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Part V

**Civil Aeronautics  
Board**

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14 CFR Part 252  
Smoking Aboard Aircraft; Final Rule

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## CIVIL AERONAUTICS BOARD

## 14 CFR Part 252

[Economic Reg. Amdt No. 3; Docket 41431; Reg. ER-1383]

## Smoking Aboard Aircraft

**AGENCY:** Civil Aeronautics Board.

**ACTION:** Final rule.

**SUMMARY:** The CAB adopts new rules to ban smoking on small aircraft and to ban cigar and pipe smoking on all flights. The CAB also retains current rules requiring fully functioning ventilation systems and discouraging airlines from sandwiching nonsmokers between two smoking sections, and rejects proposals to ban smoking on short flights or to require special provisions for passengers especially sensitive to smoke.

**DATES:** Adopted: June 1, 1984. Effective: July 20, 1984.

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**SUPPLEMENTARY INFORMATION:****Background**

The Board first adopted a rule on smoking in 1973, ER-800, 38 FR 19146, May 10, 1973. This rule, at 14 CFR Part 252, simply required airlines to provide separate sections for smokers and nonsmokers.

In 1976, the Board launched a new proceeding on smoking, EDR-308, 41 FR 44425, October 8, 1976. Between that date and 1981, the Board considered the full range of issues on smoking. These included whether the Board should regulate smoking at all, whether it should ban it entirely, whether it should ban it on short flights or small aircraft, whether it should ban cigar and pipe smoking, whether it should require special protections for passengers who are especially sensitive to smoke, and whether it should prohibit airlines from sandwiching nonsmokers between two smoking sections.

While these possible rule changes were pending, the Board decided to make some changes to Part 252, ER-1091, 44 FR 5071, January 25, 1979. It required airlines to specially segregate cigar and pipe smokers, ban smoking when the aircraft ventilation system was not fully functioning, and ensure that nonsmokers were not unreasonably burdened when a non-smoking section

was sandwiched between two smoking sections.

In 1981, however, the Board decided to keep a smoking rule but without the details on cigars and pipes, ventilation systems, and sandwiching that it had adopted 2 years earlier, ER-1245, 46 FR 45934, September 16, 1981. It also decided not to adopt any of the proposed smoking bans or the provision for passengers especially sensitive to smoke. The rule simply required airlines to guarantee a seat in the no-smoking to every nonsmoker who met the airline's check-in deadline.

This decision was challenged in Federal court by smokers, nonsmokers, and airlines. The courts upheld the Board's legal authority to regulate smoking, *Diefenthal v. CAB*, 681 F.2d 1039 (5th Cir. 1982) and *Action on Smoking and Health v. CAB*, 699 F.2d 1209 (D.C. Cir. 1983). However, the D.C. Circuit ordered the Board to reinstate the provisions on cigars and pipes, ventilation, and sandwiching that it had previously eliminated and to reconsider the decision not to adopt proposals to ban smoking on short flights and small aircraft or to provide special protections for passengers especially sensitive to smoke.

Shortly thereafter, the Board republished the provisions on cigars and pipes, ventilation, and sandwiching as the court had ordered, ER-1245A, 48 FR 24866, June 3, 1983 and ER-1356, 48 FR 36093, August 9, 1983. Also in accordance with the court order, the Board issued two notices of proposed rulemaking to reconsider these provisions and the three proposals that it had previously decided not to adopt, EDR-461, 48 FR 24918, June 3, 1983 and EDR-461B, 48 FR 43341, September 23, 1983. In these notices, the Board proposed the following:

- A ban on smoking on short flights, defined as flights of either 1 hour or less or flights of 2 hours or less;
- A ban on smoking on small aircraft, defined as aircraft of either 30 seats or less or aircraft of 60 seats or less;
- A ban on cigar and pipe smoking;
- A ban on smoking when the ventilation system is inadequate;
- A requirement that airlines provide special protections for passengers who are especially sensitive to smoke; and
- Elimination of the provision on sandwiching.

In response to these proposals, the Board received written comments from at least two U.S. government agencies (Department of Transportation and Department of Health and Human Services, Office of the Assistant

Secretary for Health), fourteen airlines or airline organizations (Air Transport Association of America, International Air Transport Association, Regional Airline Association, Aerospace Industries Association of America, Republic Airlines, Midway Airlines, Air Florida, Southwest Airlines, Transamerica Airlines, United Airlines, Piedmont Aviation, Wings West Airlines, Atlantic Air, Newair), six unions (Engineering and Air Safety Department of the Airline Pilots Association, Association of Flight Attendants, Health and Safety Department of Teamster Local 2707, Food and Allied Service Trades Department of the AFL-CIO, Independent Union of Flight Attendants, and Bakery, Confectionery and Tobacco Workers International Union), eleven consumer and health groups (Aviation Consumer Action Project, Action on Smoking and Health, Coalition on Smoking or Health, American Heart Association, American Cancer Society, American Lung Association, American Lung Association of San Diego and Imperial Counties, Georgia Lung Association, American Public Health Association, Massachusetts Group Against Smoking Pollution, New Jersey Group Against Smoking Pollution), four tobacco groups (Tobacco Institute, Kentucky Farm Bureau Federation, North Carolina Farm Bureau Federation, Bright Belt Warehouse Association, Inc.), and several others (County of San Diego, Xenex Corp., Experimental Aircraft Association, Meyer H. Sharlin, Captain H.B. "Chuck" Fulton Jr.). The Board also received more than 20,000 letters from individuals.

In addition, the Board held three days of oral argument in which 42 people, including 10 members of Congress, were able to present their views directly to the Board. All viewpoints were well represented.

Government agencies, consumer and health groups, flight attendant unions, a few small airlines, and about 30% of the individuals who wrote us were in favor of the sort of strict rules on smoking that the Board was proposing. Airlines, unions representing pilots or tobacco workers, pro-tobacco groups, and about 70% of the people who wrote us generally opposed the Board's proposals.

After considering all the arguments presented, and for the reasons set forth below, the Board has decided to ban smoking on small aircraft and to ban cigar and pipe smoking on all flights, but not to make the other changes that it had proposed. Thus the Board's new

rule, applicable to all U.S. airlines, will contain the following features.

- A requirement that airlines provide a seat in the no-smoking section to all nonsmokers that meet the airlines check-in deadline, even if the airline must expand that section to accommodate them;
- A ban on smoking on small aircraft;
- A ban on cigar and pipe smoking on all flights;
- A requirement that airlines ban all smoking when their ventilation system is not fully functioning; and
- A requirement that airlines ensure that nonsmokers are not unreasonably burdened when a no-smoking section is sandwiched between two smoking sections.

#### General Considerations

Several general objections were raised against any further Board regulation of smoking. Some argued that further regulation would be inconsistent with the policy of deregulation mandated by Congress in the Airline Deregulation Act, Pub. L. 95-504. They viewed the marketplace as being capable of fairly accommodating smokers and nonsmokers, and claimed that airlines are already attentive to the needs of nonsmokers.

Nonsmokers, particularly Action on Smoking and Health (ASH), disputed this contention. They claimed that airlines cannot be trusted to protect nonsmokers and that they have little real sympathy for or understanding of the problems many nonsmokers face. They were opposed to leaving further regulation of smoking to the marketplace. In their view, smoking is a health and safety matter that should be treated differently than routes, rates, or other economic matters that are the focus of the Airline Deregulation Act. They were particularly concerned about especially sensitive nonsmokers who are too small a minority to achieve protection through the operation of the marketplace.

The Board agrees with the nonsmokers insofar as they argue that Board regulation in this area is not inconsistent with the Deregulation Act. As a legal matter, arguments to the contrary have already been rejected by the two cases cited above.

Smoking is not analogous to economic issues, such as routes and pricing, because Congress did not call for the abolition of section 404(a) of the Act, the statutory authority to regulate smoking, as it did with respect to routes and fares. Unlike these economic issues, smoking evokes strong passenger emotions, and causes extreme distress for at least some people.

The additional protections for nonsmokers adopted here will impose a minimal burden on airlines. They represent a further compromise in the on-going dispute among nonsmokers, smokers, and airlines. We expect that this new rule will continue to receive widespread public support.

The widespread public support for the current rule was also cited as a reason for not making any more changes. The tobacco industry submitted surveys by Tarrance & Associates and the International Airline Passenger Association (IAPA) as evidence that passengers are not greatly concerned about smoking or are satisfied with the current rule. In the Tarrance survey, a majority of those questioned responded affirmatively to the question whether the "present arrangement works pretty well." In addition, some airlines pointed to surveys of their own passengers that indicated that passengers were satisfied with the current rules on smoking (For example, oral argument transcript pp. 192-193).

ASH and several individuals questioned the tactics and credibility of the tobacco industry surveys. ASH and the Georgia Lung Association also countered with surveys of their own. In these surveys, a majority of those questioned favored a ban on smoking on short flights (Georgia Lung survey), smoke-free flights (Midway Airlines and Wien Air Alaska survey), and a smoking ban in flight to reduce the possibility of fire (Gallup Poll published in Newsweek, January 30, 1984).

