ASH AT WORK

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FOUR MAJOR ASH CONFERENCES ARE SCHEDULED

WASHINGTON—NAA Director John H. Faber disclosed plans are being finalized for four major ash conferences here and abroad during the next 12 months. The programs include an Ash Technology Exchange Congress in London, England, the Fifth International Ash Utilization Symposium in Atlanta, GA., a Second WVU-NAA Ash Short Course in Morgantown, WV., and an Ash Management Conference in College Station, TX. Additionally, a fifth event is being planned which would present a traveling version of the WVU-NAA Short Course to enrollees at a site yet to be determined.

The ash industry spokesman stated the individual sessions are being designed to not only present the most current information on ash utilization but to create a vehicle whereby we can have a free exchange of data and technology on an international basis.

Faber explained he felt the ambitious schedule was necessary because the projected development of new coal-fired electric generating stations make it imperative utility personnel learn to handle the coal by-products in environmentally acceptable storage areas and to make potential users aware of the economic versatility of bottom ash, fly ash, and boiler slag.

LONDON CONGRESS

LONDON—World-wide participation is expected for an Ash Technology Exchange Congress to be held in London, England October 23-25, 1978, under the joint sponsorship of the Central Electric Generating Board and the National Ash Association.

John K. Dent, Ash Marketing Officer for the CEGB, and NAA Director John H. Faber are to serve as co-hosts for the event being projected to initiate an annual series for the basic exchange of ash technology between countries.

Persons interested in presenting papers at the Congress are invited to send a topic summary to Mr. Dent by May 15. All aspects of ash production and utilization are to be explored by the experts in attendance. **(See insert)**

"We realize time is short for a program of this magnitude," Faber said, "but the urgency of re-establishing inter-country contacts is of the utmost importance to the ash industry."

The Congress is planned to replace the meetings previously staged by the United Nations Committee on Electric Power-Economic Commissions. The first session was held in Paris in 1960 and last in Turkey in 1971 which drew 106 participants from 10 countries.

The three-fold purpose of the Congress is to (1) review world-wide figures on production and utilization, (2) hear

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INTERNATIONAL ASH SMYPOSIUM

ATLANTA—The Fifth International Ash Utilization Symposium will be held at the Atlanta Hilton here on Feb. 25-27, 1979, according to Symposium Chairman John H. Faber.

In announcing the dates for the triennial event, the chairman issued a formal invitation for papers from individuals engaged in all facets of ash production, research, and utilization. **(See insert)**

The deadline for submission of brief topic abstracts is August 15, 1978. Manuscripts selected will be due for preprinting by December 1, 1978, Faber explained.

Overall theme for the two-day program will be "The Economy of Ash" centering on the ash industry's role to improve our environment and to minimize the impact of the energy crisis.

Presentations are being solicited in five general categories including Collection and Storage, Resource Recovery, Research, Product Specifications, and Applications.

Also, the National Ash Association will hold its 1979 annual membership meeting prior to the convening of the world-wide conference. James E. Davis, vice president-operations for Allegheny Power Service Corporation, is president of the trade association.

The symposium is designed as an

(See SYMPOSIUM on Page 2)

ASH SHORT COURSE

MORGANTOWN—A second Ash Short Course addressing three specific topics will be held on the campus of West Virginia University here on August 13-16, 1978 under the joint sponsorship of the WVU College of Engineering and the National Ash Association.

Program Coordinators Roger K. Seals and John H. Faber stated the instruction will be directed toward technology on ash handling techniques, compacted storage, and structural fills.

Enrollment will be limited to 75 to insure greater audience participation and attention to individual problems in workshop sessions.

The program will incorporate material on subjects of vital interest to producers, engineers, consultants, and users. For example, the ash handling courses will delve into ash preparation, pre-conditioning, the environment, and placement.

