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FINALIZE PLANS FOR SYMPOSIUM—Ash industry officials are shown as they completed final arrangements for the 6th International Ash Utilization Symposium with the MGM Grand Hotel in Reno. Those pictured with Ms. Julie Powers (Seated), Director of Sales for MGM; are (Left to right) NAA President Gerald Bowdren, Executive Director James Covey, Ms. Kathy Davis of Meeting Planning Associations, and John Gillis of the NAA staff.

### 66 Papers Are Selected For Symposium

WASHINGTON-Sixty-six papers have been accepted for presentation at the Sixth International Ash Utilization Symposium to be held at the MGM Grand Hotel in Reno on March 7-10, 1982.

Program Chairman Jack Weber said 11 separate sessions have been scheduled during the three-day event. Aside from a single general program on Monday morning there will be concurrent sessions on Monday afternoon, Tuesday and Wednesday morning.

Topics cover a wide range of subjects with the primary focus on ash applications. Ash management, research, and marketing techniques are other major categories.

Special features will be the premiere showing of a documentary film titled "Power Plant Ash: A Resourceful Alternative" and a live demonstration

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of the placement of fly ash concrete. The NAA produced the 27-minute film in cooperation with the Federal Highway Administration.

The registration fee for the Reno Symposium has been set at \$150. The package includes three luncheons, wine/ cheese and cocktail socials, pre-print abstracts of papers, and a bound copy of the proceedings.

For the first-time the symposium is encouraging spouse attendance with side trips to Reno museums, ski areas at Lake Tahoe, and San Francisco. Spouse registration has been set at \$50.

Attendees will also have an opportunity to view exhibits of products and services available to the ash industry. A handbook outlining these items will be a part of the registration kit.

Tuesday's buffet luncheon and cocktail hour will be served in the exhibit

Space commitments have been received from the following exhibitors: National Ash Association, American Fly Ash Company, Fillite Disposal Services, Oh-Kay Chemical Corp., Monier Resources, Inc., Free Flow, Inc., Lytag Ltd., and Production Eng. Products, Inc.

(See 66 PAPERS, Page 3)

### DOE, FHWA, EPA Reps **Head Reno Program**

WASHINGTON-Representatives of three Federal agencies will play vital roles in the 6th International Ash Utilization Symposium at Reno in March.

NAA President Gerald Bowdren identified the trio as Ray Barnhart, administrator, Federal Highway Administration; Ms. Penny Hansen, solid waste specialist, Environmental Protection Agency; Augustine A. Pitrolo, director, Department of Energy's Morgantown Energy Research Center.



Mr. Pitrolo

expected to center on the theme of '82 Symposium-The lenge of Change.

Their remarks are

Pitrolo, who is serving as co-chairman with Mr. Bowdren, will officially welcome the delegates in opening

ceremonies on Monday. He came to the DOE from a career in the aerospace and coal industries.

The FHWA official, keynote speaker for the three-day event, will address Monday's luncheon. Before assuming

the top post in the highway agency, Barnhart served as a college professor and commissioner of the Texas Highway and Public Transportation Department.

An eloquent speaker, Mr. Barnhart appears as a narrator in the



Mr. Barnhart

FHWA/NAA film to be shown to the public for the first time in Reno. Individuals wishing to order copies of color documentary may do so at the registration desk, Co-chairman Bowdren explained.

Ms. Hansen will review new Federal procurement guidelines for cement and concrete products containing fly ash

(See DOE, FHWA, EPA, Page 3)

### **No Longer Refuse**

# Anne Arundel County Council Passes Bill To Permit Fly Ash Use in Structural Fill

BALTIMORE—The County Council of Anne Arundel County, Maryland, by a vote of 6 to 1, has approved a bill allowing the Baltimore Gas & Electric Company to place fly ash as a structural fill in industrially zoned areas.

