

DATE: ~~FEBRUARY~~ <sup>MARCH</sup> 3, 1975

MEMBERS PRESENT: CHAIRMAN BENNETT  
VICE-CHAIRMAN CHRISTENSEN  
MR. CRADDOCK  
MRS. FORD  
MR. LOWMAN  
MR. MURPHY  
MR. MANN  
MR. VERGIELS  
MR. BARENGO

MEMBERS ABSENT: NONE

GUESTS: See Attached Guest Register.

The meeting was called to order at 3:15 p.m. by Chairman Bennett to discuss AB-228.

*Exhibit A*  
Frank Matthews, Director, State Office of Economic Opportunity, appeared in support of the bill. He submitted a package of material describing the "New Careers" program, a copy of which is attached to these Minutes.

Very simply, the program seeks to help about 300 young people in obtaining career opportunities, removing them from social dependency, and involving employers in development of training programs.

It requires approximately \$270,000 state dollars which is matchable in part by Federal Social Services dollars. Unemployment benefits for the same number of people (300) would be much higher than the amount requested for this program. The plan provides a tailor made program for an employer and an employee. It provides jobs, trains people for jobs, and there are regular career opportunities supplied by the employer and assisted by the State of Nevada. It does not call for a long term subsidy by the private sector.

David Hoggard, Executive Director of the Economic Opportunity Board of Clark County, was the next speaker in behalf of AB-228. One of his responsibilities since 1970 has been to administer the new careers program. Originally they could only place the enrollee in public agencies, and they had about 175 young people. They have enjoyed an exceedingly high percentage of retention, and most all have gone on to permanent employment. An employer must agree to have a slot for the employee and furnish time for education and training. They plan only to enroll persons whose income and education are at disadvantage level according to the poverty guidelines.

Barbara Brady, Director of Clark County Social Services and Treasurer of EOB in Clark County, told of their experiences with

73

~~February~~ 3, 1975

March

new careerists. They have had three and all are very satisfactory and are still continuing with their education. She fully supports AB-228.

Mr. Hoggard had brought with him two young people who had been successful in the program. Barbara Smith of the EOB and Roger Davis, a social worker, told of the advantages of the program and how they had progressed in their careers. Both felt that they had more than returned the taxpayers money spent in their behalf.

Mr. James Carmany, Director of Clark County Juvenile Court, stated they first entered into this program in 1971. It appealed to them because it provided something other than a dead end job for those coming into their agency. The program has demonstrated its effectiveness over the past three years.

Cloyd Phillips, Director of EOB in Washoe County, also spoke in behalf of the bill. They have been surveying markets in the private sector to find employment for youths under the program. This type of program would be beneficial to the State and to the young people.

Joe Braswell, representing the Association of American Indian Social Workers and Native American Elders United, stated that they had among their elderly people primary examples of those who never had an opportunity to participate in a career development program. Some people say the program might be a duplication of others. He feels there are enough poor in this State that programs don't have to fight over clientele to serve. This program supplements and compliments other man-power programs rather than duplicating.

Mrs. Ford asked Mr. Matthews if this was a one-shot appropriation. He said that it was and that they go before Ways and Means at 8:30 tomorrow morning.

The discussion then changed to AB-17 and AB-51.

- Exhibit B

The first proponent was Dallas Pierson of the Nevada Lung Association. He feels that the people of Nevada support this bill overwhelmingly from telephone calls and letters which come to their office. Chronic lung and heart patients suffer greatly in smoke filled rooms. He also feels that whenever there is a conflict between smokers and nonsmokers in public places, the rights of the nonsmokers should prevail. He cited all the health hazards of smoking.

The Nevada Lung Association support AB-17 over AB-51. In AB-17 at line 6, page 2, it puts the burden of proof on the owner of the facility or institution to post signs prohibiting smoking. The bill as he interprets it is designed to stop smoking only in those areas that are posted and does not affect any organization which has a contract or rents, or any hotels or their facilities.

Mr. Barengo questioned Mr. Pierson's interpretation that owners

could exempt themselves from liability under this bill by posting no smoking signs. After discussion, Mr. Pierson agreed that he may have misinterpreted this section. Mr. Mann asked if the Lung Association would object if an amendment were added to AB-17 to include this exemption. Mr. Pierson said they would not as it is not their intent to support any bill that would destroy the economy of Nevada. 75

Dr. Stephen Dow, Nevada Heart Association, appeared in favor of both AB-17 and AB-51. He said that heart disease kills more than one million people in our country in a year and afflicts more than 27 million people. The cost to our country's businesses amount to 52 million man days of production lost a year, and it is estimated that the cost amounts to over 10 billion in lost income and medical care. The risk factors responsible in heart disease are lack of exercise, hypertension, improper diet, and above all, smoking. He feels that passage of the bill would be an important factor in assisting their efforts in the control of heart disease in Nevada.

Tom Lorentzen, a casino dealer, said the smoke became so intense in casinos at times that his eyes became red and watery. Other people he works with have the same complaints. He thinks either AB-17 or AB-51 should include the casino workers since they are in such close contact with people who smoke. Mr. Mann said that people who came here to gamble couldn't be told they couldn't smoke at a table because of an employee. Mr. Murphy also said that a casino employee should consider this an occupational hazard.

Mr. Vergiels stated that he would not want to get into a situation where AB-17 was a case of no smokers versus casinos and large hotels. Instead, he would like to have some kind of a start where the rights of nonsmokers would be respected. He was hoping that casinos and hotels would be exempt from this.

Frederick J. Picard, Administrator of the Carson City Public Health Department, was the next speaker in support of AB-17. He knows people who are virtually prisoners in their own homes because they have allergies to cigarette smoke. He feels everyone should be given the opportunity to go into a restaurant and be served without being irritated by smoke. The bill could be modified so that restaurant owners could have an option. If they preferred not to set aside an area for nonsmokers, they could set aside one day or one evening.

Attorney Frank Fahrenkopf, representing the Tobacco Institute, Washoe County Officials, and Candy and Tobacco Wholesalers, said there is no conclusive evidence that cigarette smoking is harmful to the nonsmoker. A smoking ban would have a severe and detrimental effect on the State's ability to attract tourists and conventions. The Las Vegas and Reno-Sparks Convention authorities are opposed to the two bills, as well as the Las Vegas Chamber of Commerce and some members of the Reno Chamber of Commerce. Employment would be disastrously affected, including the tobacco distribution which employs some 200 people, has an annual payroll

of \$500,000 and produces \$11 million annually in taxes.

Mr. Fahrenkopf also said that Sheriff Bob Galli of Washoe County and Police Chief James Parker of Reno say the bill is unenforceable and they have too much to do without responding to a call to come arrest someone who is smoking.

Mr. Fahrenkopf presented to the Committee a statement on Smoking and the Nonsmoker, a quote from the AFL-CIO News, a letter from the American Cancer Society, a statement of the National Restaurant Association with Respect to Smoking in Restaurants, and various newspaper articles. A copy of all the foregoing is attached hereto and made a part of these Minutes.

Mr. Vergeils said that there was no evidence that restrictions on smoking in such states as Arizona had resulted in a reduction in adverse economic effects.

Les Kofoed, director of the Gaming Industry Association stated that he was against these bills because they attempt to legislate morals and habits. He would prefer AB-51 over AB-17 as it was not as restrictive. He feels the bills would be a detriment to tourism, not necessary, and not enforceable.

Aaron Goldman, representing ASH and GAS appeared in support of the bills. ASH is Action and Smoking and Health and their primary accomplishment was the segregation of smokers and non-smokers on airplanes. GAS is a local organization and part of a national affiliation. Their major accomplishments are to get an announcement at the convention center for non-smoking at basketball games and the elimination of cigarette machines in hospitals. Smoke may not affect healthy non-smokers, but it certainly does the person who suffers from respiratory ailments.

Selby Calkins, a retired non-smoker, appeared in behalf of AB-17, since it is the best bill to the non-smoking public which is the majority. He feels that the restaurant owners are required to have health inspections, serve clean food, etc., and they should also be required to furnish clean air. He presented two issues of the Congressional Record on the danger of smokers to non-smokers which contradicts Mr. Fahrenkopf's testimony. He also presented a Tobacco Smoke Emissions Fact Sheet. All of these are attached to the Minutes.

Elaine Cooney, Sandra Stewart and Mary Meyer, Hug High School students, spoke on their Student to Student program on smoking and health. They visit the 5th and 6th grade students and present slides to show the dangers of smoking on the body. They are hoping these bills are passed to help the youngsters grow up with better health. Also these students pass this information on to the homes and hopefully their parents reduce their smoking.

Robert Cahill, representing the Nevada Resort Association, whose membership consists of certain major hotels and casinos in the Las Vegas area says he receives no specific instructions from these people but knows how they feel and that he knows of no one positively in favor of AB-17. In AB-51, section (b) would have a direct impact upon the hotels. This section would affect the convention authority and this is a big part of their business right now. That section needs a lot of clarification so that it would not apply to the convention authority.

Bill Harrison of the Reno-Sparks Convention Authority appeared to protest AB-17 and AB-51. It would be a hardship on many people. They lease their facility to many types of functions. If the lessee limits smoking to the lobby, they make an appropriate announcement and people abide by these requests. However, under legislation they would not have this privilege as they are not in a position to supply separate rooms outside the arena. Another big problem is who is responsible for enforcement. Entering a darkened arena with 7,000 young people at a rock concert and attempting to enforce this legislation could lead to riots and trouble.

Ron Guidotti appeared on behalf of himself to tell how irritating it is to be around smokers and urged the passage of AB-17 since it is stricter than AB-51.

Oliver Hanson of Sparks stated that he appeared at the request of Mr. Pierson of the Nevada Lung Association. He cited personal experiences with smokers and feels there should be legislation to control them.

Bob Benkovich, Assemblyman, stated that he had sent a questionnaire to people in his district regarding smoking. The results were: 48% in favor of some sort of controls; 44% against any controls; 8% undecided. 51% return on the questionnaire. He would also hope that casinos would be included as he was a dealer for four years and knows the irritation. Also he has seen customers leave tables because of excessive smoke.

Maizie Harris Jesse appeared from the Employment Security Department with a petition signed by 18 employees from that department requesting the passage of AB-17.

Henry G. Duerksen, Pastor of the Stewart Community Baptist Church, also appeared in support of legislation to control smoking and permit non-smokers to breathe fresh air.

Witnesses were excused and the Committee turned to a discussion of AB-228. Mr. Murphy moved DO PASS; Mr. Vergiels seconded the motion. YES votes: Messrs Bennett, Christensen, Barengo, Craddock, Mann, Murphy, Vergiels and Mrs. Ford. NO vote: Mr. Lowman.

Chairman Bennett appointed a committee to work on amendments for AB-100, consisting of Mrs. Ford, Mr. Christensen and Mr. Murphy. The meeting adjourned at 6:00 p.m. Respectfully submitted, Jane Dunne,  
Secretary

ASSEMBLY

AGENDA FOR COMMITTEE ON HEALTH & WELFARE

Date MARCH 3, 1975 Time 3:00 P.M. Room 240

Bills or Resolutions to be considered

Subject

Counsel requested\*

THIS AGENDA CANCELS AND SUPERSEDES THE AGENDA PREVIOUSLY PUBLISHED FOR MARCH 3, 1975.

72

-AB 228 *Pass* Makes appropriation to office of economic opportunity to finance new program to increase professional capabilities of young Nevadans.

*Amend  
& Pass  
3-17*

AB 17 - Protects public health by imposing certain restrictions on smoking in public places.

AB 51 Prohibits smoking in specified public places.

\*Please do not ask for counsel unless necessary.

58TH NEVADA LEGISLATURE

HEALTH AND WELFARE COMMITTEE  
LEGISLATION ACTION

DATE March 3, 1975

SUBJECT AB-228

MOTION: \_\_\_\_\_

Do Pass xx Amend \_\_\_\_\_ Indefinitely Postpone \_\_\_\_\_ Reconsider \_\_\_\_\_

Moved By Mr. Murphy Seconded By Mr. Vergiels

AMENDMENT \_\_\_\_\_

Moved By \_\_\_\_\_ Seconded By \_\_\_\_\_

AMENDMENT \_\_\_\_\_

Moved By \_\_\_\_\_ Seconded By \_\_\_\_\_

VOTE:	MOTION		AMEND		AMEND	
	Yes	No	Yes	No	Yes	No
Bennett	<u>x</u>	---	---	---	---	---
Christensen	<u>x</u>	---	---	---	---	---
Barengo	<u>x</u>	---	---	---	---	---
Craddock	<u>x</u>	---	---	---	---	---
Mann	<u>x</u>	---	---	---	---	---
Murphy	<u>x</u>	---	---	---	---	---
Vergiels	<u>x</u>	---	---	---	---	---
Ford	<u>x</u>	---	---	---	---	---
Lowman	---	<u>x</u>	---	---	---	---

TALLY:

Original Motion: Passed x Defeated \_\_\_\_\_ Withdrawn \_\_\_\_\_

Amended & Passed \_\_\_\_\_ Amended & Defeated \_\_\_\_\_

Amended & Passed \_\_\_\_\_ Amended & Defeated \_\_\_\_\_

Attach to Minutes March 3, 1975  
Date

GUEST REGISTER

HEALTH & WELFARE COMMITTEE

Date: Mar. 3, 1975

Please Print

NAME	REPRESENTING	Check if you wish to speak
Jim Armany	Clark Co Juvenile Court	✓
BARBARA J BRADY	Clark Co Social Service	✓
BARBARA I. SMITH	ECONOMIC OPPORTUNITY BOARD	✓
J. David Hoggard	EOB of Clark County - 900 WIDOWS Las Vegas	✓
FRANK MATTHEWS	ST. DIC. DED.	
DALLIS PIERSON	NEVADA LUNG ASSN.	✓
FRANK FAHRENKOPF	WASHOE CTY, NEV ASSOC of Camp & <sup>Tobacco Inst.</sup> <del>Visitors</del> <sup>Leaders</sup>	✓
J. Roy Carlson	Planner, SOEO	
Lilly Balkin	Self	✓
Ethery Balkin	Homemaker	
Aaron Goldman	Action on Smoking and Health	✓
Nenny Shub	GLASER BROS	
Louis Vaccaro	Glaser Bros.	
Roy Pasquelli	Southworth Tob. Co	
Larry Dwyer	A to Z Inc	
[Signature]	Western Cigar Co of Las Vegas -	
Bill Harrison	Reno-Sparks Convention Authority	✓
Don Streper	American Strull Inc	
Lilly Stephens	Southworth Co	
[Signature]	Self.	



Henry D. Hansen	Stewart Community Baptist Church	✓
FREDERICK J. PICARD	SELF	✓
Drene Bruce	Self	
Mildred Archer		
Pat Braswell	Association of American Indian Social Workers and Native American Elders United	✓
G. Fuller Hawes	AFL-CIO	
J. Kelly	✓	
MAIZIE H. JESSE	self and 15 fellow employees	✓
Les Thacker	Teachers of Nevada	
Tom Lorenson		✓

Mr. Specker  
 Ron GUIDOTTI



STATE OF NEVADA  
DEPARTMENT OF ECONOMIC OPPORTUNITY

CAPITOL COMPLEX  
CARSON CITY, NEVADA 89701  
TELEPHONE (702) 885-4420

81

MIKE O'CALLAGHAN  
GOVERNOR

FRANK J. MATTHEWS  
DIRECTOR

March 3, 1975

Ex. A

Members:

Assembly Health and Welfare Committee  
Assembly Ways and Means Committee  
Senate Finance Committee

The attached materials are respectfully submitted to assist you in your evaluation of the "New Careers" proposal (AB228).

These materials are supplemental to the "New Careers" resume previously provided.

Sincerely,

*Frank Matthews*

Frank Matthews  
Director  
State Office of Economic Opportunity

/h

What is "new careers" all about?

We are talking about a national crisis and a unique Nevada Plan to meet that crisis on a limited scale. Part of the problem we are addressing was described by William Buckley in a recent article. He pointed to federal minimum wage requirements as they apply to young people. He said: "...they are not worth two dollars an hour, which is the economists way of saying that what they are in a position to do for Mr. Consumer in one hour, Mr. Consumer is not willing to pay two dollars for." This is where new careers will take up the slack by helping the employer pay at least minimum wage until the career intern becomes sufficiently productive to justify his wages which we feel will occur after about three months for most skills.

How serious is the problem new careers is designed to alleviate?

30,200 persons, about half in their late teens and early 20's, were unemployed in January. Nevada's unemployment rate is 9.4 or 1.2 percent above the national average of 8.2; the Clark County rate of 10.8 is 2.6 percent above the national rate. Part of that statistic is affected by Henderson where the unemployment rate is estimated to be about 14 percent. Support for these persons becomes costly. Without considering welfare payments, Nevada paid out \$6 million in unemployment benefits in January. If things don't get worse, the tab will be about \$72 million for 1975. Employment Security director Larry McCracken has already suggested that Nevada may have to borrow funds from the federal government to get through the year. The new careers plan is a constructive alternative to reducing some of these costs and welfare payments.

What are some of the positive aspects of the plan?

A recent task force report states that Nevada is not doing a good job of educating students for real job opportunities. New careers would work directly with employers to determine training needs and these findings would then be passed on to educational activities that desire them.

The overall objectives of the new careers plan include the following: to remove about 300 young people from social dependency by helping them obtain career opportunities; to involve employers in the development of relevant training programs and in the selection of their career interns; to develop a self-help program both in terms of the employer and the young Nevadan; to assist young Nevadans to achieve their career and educational goals; and to relieve the state of the need to continue providing support for young people who really don't want to be supported.

Does this program duplicate some of the things CETA is doing?

In one respect, yes. CETA is putting people in jobs, but that's where the similarity ends. Generally the CETA jobs are temporary and in artificial public service slots. A serious concern in this respect is that when government hires extra people, they somehow become integrated into the system and suddenly they become essential. This is sort of an

application of Parkinson's Law.

New careers addresses itself to finding permanent career-type positions in private industry with hopes that the young people the program is designed to serve will become taxpayers within a short time rather than a continuing drain on tax dollars.

Further, the new careers plan was written specifically to be effective in the private sector where CETA is ineffective. The private sector is really where the lasting jobs and career opportunities are needed rather than inflating public payrolls even further. According to CETA guidelines, "...direct subsidization is forbidden. The employer must pay the enrollee his normal entry wage for the occupation." even if the candidate for OJT training isn't worth it at the time of his employment. In essence, CETA offers few incentives for private employers who pay most of the taxes.

Is the State Office of Economic Opportunity the appropriate agency for this program?

Yes, for several important reasons. First, because the program expenditures should remain in State control; second, because there is always a risk that new careers will lose its identity and fail to meet objectives for the program if it is placed in an agency with a conglomeration of other activities; third, because SEOO activities have prior experience with similar programs; and, fourth, because the SEOO has a unique position in the State structure which enables it to deal statewide with all the parties involved, such as employers, career interns, the Employment Security Department, State Manpower Council, CETA prime sponsors, educational activities, etc...

Would the new careers plan provide manpower for ranchers?

If you're talking about a ranchhand for less than minimum wage, I would have to say, no. However, my butcher tells me Nevada beef compares with the best and is better for you than high cholesterol cornfed beef. If the Nevada beef industry were developed, perhaps with federal economic development funding, then there will be an increased need for a number of specialties that would fall under the new careers concept.

Do you think tax dollars are justified for this plan?

Yes, for several reasons. Two of the most prominent justifications are that the new careers plan will be considerably less expensive than alternative plans and the second is that we feel private enterprise contributes heavily to the tax burse and would like to participate in solutions that will save them tax dollars. In unemployment compensation alone, the cost for 300 young people would amount to more than \$1 million for one year at the average rate of \$69 per week. A substantial portion of this fund comes from the employers and the State.

NEVADA APPEAL—Monday, February 10, 1975

## Matthews explains 'career program'

A unique Nevada Plan involving career internships for private and public employers is on the agenda for consideration by the state's lawmakers according to Frank Matthews, director of the State Economic Opportunity Office.

The plan, supported by Gov. Mike O'Callaghan in his State of the State message, is unlike previous career plans in that it involves the employer who has a need for professionals or paraprofessionals in the total selection and training process.

The way it will work, Matthews said, is that an employer will identify a slot in which a career intern can work and learn the skills necessary to function on a professional or para-professional level. Almost any activity can be a prospective employer — non-profit organizations like United Way to profit-oriented firms like banks and new car dealers.

There is an especial need in Nevada, he said, for personnel to work in paraprofessional medical fields.

Upon designating a career slot, the employer would then contact a new careers administrator who would assist in the recruitment of candidates and the design of the training program suited to the career slot to be filled. Actual selection and the training plan would be up to the employer who would then work out an agreement with the new careers administrator which then would be signed by the employer, the administrator and the career intern.

At this point, the new careers administrator would start a three-month assistance plan to offset losses the employer may incur until the career intern becomes sufficiently productive to justify his salary. The amount of the assistance would

be worked out for each individual, Matthews said.

In most cases, the stipend would be designed for an initial three-month period after which the employer would assume full costs for the salary, but the new careers program would continue to provide supportive services and assistance with educational costs. This part of the plan would include coordination with existing activities to assure that presently operating programs would be utilized to the fullest extent possible to avoid duplication of effort.

In more complex fields, such as perhaps in the case of reporters for the TV and newspaper media, the stipend payments could be continued an additional three months at the discretion of the new careers administrator.

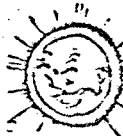
One important feature of the plan, Matthews said, is that

employers will control the payroll accounts of the new careers interns.

Why, he said, should already existing payroll accounts be duplicated by a bureaucratic agency. In the first place, this would substantially increase administrative costs for the program; secondly, it would remove some of the control the employer should exercise over his career intern.

In the past programs, Matthews said, serious problems occurred because trainees received their pay from sources other than their employer. This led to excessive absenteeism by the employee which the employer frequently did not report because of the "red tape" involved in the process. Few such jobs resulted in lasting employment, much less career opportunities.

88



# SUN Editorial

16 LAS VEGAS SUN

Tuesday, Feb. 4, 1975

## Today's Editorial

# 'New Careers' Program Deserves More Examination

Early criticism of the size of the spending program recommended to the legislators in the governor's budget indicate that a "new careers" program is on the questionable list.

In his message to the legislature, the governor proposed the state spend \$268,100 through the Department of Economic Development to provide job training for about 300 young adults in the 17- to 26-year age bracket.

Private enterprise would be asked to participate in providing the job opportunities, with the state providing "nominal incentives" for business firms to do so.

Once trained, the young people would go on the regular payroll of the employer, the theory goes, but reservations have been expressed by various members of the committees studying budget requests.

The Senate Finance Committee chairman, Sen. Floyd Lamb, D-Las Vegas, said earlier he could see "a lot of abuses" in the program.

