ASH AT WORK

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BULLETIN

PHOENIX, AZ.—A streamlined version of the Ash Short Course will be held at the Arizona State University campus here on November 27-28 for ash producers and users in the Far West.

The program will be co-sponsored by ASU, West Virginia University, Engineers Testing Laboratories, Inc., and the National Ash Association.

Dr. John Rosner is to serve as Program Coordinator for the event. The topics will focus on general and subbituminous ash applications.

Ash Congress Attracts Technical Papers

New Lightweight Aggregate Plant Opened by Lytag

HENSALL, Eng.—A new $4 million Lytag lightweight aggregate plant was officially opened here on April 14 in ceremonies by Sir Maurice Laing, Chairman of John Laing & Son, Ltd., and Glyn England, Chairman of the Central Electricity Generating Board.

The new facility, located adjacent to GEGB's Eggborough Power Station, is the third and largest Lytag factory in operation. Others are at Tilbury in Essex and Rugeley in Staffordshire.

Lytag is an aggregate manufactured from pulverized fuel ash (PFA) and will utilize up to 50% of the Eggborough ash production. The ash will be fed via a dry pumping system along a 1 km (0.6 mile) pipeline.

NAA Executive Director John H. Faber and his wife, Jean, were special guests at the plant dedication. While in England, Faber also finalized plans for the Ash Technology Exchange Congress with CEGB officials.

At peak production the highly automated plant, which is operated on a 24-hour shift basis, has an output capacity of 5,000 m^3 a week.

Basically, the PFA is fed into pellitizers which produces the nodules of "green" pellets. These are taken by conveyor belt to the sinter strand which cures and hardens the Lytag at a temperature of 1,300 C°. It is then passed through grading screens into storage hoppers or on-site stockpiles.

The Lytag organization markets the aggregate for a variety of applications

(See LYTAG on Page 2)

LONDON—Papers from ash experts in nine nations have been submitted for presentation at the Ash Technology Congress to be held here on October 23-25, according to Program Chairman John K. Dent. Entries will be received until July 31.

The group includes six submissions from the United States. Other countries represented include Romania, Finland, Hungary, India, Canada, Germany, England, and France.

The Congress is being co-sponsored by Central Electric Generating Board, who has the responsibility for operating the electric utility network in the United Kingdom, National Ash Association, and AERE Harwell.

Topics range from the recovery of metals from fly ash, concrete mix proportioning, optimum grinding technology of fly ash cements, experimental cements with fly ash, German Black Coal Remainder—kinds and uses, PFA as structural fill materials.

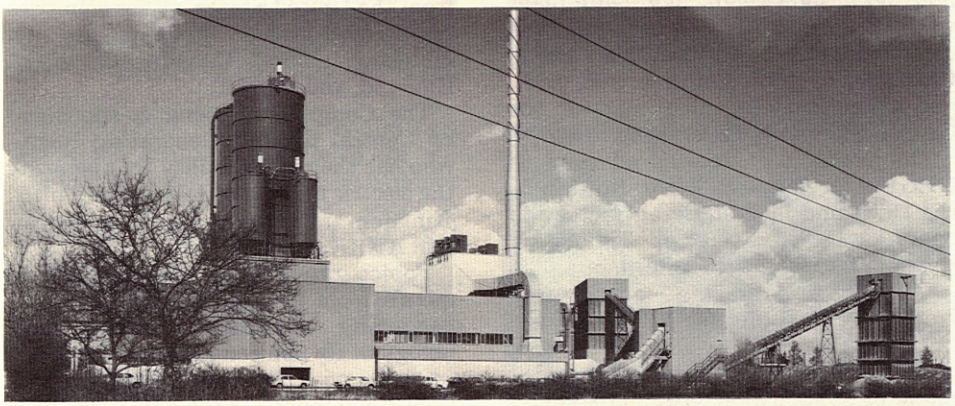
NAA members offering papers were: (1) Dr. Roger K. Seals—West Virginia University; "Evaluation of the Behavior of Compacted Fly Ash Fills In-situ Methods; (2) Craig J. Cain—American Admixtures: "Concrete From High CaO Ashes and or Structural Fills and Storage"; (3) Paul J. Wright—Woodbine Corporation: "Lime and Fly Ash—A Winning Combination for Injection Stabilization."

(4) William F. Scrimminger—Musko-

(See LONDON ASH on Page 4)

IN THIS ISSUE

TEST SINTER STRAND—*With directions from Board Chairman Sir Maurice Laing (far left), CEGB Chairman Glyn England (center) gently places his hand over lightweight aggregate pellets as they emerge from the 1,300 degree ignition hood as LYTAG's Brian Horlar (right) looks on. Mrs. England is standing behind her husband.*



Overall View of LYTAG's New $4 million Eggborough Plant.

