox/RCT.nsf/1d97341def1e57d185256a5c006ee712/b2acb1ec28fa387785256dd60048bf4e?OpenDocument>.

If you have any questions about the Seminar Series, please contact Greg Susanke at 202-564-9945 or [susanke.greg@epa.gov](mailto:susanke.greg@epa.gov). ■

**Editor's Note:** In a 11/21/03 Federal Register Notice EPA proposed to amend the HAP list contained in Section 112(b)(1) of the Clean Air Act by removing 2-butoxyethanol from the list of glycol ethers. Written comments were due by 1/20/04. The notice can be found at <http://www.epa.gov/fedrgstr/EPAAIR/2003/November/Day-21/a28787.htm>.

## Program Support

*Continued from p.8*

In addition, OSP's Program Support Staff participated in Final Agency Review for some of EPA's most important actions, including:

- Gas Turbine Delisting

- MACT for Hazardous Waste Combustors
- Particulate Matter (PM<sub>2.5</sub>) National Ambient Air Quality Standards (NAAQS), and Cooling Water Intake Structures (316(b)) Phase II.

Program Support Staff also participated in the Options Selection meeting for the Meat and Poultry Products Industry Effluent Limitations Guidelines and Standards. ■



# Word Scramble

1. ECCNEIS RENNTYOIV	
2. SDEMLO DWEEKLOGN ASBE	
3. BAILTR IRA TONNGIORIM TTNASOI ECERTN	
4. YHIDROT VEICAT MEALHSCIC	
5. BEEXLIFL LATERUNPHOEY AFMO CROPDOTIUN	
6. ASG BERTNIU SINGTEDIL	
7. FURMO ORF INNTENORMAVLN GOTINNOIMR	
8. REPEATVOICO SCREEHRA DNA ELOPEVNTMED	
9. LATTO SCOT FO POWERHINS	
10. UBY CANLE INVITEIIAT	

**Solution to November 2003 OSP Update Word Find**

A	S	B	A	T	O	S	N	P	O	L	Y	T	H	N	E	F	O	A	R	E	M	
H	S	T	C	E	C	R	O	S	C	I	E	N	C	E	F	O	R	U	M	L	O	
E	N	R	S	E	M	N	O	T	G	N	I	H	S	A	W	A	S	E	E	A	N	
N	O	E	O	Y	G	O	L	O	N	H	C	E	T	O	I	B	C	C	R	R	I	
A	I	M	T	B	R	A	N	I	M	E	S	S	E	N	H	L	I	N	C	A	T	
N	T	O	S	H	B	A	C	A	T	O	M	U	R	D	R	A	Z	A	H	H	O	
T	A	I	E	N	S	P	C	O	A	A	O	L	F	I	F	T	R	T	I	C	S	
I	Z	T	B	C	E	T	X	S	R	A	N	L	A	P	E	N	C	S	R	R	P	
S	I	N	S	O	R	I	L	G	F	G	I	I	O	F	I	E	R	I	G	O	I	
T	N	A	A	U	C	O	O	B	I	E	Y	C	T	O	X	I	N	S	N	T	G	
N	A	N	L	L	U	R	P	U	F	E	R	R	A	O	A	G	R	O	E	I	A	M
E	G	E	A	N	P	I	R	S	U	W	S	B	X	C	H	O	S	R	R	G	E	
M	R	R	E	S	E	A	R	C	H	C	O	O	R	D	I	N	A	T	O	R	S	
G	O	C	S	T	C	S	R	H	S	U	S	D	A	A	A	I	O	C	T	O	B	
I	E	O	C	R	A	E	H	I	O	C	R	A	A	W	L	R	I	E	I	C	I	
C	R	O	I	E	M	L	C	A	F	S	T	O	S	I	C	A	B	S	N	H	O	
C	P	H	E	N	O	L	U	F	P	M	I	A	S	A	R	D	R	N	O	E	T	
A	S	B	S	T	N	E	M	G	I	P	E	R	C	A	N	N	E	I	M	M	N	
H	O	M	E	L	A	N	D	S	E	C	U	R	I	T	Y	A	E	F	H	I	E	
M	A	O	F	E	N	A	H	T	E	R	U	Y	L	O	P	M	O	P	R	C	O	
W	A	G	N	I	R	E	E	N	I	G	N	E	O	I	B	I	R	S	O	A	I	
H	A	M	I	N	A	R	G	N	I	H	S	A	W	B	C	E	S	N	I	L	B	