Opportunity

over

### Training Needed

Frank Matthews, director of the Economic Opportunity Office, offers several reasons why the program should be given careful consideration.

He noted that half of those unemployed in Nevada are unskilled workers in their late teens and early 20s and a program under which some could acquire saleable skills is badly needed.

The cost of alternatives, such as unemployment compensation or minimal welfare benefits, would far exceed the costs of the "new careers" program, Matthews says.

*lower*

Besides ~~power~~ costs, an added dividend from the training would be the taxes. Those who become steadily employed will pay back into the state and federal treasuries.

### Gigantic Budget

The governor's budget is a gigantic one, calling for the expenditure from the general fund in 1975-77 of more than \$368 million, which is giving members of the appropriation committees pause in view of economic forecasts.

Because of the benefits to the economy, as well as its value to the individual who is successfully trained and thus taken from the unemployment or the welfare rolls, the "new careers" program should not be summarily dismissed.

Matthews asserts the program "is an investment, not an expense," and he just may have a valid point.

Minimum Wage Harms Apprentices Jobs

On the Right

I undertook recently to pass along a part of an analysis of current unemployment in the United States done for a Committee of Congress by a staff headed by Mr. Martin Feldstein, whose report is published in the fall 1973 number of Public Interest. There is much more to say.

Everyone knows the problem of the minimum wage, particularly as applied to young people. They arrive at the employment office and it is required by federal law that they be paid a two-dollar-an-hour minimum wage. But they are not "worth" two dollars an hour, which is the economists' way of saying that what

they are in a position to do for Mr. Consumer in one hour, Mr. Consumer is not willing to pay two dollars in exchange for.

And yet these young people could be trained to acquire skills which in due course, after they have mastered them, would make them positively seductive on the labor market. The same young man who cannot earn in one hour two dollars from Mr. Consumer could, after let us say a half year or a year's apprenticeship to a garage mechanic, find himself worth 10 dollars an hour to the consumer.

But how do you finance the interval? The law is opaque on the

subject, declining to make such exceptions as, for instance, are routinely made in Great Britain, where 40 per cent of young males are classified as "apprentices." The trouble is, as Feldstein points out, the young apprentice who lives and eats at home can get along perfectly well with pocket money from the garage that is teaching him mechanics.

But what about the young man who is married and has a child or two? Although the United States is firmly geared to a policy that subsidizes formal education — the young man at college finds state and federal agencies standing in line to ease his passage through that college — that is not the case when he is out working. And this is one of the causes for an inflated college population among young men who should be studying car mechanics and receiving something less than the minimum wage. Feldstein's controversial conclusion is that a subsidy of sorts should be paid to the young men during the period they are acquiring that training.

Then there is the matter of welfare. "Today's welfare rules are a notorious deterrent to work for those who are receiving welfare."

Feldstein gives an example. "The primary effect on aggregate unemployment of the current system of unemployment compensation is not its contribution to aggregate demand but its adverse impact on the incentives of employers and employees.

As a result, unemployment compensation is likely to increase nearly all sources of adult unemployment: Seasonal and cyclical variations in the demand for labor, and unnecessarily long duration of unemployment."

He gives an example. A man and wife in Boston with two children are earning respectively \$6,000 and \$4,200 per year. If the man is unemployed for one month, he loses \$500 in gross earnings but less than \$100 in net income.

"How does this occur? A reduction of \$500 in annual earnings reduces his federal income tax by \$83, his Social Security payroll tax by \$26, and his Massachusetts income tax by \$25. The total reduction in taxes is \$134. Unemployment compensation consists of 50 per cent of his wage plus dependents' allowances of \$6 per week for each child. Total unemployment compensation is therefore \$302. This payment is not part of taxable income. His net income therefore falls from \$366 for the month if he is employed (i.e. his \$500 gross earnings less \$134 in taxes) to the \$302 paid as unemployment compensation.

"The combination of taxes and unemployment compensation imposes an effective marginal tax rate of 87 per cent — i.e., the man's net earnings fall by only 13 per cent of his gross pay (\$64) when he is unemployed for a month. If he returns to work after one month, his annual net income is only \$128 higher than if he returns after three months. Moreover, part of this increase in income would be offset by the cost of transportation to work and other expenses associated with employment."

It is important to study these findings without lascivious moralizing. Irving Kristol once remarked that he can understand people who resent the high level of welfare payments, but he cannot understand people who resent people's availing themselves of high levels of welfare payments if they are proffered by society. More anon.



# Report: State Lacks In Job Education

By RUSSELL NIELSEN

CARSON CITY (UPI).— Nevada is not doing a good job of educating students for real job opportunities, a task force report said Thursday.

The report was presented to the State Board of Education by the Nevada State Advisory Council on Vocational Education, which asked the task force to study the operation and effectiveness of the council, and to define its rights and responsibilities more precisely.

Council Chairman Dr. Robert Brigham said he was "not pleased at all" with the report. He said some of the critical portion was "not relevant and pertinent in every detail."

Board member Cynthia Cunningham said it was "not specific, there appears to be glaring generalities."

The board decided to put off formal discussion of the report until its next meeting, because most members did not receive the report in time to study it before Thursday's session.

The task force consisted of Dewey Adams, director of the Division of Vocational and Technical Education, Virginia Polytechnic Institute and State University; Marvin Feldman, president, Fashion Institute of Technology; and Roman Pucinski, former congressman and chairman of the House General Committee on Education. Pucinski authored the 1968 vocational education amendments which created the state councils.

"Congress established the state advisory councils as a response to the massive failure of the existing educational system to prepare young people for real job opportunities," the report said. "The final measure of any state council's effectiveness is this: to what extent is the state's educational system preparing students for known job opportunities? Viewed this way, the Nevada council is not succeeding."

The principal finding of the task force was that the Nevada Council is "not sufficiently independent of the State Department of Education, and its potential effectiveness is compromised by this lack of independence." It recommended the state council review its powers, consider whether its present method of operation conforms to the requirements of federal law, and employ a wholly independent staff.

It said the council's own figures and those provided by the State Employment Security Department show Nevada's vocational education system is "falling far short" of preparing young people for jobs.

For instance, it said the state's 1975 vocational education plan lists 9,552 currently employed in hotel and lodging jobs. It lists future manpower needs at 745 in 1975 and 3,938 in 1979, but expects to supply only 10 this year and 45 in 1979.

It said the state council should take leadership in developing an effective vocational education program, and working closely with the board of education in developing the plan.

"It does not mean a state board develop a state plan and then submit it to the advisory council for approval," the report said.

"We believe the Nevada council should accept as the final measure of its effectiveness — not whether the particular programs it approves and finances are consciously carried out — but whether their total effect is to increase the real correlation between educational output and manpower needs," it said. "By this kind of a yardstick, the Nevada council's effort to achieve educational relevance is minimally ef-

million, compared with \$64.9 million in 1972. Developments, which are attracting purchasers with the

## Job training

# program sought

By JIM COBLENTZ  
Times Staff Writer

Employers in the Silver State will be able to get state help for apprenticing new employees if Gov. Mike O'Callaghan has his way.

Now called Assembly Bill (AB) 228, the proposal calls for establishment of a "new careers" agency under Nevada's Department of Economic Opportunity.

O'Callaghan called for the program during his recent State-of-the-State Address.

"THE WAY it would work," explained department director, Frank Matthews, "is that an employer will identify a slot in which a career intern can work and learn the skills necessary to function on a professional or paraprofessional level."

He added that paraprofessionals would probably include licensed practical nurses, repairmen and other servicing jobs.

The employer would select an intern under the proposed legislation's guidelines and in accordance with federal equal opportunity laws.

During the picking process, Matthews said, the businessman would work out an agreement with a "new careers administrator."

The written agreement would then be signed by the employer, the administrator and the intern.

NEVADA would then pay the intern's way for a period of from three to six months, noted Matthews. After that time, the employer would then take on the intern as a full-time employee.

"It's still in the mill now," he continued. A hearing on the bill has been set for March 3 by the Assembly's Health and Welfare Committee.

The next step, said Matthews, would be to take it to the Ways and Means Committee. No date has been set yet for facing that hurdle.

During the hearings, Matthew continued, such vital details as funding and program mechanics should be finalized.

"WE HOPE we can get federal matching funds at a three- or four-to-one ratio," he said. "Right now, we're inquiring with different federal agencies."

AB 228 is being sponsored by Assemblyman Marlon Bennett, D.-Las Vegas, and co-sponsored by 25 fellow assemblymen.

They include North Las Vegas assemblymen Paul May, Tom Hickey and Bob Price.

Matthews explained that the basic idea stems from recent job - finding projects of the Clark County Economic Opportunity Board, the National Alliance of Businessmen and other organizations interested in giving the unemployed a chance.

Las Vegas Review-Journal  
— Friday, February 28, 1975

# Brown demands action, not fed funds for jobless

SACRAMENTO (UPI) — Gov. Edmund G. Brown Jr., who last month pledged an all-out effort to secure maximum federal aid to put unemployed Californians to work, said Thursday that action and not more money is needed.

In an impromptu appearance at a Manpower Planning Conference, Brown noted the escalating

and competing demands for more state and federal money as a means of solving complex problems such as unemployment.

But he told the conference, "Just hitching up your saddles and going back to Washington to get more federal dollars won't do it because they are running out of money."

"There is not a lot of money on the money tree," he said. "Money is not the answer to your problems. What we need is some clear ideas and action proposals.

Brown spoke informally to the conference shortly after State Director of Employment Development James Lorenz told newsmen that the state's high 9.3 per cent unemployment rate may be eased somewhat by pending federal legislation.

Lorenz said he is looking into possible uses of \$800 million he said would be California's share of funds from a \$7.5 billion unemployment funds bill in Congress.

Asked after the speech whether California would use the money if it became available, Brown replied, "If we could spend it wisely, and the federal government says we can have it, then we'll spend it."

He said he first wanted to be assured that the federal Government had the funds to provide and that such money would not go to create an even bigger bureaucracy.

In his inaugural address Jan. 6, Brown promised that "my administration will work closely with the federal government."

Nev. Appeal 2/25/75  
State may  
borrow for  
unemployed

CARSON CITY (UPI) — There were 30,300 persons unemployed in Nevada in January, a jump of 43 per cent over the same period of 1974, and the state may have to borrow money to continue jobless benefits.

Jim Hanna of the State Employment Security Department told the Senate Finance Committee today the present 9.4 per cent jobless rate in Nevada may rise to 19.11 per cent. He said the big problem is the depressed construction industry.

He said one out of every four persons on the unemployment rolls is in some way connected with construction. The strike last summer by the construction industry resulted in increased unemployment but after the settlement, things did not rebound, he said.

The committee called officials of the State Employment Security Department for estimates about how bad the economy will get and how much money the state should set aside to meet emergencies. Department Director Larry McCracken said the unemployment benefit fund could be depleted by calendar year 1976.

"If it is in danger of depletion we would have to borrow from the federal government," McCracken said.

He said the payout in unemployment benefits in January was \$6 million and it is likely the fund could drop to \$8.5 million by May if the economy worsens.

Nevada State Journal 2/26/75  
Nevada's Unemployment  
Situation Remains Bleak

Journal Carson City Bureau

The State of Nevada began the new year on an old note — with unemployment continuing on the upswing to a level of 9.4 per cent in January.

That represented an increase of four-tenths of a percentage point over the previous month and a level 1.2 per cent above the national average.

Washoe County unemployment, on the other hand, "bucked national trends and dropped six tenths of a percentage point" to a level of 7.8 per cent, according to the Employment Security Department.

Department figures indicate that, statewide, there were 30,200 persons unemployed last month, up 3,700 from December. Total employment increased from 239,900 in December to 252,000 in January.

Total state employment during January was 252,900, a decline of 7,100 from the month before.

Department Director Larry McCracken said the 30-day drop is "traditional for this time of year when many intermittent workers wind up temporary holiday jobs and withdraw from the labor market."

Overall, he said, "while Nevada's rapid-growth economy characteristically produced an (unemployment) rate exceeding the national," the percentage increase was well below that on the national level.

Fuller Barlow, director of the department's Reno office, said the decrease in unemployment in Washoe County occurred despite the fact that the ranks of the jobless increased by

1,000 — to a level of 7,400 — between January and February.

He said exceptionally good weather last month permitted greater than usual activity in construction and other businesses affected by the climate.

Heavy seasonal adjustment factors based on normal January conditions — combined with smaller than anticipated job cutbacks — accounted for the rate of unemployment to drop, he said.

For the entire year, he said, the Washoe Labor force grew 8.9 per cent and employment went up by 6.7 per cent, with "healthy gains" in all business sections except mining, which held steady.

The tourist-oriented service industry led the field with 2,200 new workers, followed by trade with 1,400.

Statewide in January, McCracken said, manufacturing, transportation-public utilities and mining all held at December employment levels, with cutbacks in the trade area of 2,600 jobs and those in the service field by 2,300.

Over the year, the state's labor force increased by 8.4 per cent and employment was up by 5.4 per cent and all but one of the eight major industries showed healthy growth patterns, he said.

The service industry, McCracken added, led the field with 7,400 new workers, with the trade industry following with 4,100.

Unemployment in Clark County in January topped the state average

(See UNEMPLOYMENT,  
Page 2, Col.1)

## Unemployment

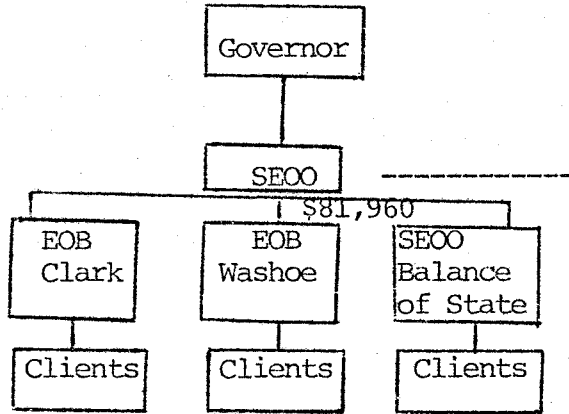
(Continued from Page 1)

with 10.8 per cent, up nine-tenths of a per cent from December. The number of jobless increased by 2,400 to a total of 17,300, according to the director of the Las Vegas office.

Overall, Clark's labor force grew by 9.4 per cent in the past year, with a 5.3 per cent increase in employment, the director added.

NEW CAREERS ORGANIZATION

Total Funding: State \$268,100, Social Services \$160,860 = \$428,960



Extensive cross coordination will occur between E.S., CETA, and the university system. Emphasis of New Careers will be on persons that do not qualify for employment under other programs.

\$347,000 plus probable matching federal funds to clients.

SMOKING AND THE NONSMOKER

My purpose in appearing before you today is to provide you with some perspective about the "rights" of nonsmokers and smokers. I am not a doctor or a scientist but I have had an opportunity to become acquainted with the dispute. I have gained a fairly good idea of just what evidence there is -- and more importantly -- what there is not.

I will briefly present some of the facts in this controversy. You may be assured that they are completely and accurately documented. I'll also try to answer whatever questions you may have. You may well come up with some tough ones that I can't give you a definitive answer to off the top of my head. If that happens, I'll give you the best information I have and then check with persons who are experts and get you the rest of the information as soon as possible.

I don't think that it's really necessary, anyway, that one be a scientist or a doctor to understand what's involved in this sort of controversy. What we're faced with is a situation in which one group of persons, without any good scientific evidence to support their position, is trying to make illegal a widespread and long standing social practice of another group of people that they find annoying. Their position is nominally based

upon the argument that smoking in public places is actually hazardous to the health of other persons, of nonsmokers, and that therefore smoking in public should be banned. But this is only their stated reason -- medical and scientific evidence does not warrant the conclusion that cigarette smoking under normal conditions is hazardous to the health of nonsmokers. Their real motivation is simply that they don't like smoking -- it annoys them. Furthermore, a lot of them would like to see smokers so mini-prohibited they would quit -- the "I know what's good for you" approach.

It might be helpful to briefly review some of the history of this dispute so that you can see how recent it is and how little support there is for any claim of medical hazards to non-smokers.

The whole smoking and health issue as it relates to the active smoker -- the one who smokes himself -- really first became subject to general, public controversy in 1964 when an advisory committee composed of scientists issued its famous report to the U.S. Surgeon General.[1] This controversy continues. Since the initial 1964 Report the anti-smoking propaganda arm of the Public Health Service -- the National Clearinghouse for Smoking and Health, prepared six more reports -- these came out in 1967, 1968, 1969, 1971, 1972, and 1973. Not until 1972 was any mention made about smoking being a possible hazard to the health of nonsmokers. [2]

All the others made no such claims whatsoever. And the 1973 Report was also silent on the subject.[3]

In Great Britain, the Royal College of Physicians has issued two reports on smoking and health. The first of these came out in 1962 [4] and the second in 1971 [5]. Neither of the two reports treated cigarette smoke as a health hazard to non-smokers.

It is interesting that the claims made in the 1972 Surgeon General's Report also contradict statements of other U.S. Government agencies. I would like to quote for you from a publication put out by the U.S. Department of Health, Education and Welfare:

"Can it harm you to breathe the smoke from other people's cigarettes?"

"No. It may make your eyes tear or make you cough a bit; but it cannot harm you." [6]

Even the U.S. Surgeon General admitted after the 1972 report was issued that he could not "say with certainty that exposure to tobacco smoke is causing serious illness in nonsmokers". He continued by saying that "the long term research necessary for such a finding has not yet been done." [7] Now Jesse Steinfeld, who was the Surgeon General who made that statement in 1972, certainly was no friend of cigarette smoking; yet even he had to admit a lack of certainty on this question.



Let's look for a minute at some of the so-called "evidence" used by the persons who want to prohibit other people from smoking in public. They throw out figures about astronomical amounts of tobacco being burned annually and call that "a major pollutant in our environment".[8] They complain about the carbon monoxide in tobacco smoke as harming the nonsmoker.[9] What they don't mention is that a study published in 1970 by the New York Academy of Sciences found that cigarette smoke contributed a "negligible" portion of the carbon monoxide found in the air we breathe.[10] Let me put it another way -- the study determined that cigarette smoke contributed less than one ten thousandth of the carbon monoxide in our air. Motor vehicles caused more than 5,900 times as much carbon monoxide as cigarettes, and even forest fires produced more than 700 times as much.

The kind of extreme experiment that some opponents of cigarette smoking like to cite is one in which a group of people is put into a cramped, unventilated space while they smoke as many cigarettes as fast as they possibly can. Let me give you an example of an unrealistic study which has been used to support the claim that smoking in automobiles is hazardous to non-smoking passengers. In 1967, a Czechoslovakian scientist reported that he had put four people inside a small European car with its doors and windows closed inside an enclosed garage.[11] Not even the wind was allowed to hit the car. The two smokers each smoked five cigarettes in sixty-two minutes, smoking them to an extremely

small butt length -- one fifth of an inch. Only under these exaggerated conditions was an elevated carbon monoxide level reported. In such an airtight space, I'm sure everyone was uncomfortable, smoker and nonsmoker alike. Their normal reactions would have been to roll down the windows, or stop smoking, or both. I don't think we really need a law telling people that if there are four people in their Volkswagen it's unlawful for them to drive it into a garage, roll up the windows, shut the garage doors, and sit there for an hour while smoking a half a pack of cigarettes.

I won't belabor this point. I do think it is important to realize, however, that the question you face is not completely unique. Several government agencies, both federal and state, have decided precisely this question based on extensive expert evidence by doctors and scientists. Let me read you the conclusion of an 85-page study of cigarette smoking in aircraft conducted jointly by the Federal Aviation Administration, the Department of Health, Education and Welfare, and the Department of Transportation. The report, which was issued in December 1971, states as follows:

". . . it is concluded that inhalation of the by-products from tobacco smoke generated as a result of passenger smoking aboard commercial aircraft does not represent a significant health hazard to nonsmoking passengers." [12]

The Federal Interstate Commerce Commission also conducted an extensive study in 1971 of smoking on buses. The Commission's

conclusion is as follows:

98

"We agree with the examiner's conclusions that petitioner has failed adequately to demonstrate the deleterious effects of second-hand smoke upon the health of motor bus passengers." [13]

The California Public

Utilities Commission has also studied the problem of smoking on buses. This is the conclusion of THE Commission:

"It is traditional that an individual's freedom of choice should be preserved, where no serious problem is created for others. The smoke[r] is usually less of a bother than the alcoholic, one who chews tobacco or garlic, or the compulsive talker. . . .

"The nonsmoker will suffer some discomfort when exposed to concentrated cigarette smoke in an enclosed area, but there is no proof that his health is impaired thereby." [14]

These findings by government agencies that have considered all the evidence are not surprising. They are based on solid scientific evidence provided by scientists from all over the world -- studies for example by Yaglou (an American) [15]; Eckardt and MacFarland (an American and a Canadian) [16]; Bridge and Corn (Americans) [17]; Harke (a German) [18]; and Anderson and Dalhamn (Swedes) [19]. The American study by Bridge and Corn concluded this way:

". . . our results suggest that concentrations of CO [carbon monoxide] from cigarette and cigar smoking do not present an inhalation hazard to nonsmokers." [20]

And a recent review of the literature by another scientist (Schievelbein) has concluded that:

99

"No proof of a threat to the health of nonsmokers through 'passive smoking' can be found in studies available to date." [21]

To add a little more perspective on this matter, it is interesting to note that even some of the most outspoken anti-tobacco critics, such as the British organization, Action on Smoking and Health, have admitted that "[t]here is no evidence that other people's smoke is dangerous to healthy non-smokers. . . ." [22]

One of the easiest ways of showing how extremely unlikely it is that so-called "passive smoking" is harmful is to consider the pipe smoker. Not only is the pipe smoker an active smoker, but we also know from experience that he is one of the greatest "passive" smokers around -- he is constantly enveloped in a wreath of pipe smoke; and pipe smoke -- the Surgeon General's Committee told us in 1964 -- has almost ten times the benzopyrene content of cigarette smoke. [23] Yet, according to the 1964 Report to the Surgeon General, the mortality rates for pipe smokers are "little if at all higher than for non-smokers, even with men smoking ten or more pipefuls per day and with men who had smoked pipes for more than thirty years." [24] The 1964 Report further makes clear that this is true even among pipe smokers who inhale. [25]

So, the claims that tobacco smoking is hazardous to the 100 non-smoker are not justified by the scientific evidence. These claims are merely a facade disguising what is an attempt by one group of persons to write their personal prejudices into law. Granted that tobacco smoke may be annoying to some people -- this does not make it a proper subject for legislation. The answer, it seems to me, is that both smokers and nonsmokers should be sensitive to the rights and wishes of each other. This is the way the problem has been handled in the past and, overall, this approach has been pretty successful.. Unfortunately, we're now in a situation in which some nonsmokers have abandoned any attempt to understand or respect the wishes of smokers. They are now trying to attach a criminal label to behavior which does not conform with their own personal desires. But, as the government's top physician, Assistant HEW Secretary Merlin K. DuVal, said to a Congressional Committee not long ago when asked about government restrictions on smoking:

"I would submit that at this time this is an area of individual rights . . . . It would seem to me that there is no way in which there could be a proper governmental intrusion . . . ." [26]

In conclusion, I can do no better than to read you what Dr. Paul B. McCleave, the Director of the Department of Medicine and Religion of the American Medical Association, has said about the dangers of this kind of activity:

"As is always the case in any group that becomes anti of any situation or circumstance, there are always loud voices and much flag waving. So it is in the anti-smoking group. Public travel is public and not a private individual's right. What my seatmate may do, and my reaction to his acts, I must accept as one who is in public transportation.

