

ASH AT WORK

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85 Technical Papers Accepted For Presentation At Symposium

WASHINGTON — Eighty-five technical papers have been accepted for presentation at the Seventh International Ash Utilization Symposium/Exposition to be held in Orlando, Florida on March 4-7, 1985, NAA President Tobias Anthony has revealed.

The spokesman also disclosed a unique theme, *INSIGHTS TO ASH SITES*, has been selected for the event. "By selecting the theme we hope to rekindle a spirit of discovery for the nation's fourth most abundant mineral resource," Anthony said.

"We are very enthusiastic about combining a spirit of discovery and the magical offerings of the host city, centered around Disney World and Epcot Center, to create a very unique mid-winter program," he added.

Delta Airlines, in corporation with the NAA, is offering a special convention rate which affords a 35% discount for attendees traveling round trip on Delta to the Symposium. Tickets must be purchased seven (7) days prior to departure.

The presentations cover a wide-range of subjects with more than half the papers covering specific ash applications. Topics include five grouting applications, the use of ash on sanitary landfills and small wastewater filter systems, seven papers on stabilized base course construction, five re-vegetation studies, eight specific highway construction projects, and eight others dealing with fly ash concrete.

Fifteen nominations are categorized as being related to ash management and the environment while six other papers were submitted on the subject of resource recovery.

Eight approaches to product marketing will also be reviewed. The use of ultra-sound and the computer are two specialized subjects that will be explored during the four-day conference.

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NEW CHAIRMAN — Professor Lyle K. Moulton, an advocate of the use of power plant ash as a construction aggregate, has been named Chairman of the Civil Engineering Department at West Virginia University effective July 1, 1984. Dr. Moulton has been associated with the Department since 1963 when he became an instructor in the areas of soil mechanics and foundation engineering. Prior to that time, he spent 10 years in the Soils and Foundation Division of the Connecticut Highway Department. He has authored several technical papers on the use of power plant ash in highway base and wearing course construction, as a filter media in dam construction, and in the compaction and grouting of sanitary landfills. He received his Bachelor's and Master's degrees from U-Conn and his Ph.D. from West Virginia University in 1968.

Three Utilities Among 5 New NAA Members

WASHINGTON — Five new members, including three electric utilities, were accepted as members of the National Ash Association here on September 11 at a meeting of the Executive Committee.

President Tobias Anthony identified the group as Niagara Mohawk Power Company, Syracuse, NY; Atlantic City Electric Company, Pleasantville, NJ;

See Three Utilities (Page 2)

Ash Market Study Is Well Received

WASHINGTON — An Ash Marketing Communications Program, being co-sponsored by EEI's Utility Solid Waste Activities Group (USWAG) and the National Ash Association, has already received an "upbeat and positive response" by the news media, according to Consultant Julian Wise.

Wise told the NAA Executive Committee an early appraisal of reaction from the vertical and horizontal media has been "tremendous and enthusiastic."

The program will be officially launched with a feature story in EEI's November issue of *Electric Perspectives* edited by NAA President Tobias Anthony.

He disclosed Metro-Media in Washington is producing a 30-minute documentary on the general subject of ash utilization which can also be presented in three 10-minute segments as well. It is tentatively being projected for showing in 10 or 12 major market areas throughout the country.

An attractive display is being designed for showing during Energy Awareness Week at the Air & Space Museum in Washington beginning October 21. Over 700,000 persons are expected to visit the exhibit during the week-long event.

Discussions are being held with a publisher for the development of a collegiate textbook on power plant ash Wise asserted.

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ASH AT WORK

James P. Plumb, Chairman of the Board

Allan W. Babcock, Editor

Published quarterly by the National Ash Association, 1819 H Street, NW, Washington, DC 20006, for its members, their friends and supporters.



AMERICAN FLY ASH RESTRUCTURES ORGANIZATION — The American Fly Ash Company in Des Plaines, Ill., one of the nation's foremost ash marketing agencies, recently announced a restructuring of the organization in elevating Joseph H. Pound to President and Chief Operating Officer. Founder Craig Cain remains as Chairman of the Board and Chief Executive Officer. Five other staff members were also named to fill vice president positions. The new AFA Team is shown below with Chairman Cain, seated at left, and President Pound, seated at right. The VEEP's are (standing, left to right) Martin L. Zimmeroff, VP-Finance; Alan R. Dunbar, VP-Marketing; Mitchel L. Nowicki, VP-Utility Service; Richard M. Majko, VP-Technical Service; and James H. Gum, VP-Governmental Marketing.

