


ASH AT WORK

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NAA Participates In Technology Exchange With U.S.S.R.

TVA's Falkenberry, Bell And Faber Are Co-Hosts

WASHINGTON—The National Ash Association played a major role in the recently concluded 10-day technology exchange by the US/USSR Joint Project Group on the Design and Operation of Air Pollution Reduction and Waste Disposal Systems for Thermal Power Plants.

Executive Director John H. Faber served as a co-host with Harold Falkenberry and Ron Bell of Tennessee Valley Authority. Mr. Falkenberry is co-chairman of the Joint Project Group with V. I. Gorin of the USSR.

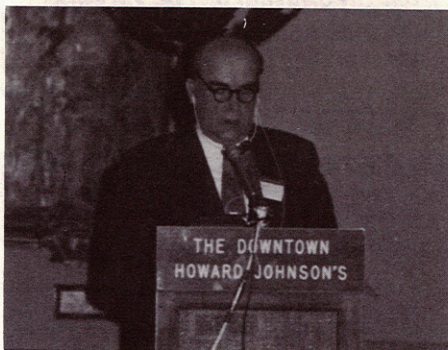
NAA members participated in the event by hosting luncheon meetings, power plant tours, and/or presenting technical papers. The five-man USSR delegation began their visitations in the New York-New Jersey area, held a technical session on Liquid Effluent Control in New Orleans, visited facilities in the Chicago area, and concluded the program here at a luncheon and signing of protocol hosted by the Industrial Gas Cleaning Institute.

The program was the third in a series of exchanges that began in 1977. Last year's program was staged in the Soviet Union.

Faber chaired one of the technical sessions in New Orleans. James P. Plum of Houston Lighting & Power presented a report on HLP's ash disposal system at their Parish Station and John Pizzella of Potomac Electric Power referenced PEPCo's "Liquid Effluent



US/USSR Joint Project Group in New Orleans



V. A. Zazulin

Control From Dry Ash Disposition." William Webster, a consultant to the NAA, discussed "Water Scrubbing Particulate Removal."

On the opening day the delegates visited Public Service Electric and Gas Company's Hudson Generating Station; American Electric Power hosted the second program; and American Admixtures shared a three-day stop-over in Chicago with visitations to Waukegan, Will County, and Joliet power stations.

(See TVA's on Page 3)

Eight New Utilities Join NAA; Position Roles Are Clarified

Six electric utilities operating coal-fired generating stations have enrolled in the NAA's new Technical Awareness Program and two others have verbally asked membership acceptance.

Executive Director John H. Faber identified the new enrollees as Florida Power & Light Co. of Miami, FL; Central and Southwest Services, Inc. of Dallas, TX; Omaha Public Power District of Omaha, NE; Iowa Power and Light Company of Des Moines, IA; Philadelphia Electric Co. of Philadelphia, PA; and Colorado-Ute Electric Association, Inc. of Montrose, CO.

Additionally, Texas Utilities and Colorado Public Service Company are processing applications.

Director Faber also disclosed position statements clarifying the role of the Edison Electric Institute, the Electric Power Research Institute, and the

(See EIGHT NEW on Page 4)

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HOW TO KILL AN ASSOCIATION

Don't participate beyond paying your dues—let "them" handle things.

Then complain that members have no voice in management.

Decline all offices and committee appointments—you're too busy.

Then offer vociferous advice on how they should do things.

If appointed to a committee, don't work—it's a courtesy appointment.

Then complain because the organization has stagnated.

If you do attend management meetings, don't initiate new ideas.

Then you can play "Devil's Advocate" to those submitted by others.

Don't rush to pay your dues—they're too high anyway.

Then complain about poor financial management.

Don't encourage others to become members—that's selling.

Then complain that membership is not growing.

Don't read the mail from headquarters—it's not important.

Then complain that you're not kept informed.

Don't volunteer your talents—that's ego fulfillment.

Then complain that you're never asked; never appreciated.

And, if by chance, the organization grows in spite of your contributions

Grasp every opportunity to tell the youngsters how tough it was; how hard you worked in the old days to bring the organization to its present level of success.