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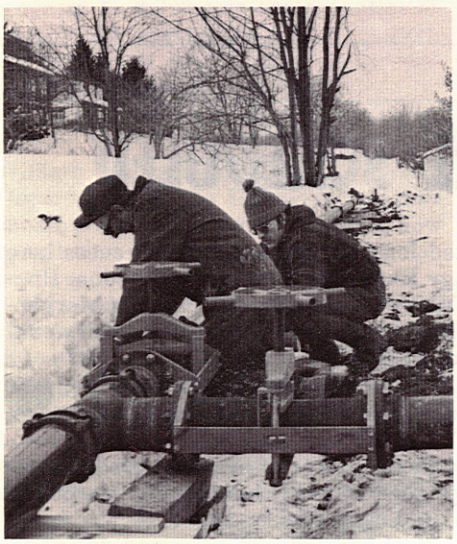
NAA NEWS BRIEFS



FAIRMONT PROJECT—Williamson Shaft Contracting Company is putting the final touches on facilities preparatory to the beginning of pumping operations to inject a fly ash slurry into an abandoned mine in the Watson Area of the City of Fairmont, WV, to correct an underground subsidence problem with a U.S. Bureau of Mines grant. Scenes of this activity are shown in the accompanying photos as follows: (1) Workmen secure section of the six-inch slurry pipe to one bore hole leading to the mine; (2) BOM Project Manager Malcolm Magnuson, left, checks field map with James Gilley. Gilley is BOM liaison officer for West Virginia; (3) First ash arrives from Monongahela Power Company's Harrison Power Station.

SHORT COURSE

(Continued from Page 1)

"We will address the subjects in comprehensive detail," Faber asserted, "and yet keep the subject matter on a down-to-earth basis." Technology has to be practical to be useful, he added.

Faculty members will include ash industry experts as well as Department of Civil Engineering personnel. Ash Advisory Committeemen will also assist in staging the three-day event.

Printed course notes will be provided and CEU's will again be offered to individuals desiring academic credit for attending the Ash Short Course.

Further details on registration and course subjects will be available in the near future.

SYMPOSIUM

(Continued from Page 1)

informal forum for the exchange of ash technology and traditionally features case histories of ash utilization projects and promising research programs.

Chairman Faber disclosed special attention will be given to agencies, organizations, and firms wishing to place educational exhibits or product displays at the convention center. Hospitality suites will also be available, he added.

Past co-sponsors have included Department of Energy (Energy Research & Development Administration), National Coal Association, Edison Electric Institute, American Public Power Association, and the NAA.

Personal Profile

Roger K. Seals

Dr. Roger K. Seals, professor of Civil Engineering at West Virginia University and Program Chairman for the WVU/NAA Short Course, is one of the country's leading exponents of the utilization of power plant ash.

The 39-year-old educator has authored many technical papers on the use of these coal by-products in embankments, structural fills, refuse landfills, and in highway construction.

He is currently engaged in a research project for the Federal Highway Administration investigating the use of Coal Refuse/Fly Ash Compositions as a highway base course material. This is a joint program with GAI Consultants, Inc. of Monroeville, PA.

Dr. Seals is a graduate of the University of Florida with B.C.E. and M.S.E. degrees in Civil Engineering and received his doctorate from North Carolina State University in the same field in 1967. He joined the WVU staff as an assistant professor in September 1965.

Additionally, he is also working with Ash Research Engineers Ronald E. Morrison and Dennis L. Kinder in designing ash applications for the American Electric Power Service Corporation at their John Amos Station and monitoring an ash embankment placed for a road relocation project on Route 60 near Charleston, WV.

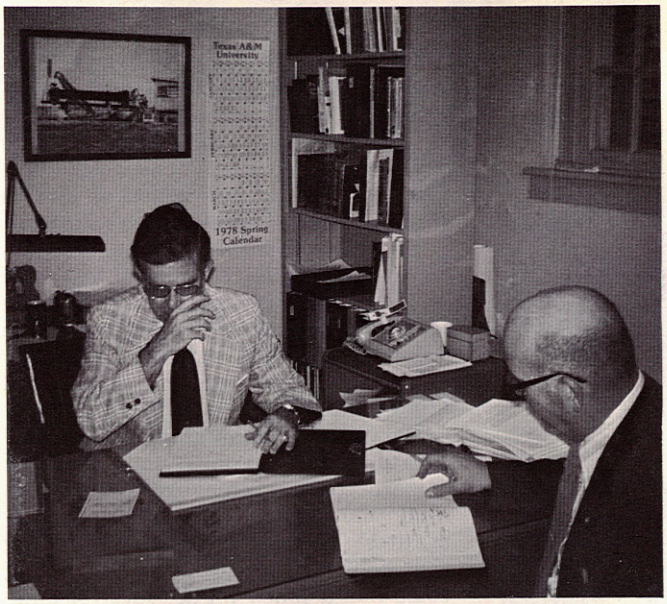
His major teaching responsibilities are in soil mechanics and foundation engineering. He is also a partner in a Morgantown engineering firm.

