

# NATIONAL TECHNOLOGY TRANSFER TEAM (NTTT)

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**January 6 – 7, 2005      National Academy of Sciences- National Research Council Committee  
on Mine Placement of Coal Combustion Wastes Meeting, Austin, TX**

Background: In response to a request from Congress, the National research Council of the National Academy of Sciences is conducting an 18 month study to examine the health, safety, and environmental risks associated with using coal combustion wastes (CCW) for reclamation in active and abandoned coal mines. The Committee on Mine Placement of Coal Combustion Wastes will focus on coal combustion wastes from utility power plants and independent power producers, rather than small business, industries, and institutions. The Office of Surface Mining (HQ an333d Midcontinent Region) participated in this third meeting of the Committee, which was a two-day meeting in Austin, Texas.

Topics Covered: The placement of CCWs in abandoned and active surface and underground coal mines in all major coal basins. The study will consider coal mines receiving large quantities of coal combustion wastes. The purpose of the study is to determine whether CCWs were placed and disposed of in coal mines with inadequate safeguards and whether this activity is degrading water supplies in coal mines in contravention of SMCRA. A profile of the utility industry will be taken into consideration in designing the study to focus on the sources producing the greatest quantities of coal combustion wastes.

Target Audience: EPA, OSM, other Federal and State Regulatory agencies, Industry, the general public and environmental organizations.

Accomplished: The National Academy of Science's Committee on Mine Placement of Coal Combustion Wastes held it's second of four site visits in Austin Texas on January 6 and 7, 2005. The public portion of the meeting consisted of a series of formal presentations in a format that did not allow for questions by or comments from the audience. The presentations were in the following areas: (1) technical presentations by experts from the USGS, Texas Geological Survey, Penn State University (Barry Scheetz), Virginia Tech (Lee Daniels) and Southern Illinois University (Steve Esling); (2) presentations on Texas regulatory issues by the Texas Department of Environmental Quality, Texas Railroad Commission, and a citizen environmental attorney; (3) a series of presentations by citizen environmental groups critical of CCB placement at mines; and (4) presentations about CCB placement at the Alcoa Sandow Mine by a mine representative and citizen environmental groups critical of operations at Alcoa. The OSM representatives communicated to the committee that the presentations seemed to lack: (1) quality educational presentations on the basics of SMCRA, OSM and the OSM/State partnership; the use of OSM regulations in evaluating CCB placement on a SMCRA mine; a response to citizen concerns from an OSM perspective; the range of State Regulatory Programs for permitting and monitoring of CCB placement at SMCRA mines. According to John Craynon, the NAS has assured OSM that it will thoroughly review the documents provided by OSM to provide an accurate assessment of SMCRA responsibilities in its report.

Contact: John Craynon, OSM HQ, Chief, Regulatory Support Division (202-208-2866); Kimery Vories, MCRCC (618-463-6460)

**February 2-4, 2005      107th National Western Mining Conference and Exhibition, CO Mining  
Assoc, Denver, CO**

Background: OSM-Western Regional Coordinating Center's (WRCC) Office of Technology Transfer (OTT) will participate in the annual three-day event, as an exhibitor. This year's Conference theme is *Colorado Mines the World*. Traditionally, the conference closes with the Colorado Division of Minerals and Geology/Colorado Mining Associations' Annual Mined Land Reclamation Awards and Safety Awards.

Target Audience: Reclamation managers, consultants, state and federal agencies natural resource and reclamation staff. OTT booth distributes information about OSM, and showcases successes in reclamation, and paperless permitting. Items popular with the attendees are the OSM CDs relating to various reclamation techniques, research reports, manuals, guidelines, and public domain software, in addition to OSM's annual reports, and the link to OSM's web pages.

Contact: Joe Galetovic, OSM WRCC, Office of the Regional Director (303) 844-1448.

## **February 18-19, 2005 National Engineers Week, Carnegie Science Center, Pittsburgh, PA**

Background: OSM-Appalachian Region (AR) will participate in the annual 2-day event highlighting Pittsburgh's engineering community with booths and exhibits from numerous industry, government and consulting groups. Our emphasis this year will be on formation of Acid Mine Drainage, its impact on the local environment and treatment. It will include demonstrations and hands-on experiments of pH, acid formation from coal, and impacts on the aquatic environment. The program encourages young people to consider science and engineering in their future career planning. Staff from AR will run our booth, assist with the experiments and disseminate information about the environmental impacts of coal mining and OSM's role in protecting the environment and public.

Target Audience: Youth groups including Girl Scouts, school groups between the ages of 8 and 14, families and general public. About 400 children and adults are expected to join in the experiments and learn more about coal mining.

Contact: Lois Uranowski, OSM AR Technical Support, Technology Transfer (412) 937-2805.

Accomplished: On Friday, February 18<sup>th</sup>, school children between the ages of 12 and 16 years and their teachers were on hand. Girl Scouts and families visited our booth the following day. In total, over 400 children and adults participated in the activities, handouts and discussions. "Acid Mine Drainage: formation, its impact on the local aquatic environment and treatment" was our theme this year. Demonstrations and hands-on experiments to determine pH and handouts about some of the impacts on aquatic life were presented. The children (and adults) were given six liquids to "analyze" and discover the respective pH. Common products like Coke, ammonia, vinegar and baking soda solutions were used along with samples of both alkaline and acidic mine discharges. Information about OSM's various programs including the Clean Streams Initiative and Teacher Resources Kits were available along with samples of bituminous coal.



## **February 23-24, 2005 National Technical Training Program (NTTP) Steering Committee Meeting, New Orleans, LA**

**>>LIMITED INTEREST MEETING >>**

Background: The purpose of this meeting is to identify OSM, State and Tribal training priorities, recommend training policy, provide guidance to assure the use of creative and innovative training opportunities and periodically evaluate training activity to assure program quality. The Steering Committee reviews plans for proposed technical training activities and recommends priorities for new course development. The Steering Committee also reviews the results of annual Needs Survey and determines how to allocate requests for space in the courses.

