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PLAINTIFF'S EXHIBIT

KG-303

smaller feeder tube at the core distributes the air or liquid through the system. A third tube, pumped to a high vacuum, encloses the other two, providing another barrier to heat loss.

Because the heat-carrying ability of air is considerably below that of water, air must be forced through the collector system in much larger volumes. The system is designed to achieve the necessary air flow by use of a fan or other air-pumping device which requires a relatively small amount of energy. Results indicate that the required air-pumping power should average less than 5% of the usable solar energy collected.

Tile Council Develops Asbestos Substitutes

A series of substitutes for asbestos, a much used mineral that faces banning from consumer products by 1980, has been developed by the Tile Council of America. Asbestos is the subject of considerable scrutiny by EPA and the Consumer Product Safety Commission because of its carcinogenic effects.

According to Thomas W. Ferguson, Jr., president of the Tile Council, the substitutes developed by the association's research division are suitable asbestos replacements. "The list of possible applications is quite extensive," says Ferguson. "It could conceivably involve as much as half of the total domestic usage of asbestos."

The technique of incorporating magnesium compounds into hydraulic cements to achieve sag resistance and strength, previously only obtainable via the addition of asbestos fibers, is disclosed in U.S. Patent 4,011,094, recently assigned to the Tile Council.

Another patent, 4,021,257, assigned to the council in May, describes how certain long chain polymers give the same firm consistency provided by the short mineral fibers now banned from many applications.

In addition to these two new patents, a series of applications formulated by the Tile Council is presently under consideration by the U.S. Patent Office.

These applications cover a wide range of asbestos substitutes, including noncarcinogenic plastic fibers and various metal hydroxides. These compositions often have superior compressive strengths and higher bond strengths, and also exhibit water-retentivity, even in the absence of a cellulosic material.

According to Ferguson, the key substitution ingredients are somewhat more costly than asbestos fiber in some instances. "However, the elimination of the need for asbestos handling and labeling precautions more than compensates for this additional cost," he notes.

The Tile Council holds all proprietary rights to this new asbestos replacement technology, the subject of an intensive six-year research program by the council.

Licenses for these new asbestos substitutes will be available after August 1, 1977, and, according to Ferguson, will be reasonably priced.

FROM Geo. Lasnicka 2 Sept. 77

ElectroCom — Electronics Divis

Steering Committee Highlights

Following are brief excerpts from the minutes of the Electronics Division Steering Committee meeting held April 24 at the Conrad Hilton Hotel, Chicago, Ill.

Trustee's Report: Gil Goodman (Globe-Union) reported that Winston Duckworth of the Committee on Classes and Divisions presented the trustees with a possible realignment of Division topic responsibility. Under the proposed realignment, the Materials & Equipment Division would handle energy utilization, conservation and management while the Nuclear Division would acquire nonfossil fuel energy topics such as battery utilization and development, solar power, MHD power and geothermal power. The Steering Committee expressed considerable concern as to the effect of this realignment on the Electronics Division programs and unanimously passed that the Executive Committee submit a position paper to Mr. Duckworth affirming the Division's responsibility for applied conductivity topics and detailing our recent efforts with regard to energy related programs.

Membership: Mike Kestigian (Sperry Research) reported that the membership of the Society has been stable for the past year while the Electronics Division membership has decreased slightly. Contact will be made with F. P. Reid, executive director, seeking a Society follow-up on the reasons for resignations of Electronics Division members.

Awards and Scholarship: Lyle Slack (Virginia Polytechnic Institute) and Robert Runk (Western Electric) proposed that the 10 runners-up for the 1967–77 Best Paper Award be listed in "ElectroCom." At the time of the April meeting, 12 contestant papers were still in the running and the committee expected to have selected the winner by June 1. Papers are judged on industrial impact, scientific significance, readability, timeliness and breadth.

1977 Fall Meeting and Local Arrangements: R. D. McDonald (Canada Wire) indicated that local arrangements for the Montreal meeting are proceeding smoothly. On Sunday evening the Division will host a reception. Monday's activities will include a tour for the ladies.

Bill Payne (Solid State Dielectrics), Electronics chairman for the 1977 Pacific Coast Regional (PCR) Meeting, requested that the Steering Committee consider the possibility of re-presenting papers from both the invited and contributed session of the Montreal meeting at the PCR. It was generally felt that the proposed re-presentation would adversely affect Montreal attendance and detract from the Pacific Coast Meeting. A motion was passed that the PCR program should be organized independently and any conflicts be referred to the Programs and Meetings Committee.

In other Fall Meeting developments, the Basic Science Division has decided to meet jointly with the Electronics Division in 1978 at Dallas. Minneapolis was voted as the preferred site for the 1981 Fall Meeting.

Craig L. Goodwin, editor
One Main St.
Youngstown, N.Y. 14174

Formation of the Program Advisory Co

The newly created Progr Committee became operati The duties of the committee tify technical areas for se suggest session organizers, t nical areas suitable for joint review previous Division committee consists of a chai members, each with a techn sponsibility. The members working with Chairman Re (University of Illinois) ar Readey (U.S. Energy Resear min.) – Energy Conversion (Purdue University) – Ma Raymond J. Brown (BITS Technical Ceramics and Pro C. Hill (Texas Instruments) Semiconductor Compone Payne (University of Illinois Semiconductor Compon McDonald (Canada Wire) Technology; and Edward A Corp.) – Advanced Technol

Governmental Public and Topics

Sam DiVita (U.S. Army E mand) reports that the ERD Fusion has requirements for tion and/or crystal growth o cal material with nonlinear tion. Unsolicited proposals until September 30, 1977 f cally qualified organizations formation, contact Joel A Div. of Laser Fusion, Wa 20545, phone (301) 353-33

"ElectroCom" readers m in a free subscription to ER *Newsletter on Materials & Fossil Energy Applications* to qualified individuals, by from Henry E. Frankel, Energy, Washington, D.C.

Historical Notes

Richard N. Kleiner (GTE S capacity as chairman of the mittee, has recently resurrec ical dates which Division me informative.

On December 6, 1957, Division was established a Board of Trustees of the Am Society in Columbus, Ohio and John H. Koenig, respec first trustee and chairman.

The Division's first Fa held October 9–10, 1958, Cateret Hotel, Asbury Park. dance was a respectable 19

The first "ElectroCom" the January 1962 issue of *tin.*

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