The surveys submitted by the tobacco industry, which has long opposed the Board's efforts in this area, show that most passengers are satisfied with what the Board has done. In our view, the further restrictions imposed here will also have public support. The fact that most people may feel that the "present arrangement works pretty well" (Tarrance & Associates survey) is not inconsistent with the position that further restrictions adopted here would also receive support.

Indeed, a 1977 survey for IAPA, when it was known as the Airline Passenger Association, revealed that a majority of passengers favored a ban on cigar and pipe smoking even though they opposed a ban on all smoking. In addition, a survey by Newair of its passengers found that a majority favored a ban on smoking on small aircraft. The fact that a majority of airlines have voluntarily banned smoking on small aircraft and cigars and pipes on all flights is further evidence that these actions are supported by the flying public.

Surveys indicating that a majority might also favor a ban on smoking on

short flights are relevant, but are outweighed by the other problems that such a ban would create, as described below. The Newsweek/Gallup poll is questionable because it assumes that smoking in designated smoking sections is a fire hazard, although the evidence is to the contrary. In the Board's view, this poll is more indicative of the public's strong concern for safety rather than their views about smoking.

Several commenters also cited the low level of complaints that the Board receives about smoking as evidence that the public is not greatly concerned about this issue and that no further rule changes are necessary. Only about two to three percent of the complaints that the Board receives involve smoking.

But nonsmokers, particularly the Aviation Consumer Action Project (AGAP), insisted that complaints to the Board do not indicate the scope of the problem. They stated that there is little incentive for a passenger to file a smoking complaint after a flight because the discomfort has ended and unlike a baggage problem, for example, monetary compensation will not be available. Moreover, they claimed that a passenger may suffer from smoke aboard aircraft even when there is no violation of Board rules that would warrant the filing of a complaint.

The Board recognizes that the number of complaints about smoking, relative to complaints about other problems, is low. On the other hand, the ones we do receive about smoking are among the most violent complaints with which the Board must deal. And there may be many reasons, such as those noted above, why we do not receive more. Complaints may be directed to the carrier rather than the Board. In the Board's view, the action taken here strikes an appropriate balance.

The International Air Transport Association (IATA), while recognizing that the Board's smoking rule applies only to U.S. airlines, opposed restrictions on smoking. It stated that U.S. domestic regulations are likely to be followed by foreign governments.

The changes adopted here will not apply to IATA member foreign airlines. The Board's smoking rule, Part 252, applies only to "air carriers", which section 101 of the Federal Aviation Act defines as U.S.-citizen airlines. To the extent that foreign airlines may choose to follow them, that is not cause for the Board to change its course.

ASH argued that smoking should be treated like chewing and spitting, a practice that is now generally prohibited in public places. Unlike chewing and

spitting, however, smoking remains a socially acceptable practice.

#### Short Flights

Proponents of a smoking ban on short flights rested their argument on three grounds—health, safety, and passenger comfort.

As a preliminary matter, many opponents of this ban argued that health and safety were not proper considerations for an economic regulatory agency such as the CAB. They claimed that the Federal Aviation Administration (FAA) was the sole agency to rule on the smoking issue from the health and safety perspective.

The statutory basis for Board action on smoking is the provision in section 404(a) of the Federal Aviation Act (49 U.S.C. 1374(a)) that requires airlines to provide "safe and adequate service." While the Board has in the past not denied that public health is an aspect of "safe and adequate service," it has not acted specifically on the basis of health considerations. Health has, to be sure, come somewhat more to the forefront in its smoking-rule deliberations, as the public comments have tended to focus on it.

When it first adopted a rule on smoking in 1973, ER-800, the Board did so solely on the basis of the need to minimize passenger discomfort and annoyance caused by smoke. Safety and health were not cited as justification for the Board's action.

In 1976, in proposing to strengthen this rule, EDR-306, the Board stated that since "the Federal Aviation Administration has already asserted jurisdiction of the health question under its authority to promote safety of flight, we think it appropriate to continue to defer to that agency on this issue." In 1981, when amending the smoking rule, ER-1245, the Board stated:

The only finding that would, in the Board's judgment, justify a total ban would be that smoking aboard aircraft under the present rules is significantly damaging the health of nonsmokers. But it is questionable whether the Board's authority could be exercised on that basis, since the FAA has primary jurisdiction over matters of health and safety in aircraft operations.

Thus, the Board has historically viewed the public safety and health aspects of smoking primarily as the responsibility of the FAA, although not denying their relevance.

In exercising its responsibilities in this area, the Board continues to believe that it should defer to the expertise of the FAA where that agency has ruled on the issue. The FAA has a medical office and the technical expertise that the Board lacks in the health and safety area. In

considering the smoking issue from the health and safety perspective therefore, the Board will give great weight to the findings of the FAA.

*Health.* The advocating a smoking ban relied on studies that demonstrate that the health of nonsmokers may be harmed by breathing second-hand smoke. Pro-tobacco groups countered with studies of their own demonstrating that passive smoking is not harmful to nonsmokers. Airlines argued that the superior ventilation system of their aircraft reduced any risks associated with second-hand smoke. It thus appears that the evidence of adverse health effects of passive smoking is still being disputed.

Assuming, however, that the studies cited by the proponents of the proposed smoking ban are valid, no commenter has shown that the findings of those studies are applicable to the situation aboard aircraft. The cited studies involved smoking in the home or office, places where people spend a significant portion of their life. This differs from the situation aboard aircraft where most people spend a relatively short time. Aircraft also differ from homes and offices in that nonsmokers are separated from the smokers in the former, but usually are not in the latter.

The only study that dealt specifically with the situation aboard aircraft found smoking "not to represent a hazard to the nonsmoking passengers."

\* \* \* *Health Aspects of Smoking in Transport Aircraft*, FAA/HEW, December 1971. It reached this conclusion at a time when nonsmokers were not always separated from smokers aboard aircraft as they are now.

Although this study is now 13 years old, as recently as last November, in Congressional testimony, FAA officials reaffirmed its findings.

I am advised that based on these and other studies it is the FAA's view that the casual exposure to cigarette smoke in a reasonably ventilated environment is not expected to have any relationship to cardiovascular or pulmonary disease causation. S. Rep. No. 98-54, 98th Cong., 1st Sess. 10 (1983).

As explained above, the FAA's views on the health issue are given great weight by the Board. The Board finds no sufficient basis to override the FAA's position on this point, and therefore declines to act on the specific basis of the health aspects of passive smoking.

It was argued that even if passenger health is not adversely affected by smoking, flight attendant health is, because they spend more time aboard aircraft than do passengers. Many flight attendants did write to us claiming such adverse health effects from passive

smoking. However, the New England Journal of Medicine reported a study that found that the health of flight attendants was not adversely affected by passenger smoking. Foliart, Benowitz & Becker, "Passive Absorption of Nicotine in Airline Flight Attendant," N. Engl. J. Med 1983; 308:1105. This study was conducted on flights to Japan where smoking could be expected to be particularly heavy. The results of another study by the National Institute for Occupational Safety and Health (NIOSH) were inconclusive. Thus, the available scientific evidence at this time does not appear to support a conclusion that the health of flight attendants is harmed by smoking aboard aircraft.

Some nonsmokers conceded that the scientific evidence may not support their view, but felt that further research would eventually prove them correct. That may be, but the Board must base its decision on the objective evidence that now exists to the extent that such evidence is available.

*Safety.* Proponents of the proposed smoking ban also cited the fire danger as justification for such action. But once again, the available evidence is that there is no significant danger, except for smoking in the lavatories where it is already banned by an FAA airworthiness directive.

The FAA has considered the alleged fire danger of smoking aboard aircraft and has concluded that it does not justify further regulation. For example, in a letter to Congress last summer, the FAA's acting director of flight operations stated:

Electrical, fuel, and other aircraft systems are specifically designed to first prevent ignition and secondly to contain, control, or extinguish a fire in the event ignition does occur. Similarly, the interiors of aircraft cabins are designed and constructed to provide protection from fire in a manner which is superior to other means of public transportation. Because of these inherent design factors and because fire retardant materials are used in the construction of aircraft interiors, smoking on board commercial aircraft does not constitute a significant compromise to safety.

Letter from FAA's Acting Director of Flight Operations to the Honorable Lindsay Thomas, July 25, 1983. As the agency responsible for safety, including fire safety, the FAA's conclusions in this area also are entitled to great weight by the Board. The FAA is moving to improve aircraft fire safety by proposing new and more stringent flammability requirements for seat cushions, 48 FR 46250, October 11, 1983.

Supporters of the proposed smoking ban claimed that there were 45 major

fires aboard aircraft between 1973 and 1981. Many cited the Varig fire in France and the 1983 Air Canada fire as proof that cigarette smoking is dangerous.

A fire safety expert, however, who reviewed the National Transportation Safety Board files on major aircraft fires since 1970 testified that none of them were caused by cigarette smoking in the passenger compartment. Oral argument transcript, volume 2, pp. 13-15. This appears to be the result of the fire retardant materials that are used for aircraft passenger seats.