(Reprinted from the Journal of The Virginia Academy of Family Practice)

Personal Profile Eugene O. Goeb

WILLOUGHBY, OH—Eugene O. Goeb, a veteran cement technologist, has been named vice president engineering for Penn Virginia Materials Corporation whose major product line is Viall Fly Ash Pozzolan.

His primary responsibility will be as a liaison with the electric utility industry in the area of recycling power plant ash. Other duties include quality assurance, market research, and technical information management.



Prior to joining Penn Virginia, Goeb was director of marketing services for Medusa Cement Co. Earlier he served as manager of the ready-mix section and a field engineer for the Portland Cement Industry and was formerly technical service director and sales manager for the Huron Cement Co.

Viall Fly Ash Pozzolan has been used for over 20 years to improve the workability and durability of concrete products and as an additive in structural concrete, concrete blocks, pre-cast concrete, and ready-mix applications.

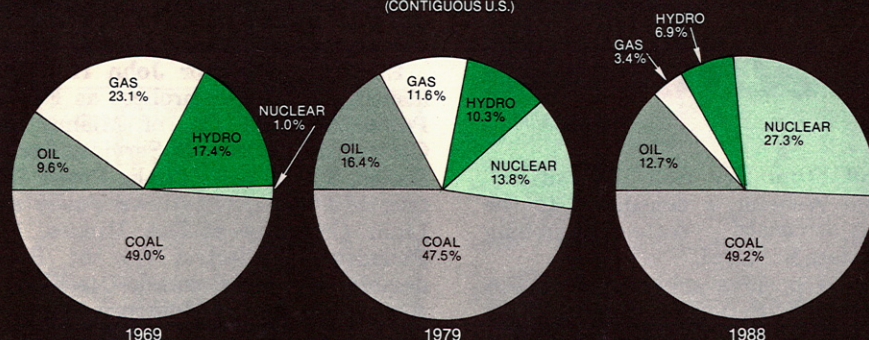
Goeb received a B.S. degree in civil engineering from Marquette University and is a registered professional engineer. He is a member of the American Society for Testing Materials and American Society of Civil Engineers.

Other activities included participation in Prestressed Concrete Institute, National Concrete Masonry Association, Masonry Cement Research and Education Group, the Great Lakes Paving, Region Paving Promotion Committee of the American Concrete Paving Association.

ELECTRIC GENERATION BY PRINCIPAL ENERGY SOURCES*

FIGURE 4

(CONTIGUOUS U.S.)



*DIFFERENCE BETWEEN SUM OF PARTS AND 100% REPRESENTS SHARE OF ELECTRIC GENERATION BY SOURCES NOT SHOWN, INCLUDING NET PUMP STORAGE REQUIREMENTS.

(CHART—Courtesy National Electric Reliability Council)



Power Plant Ash Represents \$100 Million Industry

WASHINGTON (AP)—There's cash in coal ashes. Ask the National Ash Association who predicts industry sales will reach \$100 million annually by the mid-1980's.

These figures were given added credence by President Carter. He has called for electric utilities to triple coal burning by 1995 to reduce U.S. dependence on foreign oil. That would mean the production of more ashes.

"We're gratified by the president's goal," said John Faber, executive director of the worldwide group that includes companies in England, France, Spain, Canada and Australia.

Some European nations are more advanced in ash research, says Faber, but this country isn't exactly standing still.

Many people envision ash as only an additive in cement (pozzolan) products or as a spread for icy sidewalks.

Transformed by science, coal ashes wind up in building blocks, sanitary landfills, roadbeds, plastic furniture, sandblasting materials, roofing granules, asphalt mixes, automobile parts and structural fills.

One exotic form of ash may go into space. Extremely strong and light substances called cenospheres have been tested and approved for the nose cones of space shuttles. At \$500 a ton, they could be one of the cheaper ingredients of the multi-billion-dollar NASA project.

Even clinkers aren't clinkers in the world of commercial ashes.

