Approved March 26, 1987
Date

MINUTES OF THE SENATE COMMITTEE ON JUDICIARY.

The meeting was called to order by Senator Robert Frey at
Chairperson

12:00 noon on March 25, 1987 in room 519-S of the Capitol.

All members present except: Senators Frey, Hoferer, Burke, Feleciano, Langworthy, Parrish, Talkington and Yost.

Committee staff present:

Jerry Donaldson, Legislative Research Department

Conferees appearing before the committee:

Jerry Slaughter, Kansas Medical Society
Dr. Lorne A. Phillips, Kansas Department of Health and Environment
Dr. James McHenry, SRS Alcohol and Drug Abuse Services
Reverend Richard Taylor, Kansans For Life At Its Best
Dave Pomeroy, Kansans for Nonsmokers Rights
Roberta Kunkle, The American Lung Association of Kansas
Jim Ackeret, Group to Alleviate Smoking Pollution
Bessie Holden, Topeka
LaVerta Greve, Topeka
Cheryl Weber, Topeka
William Mitchell, The Tobacco Institute
Paul Coleman, Kansas Tobacco and Candy Distributors and Vendors Association
Marjorie Van Buren, Office of Judicial Administrator
Tom Bell, Kansas Hospital Association

House Bill 2412 - Smoking at public places or public meetings prohibited except in designated smoking areas.

Jerry Slaughter, Kansas Medical Society, stated his organization requested the bill be introduced. He testified we are advocating this legislation because of the public health problem presented by "passive" smoking. We believe enactment of this legislation would be a big step forward in Kansas, and a signal to the public that the legislature is concerned about the health effects of passive or involuntary smoking. A copy of his handout is attached (See Attachment I).

Dr. Lorne A. Phillips, Kansas Department of Health and Environment, testified the department supports this bill, because it would provide a more healthful environment free of tobacco smoke in public places and health care institutions. The detrimental health hazards of tobacco smoke for people who smoke and for nonsmokers has been consistently documented. No smoking designated areas are increasing now that medical studies document smoking related diseases are increased by smoking for both the smoker and nonsmoker. A copy of his testimony is attached (See Attachment II). The chairman inquired of the responsibility under this bill for enforcement. Dr. Phillips replied he doesn't anticipate any demand on the department. When nonsmoking signs are available most people choose not to smoke. A committee member inquired if the department had dealt with allowing children to smoke in group homes through your licensing procedure. Dr. Phillips replied they have not taken on child care facilities. He added some child care facilities are in private homes.

House Bill 2412 continued

Dr. James McHenry, SRS Alcohol and Drug Abuse Services, testified SRS supports favorable consideration of the bill. Experience with SRS smoking policy has been very favorable. Prohibition and restriction of smoking has not resulted in management problems. Smokers and nonsmokers have accepted the policy. Smoking restriction is a necessary social policy with both public health and health care cost implications. The public clearly favors smoking restrictions. The passage of this bill would mark another important step in a much needed societal process. A copy of his testimony is attached (See Attachment III).

Reverend Richard Taylor, Kansans For Life At Its Best, testified in support of the bill. He stated many expensive hours of legislative time are used dealing with alcohol and tobacco measures during every session. Taxpayer dollars spent for such time could be saved if the legislature would strike section (d) of K.S.A. 65-4102. For the sake of every smoker and nonsmoker, for the vocal chords of every person throughout Kansas, please support the bill. A copy of his testimony is attached (See Attachment IV). Reverend Taylor played a recording of his voice before he had surgery to remove the vocal chord because of cancer.

Dave Pomeroy, Kansans for Nonsmokers Rights, appeared in support of the bill. He testified tobacco smoke adversely affects thousands of Kansans each day who are unable to escape its disabling and costly path. While I obviously support restrictions on tobacco smoke in public places, I feel this bill would do little to alleviate the tobacco smoke problem. A copy of his testimony is attached (See Attachment V).

Roberta Kunkle, The American Lung Association of Kansas, appeared in support of the bill. She stated when one person smokes, we all do. We recommend that at least 50 percent of public areas be designated as nonsmoking areas. According to figures supplied by Kansans For Nonsmokers Rights, only 22 percent of Kansans smoke. The association endorses returning Section 4, prohibiting smoking in all health care institutions. We also recommend that education institutions be added to this section. The Kansas Senate can help all unified school districts and other educational institutions achieve an environment that promotes respiratory health and does not promote the use of tobacco. A copy of her handouts are attached (See Attachments VI).

Jim Ackeret, Group to Alleviate Smoking Pollution, appeared in support of the bill. He has respiratory problems and smoke makes him sick. He stated smokers do have a choice, but I don't have a choice. I have a right to breathe clean air. He related an experience his mother had while in the hospital. She was placed in a room with a person who smoked, and the smoke made her sick. He said doctors agree there should not be any smoking in the hospital. He said he used to live in Wichita, and he can see a difference in the stores in Topeka because there is a smoking ordinance, and Wichita does not have one. There shouldn't be any smoke in a hospital. A copy of his handout is attached (See Attachment VII).

Dave Pomeroy read the statement of Bessie Holden in support of the bill. In her testimony he read, it is with regret that I must send a written statement to the hearing, but my allergy to smoke will not permit me to attend such a meeting in the statehouse. A copy of her statement is attached (See Attachment VIII).

LaVerta Greve read the testimony of Cheryl Weber. Cheryl Weber stated in her letter, I have a medically tested sensitivity to tobacco smoke. While the bill is far too weak as it now stands, it could become a lifeline for those who are drowning in a murky sea of tobacco smoke. A copy of her remarks is attached (See Attachment IX).

House Bill 2412 continued

LaVerta Greve stated she shares the sentiments of people who appeared before her. She is proud to be a resident of Topeka who has taken a step. She said with Topeka's ordinance it is a good example why a broader law is necessary. She said in the county courthouse on first floor where the most business is done there are no "no smoking" signs. There are areas in the city where this ordinance does not apply. She is concerned with the hospitals having no smoking, and smoking in bed is not a good policy. Hospitals in Topeka have made strides. They have designated areas in lounge and cafeteria. She stated she feels Section 6 should remain in the bill.

William Mitchell, The Tobacco Institute, appeared in opposition to the bill. He testified there is already a law on the books that provide unlawful to smoke in public place and punishable, and it provides for a posting. All this bill does is change the procedures of posting. Hospitals feel they should have the right to regulate their own institutions. He added one hospital said they would lose patient load if this is the case. In the psychiatric wing those people are allowed to smoke. They feel it would be better to leave in the realm of people who are running these businesses. These are local problems that should be handled by local people. The bill does not solve specific problems. He referred the committee to his handout concerning causes of air pollution. He pointed out the cause of indoor air pollution in 95 percent of cases is inadequate or dirty ventilation systems. Copies of his handouts are attached (See Attachments X).

Paul Coleman, Kansas Tobacco and Candy Distributors and Vendors Association, testified they are opposed to this bill not because it will cut into their tobacco products. This isn't really going to cut down on cigarette consumption. Many businesses have already implemented their own smoking regulations. He said hospitals don't need a statute. There will be a fiscal impact upon the State of Kansas. Any time you have a law, you will have to enforce it. To just put up the sign and not enforce it, then you don't need this bill. He stated business entities and governmental entities need to enforce this bill. There is already a law on the books that is working and if business wants regulated smoking, they may do so right now.

Marjorie Van Buren, Office of Judicial Administrator, testified her office had two amendments for consideration, and she will be glad to work with staff on them. In lines 68 and 71, the bill contains a specified fine and it is specified in the law to include a docket fee of eighty-eight dollars. Another conflict with an existing statute appears in lines 71 and 72. If this is to be an exception to the rule, more specific language is needed. A copy of her testimony is attached (See Attachment XI).

Tom Bell, Kansas Hospital Association, testified they are supportive of the bill as it is written. It may create administrative difficulties for hospital administrators. Banning smoking in all hospitals may be impractical. Many hospitals do not have psychiatric and drug abuse units, but they feel a total ban would have some practical difficulties.

The meeting adjourned.

A copy of the guest list is attached (See Attachment XII).

GUEST LIST

COMMITTEE: SENATE JUDICIARY COMMITTEE DATE: 3-25-87 Noon

NAME (PLEASE PRINT)	ADDRESS	COMPANY/ORGANIZATION
Brett Berry	Silver Lake, Ks	A/Sen. Salzbourg
DICK TAYLOR	TOPEKA	LIFE AT BEST
Jim Ackeret	Wichita	G. A. S. P.
Lorna A. Phillips	Topeka	KDHE
Jim McHenry	Topeka	SRS/ADAS
Rod Lake	"	KASB
Richard Funk	Topeka	KAJD
Darlene Stearns	Topeka	CCR
Dave Pomeroy	Topeka	KSNR
LaVera Greve	Topeka	Individual Citizen
Jeanne Schneider	Topeka	IOUS
Leslie D. Drummond	Topeka	Kan Hassler (Antenna)
Paul D. Coleman	Topeka	Ks Tob Can Dist Ass
Bill Mitchell	Hutchinson	Blanco Industries
Ric Silber	Top	DoB
Marjorie Van Buren	Topeka	OJA
Roberta B. Kenkle	Lawrence	American Lung Association of Kansas Topeka
Sheila Bannister	Sen Burke	

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3-25-87

KANSAS MEDICAL SOCIETY
1300 Topeka Avenue · Topeka, Kansas 66612 · (913) 235-2383

March 24, 1987

TO: Senate Judiciary Committee

FROM: Jerry Slaughter
Executive Director

SUBJECT: HB 2412; Regulating Smoking in Public Places

The Kansas Medical Society appreciates the opportunity to appear today on HB 2412, which regulates smoking in public places.

It should be emphasized that this bill would not prohibit smoking in public places or at public meetings. The bill merely requires that smoking be regulated or confined to areas which are appropriately designated. The designation of smoking and non-smoking areas in public places or at public meetings is left up to the proprietor or other person in charge of such places.

The original version of the bill prohibited smoking in certain health care institutions. The House Public Health and Welfare Committee, however, amended the bill to treat health care institutions just as any other public place, because of concerns expressed that certain institutions such as pharmacies and substance abuse treatment programs and hospitals would have difficulty in prohibiting smoking altogether.

We are advocating this legislation because of the public health problem presented by "passive" smoking. Passive or involuntary smoking means breathing in smoke against one's will. Tobacco smoke in the environment comes from two sources: "mainstream" smoke that is exhaled by the smoker, and "sidestream" smoke that comes from the burning end of a cigarette. Of the two, sidestream smoke poses a greater threat to the health of non-smokers.

Scientists who study smoking note that there is no such thing as a "safe" level of exposure to smoke. Any exposure to cigarette smoke over a sufficiently long period of time must be considered potentially harmful, even though smoke is diluted in the surrounding air. Non-smokers who are exposed to smoke in a poorly ventilated room over a long period of time are certainly at risk. Studies have shown that a cigarette contains about 48 known carcinogens. Tar, the one that is usually associated with the carcinogenic process, is 70% higher in sidestream smoke than in mainstream smoke. Carbon monoxide is 2.5 times greater, and in nicotine 2.7 times greater in sidestream smoke than in mainstream smoke. Consequently, non-smokers are not safe nor immune to the harmful effects of smoking.

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Almost every state controls smoking in public places. Nine states have enacted legislation to protect the rights of non-smokers in the workplace.

Although many people feel enforcement of a regulated smoking requirement would be a problem, few if any infractions actually occur as a result of such legislation. Experience with designated smoking area policies at the state and local level, and in private industry, have shown that this kind of policy is self-enforcing. The simple placement of a "no smoking" sign acts as an effective deterrent.

You may hear concerns that a no-smoking law is unconstitutional. Generally, constitutional challenges to no-smoking laws fall into three basic categories. It is contended that such laws are impermissibly vague in violation of the due process clauses of the 5th and 14th amendments; that such laws are not rationally related to legitimate state goals, and therefore deny equal protection and due process; and that such laws violate the constitutional right to privacy.

In layman's terms, in order to overcome assertions of constitutional vagueness, the law must provide an individual with notice of the act that is prohibited, and with a clear picture as to what acts are prohibited. Since no-smoking laws envision a penalty, they will pass the vagueness test.