Topics Covered: Committee Reports on Regions; Accomplishments and Attendance Update; Course Evaluations; Course Reports; TIPS update; Strategic Plan; Succession Planning for Instructors; 5 Year Planning for Students; Career Series.

Target Audience: State and OSM representatives; invited guests

Accomplished: Twelve representatives from OSM and State offices representing the national training program met to discuss the upcoming training needs, course revisions, new courses, budget, performance results, etc. of the national training program. This effort helps ensure that training needs are met equally throughout the nation.

Contact: Sarah E. Donnelly, NTTP, (202) 208-2826

**Feb. 28- Mar 2, 2005      SME Annual Meeting and Exhibit, Salt Palace, Salt Lake City, Utah**

Background: For the fifteenth year WRCC-OTT will participate in the annual three-day event, as an exhibitor. The Society for Mining Metallurgy and Exploration's (SME) exhibits showcase the newest technologies, products, and service in the mining industry. In addition to the field trips, the Conference technical program and its short courses are a forum for learning and experience.

Target Audience: Industry reclamation managers, consultants, state and federal agencies natural resource and reclamation staff. OTT booth distributes information about OSM, Appalachian Clean Streams Program/Acid Drainage Technology Initiative (ACSP/ADTI), Reforestation Initiative, TIPS, and showcases successes in reclamation, and paperless permitting. Popular items are CDs relating to various reclamation techniques, research reports, manuals, guidelines, and public domain software, in addition to OSM's annual reports, and the link to OSM's web pages. In addition SME encourages teachers and educators to attend the conference, which offers the opportunity for educational outreach about SMCRA's responsibilities and achievements.

Contact: Joe Galetovic, OSM WRCC, Office of the Regional Director 303-844-1448.

**March 7-8, 2005              National Academy of Sciences- National Research Council Committee on Mine Placement of Coal Combustion Wastes Meeting, Evansville, IN**

Background: In response to a request from Congress, the National research Council of the National Academy of Sciences is conducting an 18 month study to examine the health, safety, and environmental risks associated with using coal combustion wastes (CCW) for reclamation in active and abandoned coal mines. The Committee on Mine Placement of Coal Combustion Wastes will focus on coal combustion wastes from utility power plants and independent power producers, rather than small business, industries, and institutions. The Office of Surface Mining (HQ and Midcontinent Region) will participate in this fourth meeting of the Committee, which was a two-day meeting in Evansville, IN.

Topics Covered: The placement of CCWs in abandoned and active surface and underground coal mines in all major coal basins. The study will consider coal mines receiving large quantities of coal combustion wastes. The purpose of the study is to determine whether CCWs were placed and disposed of in coal mines with inadequate safeguards and whether this activity is degrading water supplies in coal mines in contravention of SMCRA. A profile of the utility industry will be taken into consideration in designing the study to focus on the sources producing the greatest quantities of coal combustion wastes.

The Indiana meeting will examine CCW mine placement at 14 sites, including landfills, beneficial uses of CCWs, underground mine filling, pyrite oxidation and regulatory issues. There will be a Town Hall Meeting for Public Input in the form of individual testimony, and there will be a tour of a Midwestern AML site.

Target Audience: EPA, OSM, other Federal and State Regulatory agencies, Industry, the general public and environmental organizations.

Accomplished: At the Indiana site visit, the States of Indiana, Illinois, and North Dakota all made excellent presentations on their procedures for permitting and water monitoring. Although the committee does not show signs of a significant understanding of SMCRA, and the Committee attorney does not think that the use of final pits, ramps, or other mine features that would require a variance to contemporaneous reclamation is legal, the committee does not believe they need any more information on regulatory requirements.

Contact: John Craynon, OSM HQ, Chief, Regulatory Support Division (202-208-2866); Kimery Vories, MCRCC (618-463-6460)

**March 9-10, 2005      National Technology Transfer Team (NTTT) Meeting, Washington, DC**  
**>> LIMITED INTEREST MEETING <<**

Background: OSM's NTTT will meet at OSM Headquarters. The purpose NTTT is to ensure the proper transfer of technology among OSM and the states. The meeting will provide a forum to guide NTTT activities and coordinate and communicate regional TT activities.

Topics Covered: The meeting will include a combination of technical presentations and routine team business. At this meeting the team will address applied science initiatives. There will also be presentations on ongoing projects, such the mine placement of CCWs, and other technical topics related to mining and reclamation.

Target Audience: Members and invited guest of the NTTT.

Accomplished: The OSM National Technology Transfer Team (NTTT) met in Washington, DC on March 9 and 10 2004. NTTT is composed of representatives of the three OSM regions, the National Technical Training Program (NTTP), the Technical Innovation and Professional Services (TIPS) Program and the Division of Regulatory Support (DRS) in HQ. Vann Weaver of ARCC is the NTTT Chair. The purpose of NTTT is to ensure the proper transfer of technology among OSM and the states, provide a forum to guide technology transfer within OSM and the states, and coordinate and communicate regional technology transfer activities. OSM Director Jeffrey Jarrett addressed the meeting and voiced his support for their efforts. The meeting included reports of technology transfer activities, a review of ongoing projects, such as the mine placement of coal combustion wastes (CCWs), as well as other technical topics related to mining and reclamation, and review and prioritization of applied science proposals submitted for OSM funding support. NTTT decided on a funding formula to allocate \$297,000 in available applied science funds to 7 of 14 submitted proposals that ranged from acid mine drainage testing procedures to a protocol for prime farmland soil capability.

Contact: Vann Weaver, ARCC, 412-937-2858

**March 22-23, 2005      ARCC/OSM/States Meeting, Stonewall Jackson State Park & Resort,  
Roanoke, WV**  
**>>LIMITED INTEREST MEETING <<**

Background: The states in the Appalachian Region will gather with ARCC staff to discuss key issues.