"We sell about 40 percent of them," said Faber. They form a base for skid-control materials that take the place of sand and salt on icy winter roads. These aren't your huge clinkers—they're about ¼ to ½ inch in diameter.

Faber threw in a bit of history: "Coal ashes are almost identical to volcanic ashes that were used 2,000 years ago in building the aqueducts and coliseums of ancient Greece and Rome."

But ashes have come a long way since then, and the end isn't in view. To coordinate technology, an international ash utilization organization will be developed within the next six months. Ash seminars and meetings are held regularly.

There's another bonus from ashes. Since most producers are coal burning utilities, profits from ash sales lead to smaller electric bills for consumers.

"Savings could amount to several billions of dollars after we reach 40 percent utilization in about five or six years," said Faber.

Congressional Action Says Utilities Must Use Coal

WASHINGTON (UPI)—Sen. Wendell Ford (D-KY) has introduced legislation that would require 66 electric power plants in 19 states and the District of Columbia to begin burning coal rather than fuel oil.

The amendment to the Energy Supply Act would direct the Energy Department to issue conversion orders to all electric generating plants identified by the President's Commission on Coal as capable of using coal.

Ford said the Power Plant and Industrial Fuel Use Act of 1978 gave the energy secretary authority to order utilities to use coal but did not make the switch mandatory—something he would like to change.

The Kentucky senator noted the commission estimated the switch would cost utilities \$5.2 billion by 1985.

The states are Maryland, Massachusetts, New York, Maine, Illinois, New Jersey, Delaware, Michigan, Georgia, Connecticut, Kansas, Oklahoma, Nebraska, Pennsylvania, Colorado, New Hampshire, Florida, Virginia, and Wisconsin.

Utilities operating the plants that would be ordered to switch to fossil fuel include Baltimore Gas & Electric, Boston Edison, Central Hudson Gas & Electric, Central Maine Power, Commonwealth Edison, Consolidated Edison, Deepwater Operating, Delmarva Power & Light, Detroit Edison, Georgia Power, Jersey Central Power & Light, Hartford Electric Light, Kansas Power & Light.

Long Island Lighting, New England Gas & Electric, New England Power, Niagara Mohawk, Northeast Utilities, Oklahoma Gas & Electric, Omaha Public Power, Orange and Rockland Utilities, Philadelphia Electric, Potomac Electric Power, Public Service of Colorado, Public Service of New Hampshire, Public Service Electric & Gas, Savannah Electric & Power, Tampa Electric, United Illuminating, Virginia Electric Power, and Wisconsin Public Service.

Currently, only 25 percent of total ash production is being used. That leads to a question that has plagued the industry since its start and will get thornier as coal burning increases.

Where do you stash big caches of ashes?

"They go into what we like to call storage," said Faber. "You have to expect some big mounds of ashes around in places." But he noted ashes often improve eyesore locations through covering and filling in.

TVA's . . . (Continued from Page 1)

Members of the USSR delegation were V. YE Denisov, G. S. Chekanov, V. A. Zazulin, M. V. Pechenkin, G. V. Martynov. Mr. Zazulin, Chief Specialist of the Institute "Teploektroproyekt" (Heat and Power Design), acted as principal spokesman.

Two representatives of the Environmental Protection Agency, Frank T. Princotta and Julian W. Jones, also addressed the group. Jones reviewed "Effluent Treatment and Recycle Technology to Meet Regulations For Coal-Fired Steam Electric Plants."

Poland Seminar Set

BIELSKO-BIALA, Poland—Papers are being solicited for a "Seminar on the Extraction, Removal, and Use of Ash From Coal-Fired Thermal Power Stations" to be held here September 16-20, 1980.

The program is to be held under the auspices of the United Nations Committee on Electric Power. It is being organized by the Government of Poland with the assistance of the Enterprise for the Utilization of Waste from Electric Power Stations.

Three major groups of topics on which papers may be submitted for consideration are (1) Installations for the collection, extraction, fractional separation and removal of fly ash and slag produced by coal-fired stations; (2) Proposal for the use of fly ash and slag, and (3) Dust control in the storage and transport of fly ash.