Three Utilities Among 5 New Members

(Continued from Page 1)

Metropolitan Edison Company, Reading, PA; Dow Chemical Company, Plaquemine, LA; and Allen-Sherman-Hoff Company of Malvern, PA.

Niagara is actually re-joining the Association after an absence of a few years, Anthony related. Donald L. MacVittie, Vice President-Fossil Generation, will represent the utility on the Board of Directors and Gregory Vincent, Superintendent-Fossil-Generation Methods & Performance, will serve as Technical Representative. The Firm operates two coal-burning plants at Dunkirk and C.R. Huntley, respectively.

Ralph S. Bingham, Manager-Environmental Affairs, is to serve as Atlantic City's delegate to the Board with Robert F. Daugherty, project coordinator, acting as the Technical Representative. The utility burned almost 1 million tons of

coal at its two coal-fired stations in 1983.

Met Ed is to be represented by John F. Blekicki, Manager-Fuels Inventory, and Trudy J. Phillips, Coordinator-Fuels, with the former being the liaison to the Board and Ms. Phillips as the technical staff member. The firm's Titus and Portland stations have a combined capability of 635,000 Kw.

A major chemical, metals, and plastics producer, Dow will be represented by Dan J. Najvar, Director of Discovery Development.

The second Class E non-voting membership was granted to A-S-H who have a direct relationship with the ash industry as a designer and supplier of pneumatic, hydraulic, and mechanical ash handling systems and components. Marketing Manager Thomas H. Hodge is the designated representative.

TRB Unveils Program For Highway Research

WASHINGTON — The Transportation Research Board has unveiled tentative plans for a five-year, \$150-million national highway and bridge pavement research program.

TRB Executive Director Thomas B. Deen says the project has been endorsed by the American Association of State Highway and Transportation Officials (AASHTO) and is favored by the Federal Highway Administration.

The 170-page TRB report on the pavement program outlines six proposed research areas:

- Long-term performance of various pavements, including fly ash concrete, under various loading and environmental conditions with data collection and analysis continuing for three additional five-year terms;
- Chemical and physical characteristics of asphalt and their relationship to performance;
- Chemical and physical phenomena of cement hydration;
- New techniques to stop deterioration of chloride-contaminated concrete bridge decks and other components;
- Procedures for administering maintenance: new processes, equipment and materials; productivity;
- Reducing use of salts through management; applying mechanical or thermal now and ice removal; alternative chemicals.

Deen added the proportion of highway funds devoted to research has fallen in recent years in emphasizing the need for implementing the program.

PennDOT Secretary Thomas D. Larson headed the 13-member steering committee preparing the study report.

85 Technical Papers

(Continued from Page 1)

Copies of a preliminary program have been placed in the mail to the successful presentors, NAA members, and allied ash industry affiliates.

President Anthony reminded prospective enrollees that advance registrations are now being accepted and those who enroll prior to January 14 will save \$50 in fees. The charges are \$290 for NAA members and \$340 for non-members.

The team is planning a special program of activities for spouses with optional tours to the many attractions in Central Florida. All symposium activities will take place at the Sheraton Twin-Towers in Orlando.

A tentative program calls for a free afternoon for attendees on Wednesday with dual sessions on Monday, Tuesday, and a half-day on Thursday.

NAA Assisting FHWA In Workshop Plans

WASHINGTON — The National Ash Association is working closely with officials of the Federal Highway Administration in setting up a series of workshops on the use of fly ash and other by-products in highway construction.

President Tobias Anthony explained it is hopeful that two-day sessions can be scheduled in each of the FHWA's ten geographic regions across the United States. (See map below.)

So far, five regions are committed to a workshop as follows:

- California - February 26-27, 1985;
- Georgia - March 12-13, 1985;
- Minnesota - March 26-27, 1985;
- Pennsylvania - April 9-10, 1985;
- Colorado - 1986.

In Region 5, sites in both Minnesota and Wisconsin are under consideration.