Topics Covered: Ccoordinated procedures for coal mine permitting; ownership and control; oversight consistency; remining; technical assistance; and bonding.

Target Audience: State and OSM representatives.

Contact: Greg Conrad (703) 709-8654 or Karen Orwig (412)-937-2147

**March 22– 24, 2005      AML Drilling and Grouting Workshop, Renaissance Hotel,  
Columbus, OH**

Background: IMCC is co-sponsoring a workshop with the Ohio Department of Natural Resources on AML Drilling and Grouting.

Topics Covered: The workshop will include technical sessions on mine subsidence complaint investigations and on mine subsidence stabilization projects, along with case studies and interactive discussion.

Target audience : State and OSM technical specialists.

Contact: For further information and to register, contact John Husted, Ohio DNR; (614) 265-7072 or [john.husted@dnr.state.oh.us](mailto:john.husted@dnr.state.oh.us).

Accomplished: A well-attended benchmarking workshop was sponsored by the Ohio Department of Natural Resources, with assistance from the Interstate Mining Compact Commission, on March 22 - 24, 2005 in

Columbus, Ohio. Over 30 state and federal agency representatives attended the workshop, which included technical sessions on mine subsidence complaint investigations and stabilization projects, along with case studies and interactive discussion. The workshop received high marks for both subject matter and quality of presentation.

**April 12-13, 2005                    Regulation, Risk, and Reclamation with CCBs at Mines Forum: World of Coal Ash, Lexington, Kentucky**

Background: This 1 ½ day technical interactive forum, sponsored by the OSM CCB Steering Committee, will be included within the World of Coal Ash Symposium, which runs from April 11-15 and is sponsored by ACAA and the University of Kentucky Center for Applied Energy Research Center.

Topics Covered: There will be three sessions on current regulatory direction, risk assessment concerning leachate testing, and case studies of mine sites conducting large scale CCB placement operations.

Target Audience: The World of Coal Ash is expected to have 400 to 500 participants from all over the world. Holding the forum at WOCA will be an outreach to this audience on issues related to CCB placement at mines.

Accomplished: There were approximately 75 participants that included several international, utility, and ash marketing representatives that do not normally attend this type of event. Based on the event survey, 88% of the participants were very satisfied with the content of the forum. The experts on the leachate panel were all in agreement that there would never be a one size fits all leachate test for CCB placement at mines. In response, ASTM is trying to develop a decision tree to guide the selection of the most appropriate test for a given site specific situation. The panel was also in agreement that leachate tests needed to be more predictive on expected results in the field. EPA is trying to develop a leachate test that would evaluate conditions under a variety of pH scenarios. EPA is leaning toward a more performance based approach to regulating CCB placement at mines.

Contact: Kimery Vories, OSM MCRCC Program Support Division (618) 463-6463 x 103.

**April 19-20, 2005                    WV Surface Mine Drainage Task Force Symposium, Ramada Inn, Morgantown, WV**

Background: The State of West Virginia's Surface Mine Drainage Task Force sponsors this annual meeting to address AMD and related issues in WV. This is the 26<sup>th</sup> annual Symposium.

Topics Covered: Status of WV mining and reclamation; OSM perspective on mining, AMD and reclamation; selenium impacts and issues; legislative issues related to mining, reclamation, and AMD; AMD Treatment; AML reclamation; ADTI project: Leaching Column Method for Overburden Analysis and Prediction of Weathering Rates.

Target Audience: State and Federal regulators and administrators,; technical experts from industry, state and federal agencies and academia.

Contact: Jeff Skousen, West Virginia University, Morgantown, WV (304) 293 6256.[jkskousen@wvu.edu](mailto:jkskousen@wvu.edu)

**April 20, 2005                    Eastern Mine Drainage Federal Consortium (EMDFC), National Mine Land Reclamation Center, West Virginia University, Morgantown, WV**  
**>>LIMITED INTEREST MEETING <<** (following ADTI meeting.)

Background: The EMDFC is composed of Federal agencies with strong common interest in mine drainage. It was formed to facilitate a coordinated Federal agency response to AMD issues in the Eastern U.S. The NMLRC was selected to serve as a neutral host organization. EMDFC provides a forum to promote and coordinate the review of technical issues and policies regarding water quality, as these relate to mining and reclamation activities in the Eastern United States. The Consortium consults with the states, industry, academia and the public as appropriate. EMDFC operates on an ad hoc both within the Federal Agencies and in relation to the States.

Topics Covered: In addition to general discussion on AMD activities in various federal agencies, there will be a presentation on outreach and education for the AMD research project at Friendship Hill National Historic site, PA managed by the National Park Service.

Target Audience: Federal agency technical staff working on AMD issues.

Contact: Eric Carlson, EPA, Wheeling WV (304) 234-0233

**April 20-21, 2005                      ADTI Coal Mining Sector meeting, Morgantown, WV**

**>> LIMITED INTEREST MEETING <<**

Background: The Acid Drainage Technology Initiative (ADTI) is a partnership of technical experts from industry, state and federal agencies and academia who have joined together to seek solutions to AMD and related water-quality problems from mining. ADTI provides a valuable forum for collaboration and information exchange. ADTI is organized into a Coal Mining Sector (CMS) and a Metal Mining Sector (MMS). Working groups in each sector focus on Prediction and Avoidance/Remediation.

Topics Covered: Recent and current coal-related AMD research activities, Coal Mining Sector technical teams and activities to be covered; strategies for disseminating technical information

Target Audience: Technical experts from industry, state and federal agencies and academia.

Contact: Steve Parsons, Division of Regulatory Support, HQ (202)-208-2895.

