TESTING FORUM

ASTM NEWS

New Chairman Elected for ASTM Cement Committee

Robert E. Philleo, consulting engineer in Annandale, VA, was elected chairman of ASTM Committee C-1 on Cement, effective January 1986 (Fig. 1). Philleo will serve a two-year term as head of this 256-member standards-writing committee, one of 140 such committees within ASTM.

A resident of Annanwood Court, Annandale, Philleo is a 1946 graduate of Carnegie-Mellon University with a B.S. degree in Civil Engineering. From 1946–1958, Philleo worked as a research engineer with the Portland Cement Association. Prior to becoming a consulting engineer. Philleo was the chief engineer, structures branch, for the Corps of Engineers from 1958–1983.

In addition to his contributions to ASTM, he is also a past president of the American Concrete Institute, chairman of the Transportation Research Board, and a member of the International Commission on Large Dams and the Concrete Society.



FIG. 1—Robert E. Philleo new chairman of ASTM Committee C-1 on Cement.

Standard Reference Material of Portland Cement

The National Bureau of Standards (NBS) and the Portland Cement Association (PCA) are collaborating on the development of a standard reference material (SRM) for phase analysis of portland cement clinkers. The funding is provided by the NBS Office of Standard Reference Materials. This work is in support of ASTM Subcommittee C01.23 on Compositional Analysis of Cements of Committee C-1 on Cement. The work presently planned is to produce an SRM consisting of three different clinkers whose phase compositions will be determined by light microscopy and by X-ray diffraction. Since phase analysis of clinkers and cements would benefit substantially by having a fourth clinker in the SRM, NBS and PCA are proposing an additional collaborative study to meet this need. The studies will require financial or other support from the private sector to supplement the support provided by NBS for the initial SRM development. Contact: Geoffrey Frohnsdorff, NBS, Bldg. 226, Rm. B368, Gaithersburg, MD 20899.

Latest Information on Blended Cements Contained in New ASTM Publication

Nine technical papers by leading experts in the growing area of blended cements are found in ASTM Special Technical Publication (STP) 897, *Blended Cements*.

Since the energy crisis in 1973, attention has been diverted from the more costly and energy-intensive portland cements and focused on blended cements. This timely publication reports new information in the expanding field of blended hydraulic cements and facilitates the development of new standards.

STP 897 is the result of a symposium on Blended Cements held 27 June 1984 in Denver, CO. The contents are divided into three sections: portland blast-furnace slag cements, portland fly ash cements, and blended cements with slag and pozzolans.

Readers will learn about recent research on the properties of blended cements and how they compare with portland cements, as well as learn about foreign blended cement standards. Cement and concrete researchers, cement plant chemists, and concrete technologists will want to own this publication.

To order STP 897, contact ASTM Customer Service Department, 1916 Race Street, Philadelphia, Pennsylvania 19103, 215/ 299-5585. Editor: Geoffrey Frohnsdorff, National Bureau of Standards. Member Price: \$20.80; List Price: \$26.00; ISBN 0-8031-0453-7; Publication Code Number: 04-897000-07.

Erratum

The following corrections should be noted to the paper, "Mechanism of Pozzolanic Reactions and Control of Alkali-Aggregate Expansion," by M. S. Y. Bhatty, which appeared in the Winter 1985 issue (Vol. 7, No. 2).

Page 75—C-S-HI should be written as C-S-H(I). Page 76, Col. 2, Line 2 should be (C/S = 0.8 - 2.0). Page 76, Col. 2, Lines 3 and 4 should be