More particularly, the legislation will permit B. G. & E. to utilize fly ash from its Brandon Shores Station on a 260-acre tract on Marley Neck. The utility wants to develop the property for use as an office building and warehouse.

A company spokesman, Gary Fuhrman, says the bill requires "the responsible placement of fly ash and sets forth the compaction requirements, moisture control, handling criteria, monitoring wells, and provides for a 12-inch cover over the fill."

"This is a very well controlled bill and sets out what needs to be done by everybody"—McGuirk

"The passage of this legislation paves the way for exciting economic development opportunities in the county," he added.

The new measure redefines fly ash as a fill material instead of refuse and permits its use in three industrially zoned areas.

Councilman Ronald C. McGuirk stated "This is a very well-controlled-

bill and sets out what needs to be done by everybody."

The Maryland Gazette, in reporting the action, noted "McGuirk said, after visiting the West Virginia operation (AEP's John Amos Station), he was assured the coal residue could be recycled instead of dumped in a landfill."

"This is the type of bill we should be looking forward to with many wastes," he added. "The idea of recycling resources is something we need to get into more and more."

The lessons learned from this Maryland project are applicable anywhere." -Covey.

The NAA, with a major assist from American Electric Power Company's staff personnel in Charleston, helped develop and present the public relations campaign that led to a change in ash views by county officials.

Executive Director James Covey complimented the utility on the effectiveness of its "awareness program" and stated "the lessons learned from this Maryland project are applicable anywhere"

The B. G. & E. story will be one of the highlights of the upcoming 6th International Ash Utilization Symposium in Reno on March 7-10.



KEY TO CHANGE IN ASH VIEWS—An on-site visitation to American Electric Power Company's John Amos Power Station near Charleston, WV to view the placement of fly ash in a structural fill near AEP's coal-fired facility helped erase governmental and community skepticism from Anne Arundel County in Maryland that Baltimore & Gas & Electric Company's plan to develop a 260-acre site was environmentally and economically practical. The visitors saw first-hand the loading and transportation of the fly ash from the station, shown in the background, to the compaction of the material in the structural fill before reviewing and approving B.G. & E's plan and adopting a bill redefining ash as a fill material rather than refuse.

### Personal Profile

### Stephen T. Benza

Stephen T. Benza is serving as Ash Marketing Specialist for Pennsylvania Power & Light Company and is headquartered in Allentown.



The 30-yearold utility official also directs investigation of prospective fossil fuel reserves and transportation systems for PP & L.

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In his prime area of responsibility, Benza supervises all ash disposal operations and directs the firm's ash marketing program.

Prior to joining P.P.&L, he spent four years on the staff of J. E. Baker Company of York, PA—a manufacturer/processor of mineral products for metallic/agricultural, aggregate, and other smokestack industries.

Benza is a member of the NAA Board of Directors and served as a member of the Steering Committee for the 6th International Ash Utilization Symposium Steering Committee.

He is a graduate of Pennsylvania State University with a B.S. in Mineral Economics and has taken continuing education courses in Earth and Mineral Sciences at Millersville State University. His wife, Donna, is a speech pathologist.

## American Fly Ash Purchases All Stock of Penn-Virginia

American Fly Ash Company, Inc. of Des Plaines, Ill. has purchased all the stock of Penn-Virginia Materials Corporation headquartered in Willoughby,

President Craig Cain said the transaction, which was effective Dec. 31, will make his firm one of the largest fly ash marketing agencies in the United States with sales coverage from Iowa into Pennsylvania including Tennessee.

"We hope to bring our experience into the picture to further enhance the services now being offered to Penn-Virginia's customers," Cain added.

Dennis Casamatta will remain in charge of firm's Ohio office.



EDITOR'S NOTE: Our last issue (No. 3, Vol. XIII) contained mistakes which we are pleased to correct with apologies to Pozzolanic Northwest, Inc., Basin Electric Power Cooperative, and North Dakota Highway Department.

