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## Cabin Air Quality in Aircraft: What Is the Problem - What Is Being Done or What Can Be Done About It - Who Can Do It and How

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# CABIN AIR QUALITY IN AIRCRAFT: WHAT IS THE PROBLEM? WHAT IS BEING DONE OR WHAT CAN BE DONE ABOUT IT? WHO CAN DO IT AND HOW?

ANITA JEAN SMITH

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## I. INTRODUCTION

Modern commercial . . . aircraft range in passenger capacity from less than 100 [people] to more than 500. Flight time can go from less than an hour to the better part of a day. Flight cruise altitudes can be greater than 8 miles (42,000 ft.). The primary requirements for the aircraft environmental control systems are aircraft safety and passenger health. The goals are to provide a comfortable and passenger pleasing environment that is compatible with affordable transportation.<sup>1</sup>

**T**HE FOLLOWING QUESTIONS come to mind after reading this statement: (1) are these requirements being met; (2) are these goals being achieved; (3) and are they being enforced?

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<sup>1</sup> *Airliner Cabin Air Quality: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation*, 103d Cong., 2d Sess. 1 (1994) (statement of Robert E. Robeson, Jr., Vice President, Civil Aviation of the Aerospace Industries Association) [hereinafter Robeson]. The Aerospace Industries Association is the trade association that represents the "nation's leading manufacturers of aircraft, engines, components and space systems." *Id.*

Comfort, safety, and health during air flight are concerns to all, and recently, the quality of the environment in aircraft cabins has come under scrutiny again.<sup>2</sup> This renewed concern for air quality in aircraft cabins has developed because of reports that poorly ventilated cabins may spread disease among passengers; that low air quality may lead to nausea, headaches, and mucosal irritation; and that environmental contaminants such as tobacco smoke or insecticides, present in some aircraft cabins having newer ventilation systems, may increase the risk of respiratory illness.<sup>3</sup>

Because of these ongoing concerns with the many factors that contribute to air quality in aircraft cabins, Congress is searching for ways to improve the level of air quality in these small, enclosed environments. This Comment will examine the important issue of improving air quality in aircraft cabins by discussing the following: (1) the problems that have been, and are still being, voiced by flight crews and the traveling public; (2) the ways in which these problems have been addressed in the past; (3) the proposed legal solutions that would attempt to alleviate these problems now and in the future; and, (4) whether these legal proposals, if passed, will lend themselves to a means of enforcement, such as an implied private cause of action.

## II. REVIVING THE CONTROVERSY THAT NEVER REALLY DIED: CURRENT PROBLEMS AND COMPLAINTS CONCERNING CABIN AIR QUALITY

On May 18, 1994, the airline industry reassured Congress and the traveling public that air quality on-board commercial aircraft did not pose a health risk.<sup>4</sup> Air Transport Association (ATA) President Jim Landry testified before the House of Representatives Aviation Subcommittee and delivered the results of an ATA-commissioned study on the subject.<sup>5</sup> The findings of the study duplicated the findings of a study done in 1987 for the Department of Transportation (DOT),<sup>6</sup> which concluded that aircraft circulation systems provide an airline cabin environ-

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<sup>2</sup> Richard Harding, *Cabin Air Quality in Aircraft: Less Fresh Air Than a Decade Ago But Not as Bad as You Think*, BRIT. MED. J., Feb. 12, 1994, at 427.

<sup>3</sup> *Id.*

<sup>4</sup> *Airline Industry Tells Congress that Airplane Air is Not Health Risk*, PR NEWswire, May 18, 1994.