The Varig and Air Canada fires occurred in the aircraft lavatories, where smoking is already banned, not in the designated smoking section. There is doubt that the Air Canada fire was caused by a cigarette. *Aviation Week and Space Technology* (August 22, 1983), p. 30. Banning smoking in designated smoking sections might increase, rather than decrease, the incidents of smoking and risk of fire in the aircraft lavatories, where it poses the greatest danger to the lives of passengers.

**Passenger comfort.** The docket of this proceeding contains a large number of letters from nonsmokers complaining in the strongest terms of the problems they have experienced aboard aircraft because of smoking there. It is quite clear that, for at least some people, smoking aboard aircraft causes a high level of annoyance and discomfort.

On the other hand, the docket contains even more letters from passengers claiming that they need to smoke and would not, or could not, fly if they were prohibited from doing so. Many threatened to defy a smoking ban or to continue indulging their habit in the aircraft lavatory, regardless of the risks. These smokers often claimed that they have a "right" to smoke.

The Board does not accept the argument that there is an absolute legal right to smoke on an airplane. The first section of the Board's smoking rule has always given airlines the discretion to ban all smoking, and some have done so. Courts have recognized that a smoker's right to smoke "may have to give way to the freedom of others to be unannoyed by smoke," *Nader v. Federal Aviation Administration*, 40 F. 2d 292, 295, n.4 (D.C. Cir. 1971).

Nevertheless, the letters from smokers make clear that for those who choose to participate, smoking is very important. Many smokers are apparently unable to suppress this desire for very long.

At present, the Board's rule favors the nonsmokers. This seems reasonable since a majority of passengers are nonsmokers. The current rule requires airlines to guarantee a no-smoking seat to every passenger that wants one and

meets the airline's check-in deadline. Smokers, however, have no right to a smoking seat no matter how early they check in. If a no-smoking section on a flight is full, an airline must expand it to accommodate additional nonsmokers and prevent smokers from smoking in the expanded no-smoking section.

Airlines are under no obligation to accommodate smokers in this way, and indeed would be prohibited from doing so if that would result in nonsmokers being encompassed by the smoking section. In addition, some more provisions for the benefit of nonsmokers are being adopted by this rule.

The Board finds that further protections for nonsmokers based on flight length are not justified. The additional comfort that that would provide for them is outweighed by the administrative, confusion, and competitive problems that it would create, as explained below.

**Differences between short-flight and other smoking bans.** Those opposing the short flight smoking ban noted that nonsmokers are likely to suffer more on long flights than on short ones. The primary rationale offered for the short-flight smoking ban by the nonsmokers, however, was that smokers are able to refrain for short periods in other places. Ground transportation and public buildings, especially theaters, churches, and courtrooms, were cited as places where smoking bans for short periods have proven successful. Yet there are differences between these and airplanes that make a ban more feasible and essential in the former than in the latter. These differences include the following:

- Smokers can step outside or into the lobby of theaters but cannot do so while in an airplane. Their only alternative would be the lavatory.

- Ground transportation trips are usually shorter than air transportation trips and typically allow passengers to get off at short intervals or provide them a smoking car or section.

- Smoking presents a fire hazard in many public buildings but, as explained above, does not present a similar hazard in an airplane, as long as it is done in the designated smoking section.

- It's easier for smokers to comply with a smoking ban for a short time in theaters or courtrooms because their attention is riveted on the performance or proceeding while in an airplane a smoker may be nervous and fidgety, and have nothing to do but think about how much he or she would like to light up.

- The relatively careful allocation of seats and supervision by flight attendants aboard aircraft make separation into smoking and no-smoking

sections a feasible alternative to a total ban.

- The duration of a flight is not as certain as the duration of a movie. If a flight unexpectedly exceeded the 1- or 2-hour period for the ban, airlines might be expected to rearrange passengers so some could smoke.

- The air in modern aircraft is filtered and recirculated more rapidly than it is in many public buildings.

Proponents of the smoking ban also pointed to total smoking bans on some small aircraft and on Muse Air, as well as to the ban on cigars and pipes on most airlines as evidence that a short-flight smoking ban was feasible.

In the Board's view, these are not comparable. To the extent that their smoke is not inhaled, cigars and pipes are less addictive than cigarettes, so it is easier for a cigar and pipe smoker to refrain, especially when the cigarette option is available. The proponents of the short-flight smoking ban recognized that. ASH comments, p. 67 ("cigar and pipe smokers—unlike cigarette smokers—rarely have the strong craving which requires them to smoke regularly during the day.").

Smoking bans that are airline-wide or based on aircraft size are also not comparable, as they do not present the problems of a ban based on flight length. They are easy for airlines to administer and for passengers to understand. A short-flight smoking ban, in contrast, would in many situations create administrative headaches for carriers and appear arbitrary or illogical to passengers.

**Administrative problems.** The difficulties arise because not all short flights are turnaround operations. Many are one segment of a two- or three-stop flight, and the other segments may be longer flights outside the time limit of a ban. Passengers boarding or deplaning at one of the intermediate stops will probably be unaware that their flight is only one segment of a multi-segment flight.

There are several ways that the airline could handle this if the Board were to adopt the short-flight smoking ban, but all are likely to result in confusion or administrative problems. The Aviation Consumer Action Project (ACAP) suggested that the airline could place smokers in a smoking section for the short-flight segment but prohibit smoking until the long-flight segment. For a smoker who was traveling on only the short-flight segment, this arrangement would make no sense, and would likely prompt anger and defiance.

Smokers might well feel that when placed in a smoking section, they have

the right to smoke. An explanation that the flight is continuing on to a longer segment would mean little to those who were planning to disembark before then.

Alternatively, the airline could do without separate sections on the short-flight segment and then rearrange the remaining passengers for the longer segment. This would surely be an annoyance for passengers who were already settled in, and a burden on the airlines.

Or, the Board could require airlines to simply ban smoking on any flight, regardless of length, if it included a short-flight segment. This, however, goes against the primary rationale for the proposed ban, which is that smokers can easily refrain for a short time but not for a longer flight.

Another option would be to exempt short-flight segments of multi-segment flights from the ban. But this would mean that flights on the same route, with the same flight duration, and possibly of the same airline with the same aircraft type would be subject to different smoking rules, resulting in further confusion and administrative problems.

Proponents of the smoking ban pointed out that many aspects of airline service, such as fares or whether there will be meal service, are confusing or may not be known to passengers until they are on board the aircraft. But none of those service features are as emotionally charged as smoking. It is unlikely that anyone would cause an incident aboard an aircraft because the airline failed to provide an expected meal.

The possibility of defiance of a short-flight smoking ban, however, is quite real. Compliance problems under the Board's simple and less restrictive rule have been widely reported. They could get worse if smoking were banned.

The danger of such defiance is not merely hypothetical. Airlines have been known to land prematurely to deal with such problems. The safety hazards of smoking in the aircraft lavatories are well documented. There was the Varig fire mentioned above. More recently, the New York Times (March 7, 1984) reported an incident in China, where in-flight smoking is banned, where an aircraft caught fire because a passenger was smoking in the lavatory. Many died in that blaze.

Both the airlines and the airline pilots were concerned about this danger and therefore urged the Board not to adopt the short-flight smoking ban. Individual flight attendants tended to support the ban but some of their union leadership was more hesitant, fearing the dangers of defiance. For example, one from

Chicago, while passing along the concerns of her membership about smoking, let it be known that she was concerned that "many smokers will smoke whether you allow them to or not" \* \* \* and that this "could create further safety hazards" \* \* \*.

The Department of Transportation (DOT) was also concerned. Although it was sympathetic to a short-flight smoking ban, it concluded its comments on this issue by stating:

There is a possibility that the Board's smoking ban might actually increase the chance of fire if smokers, trying to avoid the ban, smoke in the lavatory. Before adopting the proposed rule, we urge the Board to consider the possibility of such actions.

DOT did offer a way to ban smoking on short flights without the safety hazard. They suggested coordinating the short-flight smoking ban with the FAA's rulemaking to require smoke detectors in aircraft lavatories. The problem with this is that the FAA is still in the early stages of this rulemaking. The smoke detector requirement will not take effect before the Board, and possibly the statutory authority to regulate smoking, sunsets on January 1, 1985. Even with smoke detectors, there might still be a safety hazard because passengers could disconnect them.

*Competitive problems.* A further problem with the short-flight smoking ban is its possible anti-competitive effects. The Air Transport Association (ATA) cited several examples where flight times of one carrier would be shorter than those of another on the same route as a result of the type of aircraft utilized, the particular airport being served, the season of the year, or the direction of the flight. This would result in one carrier being subject to more restrictive smoking rules than its competitor.

On short routes to Canada and the Caribbean, U.S. carriers would be subject to much more restrictive smoking rules than their foreign competitors if the short-flight smoking ban were adopted. Foreign airlines are not covered by Board smoking rules.

With a 1- or 2-hour smoking ban, airlines with connecting flights might find both segments of the route governed by the smoking ban. But another airline, with nonstop service between the same points might be able to avoid the ban and offer both smoking and no-smoking sections on the route.

