


ASH AT WORK

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EEI/NAA Communications Project Initiated; Julian Wise Hired To Implement Program

WASHINGTON — A coal by-products communications project designed to improve and expand the market potential for power plant ash has been initiated by the electric utility and ash industries.

The new pact was announced jointly by William McCollam Jr., president of Edison Electric Institute, and NAA President Tobias Anthony.

Hal F. Dunham, director of special projects and member services for EEI, will supervise the \$40,000 project and coordinate the activity with the Utility Solid Waste Activity Group Chairman Dave Parks of Baltimore Gas & Electric Co.

The major goal of the program is to utilize communications tools to reduce the regulatory impact of land disposal by:

1. Increasing the number of users of power plant ash,
2. Encouraging research into new applications,
3. Laying a constructive foundation for a continuing communications program that will assist the ash industry to attain a goal of 80 percent utilization.

A media specialist, Julian Wise, has been hired to implement the program and will be headquartered at the NAA offices in Washington.

Attention will be focused on both internal and external audiences. In-house programs will be directed to get utility executives to recognize the potential benefits to market and utilize power plant ash. Outside targets will include allies in the ash industry. Corporations who currently use ash or have the potential to do so, and would extend to academic institutions, corporate research labs or others could contribute to developing new uses, architects, engineers, consultants who could incorporate ash in construction specifications.

"Budget restraints dictate that efforts, at the outset, concentrate on activities that will have a multiplier effect rather than on a specific communications to an

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Wisconsin Electric Power Is NAA's Newest Member

Wisconsin Electric Power Company, headquartered in Milwaukee, is the newest utility member of the National Ash Association.

The firm's application for membership was approved at the June meeting of the Executive Committee, according to Board Chairman James P. Plumb. The NAA roster now includes 35 utilities operating one or more coal-fired electric generating stations.

Tommie J. Rodgers, Manager Technical Services & Control for WEPCO, has been named as the designated representative to the Board of Directors.



Mr. Rodgers

His alternate and the Technical Representative will be Frederick H. Gustin, Administrator Solid Waste Services.

The mid-west utility currently operates four coal-fired generating stations producing with a combined capacity of 2,724 MW of power. An additional 580 MW unit is to come on stream in 1985. The annual coal burn is in the 5.6 million ton range.

WEPCO serves about 2 million customers in a service area of 12,600 square miles. Founded in 1896, it is the largest electrical utility in the State of Wisconsin. The service area includes Metropolitan Milwaukee, the east-central and northern portions of Wisconsin and parts of the Upper Peninsula of Michigan.

In 1982, WEPCO was selected as the outstanding electric utility of the year by Electric Light & Power. The highlight of 1984 has been a lowering of electric rates.

Technical Report On Ash Use Sent To EPA

WASHINGTON — A technical report to support the development of Federal guidelines for the use of power plant ash in transportation construction applications has been submitted to the Environmental Protection Agency here for review.

The sponsors are requesting that Federal procurement guidelines similar to those pertaining to the use of fly ash in portland cement concrete be adopted by the agency.

Work on the document, prepared by Valley Forge Laboratories in Devon, Pa., was initiated jointly by Utility Solid Waste Activities Group (USWAG) of the Edison Electric Institute and the National Ash Association.

The American Public Power Association and the National Rural Electric Cooperative Association joined as signatories in the final presentation.

NAA President Toby Anthony said the 198-page report addresses all pertinent aspects of the use of coal ash in various transportation applications. Additionally, seven detailed appendices have been compiled to support the report outlining applications, specification data, and patent information on proprietary uses.

The presentors maintain the reuse of ash in the construction of transportation facilities has the capability of consuming large volumes of power plant ash, he added. Anthony noted this concept is consistent with Section 6002 of the Resource Conservation & Recovery Act (RCRA).