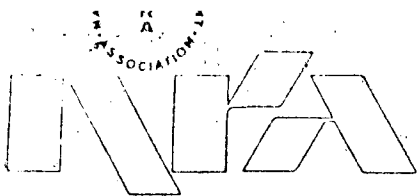
". . . smoking may be offensive to certain people but so is an alcoholic breath, a sweating body, an unkempt figure, a crying baby, or an undisciplined child on an airplane. May I ask, as one who travels over 100,000 miles a year on planes, that if you ban smoking then will you ban these other annoyances and inconveniences to one who travels?" [27]

1. U.S. Public Health Service. Smoking and Health: Report of the Advisory Committee to the Surgeon General. Washington, D.C.: U.S. Department of Health, Education, and Welfare, Public Health Service Publication No. 1103. 1964.
2. U.S. Public Health Service. The Health Consequences of Smoking: A Report of the Surgeon General: 1972. Washington, D.C.: U.S. Department of Health, Education, and Welfare, DHEW Publication No. (HSM) 72-7516, pp. 121-135.
3. U.S. Public Health Service. The Health Consequences of Smoking: 1973. Washington, D.C.: U.S. Department of Health, Education, and Welfare, DHEW Publication No. (HSM) 73-8704.
4. Royal College of Physicians of London. Smoking and Health. London: Pitman Publishing Corp., 1962.
5. Royal College of Physicians of London. Smoking and Health Now. London: Pitman Medical and Scientific Publishing Co., 1971.
6. Social and Rehabilitation Service. Smoking, Health, and You. Washington, D.C.: U.S. Department of Health, Education and Welfare, Publication No. 424-1964 (reprinted 1968), p. 12.
7. Steinfeld, J. L. Remarks at press briefing on 1972 Surgeon General's Report, January 10, 1972, Washington, D.C.
8. East Bay Group Against Smoking Pollution. The Effects of Tobacco Smoke on Nonsmokers. (Unpublished handbill). Berkeley, California.
9. East Bay Group Against Smoking Pollution, supra note 8.
10. Jaffe, Louis S. Sources, characteristics, and fate of atmospheric carbon monoxide. In: Biological Effects of Carbon Monoxide (Ed: Coburn, Ronald F.), Annals of the New York Academy of Sciences: 174(1): 76-88; 1970. p. 77.
11. Srch, M. The significance of carbon monoxide in cigarette smoke in passenger car interiors [Über die bedeutung des kohlenoxyds beim zigarettenrauchen im personenkraftwageninneren]. Deutsche Zeitschrift für Gerichtliche Medizin 60: 80-89, 1967.

12. U.S. Public Health Service. Health Aspects of Smoking in Transport Aircraft. Washington, D.C.: U.S. Department of Health, Education, and Welfare, December 1971. p. 45.
13. U.S. Interstate Commerce Commission. Smoking by Passengers and Operating Personnel on Interstate Buses. Washington, D.C.: No. MC-C-6748, Motor Carrier Cases, Vol. 114, pp. 256-278, November 17, 1971. p. 264.
14. California Public Utilities Commission Opinion, Decision No. 79032, August 12, 1971. pp. 8-9.
15. Yaglou, C. P. Ventilation requirements for cigarette smoke. Transactions American Society of Heating and Air-Conditioning Engineers 61: 25-32, 1955.
16. Eckardt, R. E., et al. The biologic effect from long-term exposure of primates to carbon monoxide. Archives of Environmental Health 25(6): 381-387, December 1972.
17. Bridge, D. P.; Corn, M. Contribution to the assessment of exposure of nonsmokers to air pollution from cigarette and cigar smoke in occupied spaces. Environmental Research 5: 192-209, 1972.
18. (a) Harke, H. P.; Bleichert, A. The problem of passive smoking [Zum problem des passivrauchens]. Int. Arch. Arbeitsmed. 29: 312-322, 1972. [Translation]  
  
(b) Harke, H. P. The problem of passive smoking [Zum problem des "passiv-rauchens"]. Munchener Medizinische Wochenschrift 51: 2328-2334, December 18, 1970. [Translation]
19. Anderson, G.; Dalhamn, T. Health risks from passive smoking [Halsoriskerna vid passiv rokning]. Lakartidningen 70(33): 2833-2836, 1973. [Translation]
20. Bridge, D. P.; Corn, M.; supra note 17. p. 208.
21. Schievelbein, H. On the question of the effect of tobacco smoke on the morbidity of nonsmokers. Internist 14(5): 236-243, 1973. [Translation]
22. Report of an Expert Group appointed by Action on Smoking and Health. Pipe and cigar smoking. Practitioner 210: 645-652, May 1973. p. 651.
23. 1964 Report to the U.S. Surgeon General, supra note 1. p. 58, Table 3.



24. Ibid., p. 36.
25. Ibid., p. 92.
26. DuVal, M. Testimony before Consumer Subcommittee of U.S. Senate Committee on Commerce, February 1, 1972. Page 28.
27. McCleave, Paul B. Letter to the Editor. Wall Street Journal, February 18, 1970. p. 16.



STATEMENT OF THE NATIONAL RESTAURANT ASSOCIATION WITH RESPECT  
TO SMOKING IN RESTAURANTS

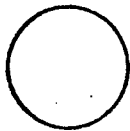
The National Restaurant Association opposes the enactment of laws and ordinances that would prohibit smoking in restaurants, or compel the establishment of no smoking areas in restaurants, for the following reasons:

We believe that an earlier experiment in attempting to legislate social habits has demonstrated the undesirability of enacting laws that cannot be enforced.

We believe that government imposed restrictions on smoking in the social atmosphere of a restaurant or dining room would be unenforceable and that attempts to enforce them would invite disorder and economic sanctions which the restaurateur and his employees should not have to bear.

The establishment of areas where smoking is prohibited may be feasible and desirable in many restaurants, but the decision to establish such areas in any particular restaurant must be left to the restaurateur whose patronage, after all, depends upon his meeting the needs and desires of his guests.

We believe that the patrons of restaurants are occasionally exposed to annoyances of many kinds, including those resulting from the personal character and traits of other patrons. However, the government does not and should not attempt to abridge individual freedoms in each of these instances for if it did there would be virtually no end to the possible legislative restrictions.



QUOTE FROM AFL-CIO NEWSFebruary 19, 1975

"Recently it is charged that even non-smokers in the vicinity of tobacco smoke are affected.

"Supported by a barrage of mass media publicity, . . . the unproven indictment has reached the status of conventional wisdom.

"It has also produced some controversial legislation in the form of new segregation laws and piecemeal prohibition statutes.

"There is a viewpoint which argues against unneeded and unenforceable legislation to regulate public behavior, and what is worse diverts attention from basic reform. We suggest a return to the apparently antiquated tradition of showing consideration and courtesy for each other. The lack of success of the many statutes which now prohibit littering, spitting or forms of personal conduct is hardly an incentive to push for more behavior control through legislation.

"Nevertheless, there is a tendency to call on the long arm of the law to enforce courteous interaction between people. Encouraged by spurious health claims, it has the unfortunate result of creating another class of lawbreakers. In an era when suspicion and distrust dominate public thinking there is no need to pass laws which polarize our people into opposing camps such as male vs. female, black vs. white, young vs. old,

Jew vs. Gentile--and now, non-smoker vs. smoker.

"We smokers may be old-fashioned but we still believe that common courtesy is the best solution. The overwhelming majority of smokers will respond to a simple and polite request if smoking annoys someone.

"Unfortunately, our various levels of government seem hell bent on legislating away the need of people to talk to each other. Why waste time in reasonable discussion of our petty differences? Just pass a law and call a cop. Or, better yet, sue the S.O.B. Lawyers need the business and the courts delight in telling us how we can protect our rights. So what if the costs run high and it infringes on the rights of others."

RESEARCH  
EDUCATION  
SERVICE



108

**AMERICAN CANCER SOCIETY, INC. - NEVADA DIVISION**

PHONE 736-2999  
4220 MARYLAND PARKWAY • SUITE 105 • LAS VEGAS, NEVADA 89109

February 28, 1975

Frank J. Fahrenkopf, Jr., Esq.  
P. O. Box 1249  
Reno, Nevada 89504

Dear Frank:

RE: Nevada Division, American Cancer Society stand on legislation concerning smoking in public places.

It must first be understood that the American Cancer Society is absolutely opposed to smoking in any form because it may be harmful to one's health.

The American Cancer Society encourages establishments to set aside no smoking areas in public places, businesses, etc.

The Board did not feel it could approve the bill in its present form because it would be essentially unenforceable. The American Cancer Society board would support a joint legislative resolution encouraging establishments in Nevada to set aside no smoking areas.

This action was taken in the Executive Committee Meeting, February 6, 1975, in Las Vegas.

Sincerely,

Gary W. Davis  
Executive Vice President

## *R-J viewpoint*

# Public smoking ban proposal costly issue?

The banning of smoking in certain public places being considered by the State Assembly is a dangerous proposal which could have a serious detrimental effect on the state economy.

Surely the legislators in their own smoke filled rooms must have forgotten the indulgences which keep our economy thriving when they came up with the measure to tell people when and where they could and could not smoke.

The most restrictive of two bills authored by Assemblyman John Vergiels and others would prohibit the smoking of tobacco in any form in any "elevator, indoor theater, library, art museum, lecture or concert hall, department store, restaurant or bus which is used by or open to the public."

Smoking would further be prohibited in any "room in a public building while a meeting open to the general public is in progress." Doctors offices would also be off limits to smokers.

The prohibition of smoking would work just about as effectively as the prohibition of drinking did a generation ago. The law would prove unenforceable unless Vergiels and his colleagues intend to establish a whole new vice squad to run about extinguishing the outlawed cigarettes of knowing or unknowing offenders.

Visitors to our town, who came in search of a little enjoyment, would have to be told as they entered restaurants and convention sessions, that they would instead be faced with a little discomfort by foregoing the pleasure of smoking.

The law would cause more than a small annoyance for the tourists who would not be accustomed to such restrictions in their own communities. Many would leave with an unpleasant irritation which might keep them from coming back for another visit.

We agree with the Las Vegas Convention and Visitors Authority when they stated, "Prohibiting smoking in public areas and partitioning smokers from non-smokers would both destroy our image as a sun and fun resort and severely cripple our ability to solicit conventions."

The law also would cause numerous inconveniences for our own residents and for the many businesses which would have to comply with the restrictions.

The proposed legislation allows for separate smoking areas "where it is possible to confine the smoke to such areas."

Proponents of the bill argue that provision allows for the accommodation of smokers. What they overlook is the costly remodeling it would require of restaurants and convention centers. Many establishments would not be able to provide separate smoking and non-smoking sections without severely limiting their available seating space or destroying their present decor.

The restrictive proposals now under discussion by the Assembly Health and Welfare Committee are ones which should be allowed to go up in smoke for the welfare of the whole community.

# Too much smoke

COUGH, COUGH.  
Beg pardon.  
It's the haze in those no-smoking bills before the Nevada Legislature.

One — by Las Vegas Assemblyman Joe Vergiels — would prohibit smoking in elevators, theaters, libraries, museums, concert halls, department stores, restaurants, buses, cafeterias, waiting rooms, doctors' offices, employe lounges, and meeting rooms of public buildings.

The second — by Las Vegas Assemblyman Zel Lowman — would ban smoking only in public buses, public meeting areas, and the waiting rooms, restrooms, and hallways of health care facilities and the offices of chiropractors, dentists, physical therapists, physicians, podiatrists, psychologists, opticians, optometrists and osteopaths.

That covers a lot of ground. Admittedly, Lowman's bill is less inclusive than Vergiels'. But both pry a lot farther into citizens' lives than the state has a right to pry.

Not that smokers aren't a considerable bother to the non-smoking majority. The thought of all those smoke-filled casinos and restaurants is enough to bring tears to the eyes.

And not that it wouldn't be nice if restaurants and other establishments set aside separate rooms for smokers and non-smokers. Hopefully they will someday. And hopefully doctors can provide a smoke-free wait for those who desire it.

But that should be up to the restaurants and cafeterias and doctors.

If the state wants to ban smoking in state-owned facilities, fine. That's a progressive and healthy step. But the state should back off from too much interference with private lives.

Every time the Vergiels or Lowman bill is mentioned, something buzzes in the head. It must be those mandatory seat belts the federal government forced on us. You know, the ones where the car won't start without the belt fastened — and the buzzer buzzes. And if you open the door without the key in the lock, the buzzer buzzes. And if you put groceries on the seat beside you, the buzzer buzzes.

It's enough to make one want to light up a cigarette.

Nevada State Journal 2/14/75

## Smoking Ban Legislation Opposed

Reno-Sparks Convention Authority board members voted unanimously Wednesday night to oppose bills pending in the Nevada legislature which would ban smoking in public places.

Discussion of the motion during the board meeting was brief.

Chairman Gerry Grow, a county commissioner, said, "If we booked a convention here . . ."

" . . . and told them they couldn't smoke . . ." Reno Mayor Sam Dibiango interrupted.

That ended the debate and led to the vote.

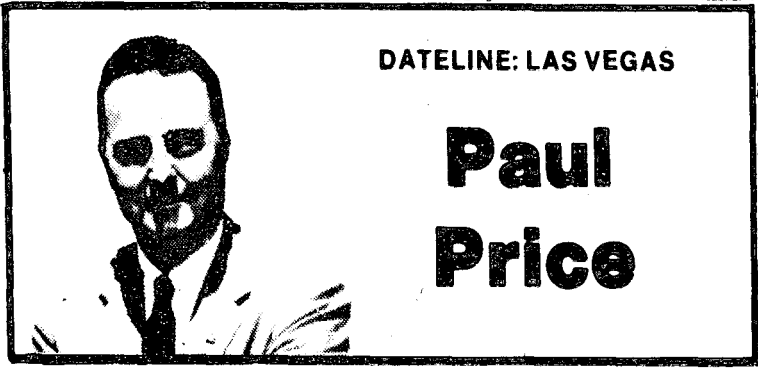
However, prior to the meeting, several board members said a ban on smoking in the Pioneer Theater Auditorium lobby and within the Centennial Coliseum could be disastrous to convention booking attempts.

Smoking currently is banned in the Pioneer auditorium area but is permitted in the lobbies.

# SUN Local News

Sunday, Jan. 26, 1975

LAS VEGAS SUN 13



DATELINE: LAS VEGAS

## Paul Price

**Cigarette smokers unite!**

We must rise in protest, assert our rights, refuse to be degraded as second class citizens. Otherwise, we will vanish in a puff of smoke.

We are being maligned, victimized and trod upon. Are we weasels to sit idly by flicking ashes to the wind as we are exploited and penalized at the same time?

You realize what dire fate they are planning for us, don't you? We are singled out for persecution and prosecution.

They — our enemies — propose to bar smoking in certain public areas, even restaurants and employe lounges in public buildings. This punitive measure is not restricted to cigarette smokers alone but to the man or woman who savors the flavor of a good cigar or cherishes the solace of a well seasoned pipe.

Of course, you do not see many women smoking pipes or cigars in public, but is it proper to forbid them such a privilege even if they don't want it?

But the true target is the cigarette smoker!

They not only want to deny us the right to smoke in selected areas but threaten to punish us further by building a sports stadium at our expense. Did you ever hear of anything so ridiculous? They want us to pay for this monstrous structure so we can go there and not smoke after we paid for it.

Chicanery! It is the sly work of devious men and I'm not blowing smoke rings.

Atty. William Morris and Assemblyman John Vergiels are the rescals who seek not only to deprive us of a simple pleasure but mulct us of hundreds of thousands of dollars.

Vergiels has introduced in the legislature Assembly Bill 17, a devilish measure that would forbid smoking in any number of places, including "any elevator, indoor theater, concert hall, library, art museum, department store, restaurant or bus which is used by or open to the public."

Alleged purpose of the bill is "to place restrictions on the smoking of tobacco in public places to protect human health and safety."

The cause is laudable, but immensely impractical.

Atty. Morris, normally a fair-minded man, is chairman of the Governor's Southern Nevada Sports Facility Advisory Board and that agency wants to build a sports arena.

To accomplish this, he proposes a 4½ per cent additional sales tax on a package of cigarettes.

Such a nefarious scheme is not even laudable, but discriminatory and many other things.

Actually Vergiels' AB 17 does have merit. The drawback is it encompasses too much and would be unenforcable in several ways. In fact, it could be faulty legislation because some portions of it never would be enforced and, thus, such a law would openly be breached.

A non-smoking edict makes sense, for example, in such locations as an elevator, doctor's office, meeting and hearing rooms in public buildings and while seated in theaters.

But how does Vergiels reason it will ever work in restaurants? There is not on chance in the world. Does anybody believe for three seconds that a no-smoking rule could be enforced in any of the Strip hotel showrooms?

The rebuttal will be that special non-smoking sections could be set aside in such restaurants or showrooms. Would anybody seriously claim that this will work? If a large spending patron comes into a restaurant with a party of eight and wants the elusive "best table," is he going to be shunted to "second best" because it is in the smoking area.

No casino in town will deprive the high-roller of a ringside table if it's the last one left and happens to be in a non-smoking area. He will smoke.

Many restaurants in the state, certainly in Las Vegas, also serve food in the cocktail lounge and could be classed as restaurants. Are we going to prevent people from smoking in a cocktail bar?

over



---

**One of the most ridiculous restrictions would be the prohibition of smoking in employe lounges of public buildings. What is a lounge for? It is a place where the employe can go to relax, perhaps over a cup of coffee and a cigarette.**

Of course, you could always have two lounges — one for smokers and the other for non-smokers. Okay, so you can also have two showrooms, two restaurants and what will be done about the ladies' powder room?

Everybody has rights, but that also includes smokers.

---

**Morris' scheme to tax cigarette smokers is almost dastardly. It would increase the taxes on a single pack to 14½ cents, but you can bet that in reality it will amount to 5 cents.**

Somebody is going to give you a half-cent change?

Why should cigarette smokers be singled out to finance this sports center? If Morris elects to tax cigarette smokers, why not slap an added tariff on pipe tobacco or a cigar or even chewing tobacco? It is discriminatory to lay the burden on the person who already is paying 60 cents a pack and will be forced to pay 65 cents.

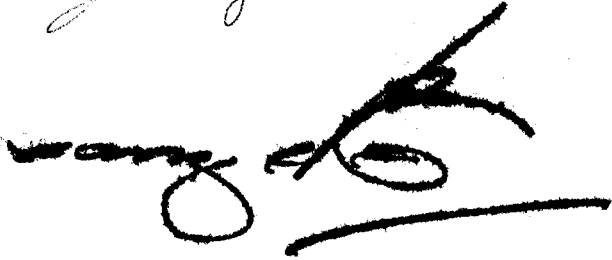
Why shouldn't we tax each bottle of liquor, gallon of gas, dinner and entertainment tabs in the hotels, attorney's fees or the right to enter the airport or bus terminal?

The excuse will be the people already are overtaxed and heaven knows that is true. But it's no excuse to take dead aim on a citizen merely because he enjoys a smoke. Cigarette smoke, that is.

If we don't rise in protest now, they will have us building a new courthouse next.

---

Judy Waldemar



Ellen Redunn

Maria O'Neil

Madonna Cheney

Louisa Ashlock

Mary Lou Norton

Rinda Clark

Helen E. Bridie

Marilyn P. Doobey

Gloria Salisbury

The attached  
signatures are  
all employees  
of the Employment  
Security Dept.  
500 E. 3rd St.  
Carson City, NV  
mj

Mary Efford

Karen Ann Scott

Margie Harris Jesse

Virginia A. Nizum

Brenda Barton

Betty Ann

Miss Anne Macintosh

Kathleen Arvey

1. Smoke-filled air contains visible smoke particles and invisible gases that may irritate the eyes and nasal passages. These same substances may also trigger allergic reactions.
2. Several harmful gases in tobacco smoke emissions have been identified: carbon monoxide, nitrogen dioxide, hydrogen cyanide, hydrogen sulfide, hydrocyanic acid, arsenic, and other components.
3. The least obvious and most insidious danger is that a colorless gas, carbon monoxide, may get into the nonsmoker's bloodstream in sufficient quantity to damage his heart and lungs or exacerbate heart-lung disease he may already have.
4. Inhaled carbon monoxide, in smokers and nonsmokers alike, enters the bloodstream through the inner surface of the lungs. Carbon monoxide robs the body of needed oxygen and commonly leads to headaches, dizziness and lassitude.
5. The acceptable maximum, in most industrial situations, is 50 parts of carbon monoxide to 1,000,000 parts of air. A roomful of cigarette smokers, investigators have found, raise the carbon monoxide content to between 20 and 80 parts per million parts of air.
6. Cigarette smoke contains 250 parts per million (ppm) of nitrogen dioxide, an acutely irritating gas, possibly giving rise to nitrate, a potentially mutagenic agent. Pollution alert levels in Los Angeles have gone as high as 3 ppm.
7. Hydrogen cyanide is not found in customary forms of air pollution, yet is a highly active enzyme poison, found in cigarette smoke. Long term exposure to levels of about 10 ppm is considered dangerous. Concentration in cigarette smoke is 1,600 ppm.
8. Teams of researchers at the University of Cincinnati Medical Center reported that smoke drifting from the burning ends of cigarettes, pipes and cigars contains cadmium which could definitely be harmful when inhaled by nonsmokers.
9. The presence of tobacco smoke in the air can trigger an attack in a person plagued with chronic lung disease.
10. Smoke from an idling cigarette contains almost twice the tar and nicotine of an inhaled cigarette and thus may be twice as toxic as smoke inhaled by the smoker. An idling cigarette contaminates the air for approximately 12 minutes while the average smoker usually inhales for only 24 seconds.
11. If a nonsmoker must be in the company of a smoker he may be safer when near one who inhales because the inhaling smokers filter mainstream smoke rather effectively. Studies have shown that a smoker's lungs retain more than 85% of the volatile chemicals and particulate matter, and more than 1/2 the carbon monoxide in tobacco smoke.
12. Since pipe and cigar smokers inhale less than cigarette smokers they contribute relatively unfiltered smoke into the air.
13. Heavy cigarette smoking while driving in traffic can harm some people. The carbon monoxide present in such a situation can interfere with the driver's ability to judge time intervals and thus lead to accidents. Ten cigarettes smoke in a closed car produce carbon monoxide levels up to 90 ppm.