For example, Air One, a new airline, testified that it had been operating a flight between St. Louis and Washington that was not attracting a sufficient number of passengers. In order to maintain that flight, Air One added a

connecting flight between Dallas/Fort Worth and St. Louis. It testified that both the Dallas/Fort Worth-St. Louis flight and the St. Louis-Washington flight would come within the 2-hour smoking ban, but that passengers flying on Air One from Dallas through to Washington would actually be on the plane for more than 4 hours. Because both segments of the route are 2 hours or less, Air One claimed that it would be severely handicapped by the smoking ban and would experience difficulty in competing in the Dallas/Ft. Worth-Washington market because of the restriction.

There are many airlines like Air One that are in similar situations. While no-smoking restrictions are important, the government should not impose restrictions on airlines that hamper their growth or ability to compete. A smoking ban based on flight length would create these sorts of problems.

*Conclusion.* For these reasons, the short flight smoking ban is not adopted. While there are many people on both sides of the issues, some satisfied and some dissatisfied, in the Board's view the current system of separating smokers from nonsmokers on 30-seat and larger aircraft works reasonably well and should be retained.

#### Small Aircraft

In contrast to the short-flight proposal, a ban on smoking on small aircraft can be accomplished without major problems or passenger confusion.

The rationale for a small aircraft smoking ban is much the same as that for short flights—that smokers can refrain for the short time that they are on board. Yet, unlike a short-flight smoking ban, a ban based on aircraft size would be simple to apply and for passengers to understand. Passengers, including smokers, are likely to agree that separate seating arrangements for smokers and nonsmokers are less likely to be effective on small aircraft than on large ones. Nonsmokers are therefore more likely to experience discomfort on small aircraft.

Protection of nonsmokers aboard small aircraft becomes increasingly important as these small carriers assume a larger role in the national air transportation system as a result of deregulation.

The feasibility of the small aircraft smoking ban is demonstrated by the fact that many small carriers have voluntarily adopted it, apparently with success. A survey of carriers last year revealed that more than half banned smoking on their 30-seat and smaller aircraft.



The prevalence and success of the voluntary small aircraft smoking ban stands in contrast to the status of the short flight proposal. Only one carrier (SAS) has experimented with a smoking ban based solely on flight length, and it abandoned that experiment after only a few weeks.

Those who opposed a smoking ban on small aircraft have argued that ventilation on the small aircraft is just as good as on the larger ones. This was contested by DOT and other proponents of the smoking ban. They claimed that ventilation systems on small aircraft were less sophisticated than those on the larger planes. Thus, at the very least, the capability of small aircraft ventilation systems is open to question.

Even assuming, however, that their ventilation systems are equal to those on large aircraft, the fact remains that in the small confines of commuter-type aircraft, it is just more difficult to separate nonsmokers from the smokers and their smoke. The problems of smoking on small aircraft are well illustrated by the statement of the Piper Aircraft Corporation, a manufacturer of small aircraft—"Ventilation systems on small aircraft are efficient, ours changes the air every minute or so but in airplanes our size, it is physically impossible to attain any significant separation between smokers and nonsmokers."

Those passengers who are especially bothered by tobacco smoke can, on a larger aircraft, usually get a seat far from the smoking section. On a small aircraft, however, no matter where sensitive passengers sit, they are bound to be near the smoke. If the smoke drifts at all, they are sure to be adversely affected by it.

Opponents of this ban also argued that it would cause small carriers to lose passengers. The Board doubts that this would be a problem. If it were, there would not be so many small carriers now banning smoking on their aircraft voluntarily. Many small carriers in fact supported the Board's action. Wings West airlines pointed out that most people can do without tobacco for the short duration of a commuter flight. Atlantic Air favored a smoking ban on small aircraft because, in its view, the size of the aircraft cabin lends itself to a single environment whether or not there is segregation of smokers and nonsmokers. Newair also cited aircraft size as the reason to ban smoking. It stated that the limited space of small aircraft accelerates the drifting of smoke. It also felt that smokers would not be upset by refraining from smoking for the short time that small aircraft are in flight.

In short, a smoking ban on small aircraft is feasible, and would provide important protections for nonsmokers, particularly especially sensitive ones, without seriously burdening smokers or airlines. The Board has therefore decided that it should be adopted. The only question that remains is where the line should be drawn—at 30 seats or at 60 seats.

Although any line drawing contains a certain element of arbitrariness, the proper place to draw it here appears to be at 30 seats. It is at that point that planes become so small as to make segregation largely ineffective. Also, many of the smaller aircraft lack flight attendants to monitor the separation and have open cockpits so that pilots could be adversely affected by the smoke.

There are significant differences in cabin size between over-30 and under-30 seat aircraft that justify different treatment of the two groups. Air Florida noted that its 50-seat aircraft are quite unlike the smaller unpressurized aircraft. It stated that they have a spacious jet-like look. Republic explained that it had modified the ventilation systems on its Convair 580's so that the air is exchanged more frequently and rapidly in these aircraft than in its larger ones.

The difference between the over- and under-30 seat aircraft is illustrated by comparing some of the aircraft in each group. A comparison of the Beech C99 (15 seats), Cessna 402C (9 seats), Embraer 110P1 (18 seats), Metro III (19 seats), Nomad N24 (16 seats), and G111 Albatross (28 seats), with the Saab Fairchild 340 (34 seats), Shorts 360 (36 seats), Gulfstream 1C (37 seats), Dash 7 (50 seats), and Fokker F27 (50 seats) show that the smaller aircraft have an average cabin volume of 550.5 cu. ft. while the larger aircraft were more than three times larger at 1676.6 cu. ft. The largest of this group of under-30-seat aircraft still had only two-thirds of the volume of the smallest in the over-30-seat group.

Furthermore, the Board has traditionally drawn its regulatory line at 30, rather than 60, seats where smoking is concerned. It is true that for other Board consumer rules such as those concerning passenger bumping from oversold flights (14 CFR Part 250) and airline liability for lost luggage (14 CFR Part 254) the line is drawn at 60 seats. Those rules differ, however, from the one adopted here in two respects. The problem this rule addresses, inadequate separation of smokers and nonsmokers, increases as the aircraft gets smaller. This is not true in the case of lost luggage or bumping.

Secondly, the lost luggage and bumping rules, unlike the smoking rule, require airlines to pay money to passengers. They therefore may have a significant economic impact if applied to small carriers, in contravention of the Regulatory Flexibility Act, Pub. L. 96-354. The economic impact of the Board's smoking rule, in contrast, is slight. No money is involved in the implementation of the rule. Indeed, Newair suggested that segregating smokers and nonsmokers is apt to be more burdensome than the simple ban adopted here.

In this connection, it is again worth noting that most operators of less than 30-seat aircraft ban smoking on those aircraft while almost all operators of 30- to 60-seat aircraft allow it. This is further evidence that a ban is necessary and acceptable to passengers on the smaller aircraft but not on the larger ones.

The argument that different smoking rules based on aircraft size would cause problems for mixed fleet operators is without merit. The survey of last year referred to above revealed that some carriers with mixed fleets already have different smoking policies governing their larger and smaller aircraft. If some consider this to be a burden, they could resolve the difference by banning smoking on all their aircraft. In any event, it is doubtful that there would be such problems because differing smoking policies based on aircraft size would be simple for carrier employees to apply and easy for passengers to understand.

Midway Airlines suggested that the small aircraft smoking ban should be phrased so that it applies to aircraft designed to accommodate a maximum of 30 seats, rather than to aircraft that happen to have that many seats. Midway pointed out that under a strict reading of the Board's proposal, the smoking ban would apply to large aircraft with few seats, such as an ultra-first-class service, but not on small aircraft with unusually dense seating. In Midway's view, this would be an illogical result.

The Board agrees. The rules is therefore revised so that application of the smoking ban will depend on the number of seats that the aircraft is designed for rather than the number of seats it actually may have. This will prevent carriers from avoiding the ban by adding seats.

After the Board had discussed the smoking issue at its March 19, 1984 public meeting and announced its tentative decision to adopt the proposal to ban smoking on aircraft with 30 seats or less, Embraer Aircraft Corporation,

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the Regional Airline Association (RAA), and several small airlines filed additional comments. The RAA and the small airlines argued that their 30-seat aircraft, the Shorts 330, lends itself to smoking/no-smoking sections as well as the slightly larger ones that would not be subject to the ban. They claimed that the 30-seat Shorts bears a strong resemblance to its slightly larger counterpart, the 36-seat shorts SD-360. They stated that the two are used interchangeably and they were concerned that different smoking rules for each would cause passenger confusion.

They also cited competitive problems. They stated that the 30-seat aircraft frequently competes with the slightly larger aircraft that could still offer passengers a choice of smoking accommodations.

Embraer, a Brazilian manufacturer, was concerned with the impact of the ban on the sales of its new 30-seat EMB-120 Brasilia. It claimed that there were five medium-size commuter aircraft types competing for sales in the U.S. market. Only the EMB-120 Brasilia would be affected by the smoking ban. Embraer argued that this would be discrimination against it.

According to Embraer, this discrimination is not in U.S. interests because many of the components of their aircraft are made by U.S. companies and because their aircraft sales generate dollars to pay back loans to American banks.

They asked that the smoking ban apply only to aircraft with less than 30 seats, and not to those with precisely 30 seats. They claimed that this would not create additional controversies for the Board because there are almost no aircraft in the 20 to 29-seat range.