Under the equal protection issue, the legislature may legitimately deprive an individual of due process, or may legitimately discriminate if there is a good reason to do so. Smoking does not appear to be a fundamental right protected by the Constitution, thus the legislature need only show that there exists a legitimate reason (the dangers of second-hand smoke) and the relationship of the law to that reason (confinement of second-hand smoke) in order for the law to be upheld.

The right to privacy argument generally doesn't apply in this case. Traditionally this right has been applied to marriage, family, right to die issues, etc. The right to unregulated smoking does not appear to fall into the fundamental privacy rights category. To summarize, it does not appear that there is a constitutional right to smoke, therefore smoking may be regulated for the public good.

We believe enactment of this legislation would be a big step forward in Kansas, and signal to the public that the legislature is concerned about the health effects of passive or involuntary smoking. Attached to this testimony is a fact sheet on certain aspects of the smoking debate which may be of interest to you. We appreciate the opportunity to offer these comments, and urge your favorable consideration of H.B. 2412.

JS:nb

Attch I

FACTS ON TOBACCO-RELATED DISEASE AND DEATH

- Tobacco products are unique in that there is no safe use for them. Tobacco is the only legally available product that when used as intended, can--and probably will--kill the user. (Surgeon General; Coalition on Smoking OR Health)

- Each year about 350,000 people in the U.S. die from smoking-related diseases--more than the total of Americans killed in World War I, Korea and Vietnam combined. One million worldwide die each year from smoking-related diseases. (Surgeon General's Report on Smoking and Health)

- The cost of medical care for smoking-related diseases is $22 billion a year, or seven percent of all the money spent on personal health care in the U.S. Also, $43 billion in earnings and productivity is lost every year as a result of smoking. (Office of Technology Assessment)

- Eighty-one million working days are lost each year due to smoking. (Office of Technology Assessment)

- Smoking is associated with 30 percent of all cancers. (American Cancer Society)

- Smoking causes 85 percent of all lung cancer deaths (130,000 in 1984) and is the major cause of lung cancer in women. (American Cancer Society)

- Smoking causes 90 percent of all cases of bronchitis and emphysema. (American Cancer Society)

- Smoking is a major cause of cancer of the larynx, oral cavity and esophagus and contributes to cancer of the urinary bladder, kidney and pancreas. (American Cancer Society)

- Smoking is the major cause of coronary heart disease. (American Cancer Society)

- Smoking results in low birth-weight babies and contributes to higher miscarriage rates. (American Cancer Society)

Attach I

3-25-87

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

TESTIMONY ON H.B. 2412

PRESENTED TO: Senate Judiciary Committee, March 25, 1987

This is the official position taken by the Kansas Department of Health and Environment on H.B. 2412.

BACKGROUND INFORMATION:

The detrimental health hazards of tobacco smoke for people who smoke and for non-smokers has been consistently documented. "No Smoking" designated areas are increasing now that medical studies document smoking related diseases are increased by smoking for both the smoker and non-smoker.

Evidence continues to mount that "passive smoking" (breathing second-hand smoke) is harmful to the nonsmokers. A report in the New England Journal of Medicine stated that nonsmokers who worked for 20 years alongside smokers had lowered lung capacities and explosion rates, and were similarly affected as people who smoked but didn't inhale, or to "light smokers". Air pollutants in offices that allow smoking can be 10 to 100 times higher than outside environmental standards. Other research contends that nonsmokers who because of their work situation constantly exposed to cigarette smoke are in essence "passive smokers," and have lung functions similar to smokers who inhale one to ten cigarettes a day.

STRENGTHS:

This bill would provide non-smokers a more healthful environment in public places, public meetings, and health care institutions.

WEAKNESSES:

This bill does not clearly specify enforcement.

DEPARTMENT'S POSITION:

The Kansas Department of Health and Environment supports this bill because it would provide a more healthful environment free of tobacco smoke in public places and health care institutions.

Presented by: Dr. Lorne A. Phillips
Director, Bureau of
Community Health

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Department of Social and Rehabilitation Services
Alcohol and Drug Abuse Services
House Bill 2412

Regulation of Smoking in Public Places and Health Care Institutions

I. Title

An act regulating the smoking of tobacco products in public places and at public meetings; declaring certain acts to be misdemeanors, and prescribing penalties for violations; repealing K.S.A. 21-4008.

II. Purpose

The bill restricts smoking in public places and public meetings to designated smoking areas. Smoking is prohibited in passenger elevators, school buses, public mass transportation, or as prohibited by Fire Marshall or other law, ordinance, or regulation.

III. Background

There is increasing concern with the costs to society from smoking and exposure to second-hand smoke. This has resulted in smoking policies and restrictions in many industries, business offices, government agencies and cities.

IV. Effect of Passage

The act will restrict and prohibit smoking of tobacco products as noted above. Signs clearly stating smoking laws are required in affected areas. Violations by smokers is a misdemeanor punishable by a $20 fine. Any person failing to post signs required by the act is guilty of a misdemeanor punishable by a fine of not more than $50.

V. SRS Recommendations

Support the passage of House Bill 2412 regulating and prohibiting the use of tobacco products in public places.

Robert C. Harder
Office of the Secretary
Social and Rehabilitation Services
296-3271
March 25, 1987

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3-25-87
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STATE OF KANSAS
MIKE HAYDEN, GOVERNOR

STATE DEPARTMENT OF SOCIAL AND REHABILITATION SERVICES

ALCOHOL AND DRUG ABUSE SERVICES

2700 WEST 6TH STREET
TOPEKA, KANSAS 66606
(913) 296-3925
KANS-A-N 561-3925

Testimony for the Regulation of Smoking of Tobacco Products in Public Places and at Public Meetings.

March 25, 1987

Social and Rehabilitation Services supports favorable consideration of House Bill 2412. Experience with SRS smoking policy has been very favorable. Prohibition and restriction of smoking has not resulted in management problems. Smokers and nonsmokers have accepted the policy.

The public supports smoking restrictions. Sixty-one percent of Kansans support prohibiting smoking in the workplace. Only 30% oppose the prohibition. These are the results of a poll conducted January 24th and 29th by the University of Kansas Institute for Public Policy and Business Research. A 1985 Gallup Poll revealed that 62% of all Americans believed smokers shouldn't smoke in public places. Eighty percent of current smokers, 89% of former smokers and 92% of nonsmokers want office smoking rules. Ninety four percent believe smoking is a health hazard.

Regulation of smoking is in the public interest. The medical cost to society due to smoking are staggering. According to the Surgeon Generals Report of 1979 smokers have 10 times more lung cancer, 3-5 times more cancer of the oral cavity, 3 times more heart attacks, 2 times more heart disease. In all, smokers have a 70% greater rate of death from all causes than nonsmokers.

Attach. III

Nonsmokers who are forced to work in a smoke filled environment have about the same risk of impairment as do smokers who inhale between 1-10 cigarettes per day. (New England Journal of Medicine, March, 1980).

Several studies document the hazards of second hand smoke. The Hirayama Study, published in the British Medical Journal, showed that non-smoking women exposed to their husbands cigarette smoke had marked increases in lung cancer. Their risk was one-half to one-third that of direct smoking. J.R. White and H.F. Froeb, in a study of California office workers published in the New England Journal of Medicine, found nonsmokers exposed to workplace tobacco smoke for a long period had equivalent lung function to those smoking ten cigarettes per day. They had lost 15 to 20 percent of their lung capacity.

Exposure to smoke is particularly harmful to the fetus and children. Mothers who smoke during pregnancy give birth to smaller babies and have twice the risk of producing babies with birth defects. During the first year, children exposed to second hand tobacco smoke have double the risk of developing pneumonia or bronchitis.

In summary, smoking restriction is a necessary social policy with both public health and health care cost implications. The public clearly favors smoking restrictions. SRS, the Kansas Department of Health and Environment, Kansas Department of Human Resources, Kansas Corporation Commission, IBM, Control Data, Boeing, Martin Eby Construction Company of Wichita, Petro's Medical Supply of Topeka, and the Cities of Overland Park and Topeka have all successfully implemented smoking restrictions. Passage of H.B. 2412 would mark another important step in a much-needed societal process.

Thank you for the opportunity to speak in favor of this bill. I will welcome any questions.

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use Bill 2412 March 25, 1987
ate Judiciary Committee

Richard Taylor
KANSANS FOR LIFE AT ITS BEST!

"Alcohol is a drug. It is the No. 1 drug of abuse in our society. Its only close rival is tobacco." JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION October 12, 1984 (page 1911)

This measure deals with our number two drug problem. Our nation has declared war on drugs. Here is your opportunity to strike a blow for less drug suffering.

Many expensive hours of legislative time are used dealing with alcohol and tobacco measures during every session. Taxpayer dollars spent for such time could be saved if the legislature would strike section (d) of K.S.A. 65-4102. Someone should make such an amendment to the next controlled substance bill considered.

By definition, tobacco and alcohol are controlled substances but are exempt from control under that law. They must be controlled under other statutes, one of which is HB 2412.

As with all drug problems, education is an important part of the answer. Law is also an important part of the answer. Tobacco and other drug problems cause much human suffering because pushing the drug is profitable. Money is the issue, not freedom of choice.

The freedom of choice argument can be used to defend anything any person wants to do any time in any place. Unlimited freedom of choice is the law of the jungle. I want freedom of choice to choose my vocation, choose my mate, choose where I will live, choose the car I drive, choose what I will say. We all want freedom of choice for that which builds up. A civilized society does not permit freedom of choice for that which destroys.

Born and raised on a Kansas farm, I had a voice that could reach Dad at the back 40. But in 1974, a syllable would catch in my throat at times. Dr. Kirchner at the Kansas University Medical Center found a lesion on a vocal chord. He asked if I smoked. I said no. He said such a lesion is always benign in a non smoker, but they must do a lab test and I should return in 10 days.

My wife and I returned in ten days, hoping for and expecting good news because medical doctors in Topeka and at the Kansas University Medical Center said cancer on a vocal chord happened only in a smoker.

Dr. Kirchner was very solemn. He looked me in the eye and said, "You have cancer on a vocal chord. Leave it there and it will kill you. Remove the vocal chord by surgery and we'll hope for the best."

I now speak with one vocal chord. Before surgery, someone made a recording as I spoke to the First Baptist Church at Wichita. I would like for you to hear my voice before cancer. TV stations may have some old footage of my voice as I presented information day after day to many legislative committees in smoke filled rooms during the sessions of 1971, 72, 73, and 74.

Doctors told me second hand smoke may have caused cancer on my vocal chord. Do non smokers have the right to live in freedom from second hand smoke in public places? Should non smokers lose a vocal chord to cancer because of second hand smoke?

For the sake of every smoker and non smoker, for the vocal chords of every person throughout Kansas, please support HB 2412 and other measures that tend to reduce the use of our number two drug of abuse.

"A colorful orator with a hearty baritone voice, Mr. Taylor finds his natural forum in church pulpits around the state." Wall Street Journal, Dec. 28, 1973 (front page)

attach. IV

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3-25-87

Kansans for NonSmokers Rights

913 354-4963
1169 Webster
Topeka, Kansas 66604

Remarks by Dave Pomeroy, President
Senate Judiciary Committee; March 25, 1987

First, I would like to begin my remarks by citing a few reasons why the Kansas legislature should restrict smoking in public places:

1. An Overland Park man who told me about losing a lung at the age of 19 due to others' smoking.
2. A Wilson woman of 78 who had difficulty breathing while hospitalized because of smoke from other patient's smoking materials.
3. Children in Burlingame who must breathe hazardous cigarette smoke at school so that school staff can satisfy their nicotine addiction.
4. A Shawnee Mission hospital nurse who must take breaks in the hall because of tobacco smoke in the nurses' lounge.
5. A man in central Kansas who, according to a Hays physician, died of a tobacco-induced asthema attack at a meeting last year.
6. A Council Grove woman who becomes ill each day at work because of cigarette smoke and cannot receive any relief from her employer.

Such stories are not rare and tobacco smoke adversely affects thousands of Kansans each day who are unable to escape its' disabling and costly path. While I obviously support restrictions on tobacco smoke in public places, I feel HB 2412 would do little to alleviate the tobacco smoke problem.