Accomplished: The meeting was attended by a total of 43 representatives of State and Federal Agencies and industry. The status of the Technical Teams, their activities and their White Papers were reviewed. The White Papers are to be used to develop and implement an overall CMS research strategy. A technology transfer / communications strategy was discussed, which focused on developing a more useful website which will be the focal point for exchange of information, and the dissemination of brochures / pamphlets / fact sheets. Also discussed was the idea of holding technical workshops on specific technical issues to appropriate audiences. The meeting also provided a valuable forum to share information on current, past and future activities.

**May 3- 5, 2005                      Technical Innovation and Professional Services (TIPS) Steering Committee (TIPS SC) Meeting, Estes Park, CO (location to be determined)**

**>>LIMITED INTEREST MEETING <<**

Background: In cooperation with the States, OSM established the TIPS Steering Committee (TIPS-SC) to help guide OSM's TIPS efforts. The TIPS National Team (TIPS Team) will coordinate and cooperate with the Steering Committee. The TIPS Team will report on the progress of efforts related to TIPS services and provide appropriate briefings and discussions." (TIPS Team Charter). The TIPS-Steering Committee membership is as follows: One member from each regional OSM office (3), three State representatives from each region (9), one representative from the OSM Albuquerque Field Office representing Tribal Agencies, one representative from the OSM Federal Tennessee program, one from OSM headquarters, one from OSM Information System Management Division (ISM) representing the OSM WAN, one from the OSM Field Offices and the TIPS-SC chairman, Regional Director, WRCC (RD-WRCC). State Membership of the TIPS-SC shall be appointed by the Interstate Mining Compact Commission (IMCC) or Western Interstate Energy Board (WIEB).

Topics Covered: The Steering Committee meets each year to discuss the previous year's accomplishments of TIPS and to identify the technology areas for TIPS to direct its energies in the coming year. The meeting includes demonstrations of TIPS applications by customers and vendors. Also included are discussions of perceived problem areas and their solutions. Each meeting begins with a discussion of last meeting's issues and their resolution.

Target Audience: Steering Committee members, TIPS Team members, TIPS customers, and vendors as required by the agenda topics.

Contact: Bill Clark 303-844-1400 X1495

**May 9-11, 2005**

**Understanding the Appalachians: Meeting strategic management needs by developing research and partnership opportunities, Days Hotel, Herndon, VA**

Background: The U.S. Geological Survey, in cooperation with the National Park Service and the U.S. Fish and Wildlife Service, is sponsoring this workshop. The workshop will consist of panel discussions from both Federal and non-Federal agencies and groups, breakout group meetings, database presentations, and posters. Panel discussions will be used to identify critical management issues for each bureau. The breakout sessions will be used to further refine important issues, establish priorities and to determine opportunities for collaboration. Database presentations will provide an overview of key sources of information regarding the Appalachians

Topics Covered: There will be Panels on Human Impacts on the Environment, Environmental Impacts on Humans and Ecosystems, and Information Technology, Transfer and Decision-making—Sharing Best Practices.

Target Audience: Federal and non-Federal agencies and groups. OSM participation included Fred Block, HQ, who coordinated OSM participation and Lois Uranowski, ARCC, who participated in the Panel on Human Impacts on the Environment.

Contact: James M. McNeal, U.S. Geological Survey, Reston, VA, 20192, 703-648-6650 [jmcneal@usgs.gov](mailto:jmcneal@usgs.gov)

**May 10-11, 2005**

**Western Regional Technical Team (WRTT) Meeting, Helena, MT  
(Co-sponsored by OSM-WRCC-OTT and MT DEQ)**

**>> LIMITED INTEREST MEETING <<**

Background: The Office of Technology Transfer (OTT) of OSM's Western Regional Coordinating Center (WRCC) and the Montana DEQ's Industrial & Energy Minerals Bureau will co-sponsor the fifth Western Regional Technical Team (WRTT) New Technologies Implementation Information Workshop, hosted by the Montana DEQ's Industrial & Energy Minerals Bureau. Under the technology transfer and technical assistance umbrella of OTT, the seven western state regulatory agencies (AK, CO, MT, ND, NM, UT and WY) that, along with OTT, make up the WRTT, requested OTT to co-sponsor with them a series of small regional meetings to provide a forum where each state regulatory agency will be able to showcase the various technologies that it has available, and to provide hands-on opportunities for the other states to observe, participate in, and learn how to implement them. These exchanges of information will result in better-prepared staff, and more informed managers.

Target Audience: WRTT members, their respective technical staff and managers, WRCC managers, and collaborating agencies.

Contact: Joe Galetovic, OSM WRCC, Office of the Regional Director (303) 844-1448.

**May 18, 2005**

**Manganese Workshop, Pittsburgh, PA**

Background: This 1 day workshop, sponsored by Appalachian Regional Technology Transfer Team (ARTT), will present issues associated with achieving Manganese (Mn) effluent limits for mining operations as required by Title 40 of the Federal Regulations. Manganese has not been shown to have adverse impacts on stream biota and it is often very costly to treat discharges to meet Mn standards. The forum will be interactive with state regulatory authorities, OSM, EPA and industry representatives providing presentations on regulatory background, Mn's effects on stream biota, case studies and treatment costs.

Target Audience: Approximately 50 representatives from Kentucky, Maryland, Ohio, Pennsylvania, Tennessee, Virginia, And West Virginia; OSM and EPA staff; and coal industry personnel.

Accomplished: The Appalachian Region, through its Appalachian Regional Technology Transfer Team (ARTTT) sought to effect change of the Mn standards through a workshop aimed at both enlightening its participants about the effects of Mn on stream biota, the subsequent treatment methods, and to seek guidance from the EPA as to how to effect change in the standards. OSM, EPA and industry representatives provided

presentations on regulatory background, Mn's effects on stream biota, case studies and treatment costs. Approximately 50 representatives from States: Kentucky, Maryland, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia, OSM and EPA staff, and coal industry personnel were in attendance. The workshop was an astounding success; much progress was made with the EPA. All of the participants rated the workshop as "highly successful" and/or "excellent".

Contact: David Lane, OSM ARCC Program Support Division (865)545-4103, extension 158.