14. 58% of adult men do not smoke and approximately 70% of adult women do not smoke. The American Medical Association estimates that at least 34 million Americans are sensitive to cigarette smoke. They have respiratory conditions which are made worse, often dangerously so, by tobacco fumes.
15. The patient who is already ill is likely to become much worse if he encounters smoke in the doctor's reception room.
16. A health survey in Detroit homes concluded that smokers' children were sick more often than nonsmokers children, and that the presence of tobacco smoke in the environment was associated with "lessened physical health".
17. One test made in Germany showed that smoking of several cigarettes in a closed room makes the concentration of nicotine and dust particles so high, in a short time, that the nonsmoker actually inhales as much harmful smoke as the smoker inhales from 4 or 5 cigarettes.

Facts compiled from Dr. Jesse L. Steinfeld, Surgeon General of the U. S. Public Health Service; Time Magazine: John M. Keshishian, M. D., George Washington Hospital; Frederick Speer, M. D., Medical Tribune, 12/4/67; Science Magazine, 1967; Deutsche Medizinische Wochenschrift, 1967; Kostin Cameron; General Robert B. Shearer, Walter Reed Army Hospital; Action on Smoking and Health reports; Harry Swartz, "Tobacco Smoke: A Noxious Air Pollutant"; Readers Digest, 11/72; Curtis 100, 9/72; Frederic Spper, Archives of Environmental Health, 3/68; Philip Abelson, "A Damaging Source of Air Pollution". Research Dept., Fla. Dept. of Health.



United States  
of America

# Congressional Record

116

PROCEEDINGS AND DEBATES OF THE 92<sup>d</sup> CONGRESS, SECOND SESSION

Vol. 118

WASHINGTON, THURSDAY, MAY 4, 1972

No. 72

## House of Representatives

### THE DANGERS OF TOBACCO SMOKE TO NONSMOKERS

Mr. KOCH. Mr. Speaker, several months ago the Surgeon General of the United States reported something that many of us nonsmokers have known, or at least suspected, for a long time: that breathing somebody else's tobacco smoke, particularly in a confined area, is annoying and irritating, often causing bleary eyes, cough, headache, or runny nose. The Surgeon General has now reported, on the basis of a substantial amount of medical information, that tobacco smoke is indeed hazardous to the health of a nonsmoker. This raises a question, Mr. Speaker, as to how the health and rights of the nonsmoker can be protected.

An organization which has been in the forefront of the fight to establish and protect the rights of nonsmokers is Action on Smoking and Health, 2000 H Street NW., Washington, D.C. Almost 2 years before the Surgeon General issued his report, this organization filed a petition with the FAA to require nonsmoking sections on all airlines. The FAA has tentatively approved that petition, but final issuance of the rule is still pending. Nevertheless, many airlines, under prodding by ASH and others, are now providing nonsmoking sections. Recently the ICC ruled that interstate buses must restrict smoking to the rear 20 percent of the bus. When that ruling was held up by the Commission, ASH jumped into the fray and the ICC again issued the rule. Unfortunately, the rule has not yet become effective, since the motor bus owners are fighting it in the courts. Action on Smoking and Health has also persuaded the Department of Health, Education, and Welfare to recognize for the first time anywhere in Government that nonsmoking employees have a right to breathe air unpolluted by cigarette smoke, and to ban smoking in certain areas and provide separate nonsmoking sections in others.

As one of the early sponsors of Action on Smoking and Health, I am proud of this organization and the work it and others are doing to protect the rights of nonsmokers. In view of the tremendous amount of interest in the portion of the

Surgeon General's report describing the health hazards of tobacco smoke to nonsmokers, I include a copy of that section in the RECORD:

#### PUBLIC EXPOSURE TO AIR POLLUTION FROM TOBACCO SMOKE

The purpose of this chapter is to summarize the present state of evidence concerning the effects of exposure to an atmosphere containing either tobacco smoke or its constituents. Since the identification of cigarette smoking as a serious health hazard to the smoker was based on clinical and epidemiological observations that nonsmokers have much lower mortality and morbidity rates from a number of conditions, it is obvious that cigarette smoking is normally a greater hazard to the smoker than is the typical level of exposure to air pollutants produced by the smoking of cigarettes which many nonsmokers experience. This would be consistent with the voluminous data which show a dose-response relationship between the level of exposure to smoke and the magnitude of its effect.

The research so far reported on the nature and effects of exposure to smoke-pollutants in the atmosphere has not been as extensive and well-controlled as that done on the health effects of smoking on the smoker himself. Knowledge on this subject can be separated into four major areas of concern:

1. The extent to which the components of cigarette smoke contaminate the atmosphere and are absorbed by the nonsmoker.
2. The effects of low levels of carbon monoxide on human health.
3. Allergic, adverse, and irritative reactions to cigarette smoke among nonsmokers.
4. The known harmful effects of the passive inhalation of cigarette smoke in animals.

#### THE EXTENT TO WHICH THE COMPONENTS OF CIGARETTE SMOKE CONTAMINATE THE ATMOSPHERE AND ARE ABSORBED BY THE NON-SMOKER

Theoretical models of this contamination have been constructed. Owens and Rossano (44) have noted that most popular cigarettes release into the atmosphere approximately 70 mg. of dry particulate matter (about 60 mg. in the sidestream and slightly over 20 mg. in the mainstream, about one-half of the latter being absorbed by the smoker and one-half expelled into the ambient air) and 23 mg. carbon monoxide per cigarette. This material adds to the cleaning problem of the air of any enclosed space and contributes to residual odors. In a recent study of particulate matter filtration in domestic premises (35), the authors observed that the smoking of one cigar completely overcame the effect

of an electrostatic filtration device for one hour.

Atmospheric pollutants caused by smoking are derived from two major sources: mainstream and sidestream smoke. Mainstream smoke emerges from the tobacco product through the mouthpiece during puffing, whereas sidestream smoke comes from the burning cone and from the mouth piece during puff intermissions (60). The tobacco smoke released into the atmosphere consists of all the sidestream smoke as well as that part of the mainstream smoke which has been either held in the smoker's mouth or taken into his lungs and then expelled.

The actual amount of material to which individuals are exposed in the presence of smokers depends upon the amount of smoke produced, the depth of inhalation on the part of the smoker, the ventilation available for the removal or dispersion of the smoke, and the proximity of the individual to the smoker. The length of time of exposure to those pollutants is extremely important in determining how much is absorbed into the body. The pattern of smoking influences the amount produced by altering the content of the exhaled smoke. As shown by Dalhamn, et al. (10, 11) mouth absorption removes approximately 60 percent of the water-soluble volatile components (e.g., acetaldehyde), 20 percent of the nonwater-soluble volatile components (e.g., isoprene), 16 percent of the particulate matter, and only three percent of the carbon monoxide. Thus, the smoker who does not inhale "filters" a portion of the smoke components in his mouth before expelling them into the ambient air. On the other hand, the lungs retain from 86 to 99 percent of the volatile and particulate substances and approximately 54 percent of the carbon monoxide inhaled. Hence, the inhaling smoker "filters" the mainstream smoke rather effectively before expelling it into the ambient air. A factor which has apparently not been investigated is the difference in the smokers' "filtration" of mainstream smoke when the smoke is exhaled through the nose instead of the mouth.

Thus, the nonsmoker breathes smoke-containing air composed of sidestream smoke and mainstream smoke exhaled by smokers. The inhaling smoker receives nearly the full amount of mainstream smoke as well as a portion of sidestream smoke and smoke exhaled by himself and other smokers. The smoker who does not inhale receives those compounds which are absorbed from the mainstream smoke in this mouth, as well as absorbing the sidestream smoke and the smoke exhaled by himself and other smokers contained in the air he breathes.

Since pipe and cigar smokers less com-

monly inhale than do cigarette smokers, their contribution to the substances in the air breathed in exposure to smoke pollutants consists of a composite of sidestream smoke and relatively unfiltered mainstream smoke which has been held in the mouth and then expelled.

The actual effluents in the mainstream and sidestream cigarette smoke have been considered by Pascasio, et al. (45) and Scasellati Sforzolini and colleagues (50, 51). These authors stated that "tar" and nicotine levels in sidestream smoke may be significantly higher than those of mainstream smoke and may be harmful to the nonsmoker. Actual volume measurements were not reported, however.

Actual measurements of the contamination due to cigarette smoking have been carried out by a number of research groups. A recent, well-controlled study by Harke (24) involved the smoking of 42 cigarettes in 16 to 18 minutes using German blend cigarettes of 85 mm. length, 18 mm. filter, and smoked to a 25 mm. butt length in a room with a volume of 57 cubic meters (approximately the equivalent of a room with a 10-foot ceiling and dimensions of 12 by 14 feet). The author observed that in the absence of ventilation the atmosphere contained up to 50 p.p.m. carbon monoxide and .57 mg./m.<sup>3</sup> nicotine.

With substantial ventilation, these levels fell significantly (to approximately 10 p.p.m. carbon monoxide and .10 mg./m.<sup>3</sup> nicotine). He also found that cigar smoke (9 cigars of Clear Sumatra tobacco smoked in 30 to 35 minutes produced similar amounts of contamination while pipe smoke (3 grams of Navy type medium cut tobacco smoked as eight pipefuls in 35 to 40 minutes) produced much less. Other authors have made similar measurements. Galuskinova (20) found that 3,4-benzpyrene levels in a smoky restaurant were from 2.82 to 14.4 mg./100 m.<sup>3</sup> as compared to outside atmospheric levels to 0.28 to 0.46 mg./100 m.<sup>3</sup>, although burning of food particles may have contributed to the presence of 3,4-benzpyrene in this setting. Kotin and Falk (33) have shown that sidestream cigarette smoke condensate may contain more than three times as much benzo(a)pyrene as mainstream smoke. Srch (55) observed that the smoking of 10 cigarettes to a 5 mm. butt length in an enclosed car of 2.09 m.<sup>3</sup> volume produced carbon monoxide levels up to 90 p.p.m. Lawther and Commins (34), working with a ventilated chamber, found levels of up to 20 p.p.m. of carbon monoxide after seven cigarettes were smoked in one hour; however, peaks of up to 90 p.p.m. were recorded at the seat next to the smoker. Coburn, et al. (9) recorded levels of 20 p.p.m. of carbon monoxide in a small conference room after 10 cigarettes were "burned." Harmsen and Effenberger (25) reported up to 80 p.p.m. of carbon monoxide in an enclosed 98 m.<sup>3</sup> room (approximately the equivalent of a room with a 10-foot ceiling and dimensions of 18 by 20 feet) in which 62 cigarettes had been smoked in two hours.

Another set of contaminants probably present in a tobacco smoke-polluted atmosphere are the oxides of nitrogen. These, specifically NO and NO<sub>2</sub>, have been shown to be present in tobacco smoke although the type most likely to be present in the atmosphere is NO<sub>2</sub>. No measurements have been

reported of the amount of NO<sub>2</sub> in smoke-filled rooms. The importance of obtaining and evaluating this information is stressed by the results of Freeman and Haydon and their colleagues (17, 18, 19, 27, 28) and of Blair, et al. (5) who observed bronchial and pulmonary parenchymal lesions in rodents continuously exposed to low levels of NO<sub>2</sub>.

Other experimenters have measured carboxyhemoglobin (COHb) levels in nonsmokers exposed to cigarette smoke pollutants. Srch (55) observed that the COHb level in two nonsmokers rose from 2 to 5 percent (that of smokers from 5 to 10 percent) when seated in the cigarette-smoke contaminated car mentioned above (exposure to 90 p.p.m.). Harke (24) reported that when seven nonsmokers were exposed for approximately 90 minutes to a "smoked" room containing 30 p.p.m. of CO there was a rise in COHb from a mean of 0.9 percent to 2.0 percent. In 11 smokers subjected to the same conditions, COHb rose from a mean of 3.3 percent to 7.5 percent. With improved ventilation of the experimental room, the COHb level decreased significantly.

The CO exposures and COHb levels reported above closely approximate the results obtained following experimental chamber exposure of humans to various levels of CO. The uptake of CO by the person depends on, among other parameters: CO concentration, previous COHb level, the level of activity, and the person's state of health. Equilibrium between CO concentration in the lung and in the blood requires over 12 hours exposure. However, as may be noted in table 1, reproduced from Stewart, et al. (56) and derived from measures of COHb in young sedentary males who were not smoking, over half of the equilibrium COHb level is reached within three to four hours of the onset of exposure. The equilibrium value associated with 100 p.p.m. is approximately 14 to 15 percent COHb. Exposure to 100 p.p.m. in the nonsmoker can lead to 3.0 percent of COHb within 60 minutes and 6.0 percent in two hours (16). Of equal significance is that COHb has a half-life of at least three to four hours in the body. As shown in table 1, the COHb level fell only to 2.7 percent in the two hours following cessation of exposure to 50 p.p.m. from the end exposure level of 3.7 percent. This lengthy half-life extends the period of effect of exposure to CO and provides for a buildup of COHb concentration from fresh exposures.

TABLE 1.—PERCENT OF COHb DURING AND FOLLOWING EXPOSURE TO 50 P.P.M. OF CO

Time during exposure	Mean	Range	Number of subjects
Preexposure.....	0.7	0.4-1.5	11
30 minutes.....	1.3	1.3	3
1 hour.....	2.1	1.9-2.7	11
3 hours.....	3.8	3.6-4.2	10
6 hours.....	5.1	4.9-5.5	5
8 hours.....	5.9	5.4-6.2	5
12 hours.....	7.0	6.5-7.9	3
15½ hours.....	7.6	7.2-8.2	3
22 hours.....	8.5	8.1-8.7	3
24 hours.....	7.9	7.6-8.2	3
Time without exposure after			
1 hour of exposure:			
30 minutes.....	1.8	1.8	3
1 hour.....	1.7	1.6-1.8	3
2 hours.....	1.5	1.4-1.5	3
5 hours.....	1.1	1.0-1.1	2

TABLE 2.—EFFECTS OF CARBON MONOXIDE

Environmental conditions	Effects	Comment
58 mg./m. <sup>3</sup> (50 p.p.m.) for 90 minutes.....	Impairment of time-interval discrimination in nonsmokers.....	Blood COHb levels not available, but anticipated to be about 2.5 percent. Similar blood COHb levels expected from exposure to 10 to 17 mg./m. <sup>3</sup> (10 to 15 p.p.m.) for 8 or more hours. Similar results may have been observed at lower COHb levels, but blood measurements were not accurate.
115 mg./m. <sup>3</sup> (100 p.p.m.) intermittently through a facial mask..	Impairment in performance of some psychomotor tests at a COHb level of 5 percent.	Data rely on COHb levels produced rapidly after short exposure to high levels of CO; this is not necessarily comparable to exposure over a longer time period or under equilibrium conditions.
High concentrations of CO were administered for 30 to 120 seconds, and then 10 minutes was allowed for washout of alveolar CO before blood COHb was measured.	Exposure sufficient to produce blood COHb levels above 5 percent has been shown to place a physiologic stress on patients with heart disease.	

Source: Adapted from U.S. Public Health Service, Air Quality Criteria for Carbon Monoxide, Washington, D.C., U.S. Department of Health, Education, and Welfare (58).

"Experimental exposure of nonsmokers to 58 mg/m<sup>3</sup> (50 ppm) for 90 minutes has been associated with impairment in time-interval discrimination. . . . This exposure will pro-

duce an increase of about 2 percent COHb in the blood. This same increase in blood COHb will occur with continuous exposure to 12 to 17 mg/m<sup>3</sup> (10 to 15 ppm) for 8 or more

Time during exposure	Mean	Range	Number of subjects
Time without exposure after			
3 hours of exposure:			
30 minutes.....	3.7	3.4-3.9	3
1 hour.....	3.3	2.7-3.8	3
2 hours.....	2.7	2.3-3.0	3
Time without exposure after			
8 hours of exposure:			
30 minutes.....	5.6	5.1-5.9	3
1 hour.....	5.1	4.8-5.4	3
1½ hours.....	4.0		
11 hours.....	1.5	1.4-1.7	3
Time without exposure after			
24 hours of exposure:			
30 minutes.....	7.5	7.2-7.8	3
1 hour.....	6.7	6.4-7.1	3
2 hours.....	5.8	5.6-6.2	3

Source: Stewart, et al. (56).

#### THE EFFECTS OF LOW LEVELS OF CARBON MONOXIDE ON HUMAN HEALTH

The data on the effect of low levels of carbon monoxide on human psychological and physiological function have been summarized in two recent publications (8, 58).

There is presently much discussion as to the physiologic and psychophysiological effects of exposure to levels of CO approximating 50 to 100 p.p.m. Beard and Grandstaff (4) observed that exposure to 50 p.p.m. of CO for from 27 to 90 minutes altered auditory discrimination, visual acuity, and the ability to distinguish relative brightness. McFarland (40) observed that COHb levels of 4 to 5 percent caused visual threshold impairment. Ray and Rockwell (48), reporting on a study of the driving ability of three subjects under varying CO exposure, observed that the presence of 10 percent COHb was associated with increased response time for taillight discrimination and increased variance in distance estimation. Schulte (52) observed that increased errors in cognitive and choice discrimination tests were manifest at levels of COHb also was 3 percent. Chevalier, et al. (7) have also observed that levels of 4 percent COHb in nonsmokers are associated with an increase in oxygen debt formation with exercise similar to that seen in smokers.

On the other hand, other investigators utilizing complex psychomotor tasks in men and monkeys have observed no decrement in function upon exposures to CO at 50 to 250 p.p.m. (2, 3, 23, 41, 56).

Animals exposed to low levels of CO (50 to 100 p.p.m.) continuously for weeks have shown varying degrees of cardiac and cerebral damage similar to that produced by hypoxia (21, 47, 57).

Finally, the possible effects of exposure to 50-100 p.p.m. CO on patients with coronary heart disease (CHD) were investigated by Ayres, et al. (1) who observed a decrease in arterial and mixed venous oxygen tensions with COHb saturations of 5 percent. Certain patients with CHD developed altered lactate and pyruvate metabolism with COHb levels of 5 to 10 percent suggesting myocardial hypoxia.

The evidence concerning the effect of low levels of carbon monoxide has recently been reviewed and evaluated by the National Air Quality Criteria Committee of the National Air Pollution Control Administration (58). The following is taken from the published conclusions of the Advisory Committee (also see table 2):

hours. . . .  
"Experimental exposure to CO concentrations sufficient to produce blood COHb levels

of about 5 percent (a level producible by exposure to about 35 mg/m<sup>3</sup> for 8 or more hours) has provided in some instances evidence of impaired performance on certain other psychomotor tests, and an impairment in visual discrimination. . . .

"Experimental exposure to CO concentrations sufficient to produce blood COHb levels above 5 percent (a level producible by exposure to 35 mg/m<sup>3</sup> or more for 8 or more hours) has provided evidence of physiologic stress in patients with heart disease. . . ."

The levels of carbon monoxide found to be present in "smoked" rooms (20 to 80 ppm) are similar to the levels (30 to 50 ppm) which the Advisory Committee has concluded are associated with adverse health effects:

"An exposure of 8 or more hours to a carbon monoxide concentration of 12 to 17 mg/m<sup>3</sup> (10 to 15 ppm) will produce a blood carboxyhemoglobin level of 2.0 to 2.5 percent in nonsmokers. This level of blood carboxyhemoglobin has been associated with adverse health effects as manifested by impaired time interval discrimination. Evidence also indicates that an exposure of 8 or more hours to a CO concentration of 35 mg/m<sup>3</sup> (30 ppm) will produce blood carboxyhemoglobin levels of about 5 percent in nonsmokers. Adverse health effects as manifested by impaired performance on certain other psychomotor tests have been associated with this blood carboxyhemoglobin level, and above this level there is evidence of physiologic stress in patients with heart disease."

These levels of CO are also similar to that set as the time-weighted occupational Threshold Limit Value of 50 p.p.m. for a 40 hour week (five 8-hour days) which has been in effect in the United States for the past several years (13). A further reduction in this limit to 25 p.p.m. is now under consideration. These levels of CO exceed those recently set by the Environmental Protection Agency as the national primary and secondary ambient air quality standards for CO (14). These standards are:

(a) 10 milligrams per cubic meter (9 p.p.m.)—maximum 8-hour concentration not to be exceeded more than once per year.

(b) 40 milligrams per cubic meter (35 p.p.m.)—maximum 1-hour concentration not to be exceeded more than once per year.

#### ALLERGIC AND IRRITATIVE REACTIONS TO CIGARETTE SMOKE AMONG NONSMOKERS

(A more detailed discussion of this subject is presented in the Allergy chapter of this report.)

Several investigators have reported on the discomfort and symptoms experienced by both allergic and nonallergic individuals upon exposure to tobacco smoke. Johansson and Ronge (31, 32) in 1965 and 1966 have observed that the acute irritation experienced by nonsmokers in the presence of tobacco smoke is maximal in warm, dry air and that nonsmokers experience more nasal irritation than ocular irritation as compared with smokers exposed to similar amounts of smoke in the atmosphere. Speer (54) studied the reactions of 441 nonsmokers divided into two groups, one composed of individuals with a history of allergic reactions and the other of individuals without such a history.

The allergic group underwent skin testing for the presence of sensitivity to tobacco extract while the "nonallergic" group was determined solely by questionnaire concerning subjective allergic responses. Approximately 70 percent of both groups experienced eye irritation while other symptoms differed in their frequency from group to group (nasal symptoms: allergic 87 percent, "nonallergic" 29 percent; headache: allergic 46 percent, "nonallergic" 31 percent; cough: allergic 46 percent, "nonallergic" 52 percent; and wheezing: allergic 22 percent, "nonallergic" 4 percent). Thus, a significant proportion of non-smoking individuals report discomfort and respiratory symptoms on exposure to tobacco smoke.

Other authors have attempted to separate out those patients who may have specific allergies to smoke. Zussman (61) found that in a random series of 200 atopic patients 16 percent were clinically sensitive to tobacco

smoke, and that a majority of these were aided by desensitization therapy. In an earlier study, Pipes (46) observed that 13 percent of 229 patients with respiratory allergy showed positive skin tests to tobacco smoke. Savel (49) has recently reported on eight nonsmokers observed to be clinically hypersensitive to tobacco smoke. After *in vitro* incubation of their lymphocytes with cigarette smoke, increased incorporation of tritiated thymidine was recorded; similar exposure of the lymphocytes of those not sensitive resulted in depression of tritiated thymidine uptake.