I am also concerned about the provision that permits a proprietor to determine the percentage of a public area to be designated as smoking. My experience has led me to realize that not all proprietors will act in good faith to protect the health and comfort of their fellow Kansans. The establishment of smoking areas should be done only when and where non-smokers can conduct their business without having to enter such smoking areas. I hope this bill will be ammended to provide this minimum level of protection.

When 2412 was under consideration in the House, comments were made that such a law would deprive smokers of their "rights." I ask, the right to do what? The right to ruin someone else's meal? The right to cause someone to have to pay to have

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tobacco smoke odor removed from their clothing? The right to cause someone to become ill and possibly even die? Smoking restrictions do not make smoking illegal...they just establish areas where smoking is permitted. There is a long list of legal products which cannot be used in all public places because of their potential danger and annoyance of other people.

Do Kansans want such restrictions? I haven't seen any scientific polls in ours state, but I believe they do. Even residents of the tobacco state of Kentucky, according to a poll published by the Louisville Courier-Journal on March 1 of this year found that 90 percent of adult Kentuckians favor restrictions! Only 9 percent of adults in this Kentucky poll,which conforms to the standards of the National Council on Public Polls, believe there should be no limits on public smoking. And that's in a state where tobacco is king.

The Tobacco Institute, which still denies any direct between smoking and health problems in smokers, tells us to use "common courtesy." Unfortunately, common courtesy isn't working when it comes to public smoking. If it did, there would be no Kansans for NonSmokers Rights and no need for anyone to appear before you today asking to be given the right to decide for themselves to be non-smokers in public places in Kansas. The behavior of non-smokers should no longer dictated by their smoking neighbors.

Attach. I

Statement Of The American Lung Association Of Kansas (ALA/K)
Presented to the Judiciary Committee
Of the Kansas Senate
Concerning House Bill 2412

Prepared by Roberta B. Kunkle, Smoking Education Consultant, ALA/K. March 16, 1987

This statement is an addition to the attached statement presented to the Health and Welfare Committee of the Kansas House on March 2, 1987.

ALA/K wishes to make a more specific recommendation regarding Section 3, Page 2. Lines 0060-0063 state, "The proprietor or person in charge of the public place shall have the authority to establish the percentage of area in the public place which shall be posted and designated as a smoking area." We recommend that at least 50 percent of public areas be designated as nonsmoking areas. On June 10, 1986, The Kansas Department Of Revenue issued a Smoking in The Workplace Policy. (Personnel Procedure Memorandum No. 15) A copy is attached. Section 3(b) of that document states,"The work area begins as a nonsmoking area. Up to 50% of the work area may be designated as a smoking area. Division of work areas into smoking and nonsmoking areas will be based on the ratio of smokers to nonsmokers and the feasibility of this separation in the work area. In no case shall the designated smoking area exceed 50% of the working area." The ratio of smokers to nonsmokers is 31 percent smokers to 69 percent nonsmokers; these are national figures supplied by the 1985-86 Annual Report of The American Lung Association, Tobacco's Toll On America. According to figures

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supplied by Kansans For Nonsmokers Rights, only 22 percent of Kansans smoke. Allowing 50 percent of an area to be designated as smoking, still gives smokers more than their proportional share of the space. The bill, as worded, could result in only token areas being set aside for the majority of the population. It is now well documented that second hand smoke is harmful to those who breathe it, the nonsmokers, of course, but also to the smokers who breathe both mainstream and sidestream smoke.

It is the hope of ALA/K, that the Judiciary Committee will follow the example of The Kansas Department of Revenue and of municipalities such as Topeka and Lawrence in their respective city ordinances and will amend the bill to require that no more than 50 percent of an area be designated as a smoking area. This will be a valuable first step in providing a physical environment more conducive to respiratory health and comfort for all.

ALA/K also endorses returning Section 4 prohibiting smoking in all health care institutions. We also recommend that educational institutions be added to this section. The use of tobacco is responsible for 350,000 deaths per year. This would be equivalent to two jumbo jets crashing each day of the year. The latter would cause hysteria and all flights would be halted until the cause of the crashes was determined; the former has, until very recently, been an accepted fact of life. Because health care institutions care for the sick and promote life, both patients and employees should not be subject to secondhand smoke. Our schools should provide the young people of Kansas with a healthy and safe environment. Many school districts are adding or strengthening Drug Education curriculums, yet many high schools still have student smoking lounges. Nicotine is an addictive drug, called by the American Medical Association "our most deadly drug". Teachers, administrators and other

Attach VI

school employees who smoke send a message to students that smoking is acceptable behavior. Also when adults are allowed to smoke at school, the enforcement of nonsmoking by students is seen as hypocrisy by the students. Even when smoking is confined to faculty lounges or boiler rooms, students are very much aware that smoking is going on in their schools. All smoking school employees are poor role models for young people, when the most admired and influential teachers are known by the students to be smokers; the message that smoking is acceptable and desirable is received. Most smokers begin their habit between the ages of 12-18. Schools should promote nonsmoking as the norm. Administrators and teachers should approach smoking as a health issue, rather than an issue of dicipline and control. The Tonganoxie School District has been smoke free for several years, without serious problems of enforcement. The Kansas Senate can help all unified school districts and other educational institutions achieve an environment that promotes respiratory health and does not promote the use of tobacco.

Attch. VI

KANSAS DEPARTMENT OF REVENUE
Office of the Secretary
State Office Building · Topeka, Kansas 66612-1588

PERSONNEL PROCEDURE MEMORANDUM NO. 15

DATE: JUNE 10, 1986

SMOKING IN THE

TO: ALL DIVISION DIRECTORS,
BUREAU CHIEFS AND
REVENUE MANAGERS

FROM: MARK ANDREWS, DIRECTOR
PERSONNEL SERVICES BUREAU

BACKGROUND

Smoking in the workplace has become a concern both nationally and locally. The city of Topeka passed an ordinance on smoking and ten other Kansas State agencies have smoking policies established. There are employees in the Department of Revenue who are allergic to smoke. Other health related concerns expressed by employees include the effect of smoke on persons with asthma, chronic bronchitis, sinus, or emphysema. Some employees have been instructed by their doctors not to smoke because of previous smoking related diseases such as cancer or heart problems. In February, 1986, a committee was established to study the issue of smoking in the workplace in the Department of Revenue. The committee consisted of twelve Topeka employees and eleven employees in different parts of the state. This policy is based on a combination of the recommendations of the committee members and the results of a survey of Department of Revenue employee opinions on smoking in the workplace.

PURPOSE

To establish a departmental policy on smoking in the workplace.

POLICY

As of July 18, 1986:

1. All Department of Revenue areas which are available to and frequented by the public (reception and lobby areas) are designated nonsmoking areas.

2. All Department of Revenue conference/meeting rooms, restrooms, and hallways are designated nonsmoking areas.

3. All Department of Revenue work areas are designated smoking and nonsmoking areas according to subsections (a) and (b). Division Directors and Bureau Chiefs will have two options:

3. (continued)

(a) Declare the entire working area a nonsmoking area and designate a smoking area(s) outside the working area. The designated smoking area cannot be in an area designated as nonsmoking in section (1) and (2) of this policy, or

(b) The work area begins as a nonsmoking area. Up to 50% of the work area may be designated as a smoking area. Division of work areas into smoking and nonsmoking areas will be based on the ratio of smokers to nonsmokers and the feasibility of this separation in the work area. In no case shall the designated smoking area exceed 50% of the working area.

NOTE: Option 3(a) is the recommended option, where implementation is possible.

4. Recognizing that Department of Revenue employees work in many different types of workplaces, the following policies apply:

(a) These same policies apply in offices outside the Topeka city limits, which are under the jurisdiction of the Department of Revenue, and in which two or more persons are employed.

(b) In a one-person station, office in the home, or in a state vehicle alone, smoking is a personal decision, except that when serving a taxpayer smoking is prohibited.

(c) When two or more persons occupy a state vehicle at the same time, smoking is prohibited, except when all occupants are smokers and have a mutual agreement that smoking in the vehicle is acceptable.

(d) Where employees carry out their duties in business places or offices not under the jurisdiction of the Department of Revenue, the smoking policy or expressed wishes of the business or host organization shall prevail, except that when serving a taxpayer smoking is prohibited.

(e) In work stations with two or more employees whose primary duties are to serve the public, and where such work areas are too small to designate a smoking area which will not affect the public area, smoking is prohibited inside the work station.

5. Signs will be posted designating smoking and nonsmoking areas.

6. Refusal by an employee to comply with this policy will be deemed insubordination and will be subject to disciplinary action.

This policy has been developed in an attempt to strike a reasonable balance between the needs of smokers and the need of nonsmokers to breathe smoke-free air, and to recognize that, where these needs conflict, the need to breathe smoke-free air shall have priority.

Harley D. Duncan
Secretary of Revenue

Mark Andrews, Director
Personnel Services Bureau

Attach. II

STATEMENT OF THE AMERICAN
LUNG ASSOCIATION OF KANSAS (ALA/K)
PRESENTED TO THE COMMITTEE ON
PUBLIC HEALTH & WELFARE
REGARDING HOUSE BILL 2412

Prepared by Roberta B. Kunkle, Smoking Education Consultant, ALA/K. March 2, 1987

The American Lung Association of Kansas commends the committee on Public Health and Welfare for its concern for the health of all Kansans as evidenced by the proposed House Bill 2412.

If tobacco was a new product, its manufacture, distribution, sale and consumption would never be approved by the U.S. Food and Drug Administration. Tobacco contains substances which do not have to be abused to effect lethal results. According to the U.S. Surgeon General, 350,000 premature deaths each year are directly linked to smoking or chewing of tobacco in the amount intended for regular use. Although the percent of the population that smokes has declined from over 45 percent in 1964 to 31 percent today, 54 million people continue to use tobacco. In fact, U. S. tobacco companies will spend over 2 billion dollars this year to attract even more people, particularly young people and minorities, to this deadly habit.

Tobacco contains nicotine; the American Medical Association has called nicotine "our most deadly addictive drug". The addictive properties of nicotine make an outright ban or prohibition impractical and difficult to enforce in the public sector; therefore, both education and smoking restrictions in public places present workable methods to effect positive change in smoking behavior. According to the 1985 Gallup "Survey of Attitudes Towards Smoking", the number of respondents who answered yes to the question, Is Smoking Harmful to Your Health? rose from 92 percent in 1983 to 94 percent in 1985. However, many are still unaware of the extent of this harm. The American Lung Association's 1985-86 Annual Report states that about half of all smokers still do not know that most cases of lung cancer are caused by smoking and are also not aware that cigarette smoking is addictive.

The Gallup results support public acceptance of restrictions on smoking. The percentage of all adults who answered "yes" to the question, Should Smokers Refrain From Smoking in the Presence of Nonsmokers? rose from 69 percent in 1983 to 75 percent in 1985 (62 percent of current smokers answered "yes"). Passage of this bill will not only reflect public opinion and protect the public welfare but will reduce exposure of high risk individuals to environmental tobacco smoke. The following figures were compiled by

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the Epidemiological and Statistical Unit of ALA, the estimated number of Kansans who are affected with chronic lung disease are: Chronic Bronchitis 123,050; Emphysema 23,408; Adult and Pediatric Asthma 65,862. These susceptible individuals will be able to go into the various environments necessary for full and productive lives without further exposure to second-hand smoke.

The current report of the Surgeon General, The Health consequences of Involuntary Smoking 1986, published by the U.S. Department of Health and Human Services offers evidence in support of smoking restrictions. According to the report, "exposure to environmental tobacco smoke is a cause of lung cancer". The report also states, "Perhaps the most common effect of tobacco smoke exposure is tissue irritation. The eyes appear to be especially sensitive, but the nose, throat and airway may also be affected by smoke irritation".

Sidestream smoke contains the same toxic and carcinogenic agents found in mainstream smoke. According to the report of the Surgeon General, "the combustion conditions underwhich sidestream smoke is produced result in generation of larger amounts of many of these toxic and carcinogenic agents per gram of tobacco burned than mainstream smoke". The conclusion is that involuntary smoking should not be viewed as a qualitatively different exposure from active smoking. It is exposure to a known hazardous agent, cigarette smoke.

House Bill No. 2412, if passed and implemented, will help to reduce the 350,000 premature deaths caused each year by cigarette smoking. This bill will help counties, cities and corporations in formulating their own smoking policies and may strengthen those already in existence.

