Workshop on Recycling Opportunities for Fly Ash and other Coal Combustion Products in Concrete and Construction Materials

Sponsored By
U.S. Environmental Protection Agency – Region 5, Chicago, IL
UWM Center for By-Products Utilization, Milwaukee, WI
American Coal Ash Association, Aurora, CO; Headwaters, Inc., South Jordan, UT;
Lafarge North America, Herndon, VA

Co-Sponsored By
Cinergy/PSI and Indianapolis Power & Light Company

May 24, 2005, Crowne Plaza Hotel & Conference Center, Indianapolis, IN

Workshop Description
The purpose of the workshop is to bring attendees up-to-date with the latest information for recycling applications for coal combustion products in concrete and other construction materials. The program will include presentations showing important technical, environmental, and economic advantages of using coal ash in ordinary, everyday construction applications. The workshop should be of interest to those associated with the construction industry, including design and materials engineers, architects, engineering technicians, engineers working in governmental agencies, industry & private practice, engineering faculty and students, as well as ready-mixed concrete producers, concrete products manufacturers, and concrete contractors. The workshop will also provide significant help to people from utilities and other industries producing coal ash. The program will cover basic information, application case histories, as well as the latest developments in the utilization of coal ash from power plants in concrete, concrete products, and other construction materials. Knowledgeable professionals engaged in specifying, approving, marketing, and using these materials will present state-of-the-art information. Handout materials will be provided.
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PROGRAM

Tuesday, May 24, 2005

7:40 a.m. Registration and Coffee

8:10 Introduction by Tarun R. Naik; and Session Chairman Howard Lewis, Cinergy, Plainfield, Indiana.

8:15 Use of Coal Ash in Concrete and Concrete Products: Classification (Class F, Class C, Class N, FGD & FBC Materials, and other CCPs); Chemical Physical, and Mineralogical Properties; Ready Mixed Concrete; Precast/Prestressed Concrete; and Concrete Bricks, Blocks, and Paving Stones. By Tarun R. Naik


10:05 Coffee Break

10:20 Flowable Slurry for Backfill, Low-Strength Concrete for Foundations, Use of Bottom Ash, and Other Applications. By Rudolph N. Kraus, Tarun R. Naik, and Bruce W. Ramme

11:00 CCPs Quality Assurance Management and Availability. By Benjamin J. Franklin


12:00 p.m. Lunch

12:55 Freezing and Thawing Durability, Salt Scaling, and Chloride Penetration for Fly Ash Concrete – Laboratory Data and Field Experience. By Tarun R. Naik

1:45 CCPs Utilization in Indiana DOT Projects. By Athar A. Khan

2:30 Break

2:50 Indiana DEM Perspective on recycling of CCPs. By Tracy Barnes

3:20 Use of Fly Ash in the Manufacture of Portland Cement. By Jeff Grant

3:50 Use of CCPs - Recent Developments and Future Opportunities
Tarun R. Naik

4:20 Compaction and Mechanical Properties of Fly Ash and Bottom Ash Mixtures for Embankments and Other Geotechnical Applications. By Rodrigo Salgado

4:50 Roundtable: Recycling CCPs in Indiana.
Questions and Answers. Chaired by Nayyar Zia Siddiki, Indiana DOT, Indianapolis, IN

5:15 p.m. Adjourn
SPEAKER INFORMATION

The program is scheduled to include the following speakers:

Tracy Barnes, Senior Environmental Manager in the Office of Land Quality, Technical Compliance Section at IDEM, Indianapolis, IN. Ms. Barnes has been employed at IDEM since 1991 and has specialized in the regulation of non-hazardous industrial by-products. The duties of her current position include: developing regulations and policy, providing technical assistance regarding by-products characterization, disposal, and recycling.

Benjamin J. Franklin, Director of Technical Services, Headwaters, Inc. South Jordan, UT. Mr. Franklin has 20 years of experience working in the cement/mineral components products activities. He has worked for several major cement producers’ R&D laboratory as a Petrographer. He is a member of ACI and ASTM. For Headwaters, Inc. Ben is also currently QA/QC administrator for the Eastern Region.

Jeff Grant, Quality Control Manager, Kosmos Cement, Jefferson, KY. Mr. Grant has 30 years of experience as an engineer. He started as a Chemical Engineer and since 1980 has been working in the cement industry holding various positions, including as a Process Engineer, Environmental Engineer, and since 1999 as the QC Manager at Kosmos Cement.

Thomas Jansen, P.E., Supervising Engineer, Coal Combustion Products Group, We Energies, Milwaukee, WI. Mr. Jansen is currently Chairman of the American Coal Ash Association (ACAA) and a member of ASTM. He has over 20 years of experience as a civil engineer. He supervises the CCPs utilization program at We Energies and its landfills. His prior experience includes environmental engineering and project management in Wisconsin and Florida.