**June 1-2, 2005                      Underground Mine Mapping Follow-up Meeting, Sheraton Square, Pittsburgh, PA**

**>> LIMITED INTEREST MEETING <<**

Background: A workshop on underground mine mapping will be conducted as a follow-up to the successful benchmarking workshop held in October 2004 in Louisville, KY.

Topics Covered: The focus will be on several key topics or issues related to mine maps and their use including scanning, preservation, archiving, database management, data delivery and security.

Target Audience: Scientists from industry, State and Federal agencies, academia, as well as managers charged with monitoring and preventing mining related environmental problems.

Accomplished: The Underground Mine Mapping Benchmarking Workshop was held on June 1 and 2 in Pittsburgh, PA at the Sheraton Station Square Hotel. Nearly 100 persons attended with representation from state and federal government agencies. The topics addressed by the 20 presenters included: methodologies for locating and accessing mine maps; database management; geo-referencing and digitization; and data delivery.

Contact: Greg Conrad, IMCC (703)-709-8654

**June 15 – 16, 2005                      Appalachian Regional Technology Transfer Team Semi-Annual Meeting Kingsport, TN**

**>>LIMITED INTEREST MEETING<<**

Background: OSM's Appalachian Regional (AR) and State Regulatory Authorities within its region participate in the Appalachian Regional Technology Team (ARTT). The purpose of or the ARTT is to ensure the proper transfer of technology within the region by providing a forum to guide regional technology activities and coordinate and communicate regional technology transfer issues.

Topics Covered: The team meeting will include a combination of technical presentations and routine team business. At this meeting the team will visit the State of Virginia's Department of Mines, Minerals and Energy Big Stone Gap office for a presentation on the State's electronic permitting processes. There will also be presentations on OSM's National Technical Training Program and TIPS and a discussion of previous and future workshops.

Target Audience: ARTT members and invited guests.

Accomplished: The team meeting included a combination of technical presentations and routine team business. The team also visited the State of Virginia's Department of Mines, Minerals and Energy Big Stone Gap, Virginia office for a presentation on the State's electronic permitting processes.

Contact: David Lane, AR, 865-545-4103, extension 158.

**June 19-24, 2005                      American Society of Mining and Reclamation (ASMR) 22st Annual Meeting, Breckinridge, CO**

Background: WRCC-OTT will participate in the annual four-day event, as an exhibitor. The American Society for Mining and Reclamation exhibits, albeit small in size, showcase the newest reclamation technologies, for the mining industry, and abandoned mine lands programs. In addition to the field trips, the conference technical program and its short courses are a forum for learning and experience. Traditionally, the conference provides an

opportunity for scientists, researchers, regulators, and mining and reclamation personnel to exchange information, share ideas and meet together. The American Society of Mining and Reclamation annually recognizes outstanding efforts in the field of land reclamation, reclamation research, and lifetime achievement in land reclamation, and the individuals are presented the awards at this meeting.

Target Audience: Industry reclamation managers, researchers and technical staff, consultants, state and federal agencies natural resource and reclamation staff. The OSM WRCC OTT booth will distribute information about OSM and its programs, ACSI/ADTI, Reforestation Initiative, TIPS, and showcases successes in reclamation, and paperless permitting. Popular items are CDs relating to various reclamation techniques, research reports, manuals, conference proceedings, guidelines, public domain software, links to OSM's web pages, and OSM annual report CDs.

Contact: Joe Galetovic, 303 844-1448, Lois Uranowski, 412-937-2805, Kim Vories, 618-463-6463 X103 or John Craynon, 202-208-2866.

Accomplished: MCRCC-- On June 20-22, 2005 MCR staff shared an exhibit with AR staff at the Annual meeting of the American Society for Mining and Reclamation at Breckenridge, Colorado. The exhibit featured information about technical forums on Coal Combustion By-Products, Bat Conservation and Mining, Active and Passive AMD Treatment, and the Wildlife Summit. The WR OTT booth distributed information about OSM and its programs, ACSI/ADTI, Reforestation Initiative, TIPS, and showcased successes in reclamation, wildlife habitat enhancement on Western mines, and paperless permitting. Popular items were CDs relating to various reclamation techniques, research reports, manuals, conference proceedings, guidelines, public domain software, links to OSM's web pages, and OSM annual report CDs. MCR staff provided a talk on "Placement of Coal Combustion By-Products at SMCRA Mines: A Short History of OSM Technical Efforts and Responses to Environmental Concerns." There were 220 participants registered for the event.

### **June 22-23, 2005                      Wildlife Summit, Brown Hotel, Lexington, KY**

Background: OSM will sponsor a Summit Meeting designed to explore ways to increase the amount of fish and wildlife habitat established on reclaimed mines. Presentations will be given from state wildlife agencies, wildlife conservation groups, landowners, and industry. Case studies will be presented and there will be an afternoon workshop devoted to exploring incentives, innovation, and challenges. Secretary of the Interior Gale Norton has been invited to give the keynote address and OSM Director Jeff Jarrett will give the luncheon address.

Target Audience: policy makers, state and Tribal reclamation and regulatory authorities, other state and federal agencies with wildlife interests, coalfield communities, wildlife conservation and sportsman's organizations such as the Rocky Mountain Elk Foundation, coal companies and land owners.

Contact: Craig Walker, OSM AR, Ecological Services and Technology Transfer, (865) 545-4103 ext. 168

Accomplished: Two hundred people gathered in Louisville, Kentucky on June 22-23, 2005 for the Wildlife Summit. Attendees included representatives from DOI (Assistant Secretary Rebecca Watson) OSM (Director Jeff Jarrett), the coal industry, state regulatory authorities, state and Federal government wildlife agencies, private wildlife conservation groups, and interested private citizens. The Wildlife Summit was an opportunity to revisit and reemphasize the importance of identifying regulatory mechanisms and incentives for coal operators to maximize wildlife reclamation opportunities. A significant accomplishment of the Summit was to compile and solicit from regulatory program personnel, wildlife reclamation specialists - professionals and practitioners-, and the coal operators feedback regarding the incentives that are needed, and hindrances that stand in the way of maximizing the fish and wildlife habitat opportunities associated with mining and reclamation.

