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SAMUEL D. CHILCOTE, JR.
President

(May 31, 1985), 8p.

Committee on Airline Cabin Air Quality
National Academy of Sciences
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

Re: Study on Aircraft Cabin Air Quality : Institute's Comments

Dear Sirs:

The Tobacco Institute submits these comments on the aircraft cabin air quality study (the "NAS study"), currently being conducted by the Committee on Airline Cabin Air Quality, National Academy of Sciences ("Committee"). The Institute, which represents major manufacturers of cigarettes, welcomes scientific inquiry into the host of issues relating to cabin air quality. Although tobacco smoke is one of many matters that the Committee may address, it is not specifically mentioned in either the study's authorizing legislation or the Senate Committee Report, or in your Notice.

As a political and social issue, smoking aboard aircraft has been the subject of repeated rulemaking proceedings over the past 12 years before the Civil Aeronautics Board ("CAB"), the agency formerly responsible for aircraft smoking regulations. These issues finally were resolved last summer following lengthy hearings and review of extensive comments from a multitude of

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interested persons.*/ The proceedings culminated in the CAB's determination that "smoking remains a socially acceptable practice," and the issuance of final rules to accommodate smoking and nonsmoking passengers. In fact, an opinion poll conducted in April 1985 for The Tobacco Institute by Tarrance & Associates reveals that an overwhelming majority (82 percent) of the public is satisfied with these rules and believes they should not be changed.**/

Appropriately, the Committee's designated role is to undertake scientific inquiry, rather than to revisit this regulatory debate.

I.

The Uniqueness of the Aircraft Cabin Environment

The Committee's authorizing legislation directs the Committee to recognize the unique nature of the aircraft cabin

*/ These proceedings involved appearances by at least two government agencies, fourteen airlines or airline organizations, six labor unions, eleven consumer groups, four tobacco groups, and others, individual letter comments to the Board from more than 20,000 individuals, and three days of oral argument in which 42 people, including ten members of Congress, expressed their views. See 49 Fed. Reg. 25408 (1984).

**/ A copy of the Tarrance poll is attached.

environment: "In conducting the study, special and objective considerations shall be given to the uniqueness of the environment onboard civil commercial aircraft."*/ Accordingly, any Committee consideration of tobacco smoke particulates can appropriately be addressed only in the context of this unique environment. As the CAB recognized only last year in refusing further to regulate aircraft smoking "on the specific basis of the health aspects of passive smoking" in non-aviation environments, "no commenter has shown that the findings of [passive smoking] studies are applicable to the situation aboard aircraft."**/

*/ Pub. L. No. 98-466, § 1, 98 Stat. 1825 (1984).

**/ As the CAB concluded last year in specifically refusing further to regulate on the grounds of claimed health effects of "passive smoking," the evidence regarding claimed health effects of environmental tobacco smoke "is still being disputed." 49 Fed. Reg. 25410 (1984). As the CAB explicitly also recognized, studies of "passive" smoking effects in nonaviation environments are inapplicable to the aircraft cabin environment:

"The cited studies involved smoking in the home or office, places where people spend a significant portion of their life. This differs from the situation aboard aircraft where most people spend a relatively short time. Aircraft also differ from homes and offices in that nonsmokers are separated from the smokers in the former, but usually are not in the latter."

49 Fed. Reg. 25410 (1984).

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The modern aircraft cabin is in fact designed to provide a uniquely ventilated environment, effective in dealing with tobacco smoke. Indeed, FAA experts have repeatedly testified that aircraft cabin ventilation systems are "fully adequate."*/ Within the last two years, the FAA specifically found "no need to require changes in aircraft ventilation systems" to deal with tobacco smoke "from a health perspective."**/ "

Aircraft cabin air flow rates compare favorably with recommended standards of non-aviation environments and provide passengers ventilation three to five times that recommended by the American Society of Heating, Refrigerating and Air-Conditioning Engineers.***/ By recent regulation, moreover, smoking is permitted only when ventilation systems are "fully functioning" to provide ventilation meeting design specifications.****/ Aircraft manufacturers have further demonstrated that industry practices and standards not only "surpass non-aviation standards" in certain

*/ Cabin Air Quality: Hearing on S.197 Before the Subcomm. on Aviation of the Senate Comm. on Commerce, Science, and Transportation, 98th Cong., 1st Sess. 9 (1983). (statement of Craig Beard, Director, Office of Airworthiness, Federal Aviation Administration) [hereinafter "FAA Statement"].

**/ Id. at 10.

***/ The FAA's review of the ventilating characteristics of seven current transport aircraft in 1981 revealed that "the ventilation varies from 15.2 to 25.7 cfm/person in the passenger cabin or 3 to 5 times that recommended by ASHRAE." U.S. Department of Transportation, Federal Aviation Administration, In the Matter of the Petition of Xenex Corporation, Denial of Petition, March 3, 1981.

****/ 14 C.F.R. § 252.3(a) (1984).

areas, but also that those practices and standards "are continuously improved."*/

II.