This bill will eliminate or reduce smoking in a variety of environments frequented by the public. A change that ALA/K would suggest at this time is a rewording of lines 0057-0060. The current language allows the proprietor or person in charge of a public place to have authority to establish the percentage of the area in the public place which shall be posted and designated as a smoking area. A more realistic policy would set a minimum percentage that approaches the actual ratio of smokers (31 percent) to nonsmokers (69 percent) in the population. Most people do not smoke. ALA/K also recommends the inclusion of the term, educational institutions, in line 0045.

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According to Topeka cardiologist, Dr. John Hiebert, "There is one group of individuals in our society which, while it has no vote, does have breath. This group is our children". Removing smoking from the schools will not only protect the children from exposure to involuntary smoking, but will provide a positive example of a drug-free environment, particularly at a time when Kansas school districts are allocating significant resources to deliver drug education programs. If all smoking is to be prohibited in health care institutions; should not the same regulation apply in the environment where we educate our children?

The passage of this bill will help reduce tobacco's toll on the citizens of Kansas. You have the opportunity by recommending this legislation to assume a leadership role in achieving a smoke-free society by the year 2000. Thank you.

attach. VI

References

1. American Lung Association Publications:
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   Estimated Magnitude of Respiratory Disease 1987

2. Hiebert, John, M.D. Report to Lawrence City Commission, November 1986

3. New York State Journal of Medicine - The World Cigarette Pandemic - July 1985, Vol. 85, Number 7

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   The Health Consequences of Involuntary Smoking: A Report of the Surgeon General 1986

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ASH SPECIAL REPORT

National Academy Of Science Hearings On Passive Smoking

Action on Smoking and Health joined scientists, health professionals, and others in testifying before the National Academy of Sciences (NAS) on the health effects of ambient or passive tobacco smoke. The NAS, an organization chartered by Congress in 1863 to give federal agencies independent scientific advice on technical issues, was asked by the Environmental Protection Agency to study and report on two issues: how can indirect exposure to tobacco smoke be measured, and what are its effects on health? As part of this process, the NAS's Committee on Passive Smoking heard testimony on Wednesday, January 29, 1986, from approximately twenty witnesses, almost half of them associated with the tobacco industry

Generally, the testimony and views of government officials, representatives of major health organizations, and independent scientists agreed that there is more than enough scientific and medical evidence to warrant action. On the other hand, the opinion of the tobacco industry and the members of a so-called "Indoor Air Pollution Advisory Group"—individuals whose research is funded by the tobacco industry—is that the evidence is weak and the studies flawed, and that the ill effects many people feel when exposed to tobacco smoke could easily be caused by other things.

Because of the importance of this issue and of the proceedings before the National Academy of Sciences, ASH presents this Special Report, which contains excerpts from the testimony before the Committee and from some of the materials referred to.

NOTES

1. Materials printed in smaller type are from the actual documents cited. Omissions and footnotes are generally NOT indicated.
2. Materials in larger type are comments or additions by ASH, and should not be attributed to the authors.
3. Items in brackets are footnotes from the original document if the notation "fn." appears; otherwise, they are comments or additions by ASH.
4. ASH regrets that it cannot respond to requests for individual copies of the documents. Requests should be sent to the individual authors or the NAS, 2100 C St. NW, Washington, DC, 20006.

Statement of the Coalition on Smoking OR Health

by Lawrence Garfinkle, Vice President for Epidemiology and Statistics, and Director of Cancer Prevention for the American Cancer Society

This *Statement* is of particular importance for two major reasons. The first is that not only is Mr. Garfinkle a very prominent researcher in the area, but also he speaks here on behalf of the three major national health organizations. The second is that the tobacco industry has quoted Mr. Garfinkle—he says misquoted—in a number of their ads about passive smoking (see discussion following the *Statement*).

I am Lawrence Garfinkle, Vice President for Epidemiology and Statistics and Director of Cancer Prevention for the American Cancer Society. I am speaking on behalf of the Coalition on Smoking OR Health, whose member organizations the American Heart Association, the American Cancer Society, and the American Lung Association founded the Coalition in March 1982 to bring smoking prevention and education issues to the attention of legislators and other government officials. I have published two studies on involuntary smoking and lung cancer, one a prospective study and one a case control study, the latter appearing in the *Journal of the National Cancer Institute* in September, 1985. I am pleased to have this opportunity to present the views of the Coalition and myself about involuntary smoking.

Evidence continues to accumulate on the harmful effects of environmental tobacco smoke. Many people, allergic and non-allergic, complain of the acute effects of exposure to tobacco smoke. In one study of non-allergic persons exposed to environmental tobacco smoke, nearly 70% said they suffer from eye irritation, 30% indicated they experience nasal discomfort, 30% get headaches and 25% develop a cough. Of those individuals who say they are allergic to tobacco smoke, the percentages complaining of various symptoms are even higher.

The relationship of involuntary smoking and cancer has generated the most interest and scientific inquiry. Studies in both Japan and Greece revealed that women nonsmokers married to smokers have higher risks of lung cancer. In the Japanese study, nonsmoking wives of heavy smokers had an 80 percent high-

er acquiring lung cancer, while the Greek study showed nonsmoking wives of heavy smokers had a risk of developing lung cancer three times that of nonsmoking wives married to nonsmokers.

In a case-control study by the American Cancer Society of 134 lung cancer cases and 402 controls, which used four different methods to measure exposure to tobacco smoke, involuntary smoking increased the risk of lung cancer from 13 percent to 31 percent. This overall risk was comparable to that shown by an earlier American Cancer Society prospective study, although the earlier study did not show a relationship between an increased risk of lung cancer in the nonsmoking wife and the number of cigarettes smoked per day by her husband. The latest ACS study *did* show a dose response relationship based on the number of cigarettes smoked by the husband. The risk of lung cancer doubled in nonsmoking women whose husbands smoked 20 or more cigarettes a day at home.

Several investigators have shown that certain chemical constituents in sidestream smoke (including "tar" and nicotine) are found in much greater concentrations than in mainstream smoke. A number of studies have also demonstrated that involuntary smokers have higher levels of cotinine in blood plasma, urine or saliva than nonexposed nonsmokers. Cotinine is a metabolite of nicotine and is considered an accurate measure of exposure to tobacco smoke.

The evidence linking involuntary smoking and lung cancer is growing. At least two additional case-control studies, each with large numbers of nonsmoking lung cancer cases, are in press. Both new studies show essentially the same dose response relationship between risk of lung cancer and exposure to tobacco smoke as described above. Several other large multicenter studies are now underway as well.

In addition, involuntary smoking may also exacerbate symptomatic coronary heart disease. At a recent American Heart Association meeting, report was made of increased risk of death from coronary heart disease due to involuntary smoking. This paper is now being prepared for publication. Although this report is preliminary and additional studies are required to confirm the finding, this could be an even more serious public health problem than lung cancer, as many more deaths would be involved.

After the first studies linking active smoking and lung cancer in the early 1950s, such as the Hammond-Horn study in 1954, it took six years before the American Cancer Society issued its first policy statement on the dangers of cigarette smoking, and even then ACS limited its concerns to teenage smoking. Many said at that time that more proof was needed before the relationship between active smoking and lung cancer could said to be proved. Speculation about confounding factors such as personality and genetic background impeded those urging initiatives to stem the growing tide of American smokers. Not until the 1964 Surgeon General's report (*ten years* after the Hammond-Horn study) did education initiatives about the dangers of smoking take hold and begin to have an effect on the nation's smokers.

The Coalition believes that the evidence accumulated to date about the adverse health consequences of involuntary smoking is sufficient to recommend that action be taken to protect the health of nonsmokers in the work-

"involuntary smoking may also exacerbate symptomatic coronary heart disease ..this could be an even more serious health problem than lung cancer, as many more deaths would be involved."

place and in public places. Although more research is needed to determine the details of the relationships between nonsmokers' exposure to tobacco smoke and lung cancer and coronary heart disease, the question of whether the involuntary smoker faces a health risk *has* been answered. The risks posed by involuntary smoking may be much smaller than those posed by active smoking, but the potential number of affected individuals is much, much greater. We should take our lesson from the events of the 1950s and 60s. The time to act is now.

The R.J. Reynolds Tobacco Company, in national ads designed to reassure nonsmokers about passive smoking, has quoted Mr. Garfinkle of the American Cancer Society as saying that passive smoking had "very little, if any" effect on lung cancer rates among nonsmokers, and that "passive smoking may be a political matter, but it is not issue in terms of health pol. Mr. Garfinkle has publicly labeled the latter use of his work "scandalous and hypocritical" because it was taken out of context from its original source, and further distorted in meaning for purposes of the advertisement.

The most recent study Mr. Garfinkle mentioned—Garfinkle, Auerbach, and Joubert, "Involuntary Smoking and Lung Cancer: A Case-Control Study," J. Natl. Cancer Inst. 75(3):463-469, Sept. 1985—found that the chances of developing lung cancer for women whose husbands smoked were 30 percent higher than for wives of nonsmokers even after correcting for the fact that wives of smokers are more likely to be smokers or exsmokers. When the husband smoked more than a pack a day at home, the woman's risk was over 100 percent higher. The study concluded:

> This indicates that lung cancer is very uncommon among women who don't smoke. Their risk is very small. But we've found that living with a smoker and breathing smoky air heightens the chance that a *nonsmoker will develop* lung cancer, and that the risk increases the more the smoker smokes per day.

On The Effects Of Passive (Or Involuntary) Smoking By Nonsmokers

by John F. Banzhaf III, Executive Director and Chief Counsel, Action on Smoking and Health (ASH)

Because Action on Smoking and Health is primarily a legal action rather than a scientific organization, and because the major scientific studies in the area had already been fully discussed before the NAS committee, ASH decided to use its limited time to emphasize several common-sense points in its testimony.

My name is John Banzhaf, and in addition to my position as Professor of Law at the National Law Center of the George Washington University, I am Executive Director and Chief Counsel of Action on Smoking and Health (ASH). ASH is a non-profit tax exempt scientific and educational organization headquartered in Washington, D.C. It is the only national organization concerned solely with the problems of smoking.

ASH is generally credited with initiating the nonsmokers' rights movement by first successfully petitioning for no-smoking sections on airlines, helping to pass the first two statewide nonsmokers' rights laws in Arizona and South Dakota, and by developing the "THANK YOU FOR NOT SMOKING" sign. Since the very beginning, ASH, which serves as the legal-action arm of the antismoking community, has been involved directly or indirectly in most of the judicial, regulatory, and legislative proceedings related to the problems of protecting nonsmokers from the adverse effects of ambient tobacco smoke. It is

or sis, and with this background, that we tes

Although I have a scientific degree from M.I.T., two U.S. Patents, and have published almost a dozen technical papers, and although in the course of my work I have become generally familiar with the scientific and medical evidence related to the effects of passive smoking, my testimony is primarily that of a layman and not a scientist. For these reasons I would like to very briefly address, not the methodologies of performing or evaluating the individual studies, but rather the form the ultimate findings should take to most fairly and effectively fulfill your mandate of making not only a comprehensive but also a clear and understandable report to the public on this important issue.

In summary, ASH has four major recommendations:

I. That your report forcefully and without equivocation document those shortterm health hazards and physical irritations caused by ambient tobacco smoke as to which there is no serious doubt, and clearly distinguish these from the long-term consequences as to which some may have doubt.

In seeking to determine whether various substances—such as lead from gasoline, workplace chemicals, food additives and residues, and contaminants in drinking water—cause adverse health consequences, it is often necessary to do many large-scale carefully controlled studies; in part because the adverse effects may be masked by the effects of other substances to which there is also exposure; and in part because the effects take so long to manifest themselves. Fortunately, with regard to many of the problems caused by ambient tobacco smoke, the effects are so immediate, so serious, and so overwhelming that no such studies are necessary. In short, the power of tobacco smoke to cause immediate physical reactions in commonly encountered situations among such a large body of people is by itself conclusive evidence of at least some of the health hazards it poses.

For example, it has long been known by allergists and by many other physicians that there are many conditions that make people very susceptible to the concentrations of tobacco smoke they encounter in their daily lives. These conditions include chronic sinusitis, asthma, hay fever, various allergies, chronic bronchitis, emphysema, and other lung conditions, as well as lesser-known conditions. The National Health Survey ending June 1967 estimated that over 30 million Americans suffer from these diseases.