### **June 29, 2005                      Underground Mine Pool Follow-Up Meeting, Morgantown, WV**

**>> LIMITED INTEREST MEETING <<**

Background: Interconnected flooded underground mines have long been a concern in the Appalachian Region. Over the past 100 years many underground operations have become flooded and are interconnected with active operations. Pumping of the active operations maintain the pool elevation below drainage. However, if pumping should cease for whatever reason, toxic discharges are possible.

Topics Covered: Mine pool modeling and monitoring will be discussed, recent findings of various researchers will be presented. Perspectives from industry, EPA, state regulatory authorities, and academia will be presented. Marketing of water captured in the mine pools will also be addressed.

Target Audience: Scientists from industry, State and Federal agencies, academia, as well as managers charged with monitoring and preventing mining related environmental problems will attend.

Contact: Vann Weaver, (412)-937-2858

**July 13-14, 2005      National Technical Training Program (NTTP) Steering Committee Meeting, Park City, Utah**

**>>LIMITED INTEREST MEETING>>**

Background: The purpose of this meeting is to identify OSM, State and Tribal training priorities, recommend training policy, provide guidance to assure the use of creative and innovative training opportunities and periodically evaluate training activity to assure program quality. The Steering Committee reviews plans for proposed technical training activities and recommends priorities for new course development. The Steering Committee also reviews the results of annual Needs Survey and determines how to allocate requests for space in the courses.

Topics Covered: Committee Reports on Regions; FY 2006 Needs Survey Results; Instructor Advisory Council; Accomplishments and Attendance Update; Course Evaluations; Course Reports; TIPS update; Strategic Plan; Succession Planning for Instructors; 5 Year Planning for Students; Career Series.

Target Audience: State and OSM representatives; invited guests.

Accomplished: Twelve representatives from OSM and State offices representing the national training program met to discuss the upcoming training needs, course revisions, new courses, budget, performance results, etc. of the national training program. This effort helps ensure that training needs are met equally throughout the nation.

Contact: Sarah E. Donnelly, NTTP, (202) 208-2826

**August 15-18, 2005      Active and Passive AMD Treatment Interactive Forum, Pittsburgh, PA**



Background: OSM Appalachian Region in partnership with the Pennsylvania Department of Environmental Protection (PADEP) and several Pennsylvania watershed associations (including Western and Eastern Pennsylvania Coalition for Abandoned Mine Reclamation, Southern Alleghenies Conservancy, and the Western Pennsylvania Watershed Program) hosted a four day conference dedicated to the advancement of current technology of mine water treatment and resource recovery.

Topics covered: The conference was geared toward facilitating a technical understanding of the treatment processes with experts from across the country and Canada giving presentations. The event took place in Pittsburgh, Pennsylvania from August 15 -18, 2005 covering topics on active and passive mine water treatment technologies, resource recovery, and sludge handling. In addition to presentations

by nationally known experts, the conference also included a heavily attended one-day workshop on passive treatment design. The most current design principles and in-depth review of mine water chemistry were emphasized. The resource recovery session presented specific markets that are being developed for the by-products of water treatment. These products are the treated water itself and the generated sludges. This session discussed in essence the proverbial making of “lemonade from lemons”. The conference also heard from Congressman John E. Peterson, (R-5th District) who talked about his efforts to accelerate clean-up of the historic problems caused by abandoned coal mines.

Target Audience: The event was attended by over 260 people from 3 countries and 17 states representing non-profit watershed associations; district conservation groups; local, state and federal agencies; and industry. Evaluations received from over 90% of the attendees rated the event as highly satisfactory with an overall approval of over 95%. The entire conference including program, presentations, and conference photos is available at <http://www.treatminewater.com/>

Contact: Vann Weaver, OSM AR Technical Support Division, Technology Transfer, 412 937-2858

**Sept. 2-5, 2005                      The Festival of Mountain and Plain/A Taste of Colorado– Mining Exhibit, Denver, CO**

Background: At the invitation of The Colorado Mining Exhibit Foundation, the Office of Technology Transfer participated in another proactive outreach event at “The Festival of Mountain and Plain / A Taste of Colorado”. The four-day event attracted more than 500,000 people, on Labor Day weekend to downtown Denver. A 40 ft x 40 ft Public Education Exhibit in a large tent, in the center of Civic Center Park, was used to house a walk-through exhibit with: free educational materials provided on display of mining, successful reclamation, and safety technologies on a sixteen foot table. Other participant tables included State of Colorado Division of Mining and Geology’s Abandoned Mine Lands, Colorado Mining Association, U.S. Geological Survey, Mineral Information Institute, and CEED, who provided free CDs and videos showing the importance of minerals to America’s life style.

Target Audience: Teachers, home schoolers, Scouts, librarians, and general public.

Accomplished: Over 750 teachers, that viewed the exhibit, received a packet of materials relating to mine permitting and reclamation including OSM Annual report CDs, along with packages of reclamation seed mixes, OSM reclamation poster, and samples of coal. For the children the highlights of the interactive exhibit were the free coal, and rock samples, and free gold panning.

Contact: Joe R. Galetovic, 303-844-1448

**Sept. 12-14, 2005                      New Technologies Implementation Information Workshop, Sheridan, WY**

**>> LIMITED INTEREST MEETING >>**

Background: The Office of Technology Transfer – Western Region – held the sixth New Technologies Implementation Information Workshop, in which the seven western primacy States defined the short-term and long-term needs of each State as they relate to records conversion, database design and mass storage, and progression to implementation of new technologies and GIS and GPS. The workshop was co-hosted by the Wyoming Department of Environmental Quality, Land Quality Division, having recently received a TIPS prototype GIS bond release database system.