Federal funding plays an important, if

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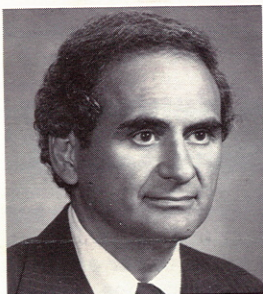


ASH AT WORK

James P. Plumb, Chairman of the Board

Allan W. Babcock, Editor

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NAA Message Board

Tobias Anthony
Executive Vice President

Recently, Edison Electric Institute (EEI), the Utility Solid Waste Activity Group (USWAG) and the National Ash Association joined in a program designed to communicate the value of utilizing coal ash. Mr. Hal Dunham, EEI dubbed the program "Utility Ash: America's Undiscovered Resource." That title is apt, but we should all be dismayed by what it connotes. America's fourth most plentiful mineral produced is not reaching industrial and consumer markets as it should.

The reasons are not difficult to find. Absence of name recognition is the first one to come to mind. Of the twelve most plentiful minerals produced, only slag and perhaps gypsum are as obscure. Certainly not coal, cement, stone, iron ore, etc. Not much is known by user industries, in general, about the fascinating properties of this synthetic mineral because coal combustion until the late 60's was subordinated by oil and gas. But as is usual in this nation of ours, a body of unnoticed scientists, engineers and technicians inside and outside of the electric utility industry poured out a plethora of facts about this material, anyway.

The partners in this communication program believe it is imperative to bring a message to users that it is essential to substitute less costly synthetics for natural materials. Aside from the point that we face depletion of these materials, in the past decade we faced cartellizing of prices by third-world nations. It is to our benefit that our domestic source of coal ash is huge. Not only do we estimate more than 800 million tons of it exists but some 700-800 million tons will be produced in only the next decade.

Our purpose, then, as outlined in the program is at least two-fold. First, utilities must organize internally to achieve the goal of 80% use of ash in the future. Secondly, we must explain how ash can be used profitably in a multitude of existing and undiscovered markets.

That is what has to be done. That is what we intend to do.

COMMUNICATIONS PROJECT DIRECTOR ON THE JOB —

Mediator Specialist Julian Wise, above, is shown at his desk in NAA headquarters familiarizing himself with the technical aspects of ash utilization during his first day on the job as development director for the coal by-products communications project being jointly undertaken by the Edison Electric Institute and the National Ash Association in cooperation with EEI's Utility Solid Waste Activity Group (USWAG). (See editorial by President Tobias Anthony above, and news story on Page 1.)



DAVIS RETIRES — James E. Davis, Senior Vice President (Bulk Power) for the Allegheny Power Service Corporation in New York, retired on June 30 and relinquished his position on the Board of Directors of the National Ash Association. During his 10-year tenure with the NAA, Davis was elected to serve three consecutive terms as the trade association's chief executive officer, starting in 1976. The APS executive was active in many other capacities and was a leading advocate of electric utility participation in promoting ash utilization. He will be replaced as the APS designated representative by Charles S. Ault, Director, Fuels, and headquartered in the firm's Greensburg, PA offices.

Thanks, Jim, we'll miss you!

TECHNICAL REPORT

(Continued from Page 1)

not dominant, role in all forms of transportation construction including highways, airports, railroads, waterways, subways and other mass transit systems.

NAA members who participated in the study included Dave Parks and Don Ward, Baltimore Gas & Electric Co.; Dennis L. Kinder, American Electric Power Service Corporation and KBK Enterprises, Inc.; Steve Benza of Pennsylvania Power & Light Co. and KBK Enterprises, Inc.; Allan W. Babcock, Allegheny Power Service Corporation; Robert Collins, Valley Forge Laboratories; John H. Faber, Faber Associates and former NAA Executive Director; and Roy Aaron, former NAA technical director.

PLANS FOR SEVENTH INTERNATIONAL SYMPOSIUM/EXPOSITION ON SCHEDULE

Papers Due August 1; Exhibit Layout Is Set

WASHINGTON — Plans are moving ahead on schedule for staging the Seventh International Ash Utilization Symposium/Exposition at the Sheraton Twin Towers in Orlando, Florida, on March 4-7, 1985, according to Co-Chairmen Allan W. Babcock and Jack Weber.

NAA staff members met here recently with representatives of Meeting Planning Associates to review the myriad of details relating to registration, housing, exhibits, technical presentations, and special tours.