Virtually every allergist and many other doctors know patients with these and other conditions who suffer serious and often debilitating health problems upon exposure to smoke in workplace and social situations. Such situations have been well documented in the medical literature for at least the past 15 to 20 years. Asthmatics who suffered an attack and were forced to seek medical help from drifting tobacco even while seated in the no-smoking section of airplanes, and people whose reaction to smoke was so severe that they had to be taken from an airplane in an ambulance, have been the subject of testimony at the C.A.B. Courts, administrative agencies have, after hearing all of the evidence, ordered restrictions on smoking in the workplace because of the serious adverse effects upon the health of nonsmokers, and in some situations have even ordered compensation.

Surely the fact that many people with various susceptibilities suffer severe health problems from exposure to ambient tobacco smoke is not open to question, and no further detailed studies are necessary. While attempting to better quantify the number of such people and the nature and severity of their reactions might be useful, it is far from necessary for purposes of establishing this simple fact.

Equally clear is the fact that many—perhaps a majority—of nonsmokers with no particular susceptibilities suffer real physical irritation upon exposure to tobacco smoke in typical social situations. The most common manifestations, in order of decreasing frequency, are eye irritation, nasal symptoms, headache, cough, wheezing, sore throat, hoarseness, and dizziness. Once again this fact is so well known that it is hardly open to any serious doubt or in need of further studies. Indeed, it is so well known that a major brand of eyedrops actually advertises its product for relief from the "red eyes" caused by exposure to cigarette smoke.

In any body or randomly selected group of nonsmokers there are many who can testify from their own experience of the physical irritations they have suffered from exposure to various levels of tobacco smoke (e.g., a recent survey at the U.S. Agency for International Development showed that 63 percent experienced irritation from smoking in their workplace). In such situations detailed scientific studies are unnecessary: the nonsmoker experiences physical manifestations of irritation every time he or she is exposed to sufficient concentration of tobacco smoke; the irritations cease after leaving the smoky situation, and the irritations are of the type known to be caused by some of the specific chemical irritants identified in tobacco smoke. Once again further studies may be helpful, but they are hardly necessary to document the physical irritations many healthy nonsmokers suffer.

Nor can it be doubted that what each of these two groups experience are health problems. They are in many ways the same manifestations suffered by people with colds, flu, and other common health problems that interfere with a person's ability to work, and in many cases even cause absence from work. The relevant federal agencies, and a U.S. District Court, have determined that persons with a particular susceptibility to smoke are "handicapped persons."

"the power of tobacco smoke to cause immediate physical reactions in commonly encountered situations among such a large body of people is by itself conclusive evidence of at least some of the health hazards it poses."

II. That, in evaluating the strength of the evidence linking ambient tobacco smoke to long-term health problems such as lung cancer, your report evaluate these studies in it of the evidence normally required to take action with regard to other suspected public health problems (e.g., industrial exposure, outdoor air pollution), and to the strength of the evidence concerning well-known public health problems as to which action has long since been taken (e.g., lead in gasoline, food additives).

I can testify from personal experience that a great deal of confusion has occurred with regard to discussions of debated about whether ambient tobacco smoke is a cause of lung cancer. Since your report is designed at least in part to provide information to the lay public—including regulators,legislators, and other officials—it is respectfully suggested that it must take into account the most popular forms of confusion or misunderstanding and directly address them.

The first problem is that many people believe that a scientific proposition such as causation is either "proven" or "not proven"; i.e., that there is some certain and easily determined quantum or standard of evidence that must be met in order to prove the proposition, and that at any lower level the proposition is not proven. In short, they do not realize, as scientists do, that propositions such as causation only tend to be established, and that while increased levels of evidence produce higher and higher levels of certainty, there is no magic or preordained level at which certainty is achieved.

Closely related is the failure of many people to realize that with regard to most suspected public health problems, action must be taken long before one can say that causation has been established to a standard of "reasonable medical certainty" (a standard familiar from civil actions) or "beyond a reasonable doubt" (a standard familiar from criminal proceedings). Indeed to require this very high and incredibly difficult-to-obtain level of evidence before taking any action, particularly with regard to a substance to which millions are exposed, and which is suspected of causing very serious consequences only manifested after many years of exposure, would doom tens of thousands of people to death.

By the same token, it is inappropriate to initiate various regulatory measures based upon nothing more than a hunch or suspicion. It is for this reason that public health professionals together with legislators and regulators have developed a variety of criteria—standards of proof—to determine with regard to various types of problems when it is appropriate to take action. Common examples include foods and drugs, various components of outdoor air pollution, workplace exposure to various substances, and contaminants in drinking water.

To make whatever assessment you may make of the weight and strength of the evidence linking ambient tobacco smoke to long-term health problems such as lung cancer meaningful to governmental officials as well as the lay public, ASH would suggest that your report include two simple and brief sections. One section would simply state the criteria, in terms of the types and conclusiveness of proof, that are generally required in similar or related situations to trigger regulatory action; e.g., by the Delaney Amendment, the uniform cancer policy, OSHA's criteria, and the various EPA cri-

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ter... ...respectfully suggested that it is only against this background that even a knowledgeable layman can evaluate the significance of the weight of the evidence relating to ambient tobacco smoke.

Second, it is respectfully suggested that in order to provide some basis of comparison, the weight of the evidence linking ambient tobacco smoke to lung cancer should be compared to the weight of the evidence relating to other well-known issues. For example, since we have taken several very stringent measures to severely restrict lead in gasoline because of its alleged adverse health consequences when inhaled by children, it is reasonable to ask whether the evidence supporting that action is substantially stronger, substantially weaker, or of the same order of magnitude as that related to ambient smoke and lung cancer. Other examples that came readily to mind include saccharin and cyclamates, various contaminants in drinking water, the various components of outdoor air pollution, and substances whose exposure is regulated by OSHA.

Obviously it would not be necessary to compare ambient smoke evidence with that related to all of the above situations or substances, nor to provide a detailed quantitative discussion of the evidence in these other areas. However, it should not be difficult for persons skilled in these areas to provide a few simple comparisons with other well-known substances likewise subject to regulation. It is respectfully suggested that only in this way will the report be truly meaningful in view of the growing public controversies involving this issue. It should be noted that making such comparisons is purely a scientific assessment, and does not necessarily imply that any particular regulatory action with regard to smoking or the other substances is proper, necessary, or appropriate.

"Surely the fact that many people with various susceptibilities suffer severe health problems from exposure to ambient tobacco smoke is not open to question, and no further detailed studies are necessary."

III. That the report include a discussion of the serious adverse effects on nonsmokers of efforts to heat, cool, and ventilate buildings in which smoking is permitted—including dramatically increased costs and the problems caused by recirculation—drawing upon the work done by ASHRAE.

In reporting on the exposure of nonsmokers to ambient tobacco smoke, it would seen only appropriate to examine, draw upon, and report to the extent that it is found to be sound, the work done by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) in developing their standards for ventilation. After all, ASHRAE, like the NAS, is an impartial professional body that developed these standards and the underlying methodology based upon its very considerable professional experience in this highly complex area. In any event, it seems to ASH important that the public know about this, and its ramifications.

Basically, what ASHRAE set out to do was to determine how often the air in a room must be exchanged in order to maintain minimum acceptable levels of air quality. What they determined is that with regard to most indoor areas, the number of air exchanges per hour (or the amount of ventilation in cubic feet per minute) must generally be three to five times greater if smoking is permitted. Implicit in these standards is the well-known scientific fact that the gases in cigarette smoke (or indeed in any other contaminant) cannot be filtered out of the air; that the particulates in cigarette smoke can be filtered out only to a limited extent; and that much of the air exhausted from a room with conventional ventilation systems is simply recirculated - thus returning most of the cigarette smoke contaminants to the indoor area.

These studies are important for government officials and others seeking to assess the impact of ambient tobacco smoke. They indicate that it costs far more to maintain an acceptable level of air quality if smoking is permitted than if it is not, or if it is permitted only in separately ventilated areas. They also indicate that, particularly for persons with conditions making them specially sensitive to tobacco smoke, prohibiting smoking in their immediate area may not eliminate the problems. A report noting these facts will also help to put nonsmokers on notice that if they suffer from various ill effects in the work environment, they should not rule out tobacco smoke as the culprit simply because no smoking occurs in their immediate vicinity.

IV. That your report specifically address, evaluate, and report on the alleged reports, quotations, and other materials cited by the Tobacco Institute and the R.J. Reynolds Company in ads as evidence proving that ambient tobacco smoke does not create health hazards for nonsmokers.

Over the past several years large advertisements sponsored by either the Tobacco Institute or the R.J. Reynolds Tobacco Company have appeared in newspapers and magazines across the country. They address the question of whether ambient tobacco smoke causes health problems for nonsmokers, and conclude that it does not. The ads c... ...what are asserted to be the conclusions ... ...erent bodies and the positions of various scientists.

Action on Smoking and Health respectfully suggests that it is not only appropriate but actually necessary for your report to specifically address the purported authorities cited by these two companies in your final report. We believe that this is necessary for at least two reasons. The first is that the cigarette manufacturers and their major spokesperson, the Tobacco Institute, have frequently maintained that evidence tending to support their side of issues related to smoking is unfairly and improperly ignored by various bodies that have reviewed the evidence. Indeed, they seem to maintain that the weight of evidence on the issue of ambient tobacco smoke is on their side, and that conclusions to the contrary can be reached only if the authorities they cite are ignored. Thus, to avoid any controversy of this type with regard to your own report, it would seem useful to at least briefly discuss each of the authorities they have cited, and explain both the weight you attach to them and their impact, if any, on your conclusions.

A second reason why ASH believes that you should at least briefly address these assertions is that they appear to have confused and perhaps even misled many readers. Many people have reportedly seen the ads and no doubt concluded from looking only at the one-sided and self-serving statements therein that there is a significant body of scientific thought to the effect that there are no health problems related to ambient tobacco smoke. Any conclusions to the contrary are likely not to be believed by such readers, unless they specifically address and do not duck the evidence cited by the cigarette manufacturers.

It must be emphasized that ASH does not suggest in any way that your report review the specific ads, nor attempt to determine whether they are in some sense unfair or misleading as some have charged. Rather, what we suggest is that your report specifically address the documents cited by the industry, as you presumably will for other reports and studies, and assess the weight, if any, that should properly be given to them based upon well-established scientific criteria.

Passive Smoking and the Innocent Victim: A Dilemma for Policy Makers

by John C. Topping, Jr., Staff Director, Office of Air and Radiation, U.S. Environmental Protection Agency

This paper, by a government official with extensive experience related to air pollution, summarizes most of the major evidence in this area, and recommends elimination of all smoking in the workplace as a necessary step to adequately protect nonsmokers.

Until recently involuntary exposure to cigarette smoke has been treated more as a matter of social etiquette than of public health. The nonsmokers' rights movement has been portrayed by tobacco interests as an assemblage of finicky busybodies intent on imposing their values on smokers. In the past year the passive smoking issue has taken on new dimensions as evidence has mounted that involuntary exposure to tobacco smoke may be one of the leading environmental sources of death.

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Re[illegible]rough the courageous leadership of gro[illegible]such as Mothers Against Drunk Driving, we have become more conscious of the slaughter on our highways caused by alcohol abuse and have taken concrete steps to curb this abuse. Efforts to curb drunk driving have undoubtedly saved lives of persons in each of these categories, sparing the lives of potential drunk drivers, their willing or unwilling passengers, and innocents who would have had the misfortune to come across these drivers on the highway.

"involuntary exposure to tobacco smoke may be one of the leading environmental sources of death."

Our experience in dealing with drunk driving is instructive as we approach a source of death of equal or greater magnitude, passive smoking. Last year Repace and Lowrey projected an annual U.S. lung cancer death rate among nonsmokers from involuntary exposure to tobacco smoke of about five thousand. These projections have gained acceptance in the public health community as indicated by an editorial in the current issue of the *American Review of Respiratory Disease* by Scott T. Weiss, M.D., Associate Professor of Medicine at Harvard Medical School. Repace and Lowrey's lung cancer risk projections appear consistent with the findings of a number of epidemiological studies indicating elevated lung cancer risk from exposure to sidestream tobacco smoke. This five thousand annual projection for lung cancer deaths alone from sidestream tobacco smoke exceeds most current total annual cancer estimates for general population exposure outside the workplace from all industrial carcinogens combined. Yet, while these estimates of lung cancer risk from involuntary exposure to tobacco appear to be the most firmly supported of the passive smoking risk projections, they may represent only the tip of the iceberg of the health damage from such exposure. [fn: Peter Fong, Physics Department, Emory University, has projected that passive smoking exposure of nonsmokers is responsible for between 10,000 and 50,000 deaths annually. Fong, "The Hazard of Cigarette Smoke to Nonsmokers," *J. Biol. Phys.*, Vol. 10, 1982.]