LYTAG. . . *(Continued from Page 1)*

in the construction industry to take advantage of its light weight, fire resistance, thermal and sound insulation qualities. Products include structural concrete, building blocks, refractory concrete products, screeding, and cladding.

It has also proven highly effective in highway escape ramps and as a growing and drainage medium in horticulture.

In his remarks, Chairman Laing traced Lytag's 25 year history in the lightweight aggregate field. "We believe that it is still the only technically and commercially proven process in the world to convert fly ash to lightweight aggregate," he noted.

"Only three other plants are known to exist, he added, "One in Britian, one in the United States, and one in West Germany." Nine other plants are known to have been built but have failed, Laing noted.

He admitted the firm "lost what to us was very large sum" for the first 10 years.

The CEGB head (England) cited the "joint enterprise" as an example of the way the utility puts to productive use what otherwise would be industrial waste.

He reported the Lytag operation will recycle "roughly 250,000 tons of PFA from the Eggborough station which means that uses in civil engineering have now been found for 75 percent of the station's ash."

The utility executive revealed the CEGB is processing overseas inquires for PFA from continential Europe, Syria, Saudi Arabia, and Africa.

The CEGB and Lytag have been partners since the first Lytag plant was commissioned at Northfleet Power Station in Kent in 1960. It is now closed.

Personal Profile

Paul G. Vial Jr.

Paul Vial, executive vice president of Penn-Virginia Materials Corp., has been active in ash marketing for 15 years. He started his career while a college freshman at Bowling Green University.

He had his basic training under the tutelage of his father, the late Paul Vial Sr.—one of the early exponents of ash utilization in the United States. His first assignment was working with Poz-O-Pac base mixes.

The 32-year-old Vial took over the management of the Vial Fly Ash Company in 1972 upon the death of his father. The firm was merged with Wheelwright Corp. a year later which became an operating subsidiary of Penn-Virginia in 1976.

Operating out of Eastlake, OH, the firm markets fly ash pozzolans in nine states including Ohio, Illinois, Indiana, Pennsylvania, West Virginia, Kentucky, Wisconsin, Tennessee, and Alabama.

Ash suppliers include Ohio Edison, TVA, Cleveland Electric Illuminating Co., and Wisconsin Electric Power Co.

Paul graduated from Bowling Green in 1968 with a B.S. degree in Business and later earned his MBA from Case-Western Reserve University.

A member of the National Ash Association since its inception, Vial became a vice president at the association's April meeting.

Lankard Research Is Open

COLUMBUS, OH—Lankard Materials Laboratory, Inc. has opened a facility here to provide research, development, and consulting services to the producers and users of a variety of construction, building, and refractory materials.

President David R. Lankard said his firm is prepared to address problems relating to the production, performance, and applications of pozzolans (fly ash), cements, concretes, and monolithic refractories.

Ash to Play Role in Pot Hole Attack

TOLEDO, OH—A highway industry association, with key Congressional support, is proposing Federal action to find a solution to the problem of the potholes that plague the nation's roadways.

The American Pozzolanic Concrete Association (APCA) urged that new technologies be developed to replace present outdated road construction and maintenance techniques at its recent annual meeting.

Two recycled products—Poz-O-Pac and/or N-Viro-Crete—are recommended by APCA as one solution. The Pozzolanic concrete mixes utilize fly ash, lime or kiln dust as the key ingredients with the aggregate.

The most significant argument favoring the use of pozzolanic concrete is that the material has a higher impermeability to water than other basemixes and is less affected by the freeze-thaw cycles that produce potholes. In addition to its durability, the waste mixes are less expensive than conventional asphalt or concrete bases.

Congressman Thomas L. Ashley (D-Ohio), Chairman of the House Energy Committee, emphasized the need for developing procedures to "reduce energy consumption in every possible manner, including our road and highway programs."

The Ohio lawmaker pledged his support of the group's actions and lauded their efforts to develop more durable and less expensive roadbase materials in lieu of energy intensive materials.

APCA's Executive Secretary, Dick Merkel, has suggested a study be carried out by Congress' Office of Technology Assessment in conjunction with the release of funds for pothole repair.

Highway engineers all agree that such expenditures of Federal tax dollars will not provide any long-range help for reducing the pothole problem, he added.