> $CH + S + N \rightarrow N-C-S-H(I)$ Excess

Cement, Concrete, and Aggregates Table of Contents Volume 8, 1986

No. 1, Summer

A New Statistical Method for Prediction of Concrete Strength from In-Place-william c. stone and charles p. reeve	3	
Evaluation of the Potential for Expansion and Cracking of Concrete Caused by the Alkali-Carbonate Reaction— CHRISTOPHER A. ROGERS	13	
Fracture of Concrete Subjected to Impact Loading—reji john and surendra p. shah	24	
Properties of High-Strength Concrete—RAMNATH N. SWAMY Variations in the Chemical Composition, Specific Surface Area, Fineness, and Pozzolanic Activity of a Condensed Silica Fume—BORIS NEBESAR AND GEORGES G. CARETTE	33 42	
		Technical Note: The Determination of Specific Gravity Using the Siphon-Can Method-ROGER W. BLACK
Technical Note: Concrete Deterioration Through Leaching with Soil-Purified Water—WILLIAM G. HIME, BERNARD ERLIN, AND RAY R. MCORMOND Book Review Testing Forum No. 2, Winter	50 52 53	
		Determining the Static and Dynamic Properties of Hardened Normal Weight and Heavy Concrete-DONALD E. GRAHAM
	Water Soluble Polymers: The Relationship Between Structure, Dispersing Action, and Rate of Cement Hydration— GEOFFREY BRADLEY AND IAN M. HOWARTH	68
Freeze-Thaw Durability of Concrete With and Without Silica Fume in ASTM C 666 (Procedure A) Test Method: Internal Cracking Versus Scaling—michel pigeon, Richard Pleau, and Pierre-Claude Aitcin	76	
Effect of Cement Replacement, Content, and Type on the Durability Performance of Fly Ash Concrete in the Middle East—	86	
RASHEEDUZZAFAR, ABDULAZIZ AL-MANA, MOHAMMED HANEEF, AND MOHAMMED MASLEHUDDIN		
Chloride Concentrations in Concrete Pore Solutions Resulting from Calcium and Sodium Chloride Admixtures— SIDNEY DIAMOND	97	
The Application of Neutron Radiography to the Study of Micro-Cracking in Concrete—walid s. NAJJAR, HOWARD C. ADERHOLD, AND KENNETH C. HOVER	103	
Some Laboratory Experiments on the Inhibitor Effect of Sodium Nitrite on Reinforcement Corrosion—CARMEN ANDRADE, CRUZ ALONSO, AND JOSÉ A. GONZÁLEZ	110	
Technical Note: New Test for Determining Fundamental Frequencies of Concrete—JAMES M. GAIDIS AND ARNOLD M. ROSENBERG	117	
Book Review	120	
Testing Forum	120	

ASTM Committee C-1 on Cement

Scope

The development of specifications, methods of test, recommended practices, and definitions of terms for hydraulic-cements, including portland, natural, pozzolanic, masonry and slag cements, and modifications of the foregoing, and combinations during manufacture thereof; the investigation of the properties of hydraulic cements and the promotion of improvement and uniformity of testing and these materials; joint sponsorship, with ASTM Committee C-9 on Concrete and Concrete Aggregates, of the Cement and Concrete Reference Laboratory, a cooperative project of the Government and ASTM.

Officers

- Chairman: W. L. Dolch, Purdue University, Office of the Dean of Engineering, ENAD Bldg., W. Lafayette, IN 47907
- Vice-Chairman: C. D. Fehnel, Lone Star Industries, Inc., P.O. Box 2880 (411 Putnam Ave.), Greenwich, CT 06830
- Secretary: R. A. Hines, Missouri Portland Cement Co., 7711 Carondelet Ave., St. Louis, MO 63105
- Membership Secretary: J. W. Meusel, Atlantic Cement Co., Inc., P.O. Box 30, Stamford, CT 06904

ASTM Committee C-9 on Cement and Concrete Aggregates

Scope

The assembling and study of data pertaining to the properties of portland cement concrete and its constituent materials, including the study of effect of characteristics of materials and mixtures upon the properties of concrete; the development of methods of test for concrete and for the constituent materials of concrete (except cement), as well as for certain related materials, such as materials used in curing; the formulation of standard specifications for the constituent materials of concrete (except cement) and for concrete itself (subject to suitable interpretation of the term "concrete"). The scope of Committee C-9 does not include the field of design and construction of concrete structures except insofar as references need to be made to construction methods in special cases of concrete as "over-the-counter" materials.

Officers

- Chairman: J. M. Scanlon, Jr., U.S. Army Engineer Waterways Experiment Station, CH/CONC Tech. Div., P.O. Box 631 (WESSC), Vicksburg, MS 39180
- Vice-Chairman: R. J. Schutz, Protex Industries, 1331 West Evans Ave., Denver, CO 80223
- Secretary: G. S. Bobrowski, Master Builders, 23700 Chagrin Blvd., Cleveland, OH 44122
- Membership Secretary: D. T. Smith, Marquette Cement Manufacturing Co., 2200 First American Center, Nashville, TN 37238