#### Pozzolanic Northwest Erects Ash Warehouse

(Page 2, last paragraph)

The reference to Class F ash was erroneous. ASTM standards list Class F as "Fly ash normally produced from burning anthracite or bituminous coal..." and Class C as "fly ash normally produced from lignite or sub-bituminous coal..."

Possolanic's Class F fly ash is 4% calcium and 0.2% LOI.

#### North Dakota Accepts Use of Basin Electric Ash on Highways (Page 4)

The news article, re-written from information supplied by Basin, had five errors which we now correct:

(1) Olds fly ash is not "highly reactive Class F material "but a Class C ash.

(2) The use of Olds ash on the ND 83 Project had "no influence" on the decision to use Neal Station ash on the road project near Velva.

(3) Ponded ash from Neal Station cannot be used as cement replacement. The reference by Mr. Grosz was applicable to Olds fly ash.

(4) The Water and Power Resources Service in Wyoming is not "known" to be taking a long look at using fly ash to stabilize irrigation banks.

(5) A cost savings to Basin on the use of ash in a railroad structural fill at Neal Station was realized but it was not termed "substantial."

## **VEPCO To Convert Four More Units Over To Coal**

Virginia Electric & Power Company, the newest utility member in the National Ash Association, has announced plans to convert four more of its oil-fired generating units to coal.

A company spokesman said the units, having a total generating capacity of 345,000 kilowatts, have been in "cold reserve" since September 1980. The stations are located in Virginia.

The cost of the conversions has been set at \$85 million and are expected to save VEPCO about 400,000 barrels of oil a year. Of this amount, \$80 million will go into the design and installation of environmental protection equipment. The units are expected to be back in service by 1986.

The facilities were identified as Units 1 & 2 at the Portsmouth Power Station and Units 1 & 2 at the Possum Point Station near Quantico.

VEPCO began its oil-to-coal conversion program in 1975. Six units have already been switched to coal with another four scheduled for completion by 1984.

The NAA is working with the utility in the formulation of an ash management and utilization program. Executive Director James Covey recently met with engineering and operating personnel in Richmond to outline guidelines for these programs.

Two other NAA affiliates, Baltimore Gas & Electric and American Electric Power Service Corporation, are assisting the Virginia based firm in developing an environmentally acceptable plan for the establishment of a fly ash structural fill at its Yorktown Station to meet county zoning standards.

### 66 Papers Selected

(Continued from Page 1)

Chairman Weber also disclosed that papers were accepted from authors in eight (8) foreign countries including the United Kingdom, British Columbia, Australia, Ontario and Calgary in Canada, Netherlands, Romania, Jordan, Japan, and Denmark.

Overall the committee reviewed 93 papers before making the final selections. "Those not chosen for presentation at Reno were given the option of preparing the text for inclusion in the printed proceedings," Weber stated.

The spokesman noted that the Department of Energy had once again agreed to publish all papers delivered at the Reno Symposium. The Government Printing Office will mail the bound volume directly to all registrants.

## RESEARCH PROJECT

The Texas Highway and Public Transportation department and Federal Highway Administration recently completed an in-depth examination of five fly ashes produced in Texas.

The major objective was to develop laboratory procedures to quickly ascertain those characteristics of fly ash important to their utilization in soil stabilization and concrete.

Conclusions: There is a wide range of chemical compositions and physical characteristics between the different ashes and to a lesser extent within a given source of time.

Recommendations: Consideration should be given to checking fineness of random shipments using No. 200 Sieve.

Consideration should be given to "source qualifying" fly ash produced for Texas highway markets on a random schedule.

Results detailed in Research Report 240-1, "Analyses of Fly Ashes Produced in Texas."

### DOE, FHWA, EPA Reps

(Continued from Page 1)



which will soon be implemented. Ash is the first by-product to be recognized in this manner. Her presentation will conclude the Symposium at Wednesday's luncheon.