The format calls for an opening half-day period by ash producers and marketers on production capability, coal types, influences of power plant operation, and quality control; one day will be devoted by user agencies on fly ash in portland cement; and a wrap-up session on case history experiences.

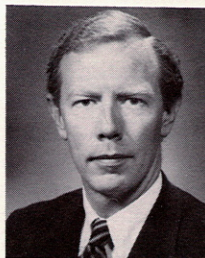
The seminars are open to FHWA staffers, state highway agencies, academic representatives, ash marketers, contractors, and interested industry personnel.

Earlier seminars held in Louisiana, Iowa, and Texas were well attended and presented an excellent forum for an exchange of experiences and specifications on the use of fly ash.

SPARTA, NJ — Paul G. Viall Jr. has been appointed as president and chief executive officer of Limestone Products Corporation.

Viall was named to the position after serving three years as Vice President-Marketing for the firm's 200 commercial and residential mineral products.

He will direct manufacturing, processing, and sales operations for a growing number of mineral products including LIFA, a self-repairing road base made from lime and fly ash.



COLUMBUS, OH — The Environmental Protection Agency has announced plans to locate an \$18.2 million demonstration project at Ohio Edison's Edgewater Station utilizing multi-stage burner technology to eliminate sulfur dioxide emissions.

The facility will be jointly funded by the EPA, the State of Ohio, the utility, and the designer - Babcock & Wilcox of Barberton.

During the project, lime will be injected directly into the coal boiler triggering a chemical reaction whose product is solid gypsum - the basis of dry wall building materials.

Present in-place technology utilize scrubbers to clean sulfur emissions which produce a wet sludge which takes time to solidify and is difficult to handle.

PITTSBURGH — Undersecretary of Energy Patrick Collins said coal-fired generation is projected to account for 60 percent of total electricity generation by 1995.

Collins, in delivering the keynote address at the opening session of the first annual Coal Conference, noted coal is a great energy insurance policy for the future of the world and can be used to achieve a national goal of obtaining an adequate cost-efficient source of energy.

The DOE official estimated electricity generation will grow 3.3 percent a year between 1983 and 1985.

Coal today provides only about 20 percent of our total energy supply.

COLUMBUS, OH — On August 1, the three owners of the Zimmer plant announced that it will be completed as a 1.3 million-kilowatt coal-fired station and that American Electric Power Service Corporation will manage the project.

Last January, the owners - The Cincinnati Gas & Electric Company, the Dayton Power & Light Company, and AEP's Columbus & Southern Ohio Electric Company - had announced their decision to convert Zimmer from nuclear fuel to coal operation. The new work will cost an estimated \$1.7 billion by 1991.

As a 1.3 million kw plant, Zimmer will burn about 3.5 million tons of Ohio coal a year.

The decision to proceed was based on studies of a number of possible coal-fired alternatives carried out by Ebasco Services, Inc. and National Economic Research Associates. Except for the use of scrubbers, the converted plant will be similar to the successville series of 1.3 million-kw units now in operation on the AEP system.

Ash Market Study

(Continued from Page 1)

A Speakers Bureau is to be formed to make presentations at speaking engagements before national, state, and local audiences, he added.

The overall program is being directed by Hal Dunham, of Edison Electric Institute.

Field Regions of the Federal Highway Administration



Washington, D.C. Headquarters

Field Region Headquarters



Northern States Power Has Remarkable Ash Sales Record

MINNEAPOLIS — Few utilities engaged in the marketing of power plant ash can match or top the sales record being achieved by Northern States Power Company (NSP) here in the Twin Cities area.

NSP has a two-year sales average of 79 percent of the ash produced by the utility's four metro area coal-fired generating stations. In 1982, NSP sold all but eight (8) percent of the ash and although sales dipped to 66 percent in 1983, the average smokes the ash industry average of 20.7 percent.

In record-breaking 1982, NSP sold approximately 216,000 tons of ash, including fly ash, bottom ash, and boiler slag. During the period, the plants - Allen S. King, Black Dog, High Bridge, and Riverside - produced about 234,000 tons. The stations have a combined generating capacity of 1,592 megawatts (Mw).

Dick Ellis, Coordinator of Ash Utilization, heads NSP's ash marketing program. Ellis has help from the sales representatives of Construction Wholesalers, Inc. and Black Diamond Ltd., the utility's ash marketing companies.