Board rules prohibit the filing of "pleadings, or other documents based on the comments of Board members or staff at open discussions." 14 CFR 310b.9(c). ASH alleged that this provision barred the above filings but waived this procedural objection and instead filed comments responding to them on the merits.

It urged the Board not to change its instructions because "the interior area of the 30-seat aircraft is simply too small to permit a healthful and comfortable separation between smokers and nonsmokers."

It further argued that the smoking ban should be increased to include aircraft with 50 seats or less. It considered these aircraft to also be too small to effectively segregate smokers and nonsmokers. RAA filed a response challenging ASH's position.

Section 310b.9(c) of the Board's rules does not prevent a person from filing supplemental comments in an attempt to change a Board decision as long as those comments do not rely on discussion at the Board meeting as the basis for its argument. The Board does not view the filings of the airlines or ASH to be improperly relying on Board comments. Their pleadings are therefore not barred by section 310b.9(c).

Given this and ASH's waiver of any procedural objection that it might have had, the Board has decided to reconsider its decision regarding 30-seat aircraft and grant the airlines' request. The smoking ban adopted here will apply only to aircraft with less than 30 seats. Aircraft with precisely 30 seats will follow the same rules as the larger carriers.

The above figures on cabin volume, which are generally available, make clear that there is a significant difference in cabin size between the over and under 30-seat aircraft. Those with precisely 30 seats seem closer to the larger aircraft than the smaller ones. For example, the 30-seat Shorts has a cabin volume of 1230 cu. ft., which is more than double that of most of the smaller aircraft and even more than the 34-seat Saab-Fairchild 340.

The Board is also persuaded by the carrier arguments of passenger confusion and anti-competitive effects of a smoking ban on 30-seat aircraft. Those were two of the primary reasons that the Board decided not to ban smoking on short flights. They support a similar result here.

The Board is not increasing the cut-off for the ban to 50 seats as ASH suggested. That would create a new set of competitive problems because there are many 50-seat aircraft operating in markets where there are small jets that could still offer passengers a choice. That problem does not arise when the ban is limited to aircraft with less than 30 seats because there are so few aircraft in the 20- to 29-seat range.

#### Cigars and Pipes

The least controversial of the Board's proposals was the one to ban cigars and pipes. This is probably due to the fact that most airlines have already adopted such a ban on their own initiative.

It is clear that many passengers find cigar and pipe smoke significantly more irritating than cigarette smoke. A survey of frequent flyers by the Airline Passenger Association revealed that, although most opposed a ban on smoking generally, they favored a ban on cigar and pipe smoking. The fact that most airlines have chosen to ban cigars and pipes but not cigarettes is further

evidence that the cigar and pipe ban is feasible and acceptable to passengers. Studies have been cited in the past indicating that cigars and pipes produce far more pollutants than do cigarettes. See for example, EDR-306, ft. 9 and 351 ICC 883, 917 (1978).

The letters to the Board indicate that cigar and pipe smoke is more offensive to many passengers than cigarettes. For example, one individual wrote in reference to cigars and pipes that the "noxious and disgusting stink is totally intolerable." Letter of Mary M. Meisner of Pittsburgh, Pa., August 15, 1983. Another stated that since cigars and pipes "emit such a vile stench, merely segregating them to a special smoking area is insufficient protection for the non-smoking passengers on the plane." Letter of Roy R. Torcaso of Wheaton, Md., September 7, 1983.

The Board has therefore decided to adopt the proposed ban on cigar and pipe smoking.

The primary argument against such a ban was that it would place U.S. carriers at a competitive disadvantage with respect to foreign air carriers that still allowed cigar and pipe smoking.

It is doubtful, however, that traffic would be diverted to foreign air carriers by a cigar and pipe ban on U.S. carriers. Unlike cigarette smokers, cigar and pipe smokers tend to be less dependent. It should be no problem for them to abstain, especially when the cigarette option is available. Most are likely to be more concerned about scheduling or price than on whether they can puff on a cigar or pipe. Indeed, given the strong adverse reaction of many people to cigars and pipes, it would seem equally likely that U.S. carriers would gain as lose business from a ban on cigar and pipe smoking.

#### Especially Sensitive Persons

There is no doubt that providing special protections for passengers who are especially sensitive to smoke would be desirable. The problem is that there does not appear to be any satisfactory way to protect especially sensitive persons aboard aircraft.

In EDR-461 and EDR-461B, the Board offered two proposals. It proposed to require airlines to provide the seat, among those still available, that is farthest removed from all smoking sections, for any person that presented written medical evidence of a substantial susceptibility to tobacco smoke.

The commenters described several problems with this proposal. For instance, they contended that especially sensitive is not a recognized medical



category, so passengers could claim the privilege of special seating merely by getting a friendly doctor to write them a note. More importantly, it is unclear where especially sensitive persons should be seated in the aircraft. ASH suggested placing them in the middle of the no-smoking section. But in small or medium-sized aircraft, that may be of little value. Placing them in the front of the no-smoking section might be better, unless that left them immediately behind the first-class smoking section.

In short, it is unclear where especially sensitive persons should be seated even if it could be objectively determined who they are.

A further problem with the Board's proposal is that, upon close examination, it becomes clear that it provides little or no additional protection for especially sensitive persons. Many commenters noted that nonsmokers can already get the available seat farthest removed from the smoking section simply by requesting it. The Board's proposal, in the form proposed, would therefore add nothing.

If the Board were to require that other passengers be moved about in order to accommodate an especially sensitive passenger, the system would become unduly burdensome for airlines. It would require a second passenger reshuffling as airlines are already required to move people around if more nonsmokers show up than the designated no-smoking section can accommodate. Such a reshuffling seems particularly senseless here since, as explained above, it is uncertain whether the seat eventually assigned would be any more free of smoke.

Some airlines suggested that they could hold a reasonable number of seats for especially sensitive persons in the area of the plane they consider to be free of smoke. Oral argument transcript, p. 188. This was not an option that was proposed but the Board would strongly urge airlines to do this if it would in fact be feasible.

The Board's second proposal under the especially-sensitive heading was to ban smoking when a passenger experiences illness caused by smoking. It was strongly opposed by the airlines. They feared that such a rule could turn attention from the critical need of the ill passenger to the side question of whether smoking caused the illness or should be banned. They also noted that the cabin crew is unlikely to be able to determine the underlying cause of the illness, so needless disputes will arise. Others pointed out that if a ban on smoking was really needed in a given situation, airlines would surely respond in a humane fashion. Nonsmokers

tended to favor this proposal because they apparently feared that some airlines would not respond properly.

The Board concludes that this second proposal provides little or no additional protection for sensitive nonsmokers, and has the potential for creating even more problems for the cabin crew.

ASH argued that persons who are especially sensitive to tobacco smoke are handicapped persons and therefore entitled to special protections, or a short-flight smoking ban, under section 504 of the Rehabilitation Act of 1973, 29 U.S.C. 794. That Act prohibits discrimination against qualified handicapped persons in programs and activities that receive Federal financial assistance.

It is unclear whether especially sensitive persons are handicapped within the meaning of the Rehabilitation Act. Although one court decided that they were, *Vickers v. Veterans Admin.*, 549 F. Supp. 85 (W.D. Wash. 1982), another decided that they were not, *GASP v. Mecklenburg County*, 42 N.C. App. 225, 256 S.E. 2d 477 (1979).

Even assuming that especially sensitive persons should be considered handicapped, no additional rules on smoking would be necessary. The Rehabilitation Act applies only to recipients of Federal financial assistance, that is recipients of subsidy under section 419 of the Act. Most of those receiving these subsidies are the small commuter carriers where smoking is now banned in any event.

Even on carriers where smoking is allowed, the required separate seating is sufficient to meet the nondiscrimination obligation of the Rehabilitation Act. In the *Vickers* case, even though the especially sensitive person was found to be handicapped, the court decided that the VA had not discriminated against him in part because it had provided him with a separate no-smoking area.

In addition, it is well-settled that the Rehabilitation Act would not require an airline to modify its service if that would impose undue financial or administrative burdens on it, *Southeastern Community College v. Davis*, 442 U.S. 397 (1979), *American Public Transit Association v. Lewis*, 855 F.2d 1272 (1981), SPR-189, 47 FR 25936, June 18, 1982. As explained above, special protections for especially sensitive persons or a short-flight smoking ban would, if adopted, have imposed such burdens on the airlines. They are therefore not adopted.

Until it is possible to mandate specific protections for especially sensitive persons that are effective, practical, and not unduly burdensome, no special provisions should be codified in the

Board's rules. Nevertheless, the Board is aware that some people are adversely affected by cigarette smoke. We believe airlines will take the necessary and proper measures to accommodate the needs of these passengers.

#### Ventilation

The Board's current rule on ventilation prohibits "the smoking of tobacco whenever the ventilation system is not fully functioning." 14 CFR 252.2a. This is generally referred to as the fully functioning ventilation standard. A "fully functioning" ventilation system is defined in the rule as one where "all parts are in working order and operating at the capacity designed for normal service."