EBASCO JOINS NAA

Ebasco Services, Inc. of New York has been accepted as a Class 0 nonvoting member of the National Ash Association, according to Director John H. Faber.

The action was taken at a meeting of the NAA Executive Committee on February 1.

Ash Management Conference Planned in Texas



DISCUSS TEXAS CONFERENCE—NAA Director John H. Faber, foreground, is shown discussing plans for an Ash Management Conference with Dr. William Ledbetter of the Texas Transportation Institute while visiting on the campus of Texas A. & M. University in College Station—site of the proposed fall conference.

COLLEGE STATION, TX.—An Ash Management Conference is to be staged on the campus of Texas A & M University here this fall under the direction of the Texas Transportation Institute, according to Program Coordinator William Ledbetter.

Interest in the program has developed around the fact thay by 1982 there will be 18 coal-fired electric generating stations producing power plant ash in a belt stretching from the Oklahoma border to the Gulf of Mexico in East Texas. At present, ash is available from seven plants.

Technology on a wide-range of subjects beginning with the chemical and physical characteristics of the sub-bituminous ashes, handling and storage techniques and environmental considerations to utilization opportunities will be covered at the two-day conference.

Dr. Ledbetter noted the meeting will be open to all interested groups in the Southwest from producers and marketing agencies to the engineer and ultimate users of the coal by-products.

Co-sponsors include the National Ash Association, Texas Department of Highways and Public Transportation, and Federal Highway Administration. Other agencies including utility ash producers, existing marketing agencies, and contractors are expected to join the list as details of the conference are finalized.

An advisory committee has been formed to select a date and determine topics to be reviewed in the informal sessions, Ledbetter added.

"The input of these individuals is vital to the success of the conference," Ledbetter asserted. "People on the firing line have to know and understand these materials before they can use them properly and the advisors can guide us in structuring the style of the presentations," he added.

Members of the panel attending the initial planning meeting were John H. Faber and Allan Babcock, National Ash Association; J. P. Plumb, Houston Lighting & Power Co.; John F. Nixon and Robert E. Cong, State Department of Highways & Public Transportation; Bob Lister, City Public Services; Frank Meyers, Texas Utilities Services, Inc.; Koy Adams, Industrial Generating Co.; C. M. Shaw, Texas Power & Light Co.; C. L. Wenzel, General Portland, Inc.; Mike McNeil, Gifford-Hill & Co., Inc.; Milton Radke and Bob M. Gallaway, Texas Transportation Institute; and Andy Munoz, Federal Highway Administration.

LONDON CONGRESS

(Continued from Page 1)

and discuss technical reports on current research and application subjects, and (3) to examine the host country's production facilities and selected projects.

The 1978 event will feature European technological advances, particularly in Germany and France, Faber explained.

"We hope to initiate a closer working relationship and perhaps cooperative studies with ash interests in Eastern and Western Europe," he added. Nations in both areas have long histories of mass tonnage applications.

All sessions will be held at CEGB headquarters at 15 Newgate Street in downtown London. Further details will be available as the program is finalized.

HERE & THERE

Little Waste Used

WASHINGTON, DC—A survey of waste materials generated in the United States indicate a low level of use in construction applications, according to a report prepared by the National Bureau of Standards.

The authors indicate that advances are being made in converting wastes into viable construction materials and many are technologically equivalent to those produced from virgin resources.

The study was made by James W. Clifton, Paul W. Brown, and Geoffrey Frohnsdorff.

* * *

Cenolite Displayed

BRIGHTON, ENG.—A New lightweight fire protection cladding material Cenolite—was one of the featured products displayed here at the recent Firetech exhibition.

Cenolite is made from Pulverized Fuel Ash (PFA) and was developed by the Ceramics Centre of Harwell in conjunction with the Central Electric Generating Board.

According to CEGB's Power News, tests at the Fire Insurers Research and Testing Association have shown a 50 mm layer of Cenolite gives over three hours protection to a steel structural column. After exposure to fire, the material exhibited excellent qualities of residual integrity without signs of spalling or deformation, the report stated.

