

CENTER FOR INDOOR AIR RESEARCH, INC.

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MINUTES OF MEETING

OF THE

BOARD OF DIRECTORS

Kansas City, Missouri
August 2, 1988

A meeting of the Board of Directors of the Center for Indoor Air Research was held in Kansas City, Kansas, on August 2, 1988, beginning at 9:00 a.m. The following directors were present: Drs. A. W. Spears and V. Norman of Lorillard, Drs. T. Osdene and R. Pages of Philip Morris, and Dr. C. Green of R.J. Reynolds Tobacco Company. There were also present Dr. M. Eisenberg, Executive Director of the Center; Dr. G. Oldaker and M. Ward of R.J. Reynolds Tobacco Company; N. Beane of Philip Morris; Dr. W. Crouse of Lorillard; J. Ross of The Tobacco Institute; D. Hoel, S. Masters and L. Zimmerman of Shook, Hardy and Bacon; and J. Rupp of Covington & Burling. Dr. Theodor Sterling of Theodor D. Sterling and Associates Ltd. attended the portion of the meeting that had been set aside to permit Dr. Sterling to make a presentation to the Board.

Dr. Osdene opened the meeting by extending a formal welcome on behalf of the Board to Dr. M. Eisenberg. He emphasized that the members of the Board look forward to working

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with Dr. Eisenberg in addressing the scientific issues associated with indoor air quality.

Dr. T. Sterling presented to the Board a brief description of the projects that he and his colleagues at Theodor D. Sterling and Associates currently have underway on the general issue of indoor air quality and the more limited issue of the possible significance of environmental tobacco smoke. Dr. Sterling also offered a number of recommendations to the Board concerning additional indoor air quality research.

There then followed a brief report on each of the research projects that have been funded by the Center. Dr. Green reminded the Board that renewal of the Eatough research grant had been approved by the Board by telephone conference call on July 20, 1988. That decision was ratified by a vote at the meeting. Dr. Green also mentioned that he and Dr. Eisenberg plan to make a site visit to Dr. Eatough's research facility in Salt Lake City, and that they intend at that time to discuss with Dr. Eatough a reorientation of Dr. Eatough's work in the direction of exposure and dosimetry measurements. Following a brief discussion of Dr. Green's report, the Board unanimously ratified the previous telephone vote renewing Dr. Eatough's research grant.

Dr. Green also mentioned that United Airlines reportedly is interested in cooperating with Dr. Eatough in a study of cabin air quality. After some discussion, it was agreed that the PASS technology would be appropriate for such a

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study. Drs. Green and Eisenberg agreed to discuss possible testing on United Airlines during their site visit with Dr. Eatough and to report on the results of such discussions at the Board's next meeting.

Ms. Ward and Mr. Rupp reported to the Board on the progress that has been made in planning a cabin air quality study aboard Scandinavian Aircraft System ("SAS") flights. They mentioned that TNO Laboratories in Delft, Holland, has agreed to undertake such tests and that the testing is scheduled to begin on September 14. A number of technical questions were raised in the discussion that followed, as well as a number of questions relating to the proposed budget for the study. Ultimately, the Board voted unanimously to fund the SAS study subject to the following conditions: first, the members of the Board asked for additional information concerning TNO's ability to perform the necessary analytical work; second, additional information is to be sought from TNO concerning the comparability of the equipment that TNO proposes to use in the study with the PASS equipment; and, third, consideration is to be given as to whether 48 flight segments need to be studied or whether some smaller number of flight segments would be sufficient. Dr. Oldaker agreed to pursue these issues with TNO and others and to report individually to members of the Board.

Dr. Oldaker reported that Dr. Husting has completed the data collection phase of his research and currently is

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engaged in data analysis. He also reported that Dr. Husting estimated that, at a minimum, \$10,000 in additional funding would be necessary to complete his work. Following a brief discussion, the Board voted unanimously to provide the additional funding requested by Dr. Husting subject to Dr. Eisenberg's checking with Dr. Husting to make sure that the additional funding is needed and will be used appropriately.

Drs. Crouse and Oldaker presented to the Board preliminary results of the restaurant and office workplace study that was conducted in Washington, D.C. He noted that the results of the Washington study are comparable to the results that have been found in other cities. He also stated that International Technologies is preparing a formal report of the study.

The report of the Washington study was followed by consideration of the preparation of a monograph, to be sponsored by the Center, setting forth the results of all of the restaurant/office workplace studies that have been completed to date using the PASS equipment. Drs. Eisenberg and Oldaker agreed to pursue that possibility with Dr. Jenkins of Oak Ridge National Laboratory, and to provide a report and recommendation to the Board at its next meeting.

Mr. Hoel reported to the Board on the progress of the research being undertaken by Dr. S. DiNardi. He mentioned that Dr. DiNardi has completed drafts of two scientific articles describing the results of the project, and plans to

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submit those articles for publication on or shortly after September 1, 1988.

Ms. Ward noted that Drs. Ginevan and Viren are continuing to reanalyze data from the Hirayama study and expect to have a draft of an article describing their reanalysis within the next few weeks. Ms. Ward also mentioned that Dr. M. Layard of Failure Analysis is working with Drs. Ginevan and Viren on the project, which may result in an increase in the project's anticipated cost. Ms. Ward will report to the Board at the next meeting on the costs of the project.

Don Hoel reported to the Board that Dr. J. Salvaggio and co-workers at Tulane University have requested renewal of their research contract. Because Dr. Salvaggio has not yet submitted a formal protocol describing the additional research he proposes to undertake, the Board voted to approve renewal of the contract only on condition that Dr. Salvaggio submit a protocol and the Board agrees at that time on the research described in the protocol. Mr. Hoel and Dr. Oldaker agreed to inform Dr. Salvaggio of the Board's decision.

The Board then turned to a number of administrative matters requiring the Board's attention. Dr. Oldaker presented to the Board the report of the Treasurer, showing expenditures to date and income received. Dr. Oldaker was directed to prepare bills to member companies under the following constraints: (1) minimize the amount of uncommitted cash being held by the Center at any time while (2) making sure that the

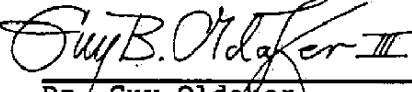
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Center will be able to meet its financial obligations in a timely manner.

Following presentations by Messrs. Hoel and Rupp, the Board voted unanimously to pay statements that have been received covering attendance at meetings and other work by Dr. J. Kilpatrick and by scientists from the Center for Environmental Health and Human Toxicology. The members of the Board decided, however, that such costs should not be covered by the Center in the future and that an additional source of funding for consulting scientists therefore should be sought. Dr. Spears and Mr. Rupp agreed to pursue the issue of alternative funding and to report to the Board on that issue at the Board's next meeting.

The Board then considered a proposal that has been received from Mr. G. Robertson of ACVA Atlantic, Inc., to measure nicotine as part of ACVA's ongoing building studies. The Board unanimously approved the ACVA proposal, subject to Dr. Oldaker's checking with Mr. Robertson and satisfying the Board of the appropriateness of the methodology that ACVA proposes to use for the nicotine measurements.

The Board decided that its next meeting should be held in Washington, D.C., on September 15. Thereupon, on motion duly made and seconded, the meeting of the Board was adjourned.



Dr. Guy Oldaker
Secretary

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