Topics Covered: The goal of these small regional meetings is to assist in making informed decisions on the different technologies available, gain a better understanding of, and an appreciation for, what is involved in implementing new technologies by providing hands-on opportunities, and seeing and participating in what individual states are accomplishing. The exchange of information and individual experiences, including successes and failures, result in better prepared staff, and more informed managers. A CD with presentations will be available at a later date.

Target Audience: Western states staff involved with mine permitting and reclamation of active and abandoned mines. In particular, Western Regional Technical Team representatives, and innovative technology users at those agencies and OSM.

Accomplished: Land Quality Division shared, the progress undergoing design of overall GIS system, the opportunities for technology transfer and technical assistance were explored. Electronic permitting, document management, storage, and retrieval, LIDAR bare earth and first return coverage, data manipulation to extract vegetative cover, and detect change was demonstrated, along with the new GeoFluv software used in design of stable – non-erosive landscapes. The remote sensing presentation by the University of Wyoming of *WyomingView*, a subset of *AmericaView*, generated a lot interest, as it had multiple potential mining and reclamation applications. Thirty four staff and presenters attended the workshop. In addition three CAD/GIS Interface evening workshops were held at the Sheridan College with a cumulative total of 68 participants.

Contact: Joe R. Galetovic, 303-844-1448

**Sept. 18-21, 2005            27th Annual Conference of the National Association of Abandoned Mine Land Programs, Holiday Inn, Bristol, Virginia**

Background: The theme is Abandoned Mine Land Reclamation: Keeping the Circle Unbroken.

Topics covered: Administration and technical aspects of abandoned mine land reclamation.

Target Audience: State and Federal Regulatory Program staff, consultants, and university personnel that deal with Abandoned Mine Land Reclamation.

Contact: Richard Davis, Virginia Department of Mines, Minerals, and Energy, 276-523-8216 or [richard.davis@dmme.virginia.gov](mailto:richard.davis@dmme.virginia.gov).

**October 16-19, 2005 Geological Soc. of America Annual Meeting, Salt Lake City, UT**

Background: Office of Technology Transfer (OTT), WRCC exhibit at the Geological Society of America Annual Meeting will feature Technology Transfer and Technical Assistance topics under the heading of Geologists' Role in Mining and Reclamation

Topics Covered: Introducing the Office of Surface Mining and SMCRA will be the main goal of the exhibit. The technology transfer and technical assistance exhibit will highlight the technical fields in surface mining and reclamation, and their dependence on the knowledge and research of geological scientists. The inter-relationships of hydrology, soils, rocks and climate as they affect mining and successful post-mining scenarios are a topic that very few students grasp in college, the exhibit will attempt to make that connection. The web availability of technical reports and proceedings are of interest to graduating candidates, and great teaching tools for faculty. In addition, students are interested in career opportunities with the Department of Interior, and skills needed for the types of jobs available.

Target Audience: Students looking for a career in environmental protection and/or reclamation fields. Faculty teaching depositional environments, geochemistry, hydrology, environmental geology, and reclamation classes.

Contact: Joe R. Galetovic, 303-844-1448

**October 17-19, 2005            IMCC Mid-Year Meeting, Glenstone Lodge Gatlinburg, TN**

**>>LIMITED INTEREST MEETING>>**

Background: IMCC member states will gather for their mid-year meeting, which will include Committee meetings on October 18, and the Executive Commission will meet on October 19.

Topics covered: Topics to be discussed will include AML Reauthorization, OSM's budget, OSM rulemakings, benchmarking, state peer review program, the NAS Coal Ash Study; and the new NAS study on coal research being funded through OSM.

Target Audience: IMCC member states; non-member states; Federal representatives, and industry observers.

Contact: Beth Botsis at IMCC for further information at (703) 709-8654 or [bbotsis@imcc.isa.us](mailto:bbotsis@imcc.isa.us)

Accomplished: The Interstate Mining Compact Commission held its mid-year meeting on October 18 and 19 at the Glenstone Lodge in Gatlinburg, TN. Topics of discussion included state regulatory and AML grants, AML reauthorization legislation, OSM rulemakings, a state peer review program, National Academy of Science studies on mine placement of coal combustion waste and coal research, and OSM's budget. Approximately 40 state and federal representatives attended the meeting.

### **November 2-4, 2005      Brownfields National Conference 2005, Denver, CO**

Background: This National Conference is the nation's most comprehensive annual event on the remediation and redevelopment of brownfield properties.

Topics Covered: There will be sessions on Mine Scarred Lands Federal Partnerships moderated by *T. Allan Comp*, OSM HQ Div of Reclamation Support. Several federal agencies have been working with state and local partners on mine scarred land projects in various parts of the country. Other topics include brownfield project financing, land use control implementation plans, grant management, and redevelopment scenarios and tradeoffs. More information can be found at the conference website: <http://www.brownfields2005.org>

Target Audience: Regulatory agency staff, industry, and consultant practitioners.

Contact: Joe R. Galetovic, 303-844-1448; T Allan Comp 202-208-2836

Accomplished: Allan Comp served as Moderator for a session on mine-scarred lands in mining country, which presented two coal-country projects and one from the hard rock mining country of Nevada. The session was well attended and there were numerous questions and follow up communications. Comp also served as one of three on a panel in a "Marketplace of Ideas" session on mine-scarred lands, essentially an open session for anyone interested in the topic. Also, as the volunteer director of a non-profit project called AMD&ART, Comp accepted the first national Phoenix Award for community impact on mine-scarred lands.

### **December 5-9, 2005      Northwest Mining Association 111th Annual Meeting, Exposition and Short Courses, Spokane, WA.**

Background: The Northwest Mining Association annual meeting provides a forum for informing members on legislative, regulatory and technical issues to support and advance the mineral resource and related industries. The meeting provides for the dissemination of educational materials related to mining, and to foster and promote economic opportunity and environmentally responsible mining. For more information, visit their website at <http://www.nwma.org>

Topics covered: The conference will include short courses, industry briefings and technical sessions on mineral deposits, environmental issues, business and finance and legislative issues.