The MPA team is headed by President Kathy Davis. Others assisting with the symposium preparations for the California consulting firm are Jill Higgins and Marcie Freeman.

The Technical Advisory Committee will meet here on August 6 to begin the screening process of abstracts of technical papers presented for consideration. Chairman Ronald Morrison has indicated priority will be given to topics relating to "hands on ash applications, rather than blue sky research proposals."

"Once the presenters have been selected, we can begin to put the program together and schedule the daily sessions," Chairman Babcock related.

At this writing, more than 20 abstracts have been received, including two papers by Hungarian ash technicians.

Papers have been solicited on ash applications relating to highway construction - sub-base, bases, flexible and rigid pavements; structural fills; injection grouting; the treatment of acid-bearing spoil banks and sanitary landfills; ash management techniques; uses in cement manufacture and concrete products.

During the planning discussions, a contract was approved with Astar Expositions, Inc., of Orlando, to handle the exhibits at the convention center.

Co-Chairman Weber explained the preliminary floor layout contains 31 booths for exhibits or live demonstrations. Space in the Exhibit Hall has been priced at \$9.50 per square foot, with a minimum of 100 square feet.

Meanwhile, advance registrations for the symposium are being accepted by the NAA's Washington headquarters. The fee has been set at \$340 through January 14, with late bookings jumping to \$390 after that date.



SYMPOSIUM PLANNING SESSION — NAA President Tobias Anthony, at left, is shown discussing plans for the upcoming Seventh International Ash Utilization Symposium/Exposition with members of the Organizing Staff. The group includes (left to right) President Anthony, Ms. Jill Higgins (Meeting Planning Associates), MPA President Kathy Davis, NAA Staff Assistant John Gillis, Ms. Marcie Freeman of MPA, and Co-Chairman Jack Weber.

HERE & THERE

OAKLAND, CA — Kaiser Engineers Corporation is evaluating the marketing and revenue potential of a coal ash Direct Hydrochloric Acid Leaching Process (DAL) developed by the Oak Ridge National Laboratory.

The DAL process would utilize both currently-produced ash and previously-disposed ash, including fly ash and bottom ash, and convert the ash into saleable products.

Another plus for utility producers would be elimination of ash disposal practices and the reclamation of land previously dedicated for disposal - both items representing ever increasing operating costs.

The study is being financed by the Electric Power Research Institute to promote greater ash utilization.

The multi-stage DAL process first extracts all the acid solubles such as calcium, magnesium, sodium, potassium, iron, etc. The insoluble ash residue is washed to remove all soluble acidic materials from the leached ash product composed primarily of inert aluminum silicate and silica particles.

Major products are metallurgical alumina, high purity iron oxide, and leached ash for the paint, paper, rubber, plastic and cement industries as fillers, extenders, pigments, and admixtures.

LANSING, MI — A three-year research program for the utilization of fly ash in agriculture has concluded that the ash can substantially increase the crop yield in coarse textured soils.

The report, issued by the Department of Crop and Soil Sciences at Michigan State University, said application rates as high as 300 tons per acre are possible where ash is used as a soil amendment.

The results indicated the potential value as a fertilizer is limited although when used to modify coarse soils and increase water retention capacity, the fly ash can raise the crop yield potential.

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SHEPHERDSTOWN, WV — A procedure is being developed for the possible pre-approval of fly ash sources by the U.S. Corps of Engineers.

John H. Faber of Faber Associates has been awarded a contract by the Corps of Engineers to develop and produce a "Pozzolan Quality Management System" for acceptance testing of fly ash.

Faber, one of the founders of the National Ash Association and its first executive director, said the PQMS is intended to provide the agency, and others who follow policies and guidelines relative to the placement of fly ash concrete, with a quality assurance program for pozzolans by establishing qualified sources of these materials and verifying the compliance of materials shipped from these sources with specification requirements.

The program is being developed as an appendix to Regulation No. ER 110-1-202 issued in January 1984.

Faber is being assisted by William Miller, a former chemist at the Corp's Vicksburg laboratory, in the preparation of the report.

Ash Production Exceeds 70 Million Tons In 1983

WASHINGTON — Production of power plant ash exceeded 70 million tons in 1983 for the first time in four years, according to preliminary data compiled by the National Ash Association. The total was listed at 70.29 million tons.