The fully functioning ventilation standard was one of the provisions that had been added to the rule in 1979 (ER-1091), eliminated in 1981 (ER-1245), and then reinstated by order of the court in 1983 (ER-1245A). During the time that it was in effect, there was some dispute as to whether it required all available aircraft ventilation units to be operating full blast at all times. ASH and other groups representing nonsmokers contended that it did, while airlines did not view it that way.

The Board itself did not resolve the question when reinstating the provision. It did state, however, that "a rule that prevents airlines from adjusting their ventilation to reflect the actual needs of a particular flight is unduly restrictive." EDR-461, p.11, 48 FR, at 24921. Since the fully functioning standard could be construed as preventing such adjustments, the Board proposed to replace it in EDR-461.

The Board's primary proposal was to prohibit smoking "whenever the ventilation system is not producing adequate ventilation for the conditions that exist aboard the aircraft." This has been referred to as the "adequate" ventilation standard.

The Board also offered an alternate proposal. Under this alternate proposal, smoking would be banned "whenever the ventilation system is turned off." It was explained that this was directed toward banning smoking when the aircraft was on the ground awaiting takeoff. EDR-461, p. 11.

Nonsmokers and flight attendants favored retention of the fully functioning standard. They claimed that cabin ventilation is generally inadequate and that airlines are reducing it further to save fuel. They viewed the fully functioning standard as clear and precise, and providing them with the most protection from smoke.

Airlines and tobacco interests opposed this standard. They cited testimony of the FAA and other studies as proof that cabin air quality is good and that further regulation is not needed. They urged the Board to defer to the FAA in this area because that agency has the requisite technical expertise. Some also expressed concern that any rules on ventilation would prompt passengers to second-guess operational decisions that properly belong to airline management.

The airlines and DOT favored the Board's proposals. In their view, the Board's proposals recognized the need to rely on the crew's good judgment to maintain a safe and comfortable environment.

Nonsmokers and flight attendants did not approve of the Board's proposals. They considered "adequate" to be too vague a term. ASH stated that it was illegally vague. Neither proposal, in their view, would provide sufficient protection for the health and comfort of nonsmokers. They pointed out that the subjective decision as to how much ventilation to provide will rest with the captain, who is not in the passenger cabin and who may be under pressure to reduce ventilation to improve fuel economy. They argued that the goal of fuel efficiency could be achieved by combining a reduction in ventilation with a ban on smoking. They also suggested that the cost of the extra ventilation be recouped by charging extra for the privilege of smoking during flight.

Much of the debate about the ventilation standard centered on how many air pacs must be operating and on how much fresh air is needed per passenger. Airlines claimed that aircraft air is exchanged 15 to 20 times per hour, that passengers receive 15 to 25 cubic feet of air per minute, and that these figures exceed that which is typical of nonaviation environments. They cited the "guidelines" of the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), information from the Aerospace Industries Association, and Congressional testimony of the FAA as proof of this. United Air Lines cited studies by Boeing and Lufthansa German Airlines as proof that no further regulation of ventilation is necessary.

Nonsmoker groups countered that the cabin ventilation figures relied on by the airlines were only "design values," and not the rates that occur during actual operation. They considered airline claims of many air exchanges per hour to be misleading because, they claimed, the air is recirculated air and thus already polluted with smoke. They

further claimed that the aircraft recirculation systems do not filter out many of the gases in cigarette smoke.

The airlines disagreed. They stated that many aircraft types do not recirculate air at all, so that all the air exchanged is fresh air. Those that do recirculate, according to United, limit the recirculated air to 60% of the total air. Airlines contended that aircraft recirculation systems filter out odors and cigarette smoke.

Even if the airline claims were accurate, the nonsmokers contended, higher ventilation rates are needed in places where smoking is permitted. The American Lung Association (ALA) stated that passengers need 40 to 60 cubic feet of fresh air per minute.

Again, the airlines disagreed. ATA questioned whether there is any scientific support for the claim that air levels of 40 to 60 cubic feet per minute (cfm) are needed for good health.

With respect to air pacs, nonsmokers and some flight attendants reemphasized their concerns about the air quality aboard aircraft, which they viewed as uncomfortable if not unhealthy. They insisted that this problem is exacerbated by the airline policy of turning off one air pac to save fuel.

The airlines, however, stated that the fuel savings from turning off one pac were not significant. They contended that operation of the third air pac was simply not necessary in all cases. They claimed that aircraft ventilation systems are designed with a measure of redundancy so that, at less than 100% loads, all air pacs need not be operating to ensure passenger comfort.

ASH objected to any rule that gave airlines discretion to turn off one air pac in any situation. It stated that giving airlines such discretion would, in effect, be allowing equipment manufacturers to set ventilation rates. They feared that airlines would be able to evade the fully functioning requirement by obtaining instructions from the aircraft manufacturer that only two air pacs were necessary in a particular situation. In ASH's view, this would constitute an unlawful delegation of agency rulemaking authority to private parties.

To prevent airlines from exercising this sort of discretion, ASH urged the Board to delete the reference to "normal service" in that part of the rule that defines fully functioning. It considered this at odds with the explanatory statement accompanying the adoption of the fully functioning standard (ER-1091). There the Board has stated that when ventilation is cut back for any reason, smoking should be prohibited. ASH viewed this statement as more

accurately representing the meaning of the fully functioning standard.

ASH and many nonsmokers also asked that smoking be banned when the aircraft is on the ground awaiting takeoff. They stated that at such times ventilation is inadequate or even nonexistent.

Given the airlines' reliance on their ventilation system as the basis for allowing any smoking, the Board again concludes that that system must be fully functioning if smoking is to be permitted. The adequate ventilation proposal is simply too vague to provide any real basis for regulating in this area.

The Board is also adopting the alternative proposal to ban smoking when the ventilation system is turned off, but with some modifications. As noted above, this alternative proposal was directed toward the problem of smoking when flights are delayed on the ground.

This proposal received widespread support. ATA stated that, if adopted, it could be incorporated into the captain's manual, thereby fostering compliance. Nonsmokers also supported it but were concerned that it did not go far enough. They pointed out that when the aircraft is on the ground, the engines are idling and that, as a result, the ventilation system is operating at a very low level, if at all. They urged a total ban on smoking when the aircraft is on the ground awaiting takeoff.

The Board has decided to adopt the proposal to ban smoking when the aircraft is on the ground. The fully-functioning standard will apply only when the aircraft is in the air.

The smoking ban on the ground will apply even if the ventilation system is on. Airlines did not rebut the nonsmokers' arguments about the inadequacy of aircraft ventilation when the aircraft is on the ground. The Board concludes that in such situations the ventilation system is operating at a level that is too low to provide adequately for nonsmokers' comfort. The Board is adding a separate paragraph codifying this particular smoking ban (§ 252.3(b)). In light of the comments, it views such a ban as justifiable under the fully functioning standard as well.

This smoking ban will provide important protections for nonsmokers without imposing a serious additional burden on smokers. The no-smoking sign is now typically on preceding takeoff in any event. This will now be mandatory. The change in the rule adopted from that which was proposed should not make compliance any more difficult for airlines or their pilots. This

smoking ban is simple and straightforward.

The Board is also by this rule resolving the question raised by commenters concerning the meaning of "fully functioning." It is true that the Board did make a statement in ER-1091, at p. 18, that implied that the fully functioning standard requires airlines to operate all pacs at all times when smoking is allowed. But this statement was made without the benefit of notice and comment, and does not have decisive weight here in light of the information we acquired during this proceeding.

The Board is inclined to accept the views of the airlines and aircraft manufacturers about the capabilities of their ventilation systems. These groups state that all pacs need not be operating at passenger loads of less than 100%, to provide design ventilation levels. Aircraft systems are constructed with a significant amount of redundancy.

The Board concludes that, based on the information now available to it, requiring all air pacs to be operating at a maximum capacity at all times that smoking is allowed would go too far. Such a rule may impose substantial fuel/cost penalties at a time when airlines are going to great lengths to save fuel and other costs.

The Board does not decline to adopt such a rule merely out of a concern for carrier costs or fuel savings. Specifying how aircraft systems should be operated goes beyond the Board's traditional regulatory function and may encroach on the FAA's jurisdiction to regulate the operation of aircraft.

Furthermore, if the Board were to require airlines to operate all air pacs when smoking was allowed, it would create a perverse incentive for airlines to reduce, or have aircraft manufacturers reduce, overall ventilation capacity. This would not benefit nonsmokers.

But the Board does agree with nonsmokers that airlines cannot be allowed absolute discretion over their ventilation systems when passengers are smoking. Since the rule's current definition of fully functioning ("in working order and operating at the capacity designed for normal service") has been interpreted by some as granting such discretion, the Board is replacing it. As revised, the rule makes it clear that fully functioning means operating so as to provide the level and quality of ventilation specified and designed by the manufacturer for the number of persons currently in the passenger compartment.

Although there are some differences among aircraft types, the comments

indicate that aircraft ventilation is now "specified and designed" by the manufacturers to provide 15 to 25 cubic feet of air per person per minute.<sup>1</sup> The Board declines at this time to attempt to set an absolute quantitative limit with respect to ventilation rates or other aspects of air quality. It assumes, however, in light of the intense public interest in the matter, that airlines and manufacturers will not weaken the current design standards, and that if they were to do so, further regulatory action might be required.