If we are to minimize cancer risks from involuntary exposure to tobacco smoke, further research by health scientists on the specific mechanisms elevating such cancer risk would be desirable. Yet from the viewpoint of policymakers and citizens alike the present evidence, fragmentary though it is, seems sufficient to warrant strong steps to cut down involuntary exposure to cigarette smoke.

Although the greater accessibility of data on family smoking habits and childhood or spousal health provides us considerably greater understanding of passive smoking in the home, there is evidence that tobacco smoke concentration and health risks may be greater in the workplace. James L. Repace, one of the pioneers with A.H. Lowrey in research on passive smoking, summarizes the findings the two have made in a series of studies:

> . . . the smoke pollution inhaled indirectly from cigarettes, pipes, and cigars indoors was not only chemically related to the smoke from factory chimneys, but routinely occurred at far higher levels indoors than did factory smoke or automobile exhaust outdoors. [Our] controlled experiments and field studies showed that in buildings where tobacco is smoked, substantial air pollution burdens were inflicted upon nonsmokers, far in excess of those encountered in smoke-free indoor environments, outdoors, or in vehicles on busy commuter highways. Daily exposure to ambient tobacco smoke, [we] found, could cause air pollution levels corresponding to violation of the annual National Ambient Air Quality Standard for Total Suspended Particles for exposed office workers, at typical building occupancies and ventilation rates, and amounted to the single most important source of exposure of the population to this harmful kind of air pollution.

Tobacco particulate consists overwhelmingly of respirable small particles. Recognizing that particles of 10 microns or less are readily inhaled into the lungs where they cause respiratory difficulty, EPA has proposed adoption of a health standard keyed to particles of 10 microns or less.

"[Five thousand nonsmoker deaths a year from passive smoking] may represent only the tip of the iceberg of the health damage from such exposure."

Some health studies have indicated that passive smoking exposure of adults may significantly increase risks of heart attack. Garland *et al* found in a prospective study of 695 Southern California married women who had never smoked that over a 10 year period nonsmoking wives of current or former cigarette smokers had a higher total and age-adjusted death rate from ischemic heart disease than women whose husbands never smoked. This is not particularly surprising as we know sidestream tobacco smoke includes substantial quantities of carbon monoxide. EPA recently reaffirmed a National Ambient Air Quality Standard of 9 parts per million, 8 hour average, of carbon monoxide not to be exceeded more than once a year. A significant factor in this reaffirmation was evidence that exercising angina patients exposed to elevated levels of carbon monoxide showed more rapid onset of angina pain. In one study, Pimm *et al* (1978) exposed nonsmoking adults to tobacco smoke in an exposure chamber and realized relatively constant levels of carbon monoxide of about 24 parts per million above the ambient level, concentrations three times EPA's 8 hour average carbon monoxide standard for ambient air. Such levels are probably often reached when smoking occurs in enclosed environments with little ventilation such as many taverns, restaurants, banquet halls, closed cars or taxicabs. Within a few minutes elevated carbon monoxide levels in the air which is breathed will be reflected in increased levels of blood carboxyhemoglobin. As blood carboxyhemoglobin levels rise, the capacity to carry oxygen is diminished, [illegible] increasing risk of heart attack or stroke. Approximately 8.7 million individuals are known to suffer from angina and related cardiovascular disease. These individuals can be presumed to be at special risk from both mainstream and sidestream tobacco smoke.

About 3 percent of the population, many acute asthmatics, bronchitics or atopics, are allergic to tobacco smoke. Such hypersensitive individuals report frequent nose and throat irritation, wheezing, coughing, nausea and sometimes persistent headaches following exposure to tobacco smoke. A much larger portion of the nonsmoking population appears to experience some form of annoyance or distress at involuntary exposure to tobacco smoke. This is especially true of those who have never smoked, about 44 percent of the total U.S. population. In 1979, nearly eighty percent of those who indicated to interviewers that they had never smoked, reported that it was "annoying to be near a person who is smoking cigarettes".

Despite the deep aversion which many nonsmokers have long had at being forced to inhale others' tobacco smoke, until recently they have been on the defensive. A social onus has existed on the nonsmoker who replies negatively to the sometimes proffered plea, "Do you mind if I light up?" Tobacco smoking has moved over three generations from an almost exclusively male ritual focused around pipes and cigars and found generally at salons, prize fights and smoking parlors to a socially pervasive cigarette-based addiction involving all classes and both sexes.

Surgeon General C. Everett Koop has articulated what is a laudable goal, "a smoke free society by the year 2000. Such a policy, fully inplemented; would save the lives of thousands of nonsmokers annually. Yet for each nonsmoker's life spared, it is virtually certain that the lives of several smokers will be saved.

"the present evidence, fragmentary though it is, seems sufficient to warrant strong steps to cut down involuntary exposure to cigarette smoke."

Efforts to protect the lives of nonsmokers will necessarily involve severe restrictions or bans on workplace smoking, especially in enclosed environments. These restrictions will themselves result in some curtailment of tobacco consumption. Moreover, the willpower smokers develop to refrain from smoking when they would imperil others may help them to kick the habit. A high percentage of smokers would like to do precisely that, but because of nicotine or other tobacco-related dependency have not been successful.

Significantly protective standards against involuntary inhalation of dangerous quantities of tobacco smoke are not likely often to be met by sequestration and ventilation in most buildings. If we are to achieve tobacco smoke risk levels for nonsmokers no higher than those we tolerate for industrial carcinogens, air exchange

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rat[illegible] those found in wind tunnels would ofte[illegible]equired. [fn: See James L. Repace and Alfred H. Lowrey, "An indoor air quality standard for ambient tobacco smoke based on carcinogenic risk," *New York State Journal of Medicine,* Vol. 85, July 1985. The authors calculate that ventilation to achieve an acceptable risk from passive smoking would require $28,000 per smoker, exclusive of fan operating costs. Repace and Lowrey, 382.]

For economic and technical reasons such ventilation would not be feasible. Passive smoking in the home is not and should not be susceptible to government regulation. Family members share a concern for each other which should cause them to adopt more considerate behavior once they have facts on the health risks of passive smoking. Following on the recent, salutary expansion of the health warning on cigarette packages should be added warnings on the risks to nonsmokers of involuntary exposure to tobacco smoke.

Elimination of unwanted tobacco pollution in the workplace and informing the public of the health risks attendant to passive smoking will strike at some powerful economic interests. While the stakes for the public health are enormous in this battle, it would be Pollyannaish to assume easy sledding. If the public is to act intelligently to address this problem, the health science community must speak out clearly. This workshop is an auspicious beginning.

Passive Smoking and Lung Cancer: What is the Ri[illegible]

by Scott T. Weiss, M.D., Assoc. Prof., Harvard Medical School

This editorial from the *American Review of Respiratory Disease* (1986; 133:1-3), referred to by John Topping of the EPA, is important because it summarizes and evaluates the major studies linking ambient tobacco smoke to lung cancer in nonsmokers. Although Dr. Weiss finds that the available evidence does not meet the very strict scientific standards of causality—in large part because of the almost impossible problem of accurately measuring exposure and dosage—he nevertheless cites many reasons for believing the association exists, indicates that most of the studies to date support the association, and concludes that 5000 lung cancer deaths a year from passive smoking is the most "plausible estimate from the current data." Below are excerpts from this editorial, including the important footnotes, and a table summarizing the major articles but omitting his comments on them.

Repace and Lowrey (1) have recently estimated that approximately 4,700 nonsmoking Americans die each year from lung cancer as a result of involuntary tobacco smoke exposure. The purpose of this editorial is to comment on the association between passive smoking and

"There is no disagreement about the biological plausibility of an association between passive smoking and lung cancer."

lung cancer and the biological and mathematical assumptions underlying Repace and Lowrey's assessment of risk.

There is no disagreement about the biological plausibility of an association between passive smoking and lung cancer. Active smoking is unequivocally and causally associated with this disorder. Even at the lowest levels, active smoking is associated with an increase in

STUDIES OF PASSIVE SMOKING AND LUNG CANCER

Author	Reference	Study Design	Country	Results	Dose Response
Trichopoulos and associates (1981)	7,8	Case-control	Greece	+ association in nonsmoking females; statistically significant	yes
Garfinkle and coworkers (1985)	9	Case-control	U.S.	+ association in nonsmoking females; statistically significant	yes
Hirayama, (1981)	10,11,12	Cohort	Japan	+ association in nonsmoking males and females; statistically significant	yes
Garfinkle (1981)	13	Cohort	U.S.	+ association in females; not statistically significant	no
Gillis and associates (1984)	14	Cohort	Scotland	+ association in males but not in females; statistical significance tested for	no
Correa and coworkers (1983)	15	Case-control	U.S.	+ association in both males and females; statistically significant	yes, females only
Kabat and Wynder (1984)	16	Case-control	U.S.	+ association in males but not in females; statistically significant for males only	no
Sandler and associates (1985)	17,18	Case-control	U.S.	+ association in both males and females; statistically significant for females only	not tested
Chan and coworkers (1979)	19	Case-control	Hong Kong	No association for females; no statistical significance	no
Knoth and associates (1983)	20	Cases	Germany	+ association when compared to German population; no statistical significance tested for	not tested
Koo and coworkers (1983)	21	Case-control	Hong Kong	No association for females; no statistical significance	no

Attch. VI

ris ng cancer, suggesting that no safe thr exists. In addition, sidestream smoke has the same carcinogens and cocarcinogens as mainstream smoke, most at significantly increased concentrations. Thus, although the quantitative smoke is less than that of the active smoker, the qualitative exposure to carcinogens may be the same or greater, and it remains unknown how active and passive smoking differ in terms of actual carcinogens delivered to the respiratory tract. The finding of mutagens in the urine of passive smokers is consistent with the carcinogenic potential of sidestream smoke.

"The finding of mutagens in the urine of passive smoking is consistent with the carcinogenic potential of sidestream smoke."

Equally indisputable is the ubiquitous nature of this exposure to passive smoke. Although only 30 percent of adult Americans are active smokers, biochemical indices of exposure, such as urinary cotinine, suggest that the vast majority of nonsmoking adults have at least some exposure, that this exposure is greater than that reported by questionnaire, and that it varies with the number of smokers in the home and/or workplace. Approximately 70 percent of children in the United States live in homes with at least one smoking adult. Despite the increasing information in the field, the episodic nature of exposure, and the imperfect means of measuring this exposure indicate that further research is required to define more clearly who is being exposed and how exposure is best assessed for an individual.

Biological plausibility and the ubiquitous nature of the exposure aside, the scientific studies examining the association between passive smoking and lung cancer (summarized in table) have definite flaws. The bulk of the studies show a positive association (1-18, 20). Compared to active smoking, the association is relatively weak, varying from a 30 to 340 percent increase in risk (odds ratios of 1.3 to 3.4 for exposed relative to nonexposed). Given the nature of the exposure, one would expect the increase in risk to be relatively low. Conventional measures of statistical significance for the association are present in half of the studies (7-12, 17, 18). This is not surprising, given that the increase in risk is small. Several studies (14, 15, 17, 18), all showing a positive association, have too few cases to have adequate statistical power to achieve statistical significance for all comparisons. A dose response relationship is not uniformly present (7-12, 15). These varying results reflect both the small number of cases and imprecise measurement of exposure. Finally, only one study has documented a reduction in cancer incidence with a reduction in exposure (10-12).

Based on the above summary, the existing data on passive smoking and lung cancer do not meet the strict criteria for causality of this association. However, the nature of the scientific problem is such that achieving these strict criteria may be exceedingly difficult, if not impossible.