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

ment that is considered healthy.<sup>7</sup> Although the ATA's study found the environment healthy, it did find, however, that cabin air is very dry,<sup>8</sup> which may cause sore throats, headaches and other discomforting symptoms about which passengers and flight attendants often complain.<sup>9</sup>

Despite the airline industry's assurances that air quality in aircraft cabins does not pose a health risk, a May 1994, *20/20* news report concluded otherwise.<sup>10</sup> This *20/20* report intended to increase airline passengers' awareness of aircraft cabin air quality problems by focusing on the controversy over recirculated air on newer airplanes; the bad effects of recirculated air on passengers; and the potential for spreading infectious diseases, such as tuberculosis. In conjunction with Harvard University researchers, *20/20* commissioned an independent survey to investigate the effects of recirculated air on cabin air quality.<sup>11</sup> The Harvard study found that airplanes that are not freshened with outside air, but alternatively recirculate up to fifty percent of the air inside the cabin, may fail to meet the minimum standards for office buildings that are recommended by the American Society for Heating, Refrigerating and Air Conditioning Engineers (ASHRAE).<sup>12</sup> The prime authors of the study, Dr. John Spengler and Dr. Harriet Burge, say that this finding does not signify that airplanes are flying health hazards.<sup>13</sup> The findings, however, do suggest that when passengers and flight attendants complain of symptoms associated with "sick building syndrome"

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<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> *20/20: The Air Up There - Recirculated Air on Airplanes* (ABC television broadcast, May 13, 1994), available in LEXIS, Nexis Library, SCRIPT File [hereinafter *20/20*].

<sup>11</sup> *Id.* This testing was done without the knowledge of the airline industry, and was conducted during boarding and while in flight. Samples were also collected during deplaning. In all, the researchers flew on every major domestic airline, totalling twenty-two flights in ten different aircraft models. They collected air samples from the front and rear of the coach sections on flights that had average passenger loads of nearly eighty percent. *Id.*

<sup>12</sup> Andrew Hollander, *Airplane Cabins May Not Meet ASHRAE Standards*, INDOOR POLLUTION L. REP., June 1994, at 1.

<sup>13</sup> *Id.* Dr. John Spengler is a professor of environmental health at the Harvard School of Public Health. Also of Harvard is Dr. Harriet Burge who is an associate professor of environmental microbiology. Each of these professors has more than twenty years experience studying environmental air quality and airborne microbes, and are internationally-known experts in this field. *20/20*, *supra* note 10.

and contract infectious diseases, "there is evidence that the problem may stem from ill-ventilated airplane cabins."<sup>14</sup>

Another factor to which the scientists paid particular attention was the way in which air traveled inside the plane during ventilation.<sup>15</sup> Of interest was whether passengers seated in the back of the cabin were susceptible to the germs of passengers seated in the front of the cabin. Despite the statement by the ATA denying such a possibility,<sup>16</sup> the scientists found conflicting evidence after conducting a special ventilation test.<sup>17</sup> Dr. Spengler stated,

I think we've demonstrated beyond a doubt that we can pick up contaminants or indicators of [germ susceptibility] throughout the plane, so that if [germs] were released in seat 16, in seat 28 you're going to see part of [them and in], seat 35 you're going to see part of [them].<sup>18</sup>

Therefore, according to the findings of the Harvard study, there is evidence that recirculation of "not-so-fresh" air should be a major concern.<sup>19</sup> Passengers should worry not only about transmitting germs to, or catching germs from, his neighbor in the next seat, but also to or from a passenger seated rows away.

In addition to the 20/20 report, an August 1994 *Consumer Reports* article stirred up concern over cabin air quality.<sup>20</sup> Despite the Federal Aviation Administration's (FAA) 1990 ban on smoking aboard domestic flights, the cabin air quality complaints

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<sup>14</sup> Hollander, *supra* note 12, at 1. The study surveyed twenty-two flight segments between March 12 and April 19, 1994. By analyzing eight domestic airline carriers, the researchers aimed to contrast planes with and without recirculating air systems. The aircraft that were tested were manufactured by McDonnell-Douglas, Boeing and Airbus. The contaminants being tested included: carbon monoxide, carbon dioxide, bacteria, dust, fungus, endotoxins, volatile organic compounds, and ozone. *Id.*

<sup>15</sup> 20/20, *supra* note 10.