Luquette, et al. (39) have recently reported on the immediate effects of exposure to cigarette smoke in school-age children. They observed that heart rate and blood pressure rose with such exposure, although questions remain about the adequacy of their controls and the manner in which the experimental situation may have excited the subjects. Finally, Cameron, et al. (6) observed that acute respiratory illnesses were more frequent among children from homes in which the parents smoked than among children of non-smoking parents. The meaning of these results is uncertain since smoking by the children was not considered and the level of exposure to cigarette smoke in their homes was not measured. Shay, et al. (53) in a study of second grade Chattanooga school children failed to demonstrate a relationship between parental smoking habits and the respiratory illness rates of their children.

#### THE KNOWN HARMFUL EFFECTS OF THE PASSIVE INHALATION OF CIGARETTE SMOKE IN ANIMALS

A number of investigators have studied the effects of the passive inhalation of high concentrations of cigarette smoke on the pulmonary parenchyma and tracheobronchial tree of animals. The results of these investigations are listed in detail in the recent report to Congress, "The Health Consequences of Smoking," (59) in table 9 of the Bronchopulmonary chapter, and table 16 of the Cancer chapter.

The pathologic changes observed in the respiratory tract of the animals included parenchymal disruption, bronchitis, tracheobronchial epithelial dysplasia and metaplasia, and pulmonary adenomatous tumor formation. Leuchtenberger, et al. (36) exposed 151 mice to the smoke of from 25 to 1,526 cigarettes over a period of 1 to 23 months and observed that 20 percent of the animals developed severe bronchitis with atypism.

Working with 30 control rabbits exposed to up to 20 cigarettes per day for two to five years, Holland, et al. (30) observed increased focal and generalized hyperplasia of the bronchial epithelium and generalized emphysema in the exposed rabbits. Hernandez, et al. (29) observed significantly more pulmonary parenchymal disruption in adult greyhound dogs exposed to cigarette smoke 10 times per week for approximately one year than in nonexposed control animals.

Lorenz, et al. (38) observed no increase in respiratory tract tumor formation above that seen in controls in 97 Strain A mice exposed to cigarette smoke for up to 693 hours. Essenberg (15), however, exposed Strain A mice to cigarette smoke for 12 hours a day for up to one year and observed significantly more papillary adenocarcinomas in the exposed than in the control group. An increased percentage of hybrid mice were found by Mühlbock (42) to have alveolar carcinomas among the experimental group exposed to smoke for two hours a day for up to 684 days when compared with a nonexposed group. Similarly, Guerin (22) observed that 5.1 percent of rats exposed to cigarette smoke for 45 minutes a day for two to six months showed pulmonary tumors compared to 2.4 percent of the control mice.

Leuchtenberger, et al. (37), working with 400 female CF mice, observed only a slight increase in the presence of pulmonary adenomatous tumors among those exposed to cigarette smoke compared with those in the control group. The authors commented that the presence of tumors showed an age relationship independent of smoking exposure. Otto (43) found that 11 percent of a group

of albino mice exposed to 12 cigarettes a day for up to 24 months showed pulmonary adenomas as compared with five percent of the control non-exposed group. Dontewill and Wiebecke (12) found that increasing the exposure of golden hamsters to up to four cigarettes a day for up to two years was associated with an increasing percentage of animals showing desquamative metaplasia and bronchial papillary metaplasia. Harris and Negroni (26) exposed 200 C57BL mice to cigarette smoke for 20 minutes a day every other day for life and found eight adenocarcinomas as compared to none in the control group.

Because the damage observed in these experiments was seen after prolonged exposure to high concentrations of cigarette smoke, and because the comparability of animal exposure to smoke with that of human exposure in smoke-filled rooms is unknown, it is presently impossible to be certain from animal experimentation about the extent of the damage that may occur during long-term intermittent exposure to lower concentrations.

#### SUMMARY

1. An atmosphere contaminated with tobacco smoke can contribute to the discomfort of many individuals.

2. The level of carbon monoxide attained in experiments using rooms filled with tobacco smoke has been shown to equal, and at times to exceed, the legal limits for maximum air pollution permitted for ambient air quality in several localities and can also exceed the occupational Threshold Limit Value for a normal work period presently in effect for the United States as a whole. The presence of such levels indicates that the effect of exposure to carbon monoxide may on occasion, depending upon the length of exposure, be sufficient to be harmful to the health of an exposed person. This would be particularly significant for people who are already suffering from chronic bronchopulmonary disease and coronary heart disease.

3. Other components of tobacco smoke, such as particulate matter and the oxides of nitrogen, have been shown in various concentrations to adversely affect animal pulmonary and cardiac structure and function. The extent of the contributions of these substances to illness in humans exposed to the concentrations present in an atmosphere contaminated with tobacco smoke is not presently known.

#### PUBLIC EXPOSURE TO AIR POLLUTION FROM TOBACCO SMOKE REFERENCES

1. Ayres, S. M., Giannelli, S., Jr., Mueller, H. Myocardial and systemic responses to carboxyhemoglobin. *Annals of the New York Academy of Sciences* 174(1): 268-293, October 5, 1970.

2. Back, K. C. Effects of carbon monoxide on the performance of monkeys. IN: *Proceedings of the 5th Annual Conference on Atmospheric Contamination in Confined Spaces*, September 16-18, 1969. Aerospace Medical Research Laboratory, Aerospace Medical Division, December 1969, pp. 41-51.

3. Back, K. C., Dominguez, A. M. Psychopharmacology of carbon monoxide under ambient and altitude conditions. IN: *Proceedings of the 4th Annual Conference on Atmospheric Contamination in Confined Spaces*, September 10-12, 1968. Aerospace Medical Research Laboratories, Aerospace Medical Division, December 1968, pp. 81-92.

4. Beard, R. R., Grandstaff, N. Carbon monoxide exposure and cerebral function. *Annals of the New York Academy of Sciences* 174(1): 385-395, October 5, 1970.

5. Blair, W. H., Henry, M. C., Ehrlich, R. Chronic toxicity of nitrogen dioxide. II. Effect on histopathology of lung tissue. *Archives of Environmental Health* 18(2): 186-192, February 1969.

6. Cameron, P., Kostin, J. S., Zaks, J. M., Wolfe, J. H., Tighe, G., Oselett, B., Stocker, R., Winton, J. The health of smokers' and nonsmokers' children. *Journal of Allergy* 43(6): 336-341, June 1969.

7. Chevalier, R. B., Krumholz, R. A., Ross, J. C. Reaction of nonsmokers to carbon monoxide inhalation. *Cardiopulmonary responses at rest and during exercise. Journal*



- of the American Medical Association 198(10): 1061-1064, December 5, 1966.
8. Coburn, R. F., (Editor). *Biological Effects of Carbon Monoxide*. Annals of the New York Academy of Sciences 174 (Article 1), October 5, 1970. 430 pp.
  9. Coburn, R. F., Forster R. E. Kane, P. B. Considerations of the physiological variables that determine the blood carboxy-hemoglobin concentration in man. *Journal of Clinical Investigation* 44(11): 1899-1910, November 1965.
  10. Dalhamn, T., Edfors, M.-L., Rylander, R. Mouth absorption of various compounds in cigarette smoke. *Archives of Environmental Health* 16(6): 831-835, June 1968.
  11. Dalhamn, T., Edfors, M.-L., Rylander, R. Retention of cigarette smoke components in human lungs. *Archives of Environmental Health* 17(5): 746-748, November 1968.
  12. Döntenwill, W., Wiebecke, B. Tracheal and pulmonary alterations following the inhalation of cigarette smoke by the golden hamster. IN: Severi, L. (Editor). *Lung Tumors in Animals*. Perugia, Italy, Division of Cancer Research, University of Perugia, June 1966. pp. 519-526.
  13. DuBois, A. B. Establishment of "threshold" CO exposure levels. *Annals of the New York Academy of Sciences* 174(1): 425-428, October 5, 1970.
  14. Environmental Protection Agency. National primary and secondary ambient air quality standards. *Federal Register* 36(84): 8186-8201, April 30, 1971.
  15. Essenberg, J. M. Cigarette smoke and the incidence of primary neoplasm of the lung in the albino mouse. *Science* 116: 561-562, November 21, 1952.
  16. Forbes, W. H. Carbon monoxide uptake via the lungs. *Annals of the New York Academy of Science* 174(1): 72-75, October 5, 1970.
  17. Freeman, G., Crane, S. C., Stephens, R. J., Furioli, N. J. Pathogenesis of the nitrogen dioxide-induced lesion in the rat lung: A review and presentation of new observations. *American Review of Respiratory Diseases* 98(3): 429-443, September 1968.
  18. Freeman, G., Haydon, G. B. Emphysema after low-level exposure to NO<sub>2</sub>. *Archives of Environmental Health* 8(1): 125-128, January 1964.
  19. Freeman, G., Stephens, R. J., Crane, S. C., Furioli, N. J. Lesion of the lung in rats continuously exposed to two parts per million of nitrogen dioxide. *Archives of Environmental Health* 17(2): 181-192, August 1968.
  20. Galuskinova, V. 3,4-Benzopyrene determination in the smoky atmosphere of social meeting rooms and restaurants. A contribution to the problem of the noxiousness of so-called passive smoking. *Neoplasma* 11(5): 465-468, 1964.
  21. Goldsmith, J. R., Landaw, S. A. Carbon monoxide and human health. *Science* 162(3860): 1352-1359, December 20, 1968.
  22. Guerin, M. Tumeurs pulmonaires et cancer buccal chez le rat soumis à l'inhalation de fumée de cigarette. (Pulmonary tumors and oral cancers in rats subjected to inhalation of cigarette smoke.) *Bulletin de l'Association Française pour l'Etude du Cancer* 46(2): 295-309, 1959.
  23. Hanks, T. G. Human performance of a psychomotor test as a function of exposure to carbon monoxide. *Annals of the New York Academy of Sciences* 174(1): 421-424, October 5, 1970.
  24. Härke, H.-P. Zum Problem des "Passiv-Rauchens." (The problem of "passive smoking.") *Münchener Medizinische Wochenschrift* 112(51): 2328-2334, 1970.
  25. Harmsen, H., Effenberger, E. Tabakrauch in Verkehrsmitteln, Wohn- und Arbeitsräumen. (Tobacco smoke in transportation vehicles, living and working rooms.) *Archiv für Hygiene und Bakteriologie* 141(5): 383-400, 1957.
  26. Harris, R. J. C., Negroni, G. Production of lung carcinomas in C57BL mice exposed to a cigarette smoke and air mixture. *British Medical Journal* 4(5580): 637-641, December 16, 1967.
  27. Haydon, G. B., Davidson, J. T., Lillington, G. A., Wasserman, K. Nitrogen dioxide-induced emphysema in rabbits. *American Review of Respiratory Diseases* 95(5): 797-805, May 1967.
  28. Haydon, G. B., Freeman, G., Furioli, N. J. Covert pathogenesis of NO<sub>2</sub> induced emphysema in the rat. *Archives of Environmental Health* 11(6): 776-783, December 1965.
  29. Hernandez, J. A., Anderson, A. E., Jr., Holmes, W. L., Foraker, A. G. Pulmonary parenchymal defects in dogs following prolonged cigarette smoke exposure. *American Review of Respiratory Diseases* 93(1): 78-83, January 1966.
  30. Holland, R. H., Kozlowski, E. J., Booker, L. The effect of cigarette smoke on the respiratory system of the rabbit. A final report. *Cancer* 16(5): 612-615, May 1963.
  31. Johansson, C. R., Ronge, H. Klimatverkan på lukt och irritationseffekt av tobaksrök. Preliminärt meddelande. (Climatic influence on smell and irritation effects from tobacco smoke. Preliminary report.) *Nordisk Hygienisk Tidskrift* 47: 33-39, 1966.
  32. Johansson, C. R., Ronge, H. Akuta irritationseffekter av tobaksrök i rumsluft. (Acute irritation effects of tobacco smoke in one room atmosphere.) *Nordisk Hygienisk Tidskrift* 46: 45-50, 1965.
  33. Kotin, P., Falk, H. L. The role and action of environmental agents in the pathogenesis of lung cancer. II. Cigarette smoke. *Cancer* 13(2): 250-262, March-April 1960.
  34. Lawther, P. J., Commins, B. T. Cigarette smoking and exposure to carbon monoxide. *Annals of the New York Academy of Sciences* 174(1): 135-147, October 5, 1970.
  35. Lefcoe, N. M., Incullet, I. I. Particulates in domestic premises. I. Ambient levels and central air filtration. *Archives of Environmental Health* 22(2): 230-238, February 1971.
  36. Leuchtenberger, C., Leuchtenberger, R., Zebrun, W., Shaffer, P. A. A correlated histological, cytological, and cytochemical study of the tracheobronchial tree and lungs of mice exposed to cigarette smoke. II. Varying responses of major bronchi to cigarette smoke, absence of bronchogenic carcinoma after prolonged exposure, and disappearance of bronchial lesions after cessation of exposure. *Cancer* 13(4): 721-732, July-August 1960.
  37. Leuchtenberger, R., Leuchtenberger, C., Zebrun, W., Shaffer, P. A. A correlated histological, cytological, and cytochemical study of the tracheobronchial tree and lungs of mice exposed to cigarette smoke. III. Unaltered incidence of grossly visible adenomatous lung tumors in female CF<sub>1</sub> mice after prolonged exposure to cigarette smoke. *Cancer* 13(5): 956-958, September-October 1960.
  38. Lorenz, E., Stewart, H. L., Daniel, J. H., Nelson, C. V. The effects of breathing tobacco smoke on Strain A mice. *Cancer Research* 3(2): 123, 1943.
  39. Luquette, A. J., Landiss, C. W., Merki, D. J. Some immediate effects of a smoking environment on children of elementary school age. *Journal of School Health* 40(10): 533-536, December 1970.
  40. McFarland, R. A. The effects of exposure to small quantities of carbon monoxide on vision. *Annals of the New York Academy of Sciences* 174(1): 301-312, October 5, 1970.
  41. Mikulka, P., O'Donnell, R., Heinig, P., Theodore, J. The effect of carbon monoxide on human performance. *Annals of the New York Academy of Sciences* 174(1): 409-420, October 5, 1970.
  42. Mühlbock, O. Carcinogene Wirkung von Zigarettenrauch bei Mäusen. (Carcinogenic action of cigarette smoke in mice.) *Nederlands Tijdschrift voor Geneeskunde* 99(31): 2276-2278, July 30, 1955.
  43. Otto, H. Experimentelle Untersuchungen an Mäusen mit passiver Zigarettenrauchbeatmung. (Experimental investigations on mice through passive inhalation of cigarette smoke.) *Frankfurter Zeitschrift für Pathologie* 73: 10-23, 1963.
  44. Owens, D. F., Rossano, A. T. Design procedures to control cigarette smoke and other air pollutants. Paper presented at ASHRAE Semi-annual Meeting, Chicago, January 27-30, 1969. 10 pp.
  45. Pascasio, F., Scassellati Sforzolini, G., Savino, A., Conti, R. Catrame e nicotina nella porzione aspirata e nella porzione ambientale del fumo di vari tipi di sigarette. (Tar and nicotine content both in inhaled smoke and in smoke dispersed in room-air by various cigarette brands.) *Annali della Sanita Pubblica* 27(5): 971-978, September-October 1966.
  46. Pipes, D. M. Allergy to tobacco smoke. *Annals of Allergy* 28(3): 277-282, July-August 1945.
  47. Preziosi, T. J., Lindenberg, R., Levy D., Christenson, M. An experimental investigation in animals of the functional and morphologic effects of single and repeated exposures to high and low concentrations of carbon monoxide. *Annals of the New York Academy of Sciences* 174(1): 369-384, October 5, 1970.
  48. Ray, A. M., Rockwell, T. H. An exploratory study of automobile driving performance under the influence of low levels of carboxy-hemoglobin. *Annals of the New York Academy of Sciences* 174(1): 396-408, October 5, 1970.
  49. Savel, H. Clinical hypersensitivity to cigarette smoke. *Archives of Environmental Health* 21(2): 146-148, August 1970.
  50. Scassellati Sforzolini, G., Saldi, G. Ulteriori ricerche sugli idrocarburi policiclici del fumo di sigaretta. Confronto tra il fumo aspirato e quello raccolto nell'aria ambiente. (Further research on the polycyclic hydrocarbons of cigarette smoke. Comparison of smoke inhaled and that taken from the ambient atmosphere.) *Bollettino della Società Italiana di Biologia Sperimentale* 37: 769-771, 1961.
  51. Scassellati Sforzolini, G., Savino, A. Valutazione di un indice rapido di contaminazione ambientale da fumo di sigaretta, in relazione alla composizione della fase gassosa del fumo. (Evaluation of a rapid index of environmental pollution by cigarette smoke in relation to the composition of the gas phase of the smoke.) *Rivista Italiana D'Igiene* 28(1-2): 43-55, January-April 1968.
  52. Schulte, J. H. Effects of mild carbon monoxide intoxication. *Archives of Environmental Health* 7(5): 524-530, November 1963.
  53. Shy, C. M., Creason, J. P., Pearlman, M. E., McClain, K. E., Benson, F. B., Young, M. M. The Chattanooga school children study: Effects of community exposure to nitrogen dioxide. II. Incidence of acute respiratory illness. *Journal of the Air Pollution Control Association* 29(9): 582-588, September 1970.
  54. Speer, F. Tobacco and the nonsmoker. A study of subjective symptoms. *Archives of Environmental Health* 16(3): 443-446, March 1968.
  55. Srch, M. Über die Bedeutung des Kohlenoxyds beim Zigarettenrauchen im Personenkraftwageninneren. (The significance of carbon monoxide in cigarette smoke in passenger car interiors.) *Deutsche Zeitschrift für die Gesamte Gerichtliche Medizin* 60(3): 80-89, 1967.
  56. Stewart, R. D., Peterson, J. E., Baretta, E. D., Bachand, R. T., Hosko, M. J., Herrmann, A. A. Experimental human exposure to carbon monoxide. *Archives of Environmental Health* 21(2): 154-164, August 1970.
  57. Stupfel, M., Bouley, G. Physiological and biochemical effects on rats and mice exposed to small concentrations of carbon monoxides for long periods. *Annals of the New York Academy of Sciences* 174(1): 342-368, October 5, 1970.
  58. U.S. Public Health Service. *Air Quality Criteria for Carbon Monoxide*. Washington, U.S. Department of Health, Education, and Welfare, Public Health Service, National Air Pollution Control Administration Publication No. AP-62, March 1970.
  59. U.S. Public Health Service. *The Health Consequences of Smoking. A Report of the Surgeon General*. 1971. Washington, U.S. Department of Health, Education, and Welfare, DHEW Publication No. (HSM) 71-7513, 1971. 458 pp.
  60. Wynder, E. L., Hoffman, D. *Tobacco and Tobacco Smoke. Studies in Experimental Carcinogenesis*. New York, Academic Press, 1967. 730 pp.
  61. Zussman, B. M. Tobacco sensitivity in the allergic patient. *Annals of Allergy* 28(8): 371-377, August 1970.



United States  
of America

# Congressional Record

PROCEEDINGS AND DEBATES OF THE 91<sup>st</sup> CONGRESS, FIRST SESSION

(NOT PRINTED AT GOVERNMENT EXPENSE)

118

Vol. 115

WASHINGTON, SATURDAY, DECEMBER 20, 1969

No. 213

## Senate

### SMOKING ON AIRCRAFT—II

Mr. HATFIELD. Mr. President, on Thursday I introduced a bill, S. 3255, to regulate smoking on passenger aircraft. My remarks appear at page S 17224 of the RECORD of December 18.

At the conclusion of my remarks, I asked unanimous consent to have printed a petition to the Department of Transportation and the Federal Aviation Authority by Action on Smoking and Health. I am working with ASH, and the petition seeks a similar result to that of my bill.

Due to the Senate's lengthy session on Thursday, only a small part of the petition appeared in Thursday's RECORD. The remainder appeared in Friday's RECORD. Unfortunately, the Friday RECORD had no introductory remarks and did not even indicate who it was that inserted the material, nor to what bill it pertained. I am aware of the logistical problem for the Printing Office which caused this situation. To people reading the RECORD, however, it is very unclear in its present form.

For that reason, Mr. President, I ask unanimous consent to have reprinted at the end of these remarks the ASH petition in entirety.

Incidentally, I might add that the initial reaction to this bill to restrict smoking on aircraft to certain areas has had very favorable initial response. My office has received several telephone calls of support from people who saw my remarks in the RECORD.

When the Senate reconvenes in January, I plan to request cosponsors for this bill, so I hope that Senators will study the bill.

There being no objection, the petition was ordered to be printed in the RECORD, as follows:

[Before the Department of Transportation and the Federal Aviation Administration]  
PETITION FOR PROMULGATION OF A RULE REQUIRING SEPARATION OF SMOKING AND NON-SMOKING PASSENGERS ON ALL COMMERCIAL DOMESTIC AIR CARRIERS

To: Honorable John A. Volpe, Secretary, Department of Transportation; Honorable John H. Shaffer, Administrator, Federal Aviation Administration.

Petitioners: John F. Banzhaf III, 530 N' Street, S.W., Washington, D.C. 20024, (202) 554-5799; Action on Smoking and Health (ASH), 2000 H Street N.W., Washington, D.C. 20006, (202) 659-4310; C.R.A.S.H. (Citizens to Restrict Airline Smoking Hazards); Steven I. Bellman, Joseph M. Chomski, Chairman,

will be hereinafter more fully explained and developed in the body of the petition;

(1) Unregulated cigarette smoking on airlines creates a clear and present danger to the safety, health, and very lives of as many as 30 million people (30,000,000) with pre-existing medical conditions.

(2) Unregulated cigarette smoking on airlines creates a significant health hazard for all non-smoking passengers who are thereby forced to inhale the smoke created by other passengers.

(3) Unregulated cigarette smoking on airlines creates a severe annoyance for many non-smoking passengers, infringing on their rights and deterring many from flying, and may also deter courteous smokers from enjoying their flights, thus discouraging the development of civil air commerce.