In 1980, there were 108,504 lung cancer deaths, roughly 15 percent of which (16,275) were in nonsmokers. Repace and Lowrey (1) estimate that 4,666 deaths/yr, 5 percent of all annual lung cancer deaths and 30 percent of nonsmoker annual lung cancer deaths, are due to passive smoking. They derived this estimate by comparing age-standardized differences in lung cancer mortality rates between Seventh Day Adventists who never smoked, and demographically comparable nonsmoking, non-Seventh Day Adventists. The investigators make many simplifying assumptions, namely, that the entire lung cancer death rate difference is due to passive smoking, that the Seventh Day Adventists are all not exposed and non-Seventh Day Adventists are exposed, that there are no differences between men and women, and that there are no other differences between the 2 groups. Even though these assumptions are overly simplistic, the resulting figure, 7.4 lung cancer deaths per 100,000 person-years, is remarkably close to the estimate from the best available study, that of Hirayama (6.8 lung cancer deaths per 100,000 person-years)(10-12).

An alternative and less satisfactory approach, in my view, is the use of a probabilistic model that is less biologically plausible and based on far greater assumptions about the amount of exposure per-person per-day. This model yielded a roughly tenfold lower estimate, 0.87 lung cancer deaths per 100,000 person-years. Slight changes in the amount of exposure per-person per-day yields a similar estimate to that given in the previous analysis. As pointed out by the authors, even this lower figure is tenfold greater than many currently regulated carcinogens(1).

"Repace and Lowrey's figures remain the best current estimates of lung cancer deaths from passive smoking."

Despite the simplifying assumptions of the risk estimates and the flaws in the epidemiologic data from which they are derived, Repace and Lowrey's figures remain the best current estimates of lung cancer deaths from passive smoking. Current epidemiologic data are sufficiently imprecise to be able to accurately distinguish between the estimate of 500 or 5,000 deaths per year. The higher figure se ore plausible estimate from the current d ture epidemiologic studies will allow revision of these estimates but are unlikely to dispute the basic nature of the association.

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Should Chest Physicians Be Passive On Smoking?

by Robert J. Mason, Dept. of Medicine, National Jewish Center for Immunology and Respiratory Medicine, Denver, Colorado

This companion piece, also from the *American Review of Respiratory Disease* [1986; 133:4], likewise reviews the available medical literature and concludes that there is more than enough information for all people—especially including chest physicians—to act.

The current focus of public concern is on passive, or secondhand, smoking. The adverse effects that have been reported include increased respiratory infections in infants of smoking mothers, increased lung cancer in non-

smok nen whose husbands smoke, and respiratory irritation among asthmatics and others who are sensitive to cigarette smoke. Side-stream smoke, the smoke inhaled by nonsmokers, is known to contain carcinogens, and metabolites of the smoke can be measured in the urine of nonsmokers, Hence, it is extremely likely that side-stream smoke poses a risk of lung cancer in nonsmokers. The major question is the magnitude of the risk. Garfinkle and associates reported a large case control study of lung cancer among lifetime nonsmoking wo-

"The current data are sufficient for me to conclude that passive smoking carries a significant risk to the public and should be curtailed."

men whose spouses smoke cigarettes. The smoking histories of both spouses and the histologic diagnosis of lung cancer were independently verified. There was an increased risk of lung cancer among nonsmoking spouses whose husbands smoked more than 20 cigarettes per day at home. There have been two previous large epidemiologic studies from Greece and Japan, which found a similar effect,

"To my knowledge, there is no proven threshold for exposure to cigarette smoke that carries no adverse health effect."

although there have been methodologic reservations about these studies. Garfinkle and associates discuss both the positive and the negative data that are currently available. The current data are sufficient for me to conclude that passive smoking carries a significant risk to the public and should be curtailed. To my knowledge, there is no proven threshold for exposure to cigarette smoke that carries no adverse effect. We must take a position against allowing smoking in public places s schools, restaurants, airports, gove t buildings, and hospitals. We must educate smokers about the effect of smoking on their health as well as on the health of others.

"We must take a position against allowing smoking in public places such as schools, restaurants, airports, government buildings, and hospitals."

We have enough information to limit smoking in public places for health reasons. I hope all chest physicians will review existing data and discuss cigarette smoking with their colleagues, their patients, their students, and the public. Make an active, not a passive, decision on your involvement in freeing society of cigarettes. Most chest physicians have been too quiet for the good of society.

Environmental Tobacco Smoke: The Contribution To Indoor Air Pollution

by Nancy J. Balter, Ph.D., Research Assos. Prof., Biology Dept., Georgetown University; and Vincent Castranova, Ph.D., Prof. of Physiology, West Virginia University (of the "Indoor Air Pollution Advisory Group")

This paper, presented by two members of the Indoor Air Pollution Advisory Group—individuals whose work is funded by the tobacco industry—is typical of the specious arguments raised by the industry. They suggest that most of the problems nonsmokers experience with ambient tobacco smoke are really caused by other things, and that far more very difficult, very expensive, and very long-term animal-inhalation studies must be done before any conclusions can be reached. Part of the argument—that the real problem is inadequately ventilated buildings and the buildup of CO_2—is ludicrous, since inadequate ventilation in buildings is very difficult to alter, and only exacerbates the problems caused by indoor smoking including the buildup of CO_2. Prohibiting smoking requires no expensive building modifications, and significantly reduces the problem immediately.

The sources of indoor air polluntants, in addition to tobacco smoke, are numerous. They include pollutants entrained from outdoor air, pollutants from microbial sources, pollutants emitted from components of the building structure and compounds released from building materials, consumer products, appliances, and combustion devices.

In light of the numerous factors involved in indoor air pollution, it is difficult to determine the relative role of environmental tobacco smoke as a contributor to indoor air pollution or the health effects associated with it. This can be clearly demonstrated by considering the issue of the irritating effects of environmental tobacco smoke. Exposure to environmental tobacco smoke in high concentrations has been reported to be associated with acute, irritating effects including nausea, coughing, eye irritations and headache. However, the same symptoms also are associated with acute exposure to a number of other indoor air pollutants arising primarily from other sources. Formaldehyde, microbes and cleaning fluids have been associated, for example, with mucous membrane irritation. The same contaminants—as well as carbon monoxide, carbon dioxide and copier chemicals—also have been reported to cause headache and nausea. Poor ventilation, resulting in a general buildup of all indoor air pollutants in a space, can produce a similar array of symptoms often referred to collectively as "tight building" or "sick building" syndrome.

"headaches and absenteeism were reported to be higher in buildings WITH smoking restrictions that in nonregulated buildings."

Several recent studies have examined the contribution of various sources of indoor air pollution to reports of building-related illness in the workplace. An analysis of 200 health hazard evaluations performed by NIOSH investigators of office environments with health complaints relating to poor indoor air quality indicates that, by far, the most common problem was buildup of carbon dioxide as a result of inadequate ventilation.

The findings of Rhodes as well as those reported by NIOSH are further supported by the report of Sterling and Sterling, who measured the levels of a number of indoor air contaminants in buildings with and without smoking restrictions. They found little difference in pollutant levels between the two sets of buildings. Further, headaches and absenteeism were reported to be higher in buildings *with* smoking restrictions than in *nonregulated buildings*.

Thus, although environmental tobacco smoke is a *visible* source of indoor air pollution and, as a result, is often assumed to be the culprit when indoor air quality is poor, careful investigations reveal that exposure to environmental tobacco smoke is rarely the cause of the reported complaints.

"environmental tobacco smoke is a VISIBLE source of indoor air pollution and, as a result, is often assumed to be the culprit when indoor air quality is poor."

The difficulty inherent in isolating environmental tobacco smoke from other confounding sources of indoor air contaminants will continue to limit the usefulness of the epidemiological approach especially if the effect on health is small. More meaningful data may emerge from a systematic examination of the effects of experimental exposure to environmental tobacco smoke using inhalation studies in animals. We recognize, of course, that animal studies will not necessarily serve as a surrogate for the human experience, and that the results of even the most rigorously designed and conducted animal studies must be interpreted cautiously. Using such an approach, however, exposure levels of environmental tobacco smoke can be set, levels of various constituents in air can be measured, delivered dose of certain constituents can be estimated, and any adverse health effects can be documented, all without the confounding influences of other indoor air pollutants.

Attch. VI

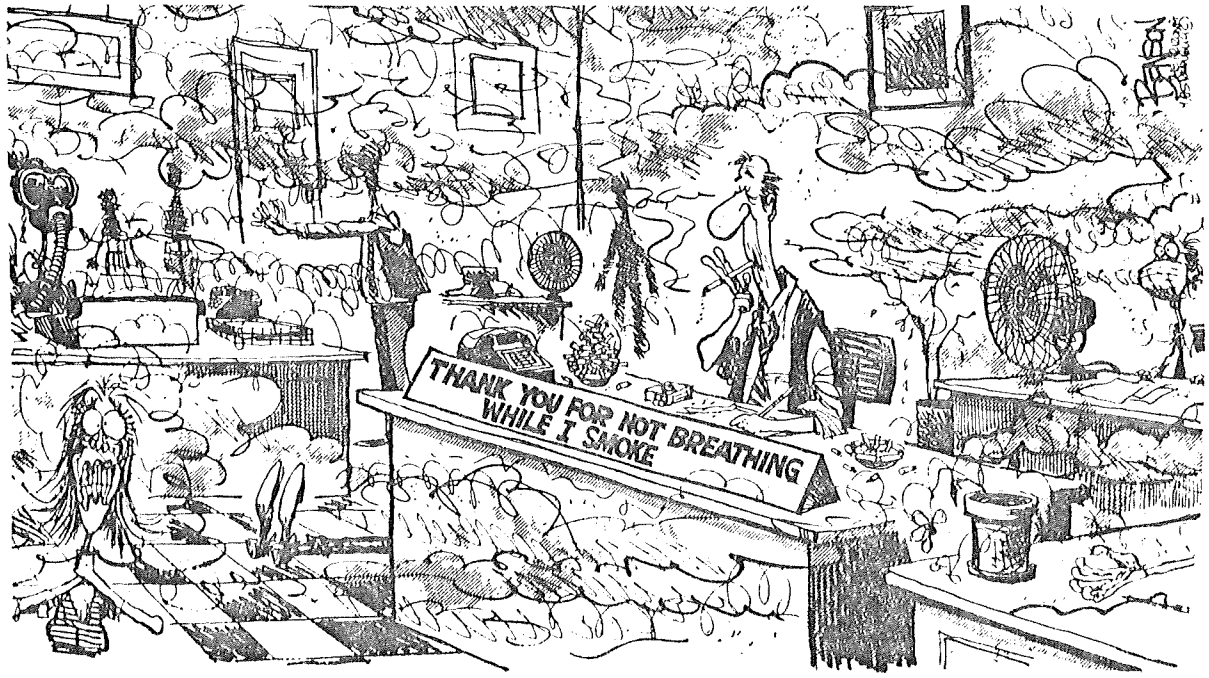
3-25-87
Ackert

Breathing Takes Precedence over Smoking

In reply to the Feb. 2 letter from E. Swarts urging rights for smokers.

Where do you self-opinionated, dictatorial, obdurate smokers get off forcing your smoking on us? If we non-smokers wanted to smoke, we would. We have you in checkout lines at the market, ticket lines at the theater, a nearby booth in restaurants, next to us in the baseball stadium, a laundromat, and wherever.

You are committing an act which not only stinks, but is harmful to nonsmokers as well. The sidestream smoke from your cigarette for 12 minutes emits twice as much tar and nicotine as you inhale, three times as much of a compound called 3-4 benzpyrene, a suspected cancer causing agent, five times as much carbon monoxide, which robs the blood of oxygen, and 50 times as much amonia. The sidestream smoke also has more cadmium which causes emphysema.



To say this is none of our business is like saying it's none of our business if a person wants to urinate or excrete fecal matter in public. At least, we could perhaps step over or around that and not get any on us. Revenue? The revenue brought in by cigarette taxes doesn't nearly offset the increased costs of health insurance premiums, fire insurance bills, clean up costs, and medical care. There are about 40,000 upholstered furniture fires alone each year that cause 4,000 injuries, 1,500 deaths and $190 million in property losses. The U.S. government estimates the total cost of smoking to the public to be over $20 billion.