Athar A. Khan, Chief Geotechnical Engineer, Indiana Department of Transportation, Indianapolis, IN. Mr. Khan has over 25 years of experience as a Civil Engineer. He joined Indiana-DOT in 1984. He has published papers on a variety of subjects such as using geogrids as subgrade stabilization. He has been involved with use of CCPs for 15 years.

Rudolph N. Kraus, Assistant Director, UWM Center for By-Products Utilization, Milwaukee, WI. Mr. Kraus has worked at the UWM-CBU for over ten years. He has directed research on numerous projects on the use of by-products (coal ash, wood ash, used foundry sand and slag, pulp and paper mill residuals, etc.) in CLSM, concrete, and cast-concrete products. Prior to joining UWM-CBU he worked for over ten years for a consulting engineering company in Chicago.

Marvin J. Obermeyer, P. E., Technical Services Manager, Buzzi Unicem Cement, Indianapolis, IN. Mr. Obermeyer has over 15 years of experience as a civil engineer. He has worked in several positions as a Traffic Engineer and as Sales Representative in Indiana. His current position takes him to at least six surrounding states for trouble shooting technical issues related to concrete. He is a member of IRMCA, ASCE, and ITE.

Tarun R. Naik, Ph. D., P. E., Director, UWM Center for By-Products Utilization, Milwaukee, WI. Dr. Naik has over 40 years of experience with concrete. His contribution in teaching and research has been well recognized nationally and internationally. His research has resulted in over 250 technical reports and papers in ACI, ASCE, ASTM, etc. He is a member of ACI, ASCE, ASEE, ASTM, RILEM, NSPE, and WSPE. He is a member of many technical committees of ACI, ASCE, ASTM, and RILEM. He has served as a president of WI-ACI, WSPE, and other organizations.

Bruce W. Ramme, P.E., Manager, Land Quality, Environmental Department, We Energies, Milwaukee, WI. Mr. Ramme has 28 years of experience as a civil engineer and has published numerous technical reports, papers, and a handbook on coal combustion products utilization. He is a member of ACI technical committees: 213 Lightweight and 555 Recycled Materials. He is also a member of ASCE, NSPE, and other professional organizations.

Rodrigo Salgado, Ph. D., P. E., Professor of Civil Engineering, Purdue University, West Lafayette, IN. Dr. Salgado has been with Purdue University since 1993. He has published numerous papers in the areas of foundation engineering, geotechnical analysis, and earthquake engineering. He is a member of ACI Committee 336 and is also a member of several technical organizations, including ASCE and the International Society of Soil Mechanics and Geotechnical Engineering.
Registration Information

The seminar will be held at the Crowne Plaza Hotel & Conference Center at the Historic Union Station, Indianapolis, IN. The workshop registration fee of $95 ($145 if registering after May 17) includes cost of the workshop registration, handouts, refreshments, and lunch.

Make check payable to: UWM-CBU US-EPA Workshop. We cannot accept credit cards. You may also register by telephone by calling (414) 229-4105, or by FAX (414) 229-6958. For the latest information about this seminar and UWM-CBU, visit us at: <http://www.cbu.uwm.edu>. For more information contact: Tarun R. Naik or Rudolph N. Kraus, (414) 229-4105, FAX (414) 229-6958; and E-mail <tarun@uwm.edu> or <rudik@uwm.edu>.

Please complete workshop registration form below and send with your check to:

Rudolph N. Kraus, UWM Center for By-Products Utilization

Refunds and Cancellations

Program fee is refunded if withdrawal notice is received seven days before the program. However, a $50 cancellation fee will be charged. Full fee is charged if registration is not cancelled by May 18, 2005. Substitutions can be made at anytime.

Room Reservations

For staying at the Crowne Plaza Hotel, please call the hotel directly for reservations at (317) 631-2221. A special room rate of $109 + tax has been made available for this meeting by referring to Group “UWM-CBU Workshop.” Please reserve your room prior to May 10, 2005 as space is limited.

Directions

The Crowne Plaza Hotel & Convention Center is conveniently located at 123 West Louisiana Street, Indianapolis, Indiana within the historic Union Station in downtown Indianapolis. The hotel is located 4 blocks north of I-70 via the Illinois Street exit (Exit 79 McCarty/Illinois Street. Exit North on Illinois and proceed four blocks to Georgia Street. Turn Left on Georgia and proceed one block to Capitol Avenue. Turn left on Capitol to Louisiana Street. The Crowne Plaza is located next to the RCA Dome).