Additionally, Cenolite panels work easily and can be cut, sawn, or drilled using conventional tools.

The new material is made from cenospheres—hollow PFA particles—found in some power plant ashes.

* * *

Discuss Fly Ash

Four representatives of the Rocky Mountain Chapter of the American Concrete Institute spoke at and fielded questions on fly ash at the group's January meeting.

The panelists addressed the history, myths, increasing availability, selection, benefits, current ASTM standards, quality control, field reaction, mix design, handling, and production in transit-mixed concrete using fly ash.

Members of the panel were William Rogers, Rogers Sales Co., a Comanche Fly Ash Distributor; Carl Ray Jr., owner, Commercial Testing Laboratories; Edward Dunston, Engineering & Research Section, U.S. Bureau of Reclamation; and Robert Shiely, vice president, Ready-Mixed Concrete Co.

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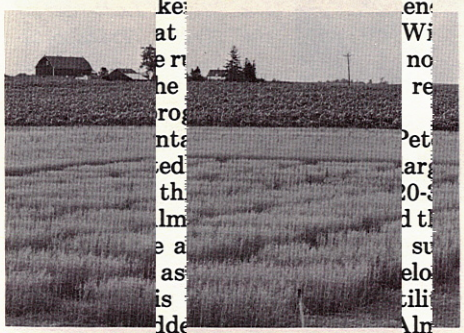

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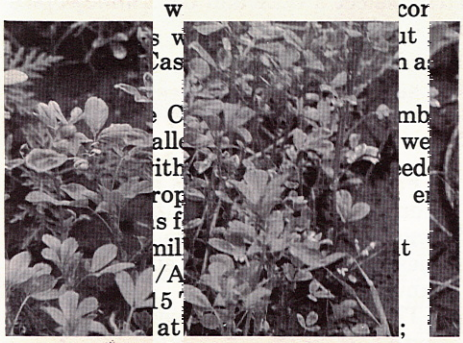

Ash Pit Plants

The soils A; southwestern Wisc sin are typicall t acid and require 2 4 tons/A of lint every 4 to 5 years Nder normal mana ment practices.

Maximum wh ash application rat as indicated byt a op yield reductions at ve not been est lished for corn and op- dressed alfaly Rates of fly ash up m 30 tons/A are he g tested and weat dl ed fly ash up to g 0 tons per acre have ov en applied.

Preliminar findings in above ts revealed the h can be directly re ge- tated usin boron-tolerant nt varieties alt ugh quicker and re complete res s were achieved w a blanket of o to two inches of sa is first placed o r the ash disposal ar .

The three ajor areas of res rch were to deter ne the value of fly a as an economic tilizer, the use of fl sh as a mecha al soil conditioner he value of coa sh as a soil neutr zer (i.e.—as a t stitute for agricu ral lime or limes e).

Delwiche d the studies have on- firmed earli findings that ash om eastern coal contain boron level oo high to be eful as commercial ub- stitutes for ne while demonstr ng that ash fro Montana and Wyo ng coals has a ch higher level of ka- linity and lo levels of boron.

A summa n of results in res rch areas is as fo ws:

(1) As a ertilizer—Eastern hes cannot comp e with concentrated m- mercial ferti ers, but do contain eful amounts o potassium and her nutrients. A ates of application ve 10 tons per re, many plants sh ved signs of bor toxicity. However, ny of Wisconsi oils were improved om standpoint mechanical char er- istics and av ability of plant nutr ts.

(2) As a s conditioner—Weat red ash would l a more useful soil on- ditioner as n e tons could be adde per acre at one ti e.

(3) As a s*ts* neutralizer—Resea is continuing t early results in ate rates of five ns per acre or high are effective.

Additiona , the field and g en- house data to be analyzed by m- puter to d ermine the amou of nutrients re sed from fly ash an soil factors influ cing optimum rat of application.

Another i estigation will be to e if western coa sh can be used to ver eastern ash the disposal pit to d ain suitable gro n medium.

As a resul f the Dairyland pro am the Universi n of Wisconsin Soil S nce Extension vice is performin to re- search for the e other midwest el ric utilities. ge

The rural fly op has now also t sled research int other areas of wast h dis- posal utiliza n in composting fl tash with sewage fa dge and wood wast to nd the use of a as an agent to stin ate the revegeta 10n of sandy dredge bo oil disposal are