True, about half of all traffic fatalities are due to DUI, but society has done something about that too, with the formation of groups such as MADD, SADD, and RID, which have brought about stricter laws on DUI. Unfortunately, until we get non-drinking and non-lenient judges and a society of people who don't believe they have to stop on the way home for a beer or cocktail, the DUI problem will not be totally curbed. Meanwhile, there continues to be 300,000 smoking-related deaths a year.

We nonsmokers do have more rights than the one committing an act. The courts have upheld that breathing is a right and smoking a privilege, and where the two conflict, the right to breathe takes precedence. Instead of us, the overwhelming majority, moving to another country, I suggest the smokers move to another country, or confine smoking to their home or inside a spare helmet so that none of that smoke will get away. You smokers think about that.

JOE WALKER
Wichita

Ackert, III
Ackert Insurance
3-25-87

3-25-87

To The Hearing on H.B. #2412

It is with regret that I must send a written appeal to the hearing on H.B. #2412 establishing "no smoking" areas in public places; but my allergy to smoke will not permit me to attend such a meeting in the State House.

Smoking in public places has been a great problem in my life since I am very allergic to smoke, especially tobacco smoke. If exposed to it only for a short time I will run a high fever and often be sick for several days. It has limited my ability to shop in stores where smoking is permitted, attend public functions such as concerts, public meetings, political activities, even hotel lobbies and shopping malls, nursing homes and doctor's waiting rooms have even given me trouble. I am very limited in the restaurants where we can eat because of tobacco smoke. I am virtually barred from beauty salons.

I worked in the Legislature as a telephone operator for 15 years before the position was eliminated. I was given a clerical job but had to resign because a smoke free environment [illegible]

attach. VIII

Senate Judiciary
3-25-87

The Topeka smoking ordinance has helped very much in controlling smoke in many public places in the city and I am now able to attend many functions which were out of the question before this ordinance took effect.

I make an urgent appeal to the committee to strengthen an approve this bill so that many people like myself might have the privilege of a smoke free environment. This cannot be done by allowing propiators to set the percent of an area to be non-smoking, The percent should be determined in the law in order to guarantee non smokers an adequate area. Also a non-smoking area where a person must pass through a smoking area to get to is not an adequate protection for the non-smoker, especially one whose health is affected as mine is.

Thank you for your time and consideration

Yours

Bessie M. Holden

Attch. VIII

3-25-87

I have a medically tested sensitivity to tobacco smoke. When I'm around smoke I experience a great deal of congestion, nauseous headaches, and eye discomfort. I frequently get to the point where I have difficulty inhaling and exhaling. This condition lasts several hours after exposure. Consequently, I posted my work area making it clear that smoking was not permitted. Because smoke is a gas and therefore cannot read sign, it came into my office anyway.

My formal request for a smoke free work area was met with anger. I was chastised for disrupting smokers in the office even though the only way they could have known of my request was if my superiors had told them. I was subjected to an angry dissertation liberally sprinkled with expletives which was carried out in front of one of the smokers. I was to speak to no one on this issue. Out of fear of retaliation, I complied and did not pursue the matter further but instead continued the daily rounds of medication and tried in vain to avoid the smoke. Two years later the agency head implemented smoking restrictions in the work area. I am proud to be working in a state anency that cares enough about its staff to provide as healthy a work environment as possible. I am also proud to live in a city that cares enough about its citizens to provide protection from smoke in public places. Unfortunately, that doesn't extend to state buildings.

The tobacco companies are telling us to cooperate and use common courtesy. I've been cooperating, compromising and courteous for 38 years but have seen very little compromise or common courtesy originating from the other side. Instead I hear that I'm infringing on someone's right to do as they please, whenever and wherever they please. I'm not requesting that any individual

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Senate Judiciary
3-25-87

stop smoking. I am asking that smoke not be permitted to surround me and enter my lungs. I am asking for protection from a substance that nearly everyone but the tobacco profiteers agrees is harmful. While a smoker can go elsewhere for a few minutes for a cigarette and thus get "relief" from clean air, it does a suffering non-smoker no good to get a few minutes relief from smoke polluted air. The headaches, congestion, burning etc, last for hours and sometimes days.

I find it difficult to believe that a person would insist on continuing an activity that negatively impacts others. The more knowledgeable I become on the topic of second-hand smoke, the more I find it incomprehensible that we continue to permit this to go on.

I would like to think employers are more enlightened now, but I continue to hear of far too many situations that demonstrate otherwise. Many employees are afraid to even request a smoke free area let alone speak out in a pulbic meeting such as this. They have good reason to be afraid as things stand now. We need to provide our citizens with a reasonable remedy. While HB 2412 is far too weak as it now stands, it could become a lifeline for those who are drowning in a murky sea of tobacco smoke.

Cheryl Weber

Topeka, Kansas

March 25, 1987

attch. IX

3-25-87

WHAT ARE THE REAL CAUSES OF INDOOR AIR POLLUTION?

Professional investigations in hundreds of workplaces indicate that complaints often attributed at first to ETS -- such as headache, nausea, coughing and eye irritation -- are in approximately 95 percent of cases the result of inadequate or dirty ventilation systems or exposure to one of numerous other, less visible, pollutants of indoor air.

AVCA Atlantic Incorporated was formed in 1981 and is devoted exclusively to the identification and control of internal pollution problems in public and commercial buildings. AVCA has diagnosed problems and specified solutions in some 30 million square feet of occupied space in the U.S., Britain, Japan, Hong Kong, Singapore, Belgium and Sweden. Listed below are some of its findings on indoor air pollution:

FACT 1 — Between 1971 and 1985 the National Institute for Occupational Safety and Health (NIOSH) inspected 356 buildings due to staff complaints of respiratory symptoms or poor air quality. NIOSH found that 50 percent of the problems were directly due to inadequate ventilation alone.

FACT 2 — To date, over 30 percent of buildings inspected by ACVA have shown grossly inefficient air filtration systems.

FACT 3 — In 1985 alone, in 35 percent of the ACVA-inspected buildings, fresh air intake dampers had been closed completely as an energy conservation measure. These buildings were operating with 100 percent recycled air, in violation of building ventilation codes.

FACT 4 — In 95 percent of the cases, vapors and gases such as formaldehyde, tobacco smoke and radon gas were not found to be the culprit in poor air quality. Normally, the noticeable presence of these vapors proved to be only a symptom of ventilation problems.

FACT 5 — Over 38 percent of the buildings had excessively dirty air conditioning ductwork; another 32 percent had moderate-to-heavy dirt contamination.

FACT 6 — Over 31 percent of the buildings contained significant levels of potentially allergenic fungi in their ductwork. More than two dozen separate species of fungi were isolated.

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FACT 7 Over 9 percent of the buildings -- nearly one out of 10 -- contained significant levels of potentially allergenic bacteria in their ductwork. A dozen different varieties of bacteria were isolated, including "Staph," Streptococcus and Legionella pneumophila, the germ that causes Legionnaires' Disease.

FACT 8 About 6 percent of the buildings had high concentrations of glass fiber particles spilling out of the ductwork. Various types of fibers, usually from insulation material, can produce lung disease in humans.

FACT 9 Up to 85 percent of the buildings constructed before 1975 still contain materials made of asbestos. Many of these products have deteriorated to the point where they are releasing asbestos fibers into the building environment.

FACT 10 All air-conditioning and ventilation systems get dirty over time. The systems are composed of many mechanical parts, reservoirs, and often literally miles of twisting ductwork, all of which collect grime. Dirt in ductwork may include dead insects, dead animals such as birds and rodents, rotting leaves, dust and soil.

FACT 11 Air-conditioning ductwork is a perfect breeding ground for germs: an enclosed space, constant temperature, humidity, and dirt to provide food.

FACT 12 Studies have shown that most people spend 75-90 percent of their time indoors, so exposure to indoor air pollution is considerable.

FACT 13 Virtually all "sick building" problems are curable once diagnosed. Ventilation rates can be increased, ductwork cleaned and sanitized, microbial contamination controlled, and filtration systems upgraded. The result can be dramatic improvements in air quality.

FACT 14 The economic benefits of curing "sick buildings" can be enormous. Eliminating these air quality problems, and the health effects they so often cause, can cut down on worker absenteeism and increase productivity. The Federal Government estimates that absenteeism costs over $100 billion per year in lost productivity and medical costs, and up to 50 percent of absenteeism is due to upper respiratory problems -- common symptoms in sick buildings.

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- SG's research - LUNG CANCER

"Risk associated with involuntary smoking exposure is uncertain. Important questions related to (ETS) exposure require further research. More accurate estimates for the assessment of exposure in the home, workplace, and other environments are needed."
(SG's report, Dec. 16, 1986, p. 101).

"(L)ittle is known about the magnitude of the (ETS) exposures that occur in different segments of the U.S. population. A better understanding of the exposures that are actually occuring in the United States, and of past exposures, would be needed to accurately assess the risk for the U.S. population."
(SG's report, Dec. 16, 1986, pp. 96-97).

- ACUTE RESPIRATORY ILLNESS

"There are no studies of accute respiratory illness experience in adults exposed to environmental cigarette smoke."
(SG's report, Dec. 16, 1986, p. 60).

- PULMONARY FUNCTION

"The physiologic and clinical significance of the small changes in pulmonary function found in some studies of adults remains to be determined. THE SMALL MAGNITUDE OF EFFECT IMPLIES THAT A PREVIOUSLY HEALTHY INDIVIDUAL WOULD NOT DEVELOP CHRONIC LUNG DISEASE SOLELY ON THE BASIS OF INVOLUNTARY TOBACCO SMOKE EXPOSURE IN ADULT LIFE."
(SG's report, Dec. 16, 1986. p. 62).

- BRONCHOCONSTRICTION

"The magnitude of these changes is quite small, EVEN AT MODERATE TO HIGH EXPOSURE LEVELS, and is unlikely that this change in airflow, per se, results in symptoms."
(SG's report, Dec. 16, 1986, p. 63).

- ASTHMATICS

"PULMONARY FUNCTION WAS NOT INFLUENCED BY (ETS) EXPOSURE. Nonspecific bronchial responsiveness decreased significantly, rather than increasing, as would be anticipated following an irritant exposure....Studies of large numbers of individuals with measurement of the relevant physiologic exposure parameters will be necessary to adequately address the effects of environmemtal tobacco smoke exposure on asthmatics."
(SG's report, Dec. 16, 1986, p. 65).

- EAR, NOSE, AND THROAT

"There are no studies of chronic ear, nose, and throat symptoms in adults with involuntary smoking exposure."
(SG's report, Dec. 16, 1986, p. 65).

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ACVA Systems Experience 1980 to 1985

Total number of major building studies:	125
Total number of square feet of occupied space:	27,000,000
Estimated number of building occupants:	134,000

Summary of Types of Irritants Found

Major Pollutant	# of Buildings	%
Widespread allergenic fungi in A/C system	39	31
Widespread allergenic/pathogenic bacteria in A/C	11	9
Fiberglass in supply air	7	6
High levels of ETS throughout building	5	4
High levels of carbon monoxide	4	4
High levels of ozone	1	1
High levels of formaldehyde	1	1

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State of Kansas

Office of Judicial Administration

Kansas Judicial Center
301 West 10th
Topeka, Kansas 66612-1507
(913) 296-2256

March 25, 1987

Hon. Robert Frey, Chairman
Senate Judiciary Committee
Statehouse
Topeka, Kansas 66612

Dear Senator Frey:

I would call to your attention two technical problems within House Bill 2412, now before your committee. In line 68 and again at line 71, the bill contains a specified fine, followed by the phrase "including court costs." However, statutory court costs (K.S.A. 28-172a) include a docket fee of $88, which on its face seems to make impossible the "including [of] court costs" within a fine of $20 or $50, as called for in the bill.

A further conflict with an existing statute appears to be contained in lines 71-72, because of the requirement that "all such fines shall be retained by the county conducting the prosecution." Under K.S.A. 20-2801, fines collected by the district court for violations of state law are regularly sent to the state treasurer, for deposit in the state general fund. If this is to be an exception to the rule, more specific language, such as that in K.S.A. 20-362 (1), would be useful in clarifying what is to be done.

I would appreciate your consideration of these concerns if and when your committee takes action on the bill. If I can provide any further information or be of any assistance, please feel free to call on me.

Sincerely,

Marjorie J. Van Buren

Marjorie J. Van Buren
Executive Assistant to
the Judicial Administrator

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