The previous all-time high of 75.2 million tons was registered in 1979.

The totals included 52.35 million tons of fly ash, 14.0 million tons of bottom ash, and 3.94 million tons of boiler slag.

During the same period the nation's electric utilities burned about 600.12 million tons of coal. The National Coal Association placed the figure at 624 million tons of bituminous, sub-bituminous, and lignite coals and 1 million tons of anthracite fuel.

The NAA data also indicated ash utilization dipped to 12.81 million tons for a percent of 18.2 percent during the 12-month period. Corresponding figures for 1982 were 13.55 million tons and a percentage of 20.7.

A breakdown of the use totals were 7.52 million tons of fly ash (14.2%), 1.34 million tons of bottom ash (19.7%) and boiler slag 2.53 million tons (64.2%). Thus, boiler slag was the only unit to show an increase with utilization up 790,000 thousand tons for a healthy 19.1% increase.

Regional totals depicted utilization gains in the Midwest from Texas-Louisiana to the Dakotas, the Rocky Mountain area, and the southeastern states of Kentucky, Tennessee, Mississippi, and Alabama. The largest gains were noted in the Southwest Sun Belt area.

The use of fly ash in cement and concrete products was up almost a million tons from a year ago with the comparative numbers 2.68 and 3.62, respectively. Overall the external utilization of fly ash amounted to 5.14 million tons in 1983 and 4.54 the previous year.

Use of bottom ash, on the other hand, dropped from 2.02 to 1.42 million tons with the largest reduction being recorded in highway construction applications.

Boiler slag use registered gains in cement products, structural fills, and as a blasting grit. Losses were noted as a asphalt filler and for snow and ice control.

EEI/NAA PROJECT

(Continued from Page 1)

audience," Wise related.

The campaign will be launched with an article in EEI's magazine, *Electric Perspectives*. This will follow a recent communication to utility CEO's by EEI President William McCollam.

1. EXTERNAL UTILIZATION	FLY ASH	BOTTOM ASH (Dry)	BOILER SLAG (Wet Bottom-Cyclone)
a. Cement & concrete products	3.62	.43	.32
b. Structural fills	.60	.25	.23
c. Road base	.24	.25	.06
d. Filler in asphalt mix	.09	.006	.008
e. Snow & ice control	.0001	.42	.23
f. Blasting grit and roofing granules	- 0 -	- 0 -	1.56
g. Grouting	.17	- 0 -	- 0 -
h. Coal mining applications	.16	- 0 -	.01
i. Miscellaneous	.26	.06	.01
Total External Utilization	5.14	1.42	2.43
2. INTERNAL UTILIZATION			
a. Cement & concrete products	.002	- 0 -	- 0 -
b. Structural fills	.79	.86	.05
c. Road base	.29	.09	.002
d. Miscellaneous	1.30	.39	.05
Total Internal Utilization	2.38	1.34	.102
3. TOTAL ASH UTILIZED (Totals of 1 & 2)	7.52	2.76	2.53
4. ASH REMOVED TO DISPOSAL AREA AT COMPANY EXPENSE WITH NO UTILIZATION	44.83	11.24	1.41
5. TOTAL ASH PRODUCED (Totals of 3 & 4)	52.35	14.07	3.94



DUTCH REPRESENTATIVES VISIT UNITED STATES — Three ash exponents from Holland are shown above at NAA headquarters in Washington, opening a 10-day visit to the United States to observe ash handling, marketing, and application techniques with emphasis on environmental considerations. The group includes (left to right) NAA Staff Assistant John Gillis; Ing S. Prins, Managing Director, Dutch Fly Ash Marketing Corporation; H.H.J. Meijerink, Secretary of the OGKR; NAA President Toby Anthony; and Ir F. Stibbe, Technical Director, Dutch Fly Ash Marketing Corporation. During their stay, the trio met with AEP's Ronald E. Morrison and APS's Al Babcock in Charleston, WV; Craig Cain of American Fly Ash Company in Chicago, and PPL's Charles Tackett in Allentown, Pa.