<sup>16</sup> *Id.* Michael Rioux of the ATA said that such transfer of germs was not possible because the "airflow in a plane is top to bottom, not front to back." *Id.* Because of the top to bottom airflow, a passenger would not get exposed to the breathing of a person several rows back or several rows in front. As Rioux stated, "[s]omebody in Row 33 wouldn't be affected by someone in Row 2 or even Row 30." *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> *Breathing on a Jet Plane—How Fresh is the Air?*, CONSUMER REP., Aug. 1994, at 501 [hereinafter CONSUMER REP.].

continue.<sup>21</sup> These continuing complaints concerning air quality were the focus of the *Consumer Reports* article.<sup>22</sup> One reason for the continuing complaints is that older planes provided one hundred percent fresh air to the aircraft cabin, whereas newer models recycle as much as fifty percent of their ventilation air.<sup>23</sup> As the article reports: "[u]ntil the early 1980s, the ventilation systems on jetliners were, in effect, one-way streets: Air traveled from the engine compressors into the cabin and back outside through exhaust valves. But sharply higher fuel prices prompted airline companies to search for ways to save energy."<sup>24</sup>

*Consumer Reports* conducted their own tests in response to the many complaints by passengers and flight crews by using forty volunteer travelers equipped with two simple instruments. The volunteers sampled temperature, humidity, and carbon dioxide (CO<sup>2</sup>) levels on 158 regular commercial flights.<sup>25</sup> They found that when passengers and crew members complain about stuffy air, "they're not necessarily imagining things."<sup>26</sup>

One of the findings was that at some point during the trip on about one in four of the flights measured, CO<sup>2</sup> levels were above the point at which ventilation experts say indoor air becomes stale.<sup>27</sup> The CO<sup>2</sup> on planes, which is produced almost entirely from the exhalations of passengers and the flight crew, is not dangerous in and of itself. However, the presence of CO<sup>2</sup> can

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<sup>21</sup> *Id.* Flight attendants and others testifying at the hearing concerning Cabin Air Quality before the Subcommittee on Aviation of the House Committee on Public Works and Transportation said they "suspected that once smoking was banned, some flight crews halted their previous practice of letting in high levels of fresh air to dilute smoke inside cabins." *Job Safety, Airline Attendant, Passenger Complaints Spur Calls for Mandated Ventilation*, DAILY REP. FOR EXECUTIVES, May 19, 1994, at A95.

<sup>22</sup> CONSUMER REP., *supra* note 20, at 501.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.*

<sup>25</sup> *Id.* at 503. For the CO<sup>2</sup> readings, the benchmark used was 1000 parts of CO<sup>2</sup> per million parts of air (ppm), a ratio set by ASHRAE as a comfortable threshold. *Id.* Consequently, any amount above that threshold results in building occupants perceiving a stuffy atmosphere and the increased likelihood of noticing odors. *Id.* Although 1000 ppm is not a health hazard in and of itself, it is about three times the level of CO<sup>2</sup> normal outdoor air, and is indicative of a lack of ventilation in general. *Id.*

<sup>26</sup> *Id.* at 501.

<sup>27</sup> *Id.* at 503-04. The level at which indoor air becomes stale is 1000 ppm. *Id.* at 503. One aircraft model that recycles a high percentage of air, the Boeing 757, had some of the highest CO<sup>2</sup> levels that the researchers encountered. *Id.* at 504. Of the 7 flights that had levels more than 1000 ppm during early cruising, 5 were 757s. *Id.*

signify a lack of fresh air in general,<sup>28</sup> and in turn, can cause adverse effects to the passengers. As the *Consumer Reports* article found:

[a] few hours in a poorly ventilated airline cabin can be quite uncomfortable. The consequences could be more serious for passengers with chronic bronchitis, asthma, emphysema, allergies, or an immune system that has been impaired by chemotherapy or HIV. The crowded seating found aboard many planes, and the extremely low humidity and lower-than-usual air pressure that exist at cruising altitudes, only make matters worse.<sup>29</sup>