Ms. Hansen and Ms. Hansen and John Heffelfinger were the chief architects of the new EPA regs. The latter served as a member of the Symposium Steering Committee.

The Manager-Technical Support for Public Service Electric & Gas Company, Bowdren has directed the overall development of the Symposium program in cooperation with the NAA's Executive Director James Covey and other staff members.

He noted detail arrangements have been coordinated by Ms. Kathy Davis of Meeting Planning Associates of Menlo Park, CA and John Gillis of the NAA's Washington office.

Eight other agencies are co-sponsoring the program with the NAA including American Public Power Association, DOE, Edison Electric Institute, Environmental Protection Agency, Electric Power Research Institute, Federal Highway Administration, National Coal Association, and New York Power Pool.

### A Major Ash Producer, Ohio Is Emerging As Premier User

COLUMBUS, OH—For many years the State of Ohio has been a major producer of power plant ash and the Buckeye State is now emerging as one of the premier users of these coal byproducts.

The prime thrust at the moment is centered on the use of fly ash in the reclamation of abandoned mine lands although applications in the highway and building industries continue at a high level.

Both the Soil Conservation Service and the Ohio Department of Natural Resources have approved the use of ash as a soil amendment in the re-vegetative process.

A 17-acre tract in Gallia County, identified as the Little Kyger Creek Reclamation Project, has been successfully treated with fly ash and final engineering work is being completed on two other projects. One is on an adjacent tract in Gallia County and the second is in the Duck Creek Watershed in Noble County south of Caldwell.

In addition to specifying ash, the ODNR also permitted portions of the Kyger Creek spoil to be mixed with paper pulp sludge, municipal compost, composted municipal garbage, lime only, and borrow material.

Rusty Nida, an AEP engineer who coordinated the ash delivery from OVEC's Kyger Creek Station near Pomeroy, said the ash was applied at the rate of 800 tons per acre and disced into the spoil to a depth of 6 to 8 inches. The seed and fertilizer were added by an hydroseeder.

"When viewed in early June the fly ash area had a ground cover equal to or better than any of the other sections," Nida asserted.

Much of the data that has been assembled on use of fly ash in such applications came from earlier demonstration plots near Powhattan Point and Caldwell. These programs were coordinated by John P. Capp of the U.S. Bureau of Mines.

Additionally, Dr. Paul Sutton of the Ohio Agricultural Research and Development Center, has provided lab work and follow-up research on these two projects. His published work on the treatment of the toxic spoils found in Eastern Ohio has been widely circulated and accepted.

Persistence by the National Ash Association and member companies over the past nine years in promoting the concept with Federal and State agencies here at the capital has now paid off.

Ready-mix producers and concrete block manufacturers throughout Ohio have been using fly ash as a pozzolan for



Ash Recovery



Stockpiling of Ash



Re-vegetated Area in Gallia County

years. The Ohio Department of Transportation now allows the use of power plant ash in many highway applications such as Type 1P cement, unstablized bottom ash base and sub-bases, and lime-fly ash base courses.

Engineers in Toledo pioneered the development of a controlled density fill using fly ash under the trade name of K-Krete in 1974. Another enterprising businessman in the same community, J. Patrick Nicholson, is now producing and marketing pozzolanic concrete using both fly ash and kiln dust under the N-Viro trademark.

In 1972, Chevron Asphalt Company of Cincinnati mastered the formulation for ASHPHALT—a road base material utilizing power plant boiler slag and emulsified asphalt—in conjunction with William E. Morton of Highway Materials, Inc., and others.

Expressways here and in Cincinnati were among the first roadways to experiment with the use of Black Beatuy boiler slag as an anti-skid additive in asphalt overlays.

The DOT has utilized fly ash in the construction of structural fill of a bridge approach in Belmont County and have been using bottom ash for ice control during the winter for many years.



Viewing Noble Site



Philo Ash Pond