The last UN sponsored ash seminar was held at Ankara, Turkey in November 1970. A large delegation of ash technologists, headed by NAA Director John H. Faber, represented the United States at that session.

Randolph Seeks RCRA Delay On Power Plant Ash

WASHINGTON—Senator Jennings Randolph (D-W.Va.) sees a "very good chance" that the bill as enacted by Congress this year to extend the Resource Conservation and Recovery Act (RCRA) will include a provision postponing regulation of power plant ash as a hazardous waste.

It is already in the Senate version of the legislation (S. 1156), thanks to a floor amendment strongly endorsed by the West Virginian as Chairman of the Environment and Public Works Committee.

If similar language is not embodied in the bill on the subject passed by the House, he has made it clear he will work hard to have the Senate amendment retained in conference on the legislation.

"The postponement is fully justified in the absence of any clear showing of hazardous characteristics in that material", Randolph asserted in a statement here. "Re-use of this type of by-product is entirely in keeping with one of the primary goals and purposes of the resource conservation and recovery program and it would be extremely unfortunate if regulations were imposed limiting such utilization unless they are shown to be necessary."

Randolph said he was "gratified and encouraged" by the decision of the Environmental Protection Agency to proceed with a comprehensive study of the issue even before there is final action on the extension bill.

He said he had been advised that the agency has, with industrial concurrence, selected 16 "representative" sites for the purposes of the study and evaluation of utility wastes and that the undertaking would begin shortly on a contract basis.

The study is expected to take a year or more to complete, he said he was told.



IMPROVING OUR ENVIRONMENT may be a matter of not trying to "improve" our environmental protection regulations.



COAL CONVERSION—A pointed pitch for converting oil and gas burning utility plants came recently during the meeting between lawmakers and Administration officials. Senator Jennings Randolph (D-WV), chairman of the meeting, is shown above greeting Secretary of Energy Charles Duncan (left) and EPA Administrator Douglas Costle. Senators Birch Bayh (D-Ind) and John Warner (R-VA) flank Randolph. During the two-hour meeting, Duncan promised immediate action on utilizing present laws to increase coal use and said new legislation will be coming to Capitol Hill soon to speed coal conversion efforts.

Fly Ash Aids In SO₂ Removal

An official of Peabody Process Systems says fly ash can be effectively utilized to remove SO₂ from boiler flue gases.

In an article appearing in the June issue of *Power Engineering*, Carlton Johnson reports fly ash is an attractive and viable alternative to conventional lime/limestone scrubbing systems.

Ash used as a source of alkali values to partly or completely supplant lime/limestone in scrubber systems can

reduce initial and operating costs and improve system reliability, Johnson relates.

He summarized the economic benefits as including (1) elimination of alkali cost, (2) reduction in power consumption, (3) reduction in initial capital investment, (4) reduction in waste solids handling and disposal cost, and (5) improved system reliability.

NAA members may obtain copies of the report by contacting the association's Washington office.

EIGHT NEW UTILITIES JOIN NAA

(Continued from Page 1)

National Ash Association in promulgating the continued and expanded use of all recycled ash by-products are being sent to utility executives across the country.

The message is contained in a letter from EEI President William McCollam Jr. and in EPRI's monthly Executive Report. EPRI identified the functions of each agency under the general title of "Coal Waste Utilization: A Necessary Alternative" as follows:

EPRI—EPRI, through projects both underway and planned, will develop technical data based on coal waste properties, carry out demonstrations of generic utilization options, and develop

economic and environmental impact data;

EEI—EEI, through its ad-hoc Utility Solid Waste Activities Group and working in the regulatory arena, will utilize this and other data to influence governmental agencies not to prohibit intentionally or unintentionally the use of coal ash products by regulation;

NAA—NAA will provide a central clearing house for information on use and re-use options, disseminate this information particularly to potential user industries, provide case-by-case technical assistance to help utilities and potential customers determine the suitability of ash use in specific instances, and promote the desirability of ash use to industry and the interested public.