#### I. INTERESTS OF THE PETITIONERS IN THE ACTION REQUESTED

Petitioner Action on Smoking and Health (ASH) is a national non-profit charitable, scientific, and educational organization which serves as the legal action arm of the antismoking community by utilizing legal action against the problems of smoking. ASH has in excess of 8000 individual contributing members who support its activities and whose interests in the problems of smoking ASH seeks to further. In addition, ASH is supported and sponsored by a wide variety of health, educational and social welfare organizations, and a distinguished panel of individual Sponsors including leading figures in the fields of medicine and public health, as well as other nationally known public figures. Attached and hereby made a part of this petition is a report more fully describing ASH, its supporting organizations, and its Board of Sponsors. ASH is also assisted in its work by numerous individuals and organizations such as Citizens to Restrict Airline Smoking Hazards (C.R.A.S.H.), a special project of ASH and an organization of five George Washington University Law School students who often fly and who are concerned about the problems of smoking on airlines. ASH has initiated and engaged in numerous proceedings involving anti-smoking messages before the Federal Communications Commission which were largely responsible for enforcement of the Commission's ruling requiring an estimated 75 million dollars a year worth of free broadcasting time for messages about the health hazards of smoking. ASH has filed a number of complaints relating to cigarette advertising and promotion with the Federal Trade Commission, and has testified and appeared through a petition for the amendment of a rule in the Commission's rule making proceedings. Thus its standing to initiate and participate in actions before such agencies on behalf of the interests of its contributing members, supporting organizations, project groups, and individual sponsors has been clearly established.

situated who are interested in and/or affected by the problem of cigarette smoke on commercial domestic air carriers. [See, e.g., *Associated Industries v. Ickes*, 134 F.2d 694 (2d Cir.), dismissed as moot 320 U.S. 707 (1943); *Pierce v. Society of Sisters*, 268 U.S. 510 (1925); *National Association for the Advancement of Colored People v. State of Alabama*, 357 U.S. 449 (1958); *Joint Anti-Fascist Refugee Committee v. McGrath*, 341 U.S. 123 (1951); *Barrows v. Jackson*, 346 U.S. 249 (1953); *Office of Communication of the United Church of Christ v. F.C.C.*, 359 F.2d 94 (D.C. Cir. 1966)].

Petitioner John F. Banzhaf III is an adult male citizen of the United States and a resident of Washington, D.C., who is vitally interested both individually and professionally with the problems of smoking. As a private citizen he filed a petition with the F.C.C. which led to a ruling requiring all radio and television stations broadcasting cigarette advertisements to devote a significant amount of time free to messages about the health hazards of smoking. He successfully defended this decision in the United States Courts [*Banzhaf v. F.C.C.*, 405 F.2d 1082 (D.C. Cir. 1968), cert. denied 90 S. Ct. 50 (1969)] and, through ASH, participated in the enforcement of the decision. Petitioner Banzhaf is Executive Director of ASH. He is also Executive Trustee of Legislative Action on Smoking and Health (LASH), the only anti-smoking lobbying organization, and a registered lobbyist on behalf of anti-smoking interests. In this capacity he has testified in a number of congressional proceedings. Petitioner Banzhaf flies on commercial domestic air carriers often and has frequently been subjected to being forced to breathe the smoke of other passengers which is annoying and harmful to his safety and health. He petitions the Secretary of Transportation and the Administrator of the Federal Aviation Administration on behalf of himself and all other persons similarly situated.

#### II. STATUTORY AUTHORITY TO PETITION

Petitioners bring this petition for the promulgation of a rule pursuant to 5 U.S.C. 553 (e), 14 C.F.R. 11.25(a), and 49 C.F.R. 5.11

5 U.S.C. 553(e) provides: "Each agency shall give an interested person the right to petition for the issuance, amendment, or repeal of rule."

14 C.F.R. 11.25(a) provides: "any interested person may petition the Administrator to issue, amend, or repeal a rule within the meaning of section 11.21, or for a temporary or permanent exemption from any rule issued by the Federal Aviation Administration under statutory authority."

With respect to any functions or powers not exercised by the Administrator and exercised by the Secretary of Transportation 49 C.F.R. 5.11 provides: "any person may petition the Secretary to issue, amend, or repeal a rule, or for a permanent or temporary exemption from any rule."

Petitioners, as demonstrated in Part I

SMOKING ON AIRCRAFT—II

Mr. HATFIELD. Mr. President, on Thursday I introduced a bill, S. 3255, to regulate smoking on passenger aircraft. My remarks appear at page S 17224 of the RECORD of December 18.

At the conclusion of my remarks, I asked unanimous consent to have printed a petition to the Department of Transportation and the Federal Aviation Authority by Action on Smoking and Health. I am working with ASH, and the petition seeks a similar result to that of my bill.

Due to the Senate's lengthy session on Thursday, only a small part of the petition appeared in Thursday's RECORD. The remainder appeared in Friday's RECORD. Unfortunately, the Friday RECORD had no introductory remarks and did not even indicate who it was that inserted the material, nor to what bill it pertained. I am aware of the logistical problem for the Printing Office which caused this situation. To people reading the RECORD, however, it is very unclear in its present form.

For that reason, Mr. President, I ask unanimous consent to have reprinted at the end of these remarks the ASH petition in entirety.

Incidentally, I might add that the initial reaction to this bill to restrict smoking on aircraft to certain areas has had very favorable initial response. My office has received several telephone calls of support from people who saw my remarks in the RECORD.

When the Senate reconvenes in January, I plan to request cosponsors for this bill, so I hope that Senators will study the bill.

There being no objection, the petition was ordered to be printed in the RECORD, as follows:

[Before the Department of Transportation and the Federal Aviation Administration]

PETITION FOR PROMULGATION OF A RULE REQUIRING SEPARATION OF SMOKING AND NON-SMOKING PASSENGERS ON ALL COMMERCIAL DOMESTIC AIR CARRIERS

To: Honorable John A. Volpe, Secretary, Department of Transportation; Honorable John H. Shafer, Administrator, Federal Aviation Administration.

Petitioners: John F. Banzhaf III, 530 N' Street, S.W., Washington, D.C. 20024, (202) 554-5799; Action on Smoking and Health (ASH), 2000 H Street NW., Washington, D.C. 20006, (202) 659-4310; C.R.A.S.H. (Citizens to Restrict Airline Smoking Hazards); Steven I. Bellman, Joseph M. Chomski, Chairman, James R. Coleman, Richard Emanuel, Michael D. Grabow.

Counsel: John F. Banzhaf III, 2000 H Street NW., Washington, D.C. 20006, (202) 659-4310.

Now comes Action on Smoking and Health (ASH), Project C.R.A.S.H. (Citizens to Restrict Airline Smoking Hazards), and John F. Banzhaf III, and pursuant to 5 U.S.C. 553 (e) and 14 C.F.R. 11.25(a) petition the Administrator of the Federal Aviation Administration, and in so far as is appropriate under Department of Transportation Act, 49 U.S.C. 1651 et seq., the Secretary of Transportation, to promulgate a rule requiring all domestic air carriers to effectively separate smoking passengers from non-smoking passengers so as to prevent non-smoking passengers from being subjected to the health hazards and annoyance of being forced to breathe tobacco smoke.

Petitioners move the promulgation of the above rule for the following reasons which

will be hereinafter more fully explained and developed in the body of the petition;

(1) Unregulated cigarette smoking on airlines creates a clear and present danger to the safety, health, and very lives of as many as 30 million people (30,000,000) with pre-existing medical conditions.

(2) Unregulated cigarette smoking on airlines creates a significant health hazard for all non-smoking passengers who are thereby forced to inhale the smoke created by other passengers.

(3) Unregulated cigarette smoking on airlines creates a severe annoyance for many non-smoking passengers, infringing on their rights and deterring many from flying, and may also deter courteous smokers from enjoying their flights, thus discouraging the development of civil air commerce.

I. INTERESTS OF THE PETITIONERS IN THE ACTION REQUESTED

Petitioner Action on Smoking and Health (ASH) is a national non-profit charitable, scientific, and educational organization which serves as the legal action arm of the antismoking community by utilizing legal action against the problems of smoking. ASH has in excess of 8000 individual contributing members who support its activities and whose interests in the problems of smoking ASH seeks to further. In addition, ASH is supported and sponsored by a wide variety of health, educational and social welfare organizations, and a distinguished panel of individual Sponsors including leading figures in the fields of medicine and public health, as well as other nationally known public figures. Attached and hereby made a part of this petition is a report more fully describing ASH, its supporting organizations, and its Board of Sponsors. ASH is also assisted in its work by numerous individuals and organizations such as Citizens to Restrict Airline Smoking Hazards (C.R.A.S.H.), a special project of ASH and an organization of five George Washington University Law School students who often fly and who are concerned about the problems of smoking on airlines. ASH has initiated and engaged in numerous proceedings involving anti-smoking messages before the Federal communications Commission which were largely responsible for enforcement of the Commission's ruling requiring an estimated 75 million dollars a year worth of free broadcasting time for messages about the health hazards of smoking. ASH has filed a number of complaints relating to cigarette advertising and promotion with the Federal Trade Commission, and has testified and appeared through a petition for the amendment of a role in the Commission's rule making proceedings. Thus its standing to initiate and participate in actions before such agencies on behalf of the interests of its contributing members, supporting organizations, project groups, and individual sponsors has been clearly established.

situated who are interested in and/or affected by the problem of cigarette smoke on commercial domestic air carriers. [See, e.g., *Associated Industries v. Ickes*, 134 F.2d 694 (2d Cir.), dismissed as moot 320 U.S. 707 (1943); *Pierce v. Society of Sisters*, 268 U.S. 510 (1925); *National Association for the Advancement of Colored People v. State of Alabama*, 357 U.S. 449 (1958); *Joint Anti-Fascist Refugee Committee v. McGrath*, 341 U.S. 123 (1951); *Barrows v. Jackson*, 346 U.S. 249 (1953); *Office of Communication of the United Church of Christ v. F.C.C.*, 359 F.2d 94 (D.C. Cir. 1966)].

Petitioner John F. Banzhaf III is an adult male citizen of the United States and a resident of Washington, D.C., who is vitally interested both individually and professionally with the problems of smoking. As a private citizen he filed a petition with the F.C.C. which led to a ruling requiring all radio and television stations broadcasting cigarette advertisements to devote a significant amount of time free to messages about the health hazards of smoking. He successfully defended this decision in the United States Courts [*Banzhaf v. F.C.C.*, 405 F.2d 1082 (D.C. Cir. 1968), cert. denied 90 S. Ct. 50 (1969)] and, through ASH, participated in the enforcement of the decision. Petitioner Banzhaf is Executive Director of ASH. He is also Executive Trustee of Legislative Action on Smoking and Health (LASH), the only anti-smoking lobbying organization, and a registered lobbyist on behalf of anti-smoking interests. In this capacity he has testified in a number of congressional proceedings. Petitioner Banzhaf flies on commercial domestic air carriers often and has frequently been subjected to being forced to breathe the smoke of other passengers which is annoying and harmful to his safety and health. He petitions the Secretary of Transportation and the Administrator of the Federal Aviation Administration on behalf of himself and all other persons similarly situated.

II. STATUTORY AUTHORITY TO PETITION

Petitioners bring this petition for the promulgation of a rule pursuant to 5 U.S.C. 553 (e), 14 C.F.R. 11.25(a), and 49 C.F.R. 5.11

5 U.S.C. 553(e) provides: "Each agency shall give an interested person the right to petition for the issuance, amendment, or repeal of rule."

14 C.F.R. 11.25(a) provides: "any interested person may petition the Administrator to issue, amend, or repeal a rule within the meaning of section 11.21, or for a temporary or permanent exemption from any rule issued by the Federal Aviation Administration under statutory authority."

With respect to any functions or powers not exercised by the Administrator and exercised by the Secretary of Transportation 49 C.F.R. 5.11 provides: "any person may petition the Secretary to issue, amend, or repeal a rule, or for a permanent or temporary exemption from any rule."

Petitioners, as demonstrated in Part I above, are clearly "interested persons" within the meaning of the acts and regulations.

III. STATUTORY AUTHORITY TO PROMULGATE PROPOSED RULES

The Federal Aviation Act of 1958 established the Federal Aviation Agency to be headed by an Administrator with broad powers including the power to issue rules for the regulation of commercial domestic air carriers. Although his primary responsibility was to "promote safety of flight of civil aircraft in air commerce" [49 U.S.C. 1421(a)], the statutory grant of power—as will be shown—was far broader and required him to give consideration to the public interest including the highest possible degree of safety for the passengers, and to the encouragement and development of civil aeronautics in the United States and abroad. The Administrator and the Agency have consistently interpreted their grant of authority very broadly, and their interpretations have been upheld. The Department of Transportation

Act transferred to and vested in the Secretary of Transportation "all functions, powers, and duties of the Federal Aviation Agency", and provided that a portion of these functions, powers, and duties were to be exercised by the Federal Aviation Administrator [49 U.S.C. 1655(c)]. This Act, which consolidated in the Secretary many transportation functions heretofore fragmented, again stressed that they were to be exercised to promote the public interest and the general welfare. Petitioners therefore jointly petition the Administrator and the Secretary to promulgate the proposed rule under their authority and duty to:

- (1) see that the air carriers operate with the highest possible degree of safety;
- (2) protect the public interest and promote the general welfare;
- (3) encourage and foster the development of air commerce.

Petitioners will demonstrate that the Administrator has repeatedly relied on one or more of these principles as a basis for statutory authority to enact regulations for the promotion and protection of passenger safety, health, and comfort. Such regulations have been directed to the conduct of passengers and the air carriers, not only with regard to the safety of the aircraft, but also with regard to the safety, health, and comfort of passengers within the aircraft itself. Petitioners' rule requiring smoking and non-smoking sections would fall within this category, thus conforming to well established Administration policy.

1. Safety

The Administrator's mandate with regard to safety is set out most specifically in 49 U.S.C. 1421(b), which states that "in prescribing standards, rules, and regulations . . . the Administrator shall give full consideration to the duty resting upon air carriers to perform their services with the highest possible degree of safety in the public interest." [Italic added]. On several occasions the courts have not only recognized this duty but held the Government liable for failure to promulgate or enforce rules consistent with this standard. *Furumizo v. United States*, 245 F. Supp. 981 (D. Hawaii 1965); *Rapp v. Eastern Air Lines, Inc.*, 264 F. Supp. 673, 680 (E.D. Pa. 1967) ("the Board had to give full consideration to the duty resting upon air carriers to perform their services with the highest possible degree of safety in the public interest."); see also *Airline Pilots Association v. Quesada*, 182 F. Supp. 595, 598 (S.D.N.Y. 1960) ("The Federal Aviation Act of 1958 . . . imposes upon the defendant the duty and responsibility of promulgating rules and regulations to provide adequately for the highest possible degree of safety in air commerce.") In cases involving these duties of the air carriers the courts have repeatedly reaffirmed that the "highest possible degree of safety" standard applies not only to the safety of the aircraft but also to passenger safety within the aircraft compartment. Thus in *Wilson v. Capital Airways*, 240 F. 2d 492 (4th Cir. 1957) a passenger was injured due to the lack of a handrail in a lavatory. The U.S. Court of Appeals for the Fourth Circuit held that an "airline company, which was a common carrier, was bound to exercise the highest degree of care and foresight for the safety of the passengers." Courts have also established that air carriers are liable for injury to a passenger caused by another passenger. In *Garrett v. American Airlines*, 332 F. 2d 939 (5 Cir. 1964), the court found the air carrier liable for an injury to a passenger resulting from the injured party falling over a piece of hand luggage placed in the aisle by another passenger. The court warned air carriers that "they must reasonably take cognizance of the habits, customs, and practices followed generally by its passengers insofar as such actions present hazards to its business invitees." Thus the Administrator has the power and the duty to promulgate regulations providing for "the highest possible degree of safety in the public interest" which applies to the safety of passengers within the aircraft as well as to the safety of the flight. The "highest possible degree of safety" standard, when applied to the broad grant of authority given to the Administrator in

well, under 49 U.S.C. 1421(b), to promote safety in civil air commerce by requiring the effective separation of smokers from non-smokers on domestic air carriers.

<sup>1</sup>This section empowers the Administrator to promote the safety of air commerce "by prescribing and revising from time to time: (6) Such reasonable rules and regulations, or minimum standards, governing other practices, methods, and procedures, as the Administrator may find necessary to provide adequately for national security and safety in air commerce". This section is a departure from the rest of 1421(a) in that it does not deal solely with equipment, maintenance, or design.

2. Public interest

49 U.S.C. 1303 clearly seems to require the Administrator to follow and be guided by the public interest standard because it sets forth in detail at least five elements that he "shall consider . . . as being in the public interest." 14 C.F.R. 11.25(5) also implies that a proposed rule will be promulgated if the petition can show that "the granting of the request would be in the public interest." 49 U.S.C. 1651(b)(1) provides that "the Congress therefore finds that the establishment of a Department of Transportation is necessary in the public interest and to assure the coordinated, effective administration of the transportation programs of the Federal Government." [emphasis added] This concept, despite the various delineations applied to it, remains broad and somewhat flexible. By leaving the definition open-ended, Congress has given the Administrator great latitude to enable him to act with respect to a wide variety of circumstances, both foreseeable and unforeseeable, that might arise.

The term "public interest" encompasses the balancing of the needs and desires of one sector of the population with those of the remainder, so as to effectively satisfy the greatest number, while causing the least hardship (or, ideally, no hardship at all) to the smallest number. Petitioner's rule would beneficially affect a large sector of the population (Medical analysis, *infra*), while causing no harm and virtually no inconvenience to the sector wishing to smoke. The non-smokers whose health is so seriously affected that they have had to forego use of the airways would be able to fly. Non-smoking passengers who are to a lesser degree deleteriously affected by tobacco smoke will be able to patronize the air carriers without being subjected to aggravation of their physical condition. In addition, healthy passengers will not be subjected to health hazards. The passengers who wish to smoke will not be deprived of their smoking privilege. There can be no question that the benefits from the proposed rule far outweigh any possible drawbacks, thus serving the public interest.

3. Fostering and development of air commerce

49 U.S.C. 1346 defines the Administrator's authority with respect to civil aeronautics and air commerce as follows: "The Administrator is empowered and directed to encourage and foster the development of civil aeronautics and air commerce in the United States and abroad." Interstate and overseas air commerce, as defined by 49 U.S.C. 1301 (20), includes "the carriage by aircraft of persons or property for compensation or hire . . . or the operation or navigation of aircraft in the conduct or furtherance of a business or vocation, in commerce." The significance is that air commerce unquestionably includes business aspects, which necessarily refers to the passenger market. A separation of smokers and non-smokers would significantly enlarge the potential passenger market. The development of air commerce would be beneficially affected because the segment of the population that previously had to avoid commercial air carriers because of serious reactions to smoke would be able to utilize the air carriers, and that segment of the population that flew reluctantly, or only when they had no other choice, would fly more often. Both results would enlarge

or drugs (except a medical patient under proper care) to be carried in that aircraft."

3. 14 C.F.R. 121.219: providing that passenger and crew compartments must be "suitably ventilated", and that "carbon monoxide concentration may not be more than one part in 20,000 parts of air."

4. 14 C.F.R. 121.265: providing that if any toxic extinguishing agent is used in the airplane's fire extinguishers, "precautions must be made to prevent harmful concentrations of fluid or fluid vapors from entering any personnel compartment"; and, "if carbon dioxide is used, it must not be possible to discharge enough gas into the personnel compartments to create a danger of suffocating the occupants".

5. 14 C.F.R. 121.285: providing that cargo may be carried in passenger compartments if it is installed in a position so as not to restrict access to emergency exits or aisles, and as long as suitable safeguards are provided to prevent the cargo from shifting; and as long as the cargo does not obscure any passenger's view of the "seat belt" or "no smoking" signs.

6. 14 C.F.R. 121.311: providing that there must be an "approved safety belt for separate use by each person over two years of age; and, that during each takeoff and landing, each passenger shall "secure himself with the approved safety belt provided him"; and, that no plane may take off or land unless "each passenger seat back is in the upright position".

7. 14 C.F.R. 121.317: providing that "no person may operate an airplane unless it is equipped with signs that are visible to passengers and cabin attendants to notify them when smoking is prohibited and when safety belts should be fastened"; and that these signs must be "turned on for each landing and takeoff and when otherwise considered to be necessary by the pilot in command", and, that "no passenger or cabin attendant may smoke while the no smoking sign is lighted and each passenger shall fasten his seat belt and keep it fastened while the seat belt sign is lighted."

8. 14 C.F.R. 121.571: providing that before each takeoff passengers must be "orally briefed by the appropriate crew member" on smoking, use of seat belts, and location of emergency exits

9. 14 C.F.R. 121.575: providing that no passenger "may drink any alcoholic beverage aboard an aircraft unless the certificate holder operating the aircraft has served that beverage to him"; "no certificate holder may serve any alcoholic beverage to any person aboard any of its aircraft who appears to be intoxicated"; no person may be allowed to board any aircraft "if that person appears to be intoxicated".

10. 14 C.F.R. 121.589: providing that no passenger may carry any article of baggage aboard an airplane unless that article can be stowed under a passenger seat in such a way that it will not slide forward under crash impacts severe enough to induce certain specified inertia loads.

These regulations indicate that the public interest requires that a high degree of care be exercised by commercial air carriers. Implicit in this duty of care is a recognition of the fact that individual passengers should be reasonably free from all conditions that may be harmful or annoying, including those caused by the conduct of other passengers. The Administrator has recognized the importance of regulating the conduct of each individual passenger, where such conduct, if unregulated, could adversely affect the health, safety, and comfort of other passengers. This concern and authority is clearly demonstrated by the substantive provisions of the above regulations. Therefore, since tobacco smoke, particularly in confined areas, constitutes a safety hazard and annoyance to others, its regulation would be wholly consistent with past Administration policy and well within the authority, purview and intent of the Act.

IV. MEDICAL EVIDENCE

The average smoker seems to be aware only of the harm he is causing himself. Most people, smokers and non-smokers alike, do not know that cigarette smoke in a confined area

more of these principles as a basis for statutory authority to enact regulations for the promotion and protection of passenger safety, health, and comfort. Such regulations have been directed to the conduct of passengers and the air carriers, not only with regard to the safety of the aircraft, but also with regard to the safety, health, and comfort of passengers within the aircraft itself. Petitioners' rule requiring smoking and non-smoking sections would fall within this category, thus conforming to well established Administration policy.