The Board recognizes that some feel that even higher rates are needed where smoking is permitted. But that would probably require technical modifications in aircraft that are beyond the scope of this proceeding.

The Board recognizes that flight attendants, because of longer exposure, are in a different position from passengers with respect to passive smoking. Their working conditions, however, are the direct concern of agencies other than the CAB. Congress is now considering the question of aircraft cabin quality in S. 197, which would fund a major study on the subject.

The Board does not consider its approach to the ventilation issue to constitute an improper delegation to private parties. The law in this area "has not crystallized any consistent principles," Davis, *Administrative Law Treatise*, § 3:12. In the Board's view, an improper delegation would only exist in this situation if aircraft manufacturers or nonsmokers were allowed to impose a specific ventilation level on carriers, for "one person may not be entrusted with the power to regulate the business of another, . . ." *Carter v. Carter Coal Co.*, 298 U.S. 238, 311 (1936). Here the Board is merely relying on information from the private parties in order to establish a rule.

The Board also considers its approach to the ventilation issue to be consistent with that of the FAA, the agency with the greater technical expertise in this area. FAA officials have testified that, in certain circumstances, operation of only one air pac would be sufficient, S. Rep. No. 98-54, 98th Cong., 1st Sess. 15 (1983). They further testified that there is no evidence to indicate that permitting airlines "to dispatch with a ventilation pac inoperative or shut down has

<sup>1</sup> There was a wide range of comments on this issue. As noted above, the ALA claimed that 80 cubic feet per person per minute was necessary. Others cited evidence that rates as low as 5 cubic feet per minute per passenger would be "adequate" (*ASHRAE Handbook and Product Directory*, 1978 Applications, p. 9.2.) But most commenters seemed to agree that 15 to 25 cfm per person were what aircraft were typically designed for.

created a ventilation problem," *id.*, p. 12. They pointed out that there is much in the aircraft that is designed "with redundant systems, systems that exceed what is required by . . . passenger comfort" and that "that is true in the ventilation systems." *id.*, p. 14.

#### Unreasonable Burden

The "unreasonably burdened," sandwiching, or drifting smoke rule, as it is variously known, was first adopted by the Board in 1979 (ER-1091). Originally, the Board had proposed that sandwiching, the placement of a non-smoking section between two smoking sections, be prohibited (EDR-306). This, however, was not adopted by ER-1091. Instead, the Board, in ER-1091, adopted a lesser requirement that airlines ensure that nonsmokers are not "unreasonably burdened" if they are sandwiched between two smoking sections. This requirement was codified in § 252.2(e), now § 252.2(a)(4), of the Board's rule.

In addition to the new § 252.2(e), ER-1091 also revised the introductory paragraph of § 252.2. As revised, the term "unreasonably burdened" appeared there as well. It was explained in ER-1091 that the term was meant "to place a special burden on carriers who use" a sandwiching configuration. The explanation did not explain why the term appeared twice in the rule, but there was no indication that any other practice beside sandwiching was to be affected by it.

Nevertheless, nonsmoking parties have argued that the term also prohibits such practices as longitudinal separation of smokers and nonsmokers, smoking by crew members, and drifting smoke. The Board itself has not accepted their position on these issues, viewing the introductory paragraph as stating the goal of the requirements that followed in § 252.2(a)(1)-(a)(4) rather than being a requirement itself. ER-1245A, p.3.

The Board has decided to keep the "unreasonably burdened" language in § 252.2(a)(4) where it explicitly pertains to sandwiching, but delete it from the introductory paragraph of § 252.2 where its purpose is unclear. The term is vague in the introductory paragraph. However, in § 252.2(a)(4) it can be viewed as creating a presumption against sandwiching, a practice that in the past generated many complaints.

In the introductory paragraph, however, the term is merely redundant. If there are additional problems that the Board should deal with, it would be better to institute a new rulemaking rather than to rely on a vague provision

that was intended to deal with sandwiching only.

The Board does not agree that this term, even if retained, would have any bearing on the general problem of drifting smoke. In the Board's view, the current system of separating smokers from nonsmokers works reasonably well in protecting nonsmokers from drifting smoke, especially in light of the frequent air exchanges of which the aircraft is capable. Retaining this term in the introductory paragraph would produce no further benefits. Arguments about drifting smoke are therefore no basis for keeping this term in the introductory paragraph of § 252.2.

It is also unnecessary to keep this term to deal with the problem of cabin crew smoking in the no-smoking section. In the Board's view, that is already prohibited by Part 252.

**Cabin crew smoking.** Section § 252.2(a)(1) requires airlines to provide a "no-smoking area for each class of service \* \* \*". It should be obvious that the required no-smoking area cannot have smokers smoking in it.

Furthermore, under § 252.3, **Enforcement**, (now § 252.6), each air carrier is obligated to "take such action as is necessary to ensure that smoking is not permitted in no-smoking sections \* \* \*". No distinction is made between passengers and crew. It cannot be said that this provision means that the no-smoking rule is to be enforced only with respect to passengers. The Board understands it to mean that this rule must be enforced for all aboard the aircraft, including the crew.

To make this clear, the phrase "by passengers or crew" is inserted so that the section now reads "Each air carrier shall take such action as is necessary to ensure that smoking by passengers or crew is not permitted in the no-smoking sections \* \* \*". Since this amendment is interpretative in nature, the Board finds that notice and public procedure are unnecessary. Any staff interpretations of Part 252 that are inconsistent with the above are overruled.

It is not the intention of this interpretation to entirely prevent those crew members who wish to smoke from doing so. But the airlines cannot carve out niches within or adjacent to the areas where nonsmokers are assigned, such as a jump seat or the galley area, and declare that they are not part of the non-smoking area. Crew members may still smoke in the designated smoking area.

Also, if an area adjacent to the no-smoking section is enclosed and separate from that section, a crew member could smoke there. Thus,

nothing in this interpretation would affect the captain's ability to permit smoking in the cockpit when the door to the passenger area is closed. DOT has informed us that a FAA study found that banning smoking in the flight deck area could jeopardize safety by causing "tension, depression, irritability, difficulty in concentration \* \* \* and impaired performance", Dille and Linder, "The Effects of Tobacco on Aviation Safety" 6 (1980).

On the other hand, a mere curtain, which is all that usually stands between the galley and the rest of the no-smoking area, would not be sufficient. See flight attendant testimony at Transcript p. 150.

#### Additional Suggestions

Many more requirements, not proposed by the Board, were suggested by commenters. These included separate flights for smokers and nonsmokers, separate sections in airport waiting area, partitions between smoking and no-smoking sections, and smoke detectors in the aircraft lavatories.

There are substantive reasons for not adopting most of these proposals.

**Separate flights.** Separate smoking and no-smoking flights would be economically impractical, except on the most heavily traveled routes. Even for those, such a requirement would be sure to create problems if a nonsmoker sought a flight at the time the smoking flight was departing or when the no-smoking flight was full. In addition, a Board requirement that there be separate flights for smokers and nonsmokers at about the same time might violate the prohibition in section 402(e)(4) of the Act against regulating carrier schedules.

**Airport waiting rooms.** Separate sections in airport waiting areas may be desirable, but this is beyond the jurisdiction of the CAB. Airports are typically controlled by a local airport authority or the U.S. Department of Transportation. Suggestions about smoking and no-smoking sections should be directed to them, or to the airline involved.

**Partitions.** The Board considered the issue of partitions in EDR-377, 44 FR 29846, May 21, 1979, but rejected it in ER-1245 and ER-1245A, 48 FR at 24867-24868. The main problem with partitions has been the difficulty in finding one that is substantial enough to block the smoke but that can still be moved at the last minute to accommodate an unexpectedly large number of nonsmokers as is required by § 252.2(a)(3). Many nonsmokers seemed to feel that a simple curtain would not be enough. For example, Meyer Sharlin, a nonsmoking passenger, commented

that a "curtain is not a deterrent to drifting smoke \* \* \*".

In addition, the ATA in its reply comments cited many problems with partitions. These included both safety and practical problems. It stated that a partition would block the passengers' view of the flight attendants' instructions and demonstrations before takeoff or during an emergency. It was concerned that a partition would interfere with a passenger's ability to recline the seat or to use the fold-down trays. It also questioned whether a curtain could be attached to the overhead rack as ASH had claimed.

**Smoke detectors.** The smoke detector suggestion is the most worthwhile one. Smoke detectors, being closely related to aircraft fire safety, are within the jurisdiction of the FAA, not the CAB. Some airlines have voluntarily installed them. The FAA recently proposed that each lavatory and galley be equipped with a smoke detector system. 49 FR 21010, May 17, 1984. The Board strongly urges them to adopt this proposal as a final rule. The installation of smoke detectors would be an important step in improving aircraft flight safety.

#### Final Regulatory Flexibility Analysis

The discussion above constitutes the Board's final regulatory flexibility analysis of this rule under 5 U.S.C. 604. Copies of this document can be obtained from the Distribution Section, Civil Aeronautics Board, Washington, D.C. 20428, (202) 673-5432, by referring to the "ER" number at the top of the document.