Because there are many factors that cumulatively affect the quality of cabin air, efforts have been made to alleviate one factor at a time. One such element is environmental tobacco smoke. But, despite the smoking bans that have been implemented on certain domestic flights, cabin air quality is still deemed to be poor. Many smokers feel that the problem is second-hand air, not second-hand smoke.<sup>30</sup> They believe that proper ventilation should be the answer to the problem of poor cabin air quality, not the abrogation of smokers' rights.<sup>31</sup> Referring to the 1994 *Consumer Reports* article, one smoker has stated "that the air quality is indeed bad, largely because all the air is recycled and little or no fresh air is added."<sup>32</sup> Therefore, it may be that the underlying cause surrounding the entire concern for the air quality in the aircraft is ventilation system itself.

Although the ventilation systems may be to blame for all of the concern about air quality in aircraft cabins, one must remember that the ventilation systems are essential for maintaining a comfortable atmosphere within aircraft. "With about a half-billion passengers a year boarding scheduled U.S. flights, air travel has become so routine that it's easy for people to forget what's outside their cabin cocoon."<sup>33</sup> An atmosphere of 35,000 feet, which is the altitude at which most flights level off, will not sustain human life.<sup>34</sup> Therefore, in essence, airliners must create an artificial environment to allow for survivability.

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<sup>28</sup> *Id.* at 501.

<sup>29</sup> *Id.*

<sup>30</sup> See, e.g., *Letters from the People*, ST. LOUIS POST-DISPATCH, July 27, 1994, at 6B.

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> CONSUMER REP., *supra* note 20, at 501.

<sup>34</sup> *Id.* The reason the atmosphere at 35,000 feet will not sustain human life is because the air is about sixty degrees below zero. Also, the air is so thin that if an inactive person was breathing it, then that person would become lethargic and confused in a very short period of time—perhaps in less than a minute. *Id.*



## A. THE VENTILATION SYSTEMS

Such an environment is created by the use of an artificial ventilation system that concentrates and conditions air in order for passengers and flight crews to survive at such high altitudes. These ventilation systems in aircraft are deliberately designed to remove as much water as possible from the air because the presence of high humidity aboard a plane could produce the dangerous effects of corrosion and icing.<sup>35</sup> In addition to the removal of moisture from the air, all planes are engineered to maintain an air pressure that is equivalent to the air pressure found at 8000 feet above sea level, at least.<sup>36</sup>

As stated previously, until the early 1980s, the ventilation systems on aircraft provided 100% fresh air to the cabin.<sup>37</sup> When fuel prices sharply increased, however, airlines searched for ways to save energy.<sup>38</sup> After some experimentation in the early 1980s, the major airplane manufacturers<sup>39</sup> began manufacturing aircraft that recycled part of their ventilation air.<sup>40</sup>

1. *The Ventilation Systems on the Newer Aircraft*

The ventilation systems on the newer aircraft, which ventilate with recycled air, increase the hazards of cabin air quality. Cigarette smoking, while banned on domestic flights, is still common on international service. In addition, problems with ozone, carbon dioxide, and airborne viruses remain. All of these hazards to cabin air quality are exacerbated by newer aircraft, which ventilate by recirculating air to increase engine efficiency.<sup>41</sup>

The following describes how this ventilation system operates:

In flight, fresh air is bled off from compressed engine air and diverted to the passenger cabin. This robs the engine of some its thrust. To achieve a given level of thrust, more fuel must be used to provide both the thrust and the passenger air supply.

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<sup>35</sup> *Id.*

<sup>36</sup> *Id.* "In other words, the atmosphere inside an airline cabin is about like that on a very dry day in Aspen, Colo[rado]." *Id.*

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> The major airplane manufacturers conducting the experimentation were Boeing, Airbus Industries, and McDonnell Douglas. *Id.*

<sup>40</sup> *Id.* (The article did not state the specific percentage of the future commercial aircraft fleet that will eventually ventilate with recycled air.).