### 1. Safety

The Administrator's mandate with regard to safety is set out most specifically in 49 U.S.C. 1421(b), which states that "in prescribing standards, rules, and regulations . . . the Administrator shall give full consideration to the duty resting upon air carriers to perform their services with the highest possible degree of safety in the public interest." [Italic added]. On several occasions the courts have not only recognized this duty but held the Government liable for failure to promulgate or enforce rules consistent with this standard. *Furumizo v. United States*, 245 F. Supp. 981 (D. Hawaii 1965); *Rapp v. Eastern Air Lines, Inc.*, 264 F. Supp. 673, 680 (E.D. Pa. 1967) ("the Board had to give full consideration to the duty resting upon air carriers to perform their services with the highest possible degree of safety in the public interest."); see also *Airline Pilots Association v. Quesada*, 182 F. Supp. 595, 598 (S.D.N.Y. 1960) ("The Federal Aviation Act of 1958 . . . imposes upon the defendant the duty and responsibility of promulgating rules and regulations to provide adequately for the highest possible degree of safety in air commerce.") In cases involving these duties of the air carriers the courts have repeatedly reaffirmed that the "highest possible degree of safety" standard applies not only to the safety of the aircraft but also to passenger safety within the aircraft compartment. Thus in *Wilson v. Capital Airways*, 240 F. 2d 492 (4th Cir. 1957) a passenger was injured due to the lack of a handrail in a lavatory. The U.S. Court of Appeals for the Fourth Circuit held that an "airline company, which was a common carrier, was bound to exercise the highest degree of care and foresight for the safety of the passengers." Courts have also established that air carriers are liable for injury to a passenger caused by another passenger. In *Garrett v. American Airlines*, 332 F. 2d 939 (5 Cir. 1964), the court found the air carrier liable for an injury to a passenger resulting from the injured party falling over a piece of hand luggage placed in the aisle by another passenger. The court warned air carriers that "they must reasonably take cognizance of the habits, customs, and practices followed generally by its passengers insofar as such actions present hazards to its business invitees." Thus the Administrator has the power and the duty to promulgate regulations providing for "the highest possible degree of safety in the public interest" which applies to the safety of passengers within the aircraft as well as to the safety of the flight.

The "highest possible degree of safety" standard, when applied to the broad grant of authority given to the Administrator in 49 U.S.C. 1421(a) (6) <sup>1</sup>, and viewed in light of a number of FAA regulations (Regulations section, *infra*) governing conduct within the passenger compartment, leads one to the inescapable conclusion that the power and duty to regulate the passenger's safety within the passenger compartment lies within the Act. Medical evidence (Medical section, *infra*), has shown conclusively that inhaling tobacco smoke endangers the safety and health of approximately 30,000,000 people who have pre-existing illnesses, and is an annoyance to all non-smokers. It would be incongruous, then, if the Administrator had the power to regulate the safe stowage of carry-on baggage (14 C.F.R. 121.589) in order to prevent one passenger's baggage from falling and injuring a neighboring passenger, and could not regulate the involuntary health and safety hazard one passenger can impose upon another by forcing him to inhale the smoke from his cigarette, cigar, or pipe.

Petitioner contends that the Administrator has not only the authority, but the duty as

forth in detail at least five elements that he "shall consider . . . as being in the public interest." 14 C.F.R. 11.25(5) also implies that a proposed rule will be promulgated if the petition can show that "the granting of the request would be in the public interest." 49 U.S.C. 1651(b) (1) provides that "the Congress therefore finds that the establishment of a Department of Transportation is necessary in the public interest and to assure the coordinated, effective administration of the transportation programs of the Federal Government." [emphasis added] This concept, despite the various delineations applied to it, remains broad and somewhat flexible. By leaving the definition open-ended, Congress has given the Administrator great latitude to enable him to act with respect to a wide variety of circumstances, both foreseeable and unforeseeable, that might arise.

The term "public interest" encompasses the balancing of the needs and desires of one sector of the population with those of the remainder, so as to effectively satisfy the greatest number, while causing the least hardship (or, ideally, no hardship at all) to the smallest number. Petitioner's rule would beneficially affect a large sector of the population (Medical analysis, *infra*), while causing no harm and virtually no inconvenience to the sector wishing to smoke. The non-smokers whose health is so seriously affected that they have had to forego use of the airways would be able to fly. Non-smoking passengers who are to a lesser degree deleteriously affected by tobacco smoke will be able to patronize the air carriers without being subjected to aggravation of their physical condition. In addition, healthy passengers will not be subjected to health hazards. The passengers who wish to smoke will not be deprived of their smoking privilege. There can be no question that the benefits from the proposed rule far outweigh any possible drawbacks, thus serving the public interest.

### 3. Fostering and development of air commerce

49 U.S.C. 1346 defines the Administrator's authority with respect to civil aeronautics and air commerce as follows: "The Administrator is empowered and directed to encourage and foster the development of civil aeronautics and air commerce in the United States and abroad." Interstate and overseas air commerce, as defined by 49 U.S.C. 1301 (20), includes "the carriage by aircraft of persons or property for compensation or hire . . . or the operation or navigation of aircraft in the conduct or furtherance of a business or vocation, in commerce." The significance is that air commerce unquestionably includes business aspects, which necessarily refers to the passenger market. A separation of smokers and non-smokers would significantly enlarge the potential passenger market. The development of air commerce would be beneficially affected because the segment of the population that previously had to avoid commercial air carriers because of serious reactions to smoke would be able to utilize the air carriers, and that segment of the population that flew reluctantly, or only when they had no other choice, would fly more often. Both results would enlarge the air passenger market and further the development of air commerce thereby implementing the intent of the above sections.

### 4. Applicable regulations

The Administrator has demonstrated the authority and the determination to promulgate rules which regulate the conduct and affect the safety of passengers while inside the airplane. A substantial number of these regulations have been specifically designed to promote the safety, health, and comfort of the passengers during the course of the flight indicating the Administrator's interest in limiting hazards within the craft. The following regulations are similar in nature and scope to the rule requested in this petition:

1. 14 C.F.R. 25.831(b): requiring that passenger compartment air must be free from "harmful or hazardous concentrations of gases or vapors."

2. 14 C.F.R. 91.11: providing that a pilot may not allow a "person who is obviously under the influence of intoxicating liquors

and as long as the cargo does not obscure any passenger's view of the "seat belt" or "no smoking" signs.

6. 14 C.F.R. 121.311: providing that there must be an "approved safety belt for separate use by each person over two years of age; and, that during each takeoff and landing, each passenger shall "secure himself with the approved safety belt provided him"; and, that no plane may take off or land unless "each passenger seat back is in the upright position".

7. 14 C.F.R. 121.317: providing that "no person may operate an airplane unless it is equipped with signs that are visible to passengers and cabin attendants to notify them when smoking is prohibited and when safety belts should be fastened"; and that these signs must be "turned on for each landing and takeoff and when otherwise considered to be necessary by the pilot in command", and, that "no passenger or cabin attendant may smoke while the no smoking sign is lighted and each passenger shall fasten his seat belt and keep it fastened while the seat belt sign is lighted."

8. 14 C.F.R. 121.571: providing that before each takeoff passengers must be "orally briefed by the appropriate crew member" on smoking, use of seat belts, and location of emergency exits

9. 14 C.F.R. 121.575: providing that no passenger "may drink any alcoholic beverage aboard an aircraft unless the certificate holder operating the aircraft has served that beverage to him"; "no certificate holder may serve any alcoholic beverage to any person aboard any of its aircraft who appears to be intoxicated"; no person may be allowed to board any aircraft "if that person appears to be intoxicated".

10. 14 C.F.R. 121.589: providing that no passenger may carry any article of baggage aboard an airplane unless that article can be stowed under a passenger seat in such a way that it will not slide forward under crash impacts severe enough to induce certain specified inertia loads.

These regulations indicate that the public interest requires that a high degree of care be exercised by commercial air carriers. Implicit in this duty of care is a recognition of the fact that individual passengers should be reasonably free from all conditions that may be harmful or annoying, including those caused by the conduct of other passengers. The Administrator has recognized the importance of regulating the conduct of each individual passenger, where such conduct, if unregulated, could adversely affect the health, safety, and comfort of other passengers. This concern and authority is clearly demonstrated by the substantive provisions of the above regulations. Therefore, since tobacco smoke, particularly in confined areas, constitutes a safety hazard and annoyance to others, its regulation would be wholly consistent with past Administration policy and well within the authority, purview and intent of the Act.

### IV. MEDICAL EVIDENCE

The average smoker seems to be aware only of the harm he is causing himself. Most people, smokers and non-smokers alike, do not know that cigarette smoke in a confined area is also harmful to those who do not smoke. It has been established beyond any reasonable doubt that cigarette smoking is a severe health hazard causing an estimated 300,000 death a year [estimates by former Surgeon Generals Luther Terry and William H. Stewart, and Dr. R. T. Ravenholt, reported in Diehl, *Tobacco and Your Health: The Smoking Controversy* 34-35, 1969] and that inhalation of cigarette smoke can cause different forms of cancer and chronic non-neoplastic bronchopulmonary diseases, and aggravate or contribute to a variety of cardiovascular diseases and other medical conditions. [See, e.g., U.S. Public Health Service, *The Health Consequences of Smoking*, 1968.] As a basis for its proposed rulemaking, petitioners contend that cigarette smoking is also harmful to the non-smoker because the formed inhalation of another's cigarette smoke in an enclosed environment creates:

- (1) a clear and present danger to an estimated 30 million people with certain pre-existing medical susceptibilities, AND
- (2) a significant health hazard and dis-

118 (b) page bottom

comfort to most others.

1. Persons suffering from pre-existing medical susceptibilities

The presence of tobacco smoke, especially in a confined area, presents a serious medical threat to the millions of Americans who have certain medical susceptibilities and conditions. This smoke can directly aggravate the condition of anyone afflicted with: chronic sinusitis, asthma, hay fever, an allergy to smoke, chronic bronchitis, emphysema, and many other chronic lung diseases. The total number of people susceptible to this problem is staggering. The National Health Survey which ended in June, 1967, gave the following breakdown for lung disease in the United States:

Estimated number of persons suffering from a preexisting susceptibility to cigarette smoke

Chronic bronchitis.....	400,000
Emphysema.....	726,000
Chronic sinusitis.....	16,818,000
Asthma or hay fever.....	16,099,000
Other sensitivities to smoke*	

Total..... More than 34,000,000

\*Estimated to be in the millions.

Thus cigarette smoke in a confined area creates a clear and present danger to the safety, health, and very lives of as many as 30 million Americans.

According to Dr. John M. Keshishian, a thoracic and cardio-vascular surgeon at the George Washington University Hospital, the

presence of tobacco smoke in the air can trigger an attack in a person plagued with chronic lung disease. This attack can result in either mild discomfort, such as a coughing spell, running eyes and nose, and impaired breathing, or a more serious attack involving extreme discomfort and great difficulty in breathing. [See attached Affidavit from Dr. Keshishian, infra.]

Recognized authorities have studied the effects of smoke on persons afflicted with chronic lung disease and allergies. Their research indicates the dangers which airlines currently permit their passengers to be exposed to.

Dr. Irwin Caplin, a respected allergist, sympathizes with the non-smoker exposed to cigarette smoke.

"The truly unfortunate patient is the one who develops severe asthma when he enters a smoke-filled room. It seems that cigars or pipe smoke will usually aggravate the asthmatic more than the cigarette smoke. We see many asthmatics who develop severe asthma from even one cigarette in a room or just by smelling the ashes in an ash tray. There are the patients who can be likened to the man living in Dante's inferno where there is no escape from burnt fingers. Unfortunately, the non-allergic population has no understanding of what they do to their asthmatic members of the family when they smoke in their presence. They are usually annoyed and place the asthmatic in a most embarrassing position. He must either ask them not to smoke in his presence or stay home and isolate himself from society. This is indeed a problem, and I do not know the answer. Perhaps if we could have a magic wand and make all smokers asthmatic for one hour a week and then have them sit in a room full of cigar smoke we would certainly have a population with a great deal more understanding." [Caplin The Allergic Asthmatic, 1968.]

Dr. J. J. Ballinger discussed cigarette smoke as an air pollutant in the August, 1968, issue of Laryngoscope. In an article entitled "The Effect of Air Pollutants on Pulmonary Clearance", he stated that "a recent report indicated that a single one hour exposure of mice to cigarette smoke . . . lowered their resistance to infection, as measured by mortality and survival time; also, exposure to smoke of mice infected with influenza A virus twenty-four hours previously, resulted in significantly higher mortalities, thus suggesting that cigarette smoke can aggravate an existing respiratory viral infection." [Italics added.]

Precise testing of persons with allergies, as conducted by Dr. Bernard Zussman, has

showed definite allergic symptoms in these patients when exposed to tobacco smoke. With treatment, and avoidance of smoke, the symptoms disappeared. [Zussman, Atopic Symptoms Caused by Tobacco Hypersensitivity, 61 Southern Medical Journal 1175 (1968).]

Additional evidence of the health hazard caused by cigarette smoke is found in a study of the effects of smoke on persons with allergies conducted by Dr. Frederic Speer. [Speer, Tobacco and the Nonsmokers; 16 Archives of Environmental Health, 443 (1968).] He states, "A study of both allergic and nonallergic patients revealed that intolerance to tobacco smoke is common to both groups." Strong reactions were recorded, leading to the conclusion that "The many individuals who develop symptoms from tobacco smoke need the understanding and support of the physician in helping them avoid its noxious effects." The "noxious effects" recorded included eye irritation, nasal symptoms, headache, cough, wheezing, sore throat, nausea, hoarseness, and dizziness, as shown in the table below:

The wide variety of ill effects caused by the inhalation of another's tobacco smoke is well summarized by F. K. Hansel in (Clinical Allergy, 1953):

"As a primary irritant, tobacco smoke may cause nasal obstruction, increased nasal discharge, and reduction in the sense of smell. In the lower respiratory tract it is a common cause of coughing. The tobacco tars are now recognized as important carcinogenic agents in the mouth, larynx, and bronchi.

"Tobacco is a very significant factor as a secondary irritant in patients with nasal allergy, hay fever, and bronchial asthma. Even among those allergic patients who do not smoke, tobacco may act as an irritant or primary sensitizer.

"Satisfactory results in the management of allergic patients may depend upon the complete elimination of tobacco as an etiologic (causal) agent or as a secondary factor . . .

"The structure and function of the nose exposes its membrane particularly to the irritating effects of chemical fumes, tobacco smoke, and such air pollutants as photochemical smog. . . . They are active as secondary irritants aggravating the symptoms of patients who have allergic rhinitis and the attacks that they precipitate are essentially indistinguishable from those due to the primary causative antigen.

"There is little doubt that tobacco smoke is an important secondary factor in precipitating allergic symptoms through its action as a nonspecific irritant."

Bettina C. Hilman ["The Allergic Child", Annals of Allergy, Nov., 1967] reports that the National Health Survey of 1959-61 found that over 4.6 million American children have Asthma. Also, that an estimated ten to twenty percent of the children in this country have one or more allergies. [As of 1968, there were almost 60 million children under 14 years of age in this country; 20% would be 12 million.] Dr. Hilman goes on to state, "The immunological load varies with the amount of exposure to offending allergens (inhalants and ingestants). The total allergic load is also influenced by the degree of exposure to offending odors, e.g., paint, hair spray, fish oil, cigarette smoke." Therefore, exposure to air contaminants, such as tobacco smoke, inhibits the control of allergies in children and may lead to dangerous allergic reactions. Even before smoking was widely recognized as a serious health hazard tobacco smoke was known to be irritating to the young hay fever and asthma patient. (Vaugh and Black, Practice of Allergy, 1954) Smoke was also seen to "obviously act as a non-specific irritant in many children with respiratory allergy", (Sherman and Kessler, Allergy in Pediatric Practice, 1957). Thus several different medical studies have shown that as many as 15 million children would be endangered by the unrestricted smoking conditions on air carriers, and, as flying becomes more popular and more widely available, more children will be exposed to these dangerous conditions. Furthermore, these

the presence of smoke may psychologically affect a passenger with chronic lung disease, allergy, or other susceptibility to tobacco smoke. Extensive worry about exposure to smoke may itself bring about the symptoms of an existing malady or make the victim more susceptible to a lower concentration of tobacco smoke. "When we consider that the fumes that annoy people are certain to cause mental distress, it is not easy to assess to what extent the resultant symptoms are psychogenic." [Speer, Tobacco and the Nonsmoker, 16 Archives of Environmental Health 443 (1968)] Fear of a fire in flight, air crashes, or even air sickness may likewise psychologically reduce the threshold level at which a person with a pre-established susceptibility will be endangered by the cigarette smoke of others.

Thus there is general agreement within the medical profession, based upon a number of research studies, that persons with chronic sinusitis, asthma, hay fever, an allergy to smoke, chronic bronchitis, emphysema, and many other chronic lung diseases, when exposed to tobacco smoke, are seriously threatened with aggravation of their conditions. Figures provided by the National Health Survey show that more than 30 million Americans, and as many as 15 million children, are susceptible to this danger.

2. Health hazard and discomfort to all non-smokers

The findings of a research team under the direction of Dr. Giuseppina Scassellatti-Sforzolini show that smoke from an idling cigarette contains almost twice the tar and nicotine of an inhaled cigarette. On the average, smoke from an inhaled cigarette contains 11.8 mg. of tar and 0.8 mg. of nicotine, as compared to 22.1 mg. of tar and 1.4 mg. of nicotine from idling smoke. Thus smoke from an idling cigarette may be twice as toxic as smoke inhaled by the smoker. Although the concentration of harmful substances breathed by the non-smoker is less than the concentration inhaled by the smoker himself, the exposure will be for a greater period of time; an idling cigarette contaminates the air for approximately 12 minutes while the average smoker is actually inhaling on the average for 24 seconds during his "enjoyment" of each cigarette. Thus effects due to decreases in concentration may be more than overcome by increases in exposure time. In some cases, Dr. Scassellatti-Sforzolini reports, smoking "will obviously constitute something of a menace to a . . . non-smoking passenger." [Nonsmokers Share Carcinogenic Risk While Breathing Air Among Smokers, Medical Tribune, Dec. 4, 1967.] Therefore it seems obvious that in the confines of an airplane; where a non-smoker may be required to sit next to or between two smokers, and where the air circulation is typically poor [and may be next to nonexistent, e.g., while waiting in line for takeoff], the non-smoker will be subjected to a significant health hazard to appease a smoker.

Others who have recognized the danger of smoke to the non-smoker have made similar findings. An editorial in the December 1967 issue of Science Magazine concerned the pollution of air by cigarette smoke. Science Magazine reported that "in a poorly-ventilated smoke-filled room concentrations of carbon monoxide can easily reach several hundreds parts per million, thus exposing smokers and non-smokers present to a toxic hazard." [Emphasis added] Carbon monoxide affects the body's hemoglobin, robs the body of needed oxygen, and "commonly leads to dizziness, headaches, and lassitude." One may thus suspect that those who have a tendency to become ill on an airplane will become ill more readily if exposed to cigarette smoke. As to those who do not normally become air sick, carbon monoxide can cause dizziness and headaches, and may also act as a catalyzing agent for air sickness.

Two other harmful components of cigarette smoke are nitrogen dioxide and hydrogen cyanide. The former is an acutely irritating gas, reported Science Magazine, and cigarette smoke contains concentrations fifty times the level considered "dangerous." Hydrogen cyanide, a deadly agent particularly active

Chronic sinusitis..... 16,818,000  
 Asthma or hay fever..... 16,099,000  
 Other sensitivities to smoke\*.....

Total..... More than 34,000,000

\*Estimated to be in the millions.

Thus cigarette smoke in a confined area creates a clear and present danger to the safety, health, and very lives of as many as 30 million Americans.

According to Dr. John M. Keshishian, a thoracic and cardio-vascular surgeon at the George Washington University Hospital, the

presence of tobacco smoke in the air can trigger an attack in a person plagued with chronic lung disease. This attack can result in either mild discomfort, such as a coughing spell, running eyes and nose, and impaired breathing, or a more serious attack involving extreme discomfort and great difficulty in breathing. [See attached Affidavit from Dr. Keshishian, *infra*.]

Recognized authorities have studied the effects of smoke on persons afflicted with chronic lung disease and allergies. Their research indicates the dangers which airlines currently permit their passengers to be exposed to.

Dr. Irwin Caplin, a respected allergist, sympathizes with the non-smoker exposed to cigarette smoke.

"The truly unfortunate patient is the one who develops severe asthma when he enters a smoke-filled room. It seems that cigars or pipe smoke will usually aggravate the asthmatic more than the cigarette smoke. We see many asthmatics who develop severe asthma from even one cigarette in a room or just by smelling the ashes in an ash tray. There are the patients who can be likened to the man living in Dante's inferno where there is no escape from burnt fingers. Unfortunately, the non-allergic population has no understanding of what they do to their asthmatic members of the family when they smoke in their presence. They are usually annoyed and place the asthmatic in a most embarrassing position. He must either ask them not to smoke in his presence or stay home and isolate himself from society. This is indeed a problem, and I do not know the answer. Perhaps if we could have a magic wand and make all smokers asthmatic for one hour a week and then have them sit in a room full of cigar smoke we would certainly have a population with a great deal more understanding." [Caplin *The Allergic Asthmatic*, 1968.]

Dr. J. J. Ballinger discussed cigarette smoke as an air pollutant in the August, 1968, issue of *Laryngoscope*. In an article entitled "The Effect of Air Pollutants on Pulmonary Clearance", he stated that "a recent report indicated that a single one hour exposure of mice to cigarette smoke . . . lowered their resistance to infection, as measured by mortality and survival time; also, exposure to smoke of mice infected with influenza A virus twenty-four hours previously, resulted in significantly higher mortalities, thus suggesting that cigarette smoke can aggravate an existing respiratory viral infection." [Italics added.]

Precise testing of persons with allergies, as conducted by Dr. Bernard Zussman, has shown that "The problem of clinical hypersensitivity to tobacco smoke is assuming greater importance in atopic [allergic] patients, who do not smoke themselves, but who are exposed to smoke either at school, office, or home." The results of the testing

symptoms, headache, cough, wheezing, sore throat, nausea, hoarseness, and dizziness, as shown in the table below:

The wide variety of ill effects caused by the inhalation of another's tobacco smoke is well summarized by F. K. Hansel in (*Clinical Allergy*, 1953):

"As a primary irritant, tobacco smoke may cause nasal obstruction, increased nasal discharge, and reduction in the sense of smell. In the lower respiratory tract it is a common cause of coughing. The tobacco tars are now recognized as important carcinogenic agents in the mouth, larynx, and bronchi.

"Tobacco is a very significant factor as a secondary irritant in patients with nasal allergy, hay fever, and bronchial asthma. Even among those allergic patients who do not smoke, tobacco may act as an irritant or primary sensitizer.

"Satisfactory results in the management of allergic patients may depend upon the complete elimination of tobacco as an etiologic (causal) agent or as a secondary factor . . .

"The structure and function of the nose exposes its membrane particularly to the irritating effects of chemical fumes, tobacco smoke, and such air pollutants as photochemical smog, . . . They are active as secondary irritants aggravating the symptoms of patients who have allergic rhinitis and the attacks that they precipitate are essentially indistinguishable from those due to the primary causative antigen.

"There is little doubt that tobacco smoke is an important secondary factor in precipitating allergic symptoms through its action as a nonspecific irritant."