#### List of Subjects in 14 CFR Part 252

Air carriers, Consumer protection, Smoking.

Chairman McKinnon concurred. Vice Chairman McConnell and Member Smith concurred and dissented and filed separate concurring and dissenting statements. Member Morales dissented and concurred and filed a dissenting and concurring statement. Member Schaffer dissented on the issue of short flights and concurs on all other issues.

#### Members' Statements

*McConnell, Vice Chairman, Concurring and Dissenting*

I agree with the majority that we should neither expand our rules to include a governmental ban on smoking on "short" flights or attempt to devise a special provision to define and protect "sensitive" passengers.

However, there are several issues on which I cannot agree with the majority.

First, it has been our policy to minimize government intervention in the operations of all airlines but especially

operators of small aircraft. Many small carriers already ban smoking. Therefore, expanding the smoking regulations to this group of carriers is an unnecessary regulatory burden.

Second, the majority vote to ban cigar and pipe smoking is meaningless. Almost all airlines ban pipes and cigars to enhance the comfort of passengers. The cigar and pipe prohibition by most airlines shows that carriers respond to consumer comfort. A rule to require these actions which most carriers already take is doubly intrusive. Similarly, most U.S. airlines prohibit smoking when the aircraft is on the ground.

With respect to ventilation systems, this is an area with which the Board has little expertise for which the record offered no clear standard on which to rely. The Board should leave operation of the ventilation system to the experts running the airlines.

Finally, I believe the majority straddled the fence on what to do about language proclaiming the "sandwiching" of a non-smoking sections between smoking sections may "unreasonably burden" the non-smoker, and language that states that the purpose of our rules is to ensure non-smokers are not "unreasonably burdened". The majority retained the former and eliminated the latter. If the standard is impractical and legally insufficient, as I believe it is, in one context, it is for the other. It can only lead to further interpretation and regulation, which is exactly the opposite of where we should be heading.

Procedurally, I believe that we should ask for comment under the Administrative Procedure Act for certain matters included in this rule: the change in definition of small aircraft, and to ban smoking when the aircraft is on the ground. These issues were not sufficiently addressed by the Board in its notice, and deserve comment before Board action.

Smoking is a strong concern for all—carriers, smokers and non-smokers. The changes adopted by the majority are simply not needed and in some cases meaningless. Further, the vast majority of passengers are neither smokers nor especially sensitive to smoking. All passengers and their smoking preferences can be accommodated voluntarily by the airlines without government intervention. I believe that the airlines are in the best position to determine whether and when.

passengers should be allowed to smoke. (Signed) Barbara E. McConnell.

*Smith, Member, Concurring and Dissenting*

As I have stated in the past, it is inappropriate to create a line of distinction for smoking regulations on aircraft at 30 seats. Similar Board regulations use 60 seats as the determining factor and aircraft with 60 seats or less should not be subject to any smoking regulations at all. There is no empirical evidence that federal regulations banning smoking on 30 seat aircraft is necessary.

The order acknowledges that many commuter airlines ban smoking and nothing prohibits others from doing so. By definition, a commuter airline operates aircraft up to 60 seats. A 30-seat smoking regulation would require an unnecessary federal requirement and an administrative burden on carriers with mixed fleets.

The prohibition of smoking on airline crew areas was never fully argued, nor was a record developed. It is inappropriate to "interpret" smoking regulations into crew area applications without due process.

(Signed) James R. Smith.

*Morales, Member, Dissenting and Concurring*

I must dissent from the Board's decision in this rulemaking. As I noted when the Board instructed the staff on this rule a few months ago, I have consistently favored stricter restraints on smoking aboard aircraft. While a majority of the Board then favored the rule which is adopted today, I did so because there was not a majority to adopt stricter rules. However, it appeared that in reviewing the provisions of the rule adopted today, the opinions of some Members of the Board had shifted to favor additional restraints. They proposed adopting a ban on smoking on short flights of 2 hours or less. In my opinion, the reasons supporting a 2-hour ban also support a total ban on smoking aboard aircraft, and in fact are even more persuasive when considered against that goal. In my opinion, when compared to a 2-hour ban, the total ban would be more fair to all carriers. No carrier of any size or with any particular route structure would be considered potentially at any type of competitive disadvantage.

• To whatever extent the short flight or small aircraft bans might cause certain administrative complications for

crew members, that potential difficulty is eliminated.

• To the extent that smoking is a potential fire hazard, the risk is eliminated.

• To the extent that passive smoking is indeed injurious to the health of non-smokers, that argument is put to rest.

• To the extent that the cumulative effects of smoke-filled planes cause health problems for flight attendants, working conditions would be considered improved. Medical expenses for carriers and personnel could potentially be lower and productivity might increase.

• To whatever extent carriers must now add additional ventilation (through use of additional air packs) to compensate for smoking and air quality considerations, those additional efforts could be eliminated and thereby cause a potential savings of fuel and cost.

• The portions of Congress' study dealing with cabin safety and air quality as it relates to smoking would be rendered moot.

• It has been well documented that the by-products of smoke from cigarettes clog the moving parts of planes, thus adding to the maintenance costs for carriers. A ban could indeed translate into cost savings.

While I sought support for a total ban when the shift in Board opinion became obvious, it was clear that there was not a majority for that option. Lacking that support, I would have joined in a decision to ban smoking on aircraft for 2-hour flights or less. The 2-hour ban would have affected 85-90% of all domestic flights, a result close to the one I consider optimal. Additionally, because of the high percentage of affected flights, potential competitive disadvantages would be minimized.

Since a majority no longer favors the 2-hour ban, and since it is not the most desirable result in my opinion, I will state my preference for a total ban, which would have eliminated a plethora of problems. I favor such a ban, and consequently I must dissent from the rule finally adopted by the majority today.

(Signed) Diane K. Morales.

Because without my vote there would not be a majority to ban pipe and cigar smoking and smoking on aircraft of less than 30 seats, I will join Chairman McKinnon and Member Schaffer in voting to do so. I will also concur in the interpretation of the rule which prohibits

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smoking by crew members in galleys located in the non-smoking section.

(Signed) DKM

Final Rule

**PART 252—[AMENDED]**

Accordingly, the Board amends 14 CFR Part 252, *Smoking Aboard Aircraft*, as follows:

1. The authority for Part 252 is: (Secs. 204, 404, 407, and 416, Pub. L. 85-726, as amended, 72 Stat. 743, 760, 766, 771, 49 U.S.C. 1324, 1374, 1377, 1386)

2. The table of contents is revised to read:

- 252.1 Applicability.
- 252.2 Non-smoking sections.
- 252.3 Ventilation systems.
- 252.4 Cigars and pipes.
- 252.5 Small aircraft.
- 252.6 Enforcement.
- 252.7 Waivers.

3. Section 252.1 is revised to read:

**§ 252.1 Applicability.**

This part establishes rules for the smoking of tobacco aboard aircraft. It applies to all operations of direct air carriers, except on-demand services of air taxi operators. Nothing in this regulation shall be deemed to require carriers to permit the smoking of tobacco aboard aircraft.

**§ 252.1a [Removed]**

4. Section 252.1a, *Special segregation of cigar and pipe smokers*, is removed.

5. In §252.2, the introductory paragraph of paragraph (a) is revised as follows:

**§ 252.2 Non-smoking sections.**

(a) Except as provided in paragraph (b) of this section, air carriers, when operating aircraft designed to have a passenger capacity of 30 seats or more, shall provide at a minimum:

6. Section 252.2a, *Ban on smoking when ventilation systems not fully functioning*, is renumbered § 252.3, retitled, *Ventilation systems*, and revised to read as follows:

**§ 252.3 Ventilation systems.**

(a) Carriers shall adopt and enforce rules prohibiting the smoking of tobacco whenever the ventilation system is not fully functioning. Fully functioning for this purpose means operating so as to provide the level and quality of ventilation specified and designed by the manufacturer for the number of persons currently in the passenger compartment.

(b) Carriers shall adopt and enforce rules prohibiting the smoking of tobacco whenever the aircraft is on the ground.

7. A new § 252.4 is added to read:

**§ 252.4 Cigars and pipes.**

Carriers shall adopt and enforce rules prohibiting the smoking of cigars and pipes aboard aircraft.

8. A new § 252.5 is added to read:

**§ 252.5 Small aircraft.**

Carriers shall adopt and enforce rules prohibiting the smoking of tobacco on aircraft designed to have a passenger capacity of less than 30 seats.

9. Section 252.3 *Enforcement*, is redesignated § 252.6 and is revised, to read:

**§ 252.6 Enforcement.**

Each air carrier shall take such action as is necessary to ensure that smoking by passengers or crew is not permitted in no-smoking sections and to enforce its rules with respect to the banning of smoking or the separation of passengers in smoking and no-smoking areas.

**§ 252.7 [Redesignated from § 252.4]**

10. Section 252.4 *Waivers*, is redesignated § 252.7.

By the Civil Aeronautics Board.  
Phyllis T. Kaylor,  
Secretary.

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