Working together they have cultivated a favorable climate and attitude among local contractors for power plant ash. About 95 percent of the ready-mix dealers in the Minneapolis-St. Paul area use fly ash on a regular basis.

Ellis emphasized the NSP management has been very supportive of the ash utilization program.

"We not only use ash at every opportunity," he says, "but NSP has adopted ash management and environmental techniques at our ash producing stations."

NSP uses sub-bituminous coal from Montana, and bituminous coal from Southern Illinois, and petroleum coke to fire the boilers. Its by-product is a cross between Class F and Class C ash with a lime content of 10 to 15 percent.

A major key to NSP's sales success is the establishment of permitted ash storage facilities.

"In order to meet construction time-tables," Ellis noted, "it is absolutely essential to build up stockpiles in advance of the projects." This also minimizes the capital investment for the contractor, he related.

For example, one highway road base project required 325,000 cubic yards of ash, more than the utility could provide from one year's power generation at the four metro stations. NSP stockpiled bottom ash for five years as a structural fill in order to meet the project's needs. The Minnesota Department of Transportation approved the use of the ash in the

construction of a four-lane asphalt highway. Much of the work was done at night because of traffic congestion in the area.

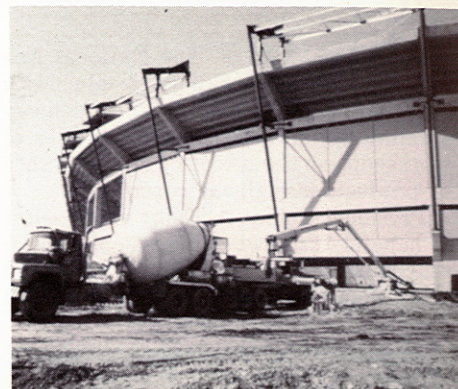
The utility sells ash for a variety of applications including structural fills for highways, parking lots, rail sidings, substations, and to improve construction sites on marginal land. Fly ash is used in ready-mix concrete for footings, columns, and floor decks in high-rise buildings.

Major projects include the Hubert H. Humphrey Metrodome sports complex in Minneapolis. In St. Paul, M.A. Mortenson, general contractor for the 845-bed Veterans Administration Replacement Medical Center now under construction, will use about 2,500 tons of fly ash in the concrete being placed in that structure.

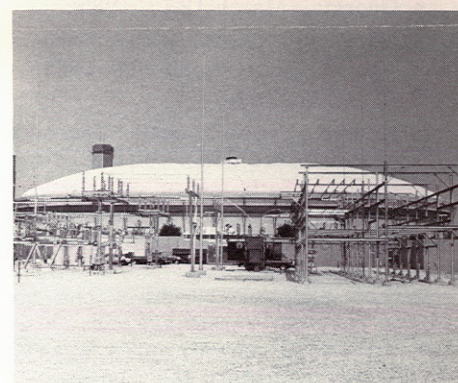
Annually, over 50,000 tons of boiler slag is processed into roofing granules.

"NSP is constantly looking for new applications for the ash we produce," Ellis added. "As new technologies emerge, we plan to take advantage of every opportunity to increase ash utilization."

The utility serves more than 1.3 million electric customers in parts of Minnesota, Wisconsin, North and South Dakota, and the Upper Peninsula of Michigan.



Metrodome Construction (NSP Photo)



NPS substation serving Metrodome is built on ash fill.



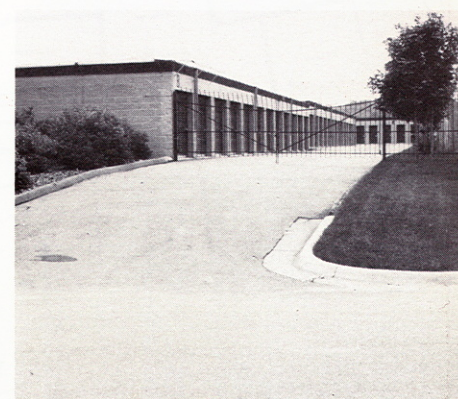
VA Hospital using fly ash concrete.



Expressway rests on ash base.



Auto agency built over ash fill.



Ash fill houses storage facility.