Bettina C. Hilman [*"The Allergic Child"*, *Annals of Allergy*, Nov., 1967] reports that the National Health Survey of 1959-61 found that over 4.6 million American children have Asthma. Also, that an estimated ten to twenty percent of the children in this country have one or more allergies. [As of 1968, there were almost 60 million children under 14 years of age in this country; 20% would be 12 million.] Dr. Hilman goes on to state, "The immunological load varies with the amount of exposure to offending allergens (inhalants and ingestants). The total allergic load is also influenced by the degree of exposure to offending odors, e.g., paint, hair spray, fish oil, cigarette smoke." Therefore, exposure to air contaminants, such as tobacco smoke, inhibits the control of allergies in children and may lead to dangerous allergic reactions. Even before smoking was widely recognized as a serious health hazard tobacco smoke was known to be irritating to the young hay fever and asthma patient. (Vaugh and Black, *Practice of Allergy*, 1954) Smoke was also seen to "obviously act as a non-specific irritant in many children with respiratory allergy", (Sherman and Kessler, *Allergy in Pediatric Practice*, 1957). Thus several different medical studies have shown that as many as 15 million children would be endangered by the unrestricted smoking conditions on air carriers, and, as flying becomes more popular and more widely available, more children will be exposed to these dangerous conditions. Furthermore, these studies supplement and lend further support to the earlier cited reports showing that smoking in a confined area can be dangerous to all nonsmokers.

Although it is a difficult factor to measure,

smoke, chronic bronchitis, emphysema, and many other chronic lung diseases, when exposed to tobacco smoke, are seriously threatened with aggravation of their conditions. Figures provided by the National Health Survey show that more than 30 million Americans, and as many as 15 million children, are susceptible to this danger.

2. Health hazard and discomfort to all non-smokers

The findings of a research team under the direction of Dr. Giuseppina Scassellati-Sforzolini show that smoke from an idling cigarette contains almost twice the tar and nicotine of an inhaled cigarette. On the average, smoke from an inhaled cigarette contains 11.8 mg. of tar and 0.8 mg. of nicotine, as compared to 22.1 mg. of tar and 1.4 mg. of nicotine from idling smoke. Thus smoke from an idling cigarette may be twice as toxic as smoke inhaled by the smoker. Although the concentration of harmful substances breathed by the non-smoker is less than the concentration inhaled by the smoker himself, the exposure will be for a greater period of time; an idling cigarette contaminates the air for approximately 12 minutes while the average smoker is actually inhaling on the average for 24 seconds during his "enjoyment" of each cigarette. Thus effects due to decreases in concentration may be more than overcome by increases in exposure time. In some cases, Dr. Scassellati-Sforzolini reports, smoking "will obviously constitute something of a menace to a . . . non-smoking passenger." [*Nonsmokers Share Carcinogenic Risk While Breathing Air Among Smokers*, *Medical Tribune*, Dec. 4, 1967.] Therefore it seems obvious that in the confines of an airplane, where a non-smoker may be required to sit next to or between two smokers, and where the air circulation is typically poor [and may be next to nonexistent, e.g., while waiting in line for takeoff], the non-smoker will be subjected to a significant health hazard to appease a smoker.

Others who have recognized the danger of smoke to the non-smoker have made similar findings. An editorial in the December 1967 issue of *Science Magazine* concerned the pollution of air by cigarette smoke. *Science Magazine* reported that "in a poorly-ventilated smoke-filled room concentrations of carbon monoxide can easily reach several hundreds parts per million, thus exposing smokers and non-smokers present to a toxic hazard." [Emphasis added] Carbon monoxide affects the body's hemoglobin, robs the body of needed oxygen, and "commonly leads to dizziness, headaches, and lassitude." One may thus suspect that those who have a tendency to become ill on an airplane will become ill more readily if exposed to cigarette smoke. As to those who do not normally become air sick, carbon monoxide can cause dizziness and headaches, and may also act as a catalyzing agent for air sickness.

Two other harmful components of cigarette smoke are nitrogen dioxide and hydrogen cyanide. The former is an acutely irritating gas, reported *Science Magazine*, and cigarette smoke contains concentrations fifty times the level considered "dangerous." Hydrogen cyanide, a deadly agent particularly active against respiratory enzymes, is present in cigarette smoke in concentrations 160 times that considered dangerous for extended exposure. Furthermore, cigarette smoke contains acrolein, aldehydes, phenols, and carcinogens like benzo(a)pyrene, some of which have been found to have synergistic effects among the toxic agents. In its summation *Science Magazine* concludes: "when the individual smokes in a poorly ventilated space in the presence of others, he infringes the rights of others and becomes a serious contributor to air pollution."

The results of a recent German study on the amounts of tar and nicotine present in confined areas and the effects on the non-smoker have been startling. In *Deutsche Medizinische Wochenschrift*, Volume 92, November 1967, these findings were reported in answer to a question on the effects of tobacco smoke on a non-smoker: "The test results of Harmsen and Effenberger [Harmsen and

REACTIONS TO TOBACCO SMOKE AS REPORTED BY 191 ALLERGIC NONSMOKERS

	Boys <sup>1</sup>	Men	Girls <sup>1</sup>	Women	Total	Percent
Patients.....	38	44	29	80	191	100.0
Eye irritation.....	30	32	22	56	140	73.3
Nasal symptoms.....	25	31	22	59	137	67.1
Headache.....	6	22	9	50	87	46.0
Cough.....	20	13	19	35	87	46.0
Wheezing.....	9	13	8	13	43	22.5
Sore throat.....	4	13	6	21	44	23.0
Nausea.....	3	5	3	18	29	15.2
Hoarseness.....	1	9	1	20	31	16.0
Dizziness.....	0	2	1	8	11	5.3

<sup>1</sup> Under 16 years of age.

118 (1) Bottom of page

250 NONALLERGIC NONSMOKERS

	Boys <sup>1</sup>	Men	Girls <sup>1</sup>	Women	Total	Percent
Patients.....	19	71	21	139	250	100.0
Eye irritation.....	9	54	14	96	173	69.2
Nasal symptoms.....	5	28	2	38	73	29.2
Headache.....	5	26	5	43	79	31.0
Cough.....	7	15	10	31	63	25.2
Whooping.....	1	4	0	6	10	4.0
Sore throat.....	0	7	0	7	14	5.6
Nausea.....	3	6	0	14	23	9.2
Hoarseness.....	0	6	0	5	11	4.4
Dizziness.....	2	2	2	10	16	6.4

<sup>1</sup> Under 16 years of age.

Effenberger, Archives of Hygiene and Bacteriology 141 (1957) show the smoking of several cigarettes in a closed room makes the concentration of nicotine and dust particles in a short time so high that the non-smoker inhales as much harmful tobacco by-products as a smoker inhales from four or five cigarettes." This report was further supported by other studies including: (1) *Smoking and Health. Summary of a Report of the Royal College of Physicians of London on Smoking in Relation to Cancer of the Lung and Other Diseases*, (London, 1962); (2) H. Oettel: *Cancer Research and Fight against Cancer*, IIIrd Book, 6th Conference of the German Cancer Society in Berlin, from March 12th to 14th, 1959; (3) H. Oettel: *Smoking and Health*, Nachrichten aus Chemie und Technik 11 (1963), 28; (4) *Journal of Medicine Rheinland-Pfalz* 18 (1965) 217; (5) H. Oettel: *Toxic Materials in the Air, Water, and Food* (Short essay in monthly course of instruction for doctors (1967) written after a speech of the International Congress Symposium of the doctors in Davos and Badgastein on March 6th and 8th, 1967).

More evidence of the detrimental effects of tobacco smoke on the average non-smoker has been documented by Dr. Fredric Speer in *Archives of Environmental Health*, Volume 18, March 1968. The chart below shows that a very significant number of people not allergic or otherwise particularly susceptible to cigarette smoke can suffer severe reactions to the smoke produced by others:

Dr. Cyril D. Fullmer, in a report to the Annual Scientific Meeting of the Utah State Medical Association in September, 1968, also commented on the hazardous effects of tobacco smoke on non-smokers. His report originally concerned a study of the hazards of cigarette smoking to smokers but, during his study he discovered evidence of it being harmful to non-smokers as well.

A health survey in Detroit homes of children of smoking and non-smoking parents found that even healthy children are particularly susceptible to cigarette smoke. The survey concluded that smoker's children were sick more frequently than non-smoker's children, and that the presence of tobacco smoke in the environment is associated with "lessened physical health." [Cameron, Kostin, et al., *The Health of Smokers' and Non-Smokers' Children: Preliminary Report I* included in Appendix] On an airplane, it is likely that young children, often excited, restless, and frightened, will be easily affected by cigarette smoke. The report is also further evidence of the susceptibility of healthy non-smokers to the cigarette smoke of others.

Another inconvenience created by the smoker is pure discomfort. Most non-smokers just do not like cigarette smoke being exhaled in their faces. This often results in eye irritation, coughing, and nausea. Petitioner believes that the discomfort resulting from cigarette smoke is quite apparent and needs little further explanation. For the sake of documentation, Petitioner refers the Administrator to a letter in the AMA News, April 7, 1969, written by Dr. Ralph Berg of Spokane, Washington, and resultant replies to the letter by other physicians. These letters will be found in the Appendix along with a small sample of others.

V. IMPLEMENTATION OF PROPOSED RULE  
There appear to be various means by which to accomplish the objective of the

(1) Non-smokers would be seated from the rear of the aircraft while smokers would be seated from the front, and the order would be interchanged equitably. Thus, on all but capacity flights, there would be an effective barrier of several rows of seats between the two groups.

(2) Non-smokers would be seated on the left side of the aircraft while smokers would be seated on the right, possible alternating if necessary to achieve fairness. If one side became full the overflow could be seated at the rear of the other section. Thus, on most flights and for most passengers, the center aisle would be an effective barrier between the two groups.

(3) Blocks of seats, perhaps in group of five rows, would be labeled for the use of smokers and non-smokers alternatively by the use of easily movable markers. As these small sections filled up appropriate adjustments for the particular ratio of smokers and non-smokers could be made by the stew-ardesses.

Obviously, there are many alternatives not suggested in this petition that would accomplish the desired objectives. Most public transportation systems have, at one time or another, effected some means of separating smokers and non-smokers, and such separation by the air carriers would be in accordance with the statutory intent of developing a "coordinated transportation service" [49 U.S.C. 1851(b)(1)]. Smoking cars on trains, and various bus regulations, have dealt with this problem. Certainly the imaginative personnel working for the Administrator, and for the major airline companies, can develop a simple, inexpensive, yet effective means of dealing with this hazardous and annoying situation without inconveniencing any of the passengers.

Enactment of Petitioners' proposed rule would have no detrimental effects on air carrier service and, indeed, would merely involve a designation of certain seats in which smoking would be permitted and would not involve any structural changes in the aircraft. There would also be no inconvenience caused in the preflight preparations. Both smoking and non-smoking passengers would purchase the same tickets, and make the same reservations, as is now done. There would be no problem of an imbalance of smokers or non-smokers, because the solutions suggested above contemplate a flexible policy.

The most significant argument in favor of smoking sections is a basic one: the use of such sections would not infringe the rights of any smoker, but would give non-smokers the rights which they have been deprived of in the past—the right to breathe unpolluted air. While no passengers would be harmed, or inconvenienced, a large number would be greatly benefited. This clearly includes the courteous smoker who might otherwise be deterred from enjoying a cigarette by his concern for the health and comfort of passengers next to him.

VI. CONCLUSION

The Federal Aviation Administration and the Department of Health, Education and Welfare are scheduled to begin a joint 12-month study "to measure the amounts of tobacco smoke contaminants in air transport aircraft." (Department of Transportation Release #69-108, 19 September, 1969) This study will attempt to "measure the amounts of carbon monoxide and other impurities in both cockpit and passenger cabin areas."

long been subjected to the unreasonable hazards caused by tobacco smoke.

This petition has presented sufficient evidence upon which the Administrator can and should conclude that tobacco smoke in the passenger compartment of an airplane constitutes a severe and substantial threat to the health, safety, and comfort of non-smokers; so severe, and so substantial, that nothing short of the immediate enactment of the proposed rule would be an acceptable remedy.

It is elementary that where there is doubt as to the danger of an act or substance, that doubt should be resolved in favor of protecting the public health and safety, particularly where this can be done with substantially no inconvenience and at no cost to any party. The health of the majority of Americans, including:

- (1) the 49% of all American males over 17 who do not smoke;
- (2) the 66% of all American females over 17 who do not smoke;
- (3) the over 30 million Americans who have pre-existing conditions making them particularly susceptible to cigarette smoke;
- (4) And all non-smoking children, particularly the estimated 12 million who have pre-existing medical conditions, making them particularly susceptible to cigarette smoke; should not be wagered on the chance that an investigation would show that it might not be seriously endangered. Many of the components of cigarette smoke—e.g., nicotine—are recognized as drugs, and the law requires that with respect to drugs doubt is to be resolved in favor of the consumer. [See generally 21 U.S.C. 301 et seq.] Tobacco smoke has clearly been identified as both an irritant and as a strong sensitizer<sup>2</sup> and, under the Hazardous Substances Act, doubt as to these are to be resolved in favor of the public safety and health. [15 U.S.C. 1261 (f) (1) (A) and 1262(a) (1)] A most striking recent example of this policy was the recent decision of the Secretary of Health, Education, and Welfare to restrict the sale of products containing cyclamate because a dosage 50 times greater than normal human consumption caused cancer in mice. Indeed, this policy is required by the statute for food additives which have been shown to be capable of causing cancer. [21 U.S.C. 348(c) (3); see *Bell v. Goddard*, 366 F.2d 177 (7th Cir. 1966).] Whether directly applicable or not, these statutes are a clear indication of long standing congressional intent which should be followed.

Petitioners respectfully submit that they have shown that:

- (1) they are interested persons with standing to petition for the proposed rule;
- (2) that the statute gives the Administrator the power, and indeed even the duty, to promulgate rules for the protection of passengers from safety hazards within the aircraft;
- (3) that the Administrator has consistently utilized this power, and recognized this duty, to promulgate rules to provide for the safety of passengers from hazards within the aircraft, and that the proposed rule would be consistent with others previously issued;

<sup>2</sup> See, e.g., Hansel, *Clinical Allergy* (1953) ("Tobacco smoke make act as a (1) primary irritant, (2) secondary irritant in an allergic individual, (3) a primary sensitizer.").

(4) that the overwhelming weight of the medical evidence indicates that unrestricted smoking aboard aircraft creates a clear and present danger to the safety and health of an estimate 30 million people who because of pre-existing medical conditions are particularly susceptible to tobacco smoke;

(5) that a number of studies have indicated that unrestricted smoking in enclosed environments like aircraft creates an involuntary and inflicted health hazard to every passenger;

(6) that the proposed rule could be effectuated without cost to the airlines or inconvenience to passengers;

(7) and that any doubt as to safety and health of passengers must be resolved in



inhalates as much harmful tobacco by-products as a smoker inhales from four or five cigarettes." This report was further supported by other studies including: (1) *Smoking and Health. Summary of a Report of the Royal College of Physicians of London on Smoking in Relation to Cancer of the Lung and Other Diseases*, (London, 1962); (2) H. Oettel: *Cancer Research and Fight against Cancer*, IIIrd Book, 6th Conference of the German Cancer Society in Berlin, from March 12th to 14th, 1959; (3) H. Oettel: *Smoking and Health*, Nachrichten aus Chemie und Technik 11 (1963), 28; (4) *Journal of Medicine Rheinland-Pfalz* 18 (1965) 217; (5) H. Oettel: *Toxic Materials in the Air, Water, and Food* (Short essay in monthly course of instruction for doctors (1967) written after a speech of the International Congress Symposium of the doctors in Davos and Badgastein on March 6th and 8th, 1967).

More evidence of the detrimental effects of tobacco smoke on the average non-smoker has been documented by Dr. Fredric Speer in *Archives of Environmental Health*, Volume 16, March 1968. The chart below shows that a very significant number of people not allergic or otherwise particularly susceptible to cigarette smoke can suffer severe reactions to the smoke produced by others:

Dr. Cyril D. Fullmer, in a report to the Annual Scientific Meeting of the Utah State Medical Association in September, 1968, also commented on the hazardous effects of tobacco smoke on non-smokers. His report originally concerned a study of the hazards of cigarette smoking to smokers but, during his study he discovered evidence of it being harmful to non-smokers as well.

A health survey in Detroit homes of children of smoking and non-smoking parents found that even healthy children are particularly susceptible to cigarette smoke. The survey concluded that smoker's children were sick more frequently than non-smoker's children, and that the presence of tobacco smoke in the environment is associated with "lessened physical health." [Cameron, Kostin, et al., *The Health of Smokers' and Non-Smokers' Children: Preliminary Report* I included in Appendix] On an airplane, it is likely that young children, often excited, restless, and frightened, will be easily affected by cigarette smoke. The report is also further evidence of the susceptibility of healthy non-smokers to the cigarette smoke of others.

Another inconvenience created by the smoker is pure discomfort. Most non-smokers just do not like cigarette smoke being exhaled in their faces. This often results in eye irritation, coughing, and nausea. Petitioner believes that the discomfort resulting from cigarette smoke is quite apparent and needs little further explanation. For the sake of documentation, Petitioner refers the Administrator to a letter in the *AMA News*, April 7, 1969, written by Dr. Ralph Berg of Spokane, Washington, and resultant replies to the letter by other physicians. These letters will be found in the Appendix along with a small sample of others.

#### V. IMPLEMENTATION OF PROPOSED RULE

There appear to be various means by which to accomplish the objective of the proposed rule: the separation of smokers and non-smokers on commercial air carriers. Merely for the purpose of demonstrating several means by which this could be accomplished at no cost to the airlines and no inconvenience to either the smoking or non-smoking passengers, a number of possible alternatives for implementing the proposed rule are set out below:

barrier of several rows of seats between the two groups.

(2) Non-smokers would be seated on the left side of the aircraft while smokers would be seated on the right, possible alternating if necessary to achieve fairness. If one side became full the overflow could be seated at the rear of the other section. Thus, on most flights and for most passengers, the center aisle would be an effective barrier between the two groups.

(3) Blocks of seats, perhaps in group of five rows, would be labeled for the use of smokers and non-smokers alternatively by the use of easily movable markers. As these small sections filled up appropriate adjustments for the particular ratio of smokers and non-smokers could be made by the stewardesses.

Obviously, there are many alternatives not suggested in this petition that would accomplish the desired objectives. Most public transportation systems have, at one time or another, effected some means of separating smokers and non-smokers, and such separation by the air carriers would be in accordance with the statutory intent of developing a "coordinated transportation service" [49 U.S.C. 1651(b)(1)]. Smoking cars on trains, and various bus regulations, have dealt with this problem. Certainly the imaginative personnel working for the Administrator, and for the major airline companies, can develop a simple, inexpensive, yet effective means of dealing with this hazardous and annoying situation without inconveniencing any of the passengers.

Enactment of Petitioners' proposed rule would have no detrimental effects on air carrier service and, indeed, would merely involve a designation of certain seats in which smoking would be permitted and would not involve any structural changes in the aircraft. There would also be no inconvenience caused in the preflight preparations. Both smoking and non-smoking passengers would purchase the same tickets, and make the same reservations, as is now done. There would be no problem of an imbalance of smokers or non-smokers, because the solutions suggested above contemplate a flexible policy.

The most significant argument in favor of smoking sections is a basic one: the use of such sections would not infringe the rights of any smoker, but would give non-smokers the rights which they have been deprived of in the past—the right to breathe unpolluted air. While no passengers would be harmed, or inconvenienced, a large number would be greatly benefitted. This clearly includes the courteous smoker who might otherwise be deterred from enjoying a cigarette by his concern for the health and comfort of passengers next to him.

#### VI. CONCLUSION

The Federal Aviation Administration and the Department of Health, Education and Welfare are scheduled to begin a joint 12-month study "to measure the amounts of tobacco smoke contaminants in air transport aircraft." (Department of Transportation Release #69-108, 19 September, 1969) This study will attempt to "measure the amounts of carbon monoxide and other impurities in both cockpit and passenger cabin areas."

The results of this study will not be reported until late in 1970 or early in 1971. There is no rational justification for the Administrator to wait for the results of this study before requiring smoking sections on airplanes. Little benefit would be gained from such a delay, particularly since the study is expected to re-confirm conditions already known to exist. Non-smokers have for too

17 who do not smoke;

(3) the over 30 million Americans who have pre-existing conditions making them particularly susceptible to cigarette smoke;

(4) And all non-smoking children, particularly the estimated 12 million who have pre-existing medical conditions, making them particularly susceptible to cigarette smoke; should not be wagered on the chance that an investigation would show that it might not be seriously endangered. Many of the components of cigarette smoke—e.g. nicotine—are recognized as drugs, and the law requires that with respect to drugs doubt is to be resolved in favor of the consumer. [See generally 21 U.S.C. 301 et seq.] Tobacco smoke has clearly been identified as both an irritant and as a strong sensitizer<sup>3</sup> and, under the Hazardous Substances Act, doubt as to these are to be resolved in favor of the public safety and health. [15 U.S.C. 1261 (f)(1)(A) and 1262(a)(1)] A most striking recent example of this policy was the recent decision of the Secretary of Health, Education, and Welfare to restrict the sale of products containing cyclamate because a dosage 50 times greater than normal human consumption caused cancer in mice. Indeed, this policy is required by the statute for food additives which have been shown to be capable of causing cancer. [21 U.S.C. 348(c)(3); see *Bell v. Goddard*, 366 F.2d 177 (7th Cir. 1966).] Whether directly applicable or not, these statutes are a clear indication of long standing congressional intent which should be followed.

Petitioners respectfully submit that they have shown that:

(1) they are interested persons with standing to petition for the proposed rule;

(2) that the statute gives the Administrator the power, and indeed even the duty, to promulgate rules for the protection of passengers from safety hazards within the aircraft;

(3) that the Administrator has consistently utilized this power, and recognized this duty, to promulgate rules to provide for the safety of passengers from hazards within the aircraft, and that the proposed rule would be consistent with others previously issued;

<sup>3</sup> See, e.g., *Hansel, Clinical Allergy* (1953) ("Tobacco smoke make act as a (1) primary irritant, (2) secondary irritant in an allergic individual, (3) a primary sensitizer.").

(4) that the overwhelming weight of the medical evidence indicates that unrestricted smoking aboard aircraft creates a clear and present danger to the safety and health of an estimate 30 million people who because of pre-existing medical conditions are particularly susceptible to tobacco smoke;

(5) that a number of studies have indicated that unrestricted smoking in enclosed environments like aircraft creates an involuntary and inflicted health hazard to every passenger;

(6) that the proposed rule could be effected without cost to the airlines or inconvenience to passengers;

(7) and that any doubt as to safety and health of passengers must be resolved in their favor.

Therefore Petitioners respectfully request that the Secretary and the Administrator promulgate the proposed rule, and that the Petitioners be made parties to any related proceedings with the right to further support their proposed rule.

Respectfully submitted,

JOHN F. BANZHAF III,

Attorney for Petitioners.

118 (d) bottom of page