Target Audience: Regulatory agency staff, natural resource specialists, mining industry and consultant practitioners Reclamation managers and reclamation staff.

Contact: Joe R. Galetovic, 303-844-1448

### **December 7-8, 2005      Ohio Applied Science Research Conference 2005, Ohio University, Athens, OH**

Background: The fifth annual Ohio Applied Research Conference 2005 provides mineral resources professionals with an opportunity to discuss current issues and new research and technologies related to mineral resource extraction throughout the Ohio Valley. The focus of the conference will be on mineral resource extraction, including coal, industrial minerals, oil and gas; plus innovations in land and water restoration techniques. Information about the conference can be found at

www.ohio.edu/noncredit/DMRM.htm or through Harry Payne at Harry.Payne@dnr.state.oh.us or 614-265-1076.

**Target Audience:** The conference is viewed as a valuable resource for state and federal reclamation and environmental protection specialists; regulatory agency personnel, university researchers, mineral extraction and reclamation professionals; policy decision-makers; and local watershed restoration groups

**Contact:** Vann Weaver, OSM AR Technical Support Division, Technology Transfer (412) 937-2858.

**FY 2005**

**Technical Innovations and Professional Services (TIPS) Software Application Training Program (TIPS Training Centers: Alton, IL, Denver, CO, Pittsburgh, PA and Customer sites)**

<b>TIPS COURSES</b>
AMD Treat (AMD cost estimation)
ArcGIS (Geographic Information System)
TerraSync and Pathfinder Office Global Positioning Systems (GPS)
ArcPAD (GIS mobile computing)
ArcView (GIS)
Computer-Aided Design (CAD) Applications
Statgraphics (Statistics software)
Groundwater Vistas (ground water model)
Galena (slope stability)
SurvCADD (landform model)
AquaChem (water quality)
SDPS (subsidence prediction)
Aqtesolv (ground water model)
SedCAD (surface water sedimentation)
GIS Online Courses

**Background:** TIPS provides training in the use of its software applications as a core business activity. TIPS have offered reclamation-focused core software training for nearly a decade. The importance of this program to the overall success of TIPS is best expressed by a Steering Committee member who said that, “Training, training, and training” were the top three priorities of his state regarding TIPS services. TIPS computer application training is performed at the three TIPS Computer Training Centers in Alton, Denver, and Pittsburgh, with need-based customer on-site training where appropriate.

**FY 2005**

**NATIONAL TECHNICAL TRAINING PROGRAM (NTTP)  
Nationwide (closest proximity to student offices)**

<b>NATIONAL TECHNICAL TRAINING PROGRAM (NTTP) COURSES</b>
Acid-Forming Materials (6 courses)
Abandoned Mine Land Design Workshops (highwalls, fires, openings, subsidence, landslides)

Blasting (basic and advanced)
AML Project Management
AML Realty
Bonding (legal and cost-estimation)
Effective Writing
Engineering (basic and spoil handling)
Inspection (2 courses)
Instructor Training
Historic and Archeological Resources (2 courses)
Hydrology (2 courses)
Legal (enforcement procedures, evidence preparation, expert witness)
NEPA Procedures
Permit Findings
Soils & Revegetation (2 courses)
SMCRA & ESA
Underground Mining (2 courses)
Wetlands

Background: The National Technical Training Program is designed to increase the technical competence and professionalism of Federal, State, and Tribal personnel. The program provides critical updates on the latest technological advances in mining and reclamation technology and fosters consistent application of standards by providing training related to permit approval, reclamation and enforcement and bond release. The program works to ensure that the succession planning goals of surface mining agencies providing training or cross-training in 37 technical, legal, and programmatic areas. All efforts of the program from needs identification through instruction are a joint effort of State, Tribal, and OSM teams. 85% of students are from the States and Tribes. 40% of instructors are from States, 50% from OSM, and 5% from the DOI Solicitors' office.

## GLOSSARY

**LIMITED INTEREST MEETING** — This term reflects meetings/conferences that are generally by invitation only reflecting limited focus and interest. These meetings are held primarily by standing teams, steering committees, task forces, etc.

### Acronyms

AML	Abandoned mine Land
ACSP	Appalachian Clean Streams Program
ADTI	Acid Drainage Technology Initiative
ARCC	Appalachian Regional Coordinating Center
ARTTT	Appalachian Regional Technology Transfer Team
ASMR	American Society of Mining and Reclamation
CAD	Computer-Aided Design
CCB	Coal Combustion Byproducts
CHIA	Cumulative Hydrologic Impact Assessment
CIA	Cumulative Impact Area
DGPS	Digital Global Positioning Systems
DOE	Department of Energy
EPA	Environmental Protection Agency
FBC	Fluidized Bed Combustion
GIS	Geographic Information System
GPS	Global Positioning Systems
IMCC	Interstate Mining Compact Commission
ISM	Information System Management Division
MCRCC	Mid-Continent Regional Coordinating Center
NTTP	National Technical Training Program
NTTT	National Technology Transfer Team
OSM	Office of Surface Mining
OSM-HQ	Office of Surface Mining-Headquarters
OSM WAN	OSM Wide Area Network
PHC	Probable Hydrologic consequences
R&D	Research and Development
RD-WRCC	Regional Director, Western Regional Coordinating Center
SME	Society for Mining Metallurgy and Exploration
SMCRA	Surface Mining Control and Reclamation Act
TIPS	Technical Innovations and Professional Services
TIPS TEAM	TIPS National Team
TIPS-SC	TIPS Steering Committee
WIEB	Western Interstate Energy Board
WRCC-OTT	Western Regional Coordinating Center-Office of Technology Transfer
WRTT	Western Regional Technical Team