The Evidence Does Not Demonstrate An
Adverse Health Effect on Passengers from
Smoking Aboard Aircraft.

Available scientific data fail to demonstrate that smoking aboard aircraft causes an adverse health effect in nonsmoking passengers. The only study to deal specifically with the situation aboard aircraft -- conducted by the Federal Aviation Administration (FAA) and the National Institute for Occupational Safety and Health (NIOSH) in 1971 -- concluded that the "low levels of contaminants measured do not represent a health hazard to the non-smoking passengers on aircraft."**/

Significantly, these findings were based on studies of smoking aboard aircraft conducted before the CAB issued rules in 1973 requiring segregation of smokers and nonsmokers in separate sections of the cabin.***/ Moreover, these studies were undertaken

*/ Airliner Cabin Safety and Health Standards: Hearing on S.1770 Before the Subcomm. on Aviation of the Senate Comm. on Commerce, Science, and Transportation, 97th Cong., 2nd Sess. 52 (1982) (statement of John Reese, Director of Airworthiness Programs, Aerospace Industries Association).

**/ See 38 Fed. Reg. 12207, 19048 (1973).

***/ 38 Fed. Reg. 12207-12211 (1973) (codified at 14 C.F.R. § 252.1-.5).

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prior to the recently-issued CAB regulations prohibiting pipe and cigar smoking or smoking while an aircraft is on the ground or when the ventilation system is not "fully functioning" up to design specifications.*/

On the other hand, no reputable medical evidence has been found to contradict the FAA's 1971 conclusion that exposure to environmental tobacco smoke in the unique aircraft cabin environment presents no adverse health effects for nonsmoking passengers. Dr. Robert L. Wick, medical director for American Airlines, former professor of preventive medicine at Ohio State University and chairman of the Division of Environmental Medicine, aptly summarized the state of the medical evidence in 1982 Congressional testimony:

There is nothing in the literature today which would suggest that there is a significant hazard to a healthy individual from casual exposure to smoke in an airplane, albeit it is unpleasant.**/

To the contrary, the FAA reaffirmed its 1971 conclusion just 18 months ago, in Congressional testimony on the adequacy of modern aircraft ventilation:

*/ 49 Fed. Reg. 25408-25420 (1984) (codified at 14 C.F.R. § 252.3, 252.4).

**/ Airliner Cabin Safety and Health Standards: Hearing on S.1770 Before the Subcomm. on Aviation of the Senate Comm. on Commerce, Science, and Transportation, 97th Cong., 2nd Sess. 113 (1982) (statement of Dr. Robert L. Wick, American Airlines).

It is the FAA's view that casual exposure to 'second hand' cigarette smoke in a reasonably ventilated environment is not expected to have any relation to cardiovascular or pulmonary disease causation. . . . Therefore, from a health perspective, we have seen no need to require changes in aircraft ventilation systems.*/

In so reaffirming the 1971 study in 1983, the FAA had available virtually all of the studies claimed to suggest health effects of smoking on nonsmokers in non-aviation environments.

In addition, the FAA's medical expert, Deputy Federal Air Surgeon Dr. Jon L. Jordan, testified before Congress in 1983 that the 1971 FAA/NIOSH study "revealed that there were minimal contaminants in the [aircraft cabin] air, especially in reference to cigarette smoking, and none of those posed a health hazard problem to either the passengers or crew."**/

Recent research continues to support this conclusion. Only last year, for example, researchers from the San Francisco General Hospital Medical Center reported the results of a study conducted to measure the exposure of nonsmoking flight attendants to carbon monoxide and nicotine during a flight from Tokyo to San

*/ FAA statement, supra, at 10.

**/ Cabin Air Quality: Hearing on S.197 Before the Subcomm. on Aviation of the Senate Comm. on Commerce, Science, and Transportation, 98th Cong., 1st Sess. 12 (1983) (statement of Dr. Jon L. Jordan, Dep. Federal Air Surgeon).

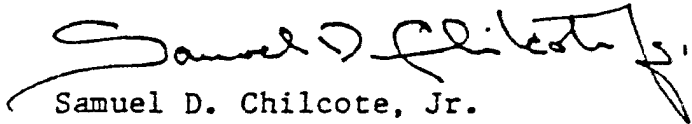
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Francisco. The researchers found that blood carbon monoxide levels actually decreased during the flight. Moreover, the researchers concluded that the "concentrations [of nicotine] achieved are unlikely to have physiologic effects."*/

CONCLUSION

The Tobacco Institute welcomes scientific inquiry by the Committee into the many issues relating to air quality in the unique aircraft cabin environment. To the extent the study touches upon the issue of tobacco smoke particulates in the aircraft environment, The Institute urges careful attention to the fact that there exists no reported medical evidence that these particulates in cabin air endanger the health of passengers or crew. To the contrary, the only significant evidence is that aircraft cabin smoking poses no such health concern.

Respectfully submitted,


Samuel D. Chilcote, Jr.

attachment

*/ Foliart, et al., Passive Absorption of Nicotine in Airline Flight Attendants, 308(18) N. Eng. J. Med. 1105 (1983).

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