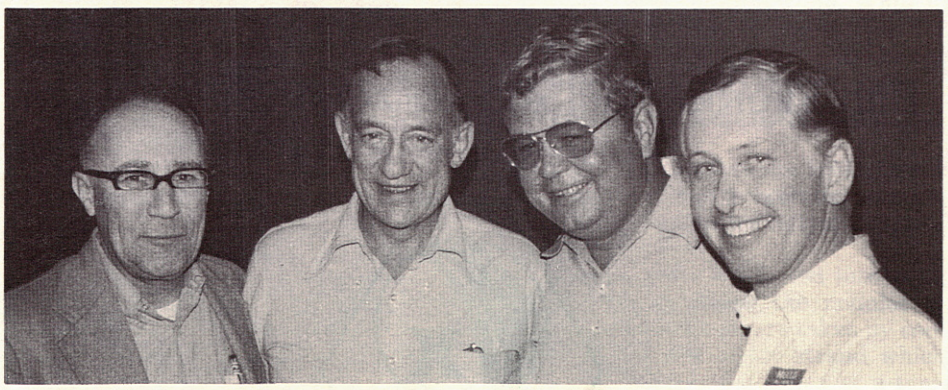
The head of a nation-wide pavement evaluation firm stated at the ACPA convention that pozzolanic pavements now in use "are demonstrating high degrees of durability." The speaker was Robert Novak, president of Novak, Demsey and Associates.

Using sophisticated measuring procedures, Novak's firm has developed a program to provide for an evaluation of existing pavement conditions and recommendations for priority and methods of pavement repair.

"Pozzolanic pavements have exhibited very favorable results in every area of evaluation, measured by the reduced severity and frequency of cracks, deformations, and failure areas," Novak said.

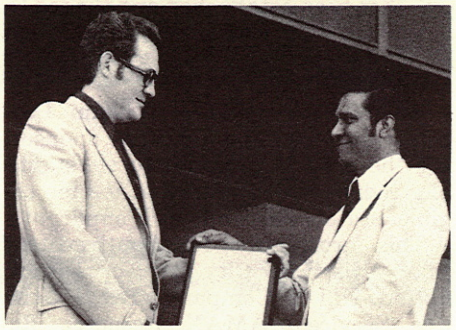
Others who addressed the group and their topics, were: Dr. E. E. Barenburg, University of Illinois, "Energy and Durability Considerations in Highway Design"; Dr. David Conley, University of Toledo, "Late Season Construction With Pozzolanic Concrete" and "An Engineer's Overview of N-Viro-Crete"; and Jack Snyder, Battelle Institute, "Battelle and Pozzolanic Concretes."

Newly elected officers of ACPA included B. Lawrence Seabrook of IU Conversion Systems, Inc., Philadelphia, president; Craig J. Cain of American Admixtures Corp., Chicago, vice president; and J. Patrick Nicholson of Nicholson Industries, Toledo, secretary.



OFFICERS OF NEW APCA ORGANIZATION—The officers of the newly formed American Pozzolanic Concrete Association are shown above with an Ohio Congressman who has endorsed the use of one of two ash oriented recycled products—Poz-O-Pac or N-Viro-Crete—as a possible answer to the nation's highway pothole problem. They are (left to right): Vice President Craig Cain of Chicago, Congressman Thomas L. Ashley (D-Ohio), Secretary J. Patrick Nicholson of Toledo, and President Larry Seabrook of Philadelphia.

HERE & THERE



EP SHARES AWARD—Phil Gibbs, (left), development manager of Kansas City's Executive Park, and Dr. Ramesh C. Joshi, project engineer for Woodward-Clyde on the project, display project award received from the Consulting Engineers Council of Missouri for engineering excellence in recycling power plant fly ash as an economical construction material in the development of the business and commercial complex. Fly ash was stabilized with 10 percent Portland cement to construct base courses under streets and parking lots in the park. Research during the program also determined that fly ash can be used for subsurface fill purposes.

ACI SETS FORUM

MILWAUKEE, WI.—A three-hour symposium to provide a forum for the dissemination of data on the causes and prevention of deterioration of concrete will be one of the highlights of the Annual ACI Convention here on March 22, 1979, according to Technical Chairman Tarun R. Naik.

Papers will be considered for oral presentation or publication in the proceedings in the following areas: (a) deterioration of concrete exposed to sulphate soils, sea water, sewage, chemical plants, paper mills, etc; (b) deterioration of bridge decks, parking garage floors, pavements, etc; (c) investigation and repair or deteriorated concrete; (d) case histories of performance and failure investigations; and (e) new research.

Abstracts are due by September 22. Submissions are to be sent to Dr. Naik, Civil Engineering Department, University of Wisconsin-Milwaukee, P.O. Box 784, Milwaukee, WI 53201.

The symposium is being sponsored by the Wisconsin Chapter of ACI. Bryant Mather, chief of the concrete Laboratory at the U.S. Army Engineers Experiment Station at Vicksburg, MI., will be the keynote speaker for the ACI event.

Public Employees Eligible for Scholarship to Ash Course

COLLEGE STATION, TX—A unique scholarship program for public officials has been established and funded to encourage their participation in the Ash Management Conference to be staged here on September 25-27.

Program Coordinator William Ledbetter disclosed nine firms are sponsoring the $10,000 program to substantially reduce the registration fee for eligible state and municipal applicants.

This group includes Southwestern Public Service, City Public Service, Gifford-Hill & Company, Texas Utilities Services, AMAX Resource Recovery Systems, Inc., Houston Lighting & Power Co., Texas Power & Light Co., General Portland, Inc., and Texas Industries (TXI).

Others aiding the host agency, Texas Transportation Institute, with the first ash program to be held in the Southwest are the National Ash Association, Federal Highway Administration, Texas State Department of Highways & Public Transportation, and the Department of Energy's Grand Forks (ND) Energy Research Center.

Registration for the conference, which will deal primarily with the utilization of lignite and sub-bituminous ash, is $150. The three-day event is being held on the campus of Texas A&M University.

Attendance will be limited to 150 persons. Applications are now being accepted.

London Ash. . .

(Continued from Page 1)

gee Environmental Conservation Co.: "Some Effects of Western Coal Fly Ash on Municipal Sludge"; (5) Kamron Majidzadeh—Ohio State University: "Material Properties of Power Plant Ashes and Their Performance in Bituminous Mixtures; A Laboratory Investigation"; (6) R. M. Canon—Oak Ridge National Laboratories: "Removal and Recovery of Metals From Fly Ash."

Also, Dr. Ramesh C. Joshi of Calgarv University would review his work for Woodward-Clyde Consultants in Kansas City relating to "Lateral Pressures in Structural Fills."

Dent, who is Ash Marketing Officer for the CEGB, and NAA Director John H. Faber are serving as co-hosts for the three-day event. The program will initiate an annual series for the basic exchange of ash technology between countries.

The sessions replace a program begun by the United Nations Committee on Electric Power-Economic Commissions.

Seven Recruited to Address WVU/NAA Ash Short Course

MORGANTOWN, WV—Seven new faculty members have been added to the staff for the second WVU/NAA Ash Short Course set on August 13-16. This crew will supplement the school's Civil Engineering Department team.

Instructional additions include Dr. Jerry J. Marley and Dr. Thomas Theis of the University of Notre Dame who will address the environmental aspects of the two applications: Les D. Bacon of the Illinois Department of Highways on embankments: Craig J. Cain of American Admixtures on ash transportation and placement.

Bruce Wetzel of Allen-Sherman-Hoff on ash collection systems, Dr. A. M. DiGioia of GAT Consultants on structural disposal fills, and Dr. Ramesh C. Joshi of University of Calgary on fly ash fills behind retaining walls.

NAA Director John H. Faber reported 20 advance registrations have been received for the program to be staged on the campus of West Virginia University. Registration is being limited to 75 persons to maximize individual attention to technical details.

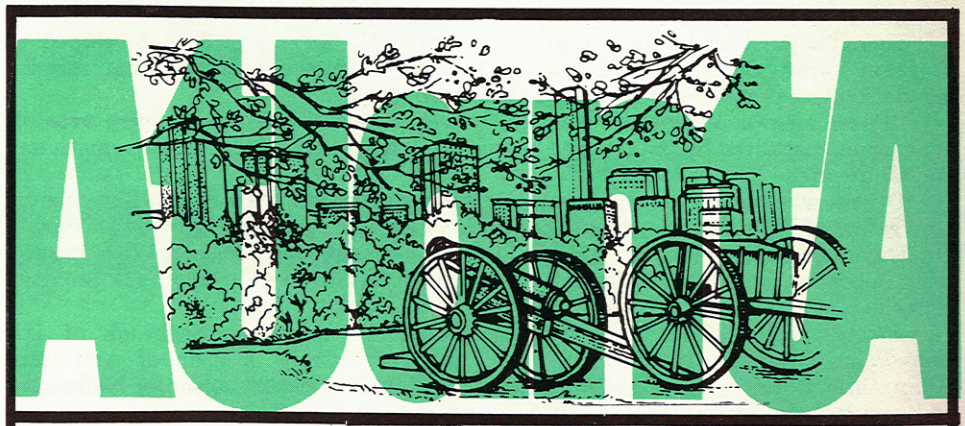
Course topics will focus on the use of power plant ash in structural fills and embankments with emphasis on the "how to" aspects of field applications, he added.

"We feel the subject matter should be of special interest to all ash producing utilities as they gear up to meet new environmental regs on the handling and disposal of power plant ash," Faber emphasized.

Likewise, highway engineers, architects, contractors, and developers with economical access to ash sources could find the technical training a profitable experience, he asserted.

Program Coordinator Roger K. Seals emphasized the presentations will be beneficial to individuals with either a technical or non-technical background.

The three-day event is co-sponsored by the WVU College of Engineering and the National Ash Association.



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