<sup>41</sup> Christopher P. Fotos, *Flight Attendants Question Health Risk of Recirculated Air in Newer Cabins*, AVIATION WK. & SPACE TECH., Nov. 25, 1991, at 79.

If some of the passenger air can be filtered and recirculated, less engine air is needed, and more of the fuel's energy can be devoted to flying the airplane.<sup>42</sup>

Because the airline industry was suffering financially, it searched for ways to cut operating costs. Consequently, with 727-era passenger cabins being ventilated with 100% fresh air,<sup>43</sup> one of the ways to cut costs was to design newer commercial aircraft to conserve fuel by recirculating cabin air. In 1993, this type of ventilation system saved about \$60,000 per plane.<sup>44</sup> "The fuel penalty for supplying fresh passenger air from the engine system is relatively small per flight, but it adds up."<sup>45</sup> In 1985 about thirty percent of commercial flight hours were on aircraft with recirculation systems.<sup>46</sup> The figure had increased to forty percent in 1990.<sup>47</sup> Today the figure is close to fifty percent.<sup>48</sup>

## 2. *The Environmental Control Units*

In addition to the ventilation systems on newer aircraft which recirculate the "not so fresh" air, another cause of the reduction in fresh air is the fact that "flight crews on most aircraft can regulate the Environmental Control Units (ECU), or airpicks, that deliver fresh air" to the cabin.<sup>49</sup> This "flow control" is helpful in allowing crews to change the air flow depending on the number of passengers on the plane.<sup>50</sup> "However, in this day of fuel conservation, airline carriers may encourage their flight crews to operate an ECU at a lower level" than is appropriate.<sup>51</sup>

Although this reduction of fresh air circulation effectively reduces the operating costs of the airlines, it also can "increase the amount of airborne toxins, viruses and bacteria in the

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<sup>42</sup> *Id.*

<sup>43</sup> *Id.*

<sup>44</sup> *Morning Edition: Cost-Saving Measure in Newer Airplanes May Be Unhealthy* (NPR news broadcast, July 30, 1993).

<sup>45</sup> Fotos, *supra* note 41, at 79. The 1991 estimated passenger air cost of a Boeing 747-200 was \$500,000 a year. *Id.*

<sup>46</sup> *Airliner Cabin Air Quality: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transp.*, 103d Cong., 2d Sess. 2 (May 18, 1994) (statement of Dee Maki, National President of the Association of Flight Attendants, AFL-CIO) [hereinafter Maki].

<sup>47</sup> *Id.*

<sup>48</sup> Fotos, *supra* note 41, at 79.

<sup>49</sup> Maki, *supra* note 46, at 2.

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

cabin.”<sup>52</sup> Without proper ventilation, the tightly sealed “container” of the aircraft cabin becomes the “ideal environment for the spread of bacteria, viruses, and fungi.”<sup>53</sup> Thus, passengers and flight crews are exposed to “one another’s respiratory ailments as well as high levels of carbon dioxide and other gases including vapors and fumes from materials and chemicals inside the aircraft.”<sup>54</sup>

### 3. *The High Efficiency Particulate Air Filters*

In addition to the problems caused by a reduction of the ECU, other ventilation problems can be attributed to high efficiency particulate air filters (HEPA filters).<sup>55</sup> “While the airlines stress that HEPA filters remove airborne particles before air is recirculated in the aircraft cabin, the filters can become blocked.”<sup>56</sup> These filters are effective in removing most of airborne particles, which include bacteria and viruses that are most usually in clumps.<sup>57</sup> But the filters are ineffective in removing single viruses.<sup>58</sup> As a result, these unremoved viruses “pass through the HEPA filter and then circulate throughout the cabin.”<sup>59</sup> Furthermore, the filters eventually clog and lose effectiveness.<sup>60</sup>

## B. ENVIRONMENTAL TOBACCO SMOKE

As stated previously, environmental tobacco smoke is one of the many factors that affect the quality of the cabin air. Because of the newer ventilation systems that recirculate cabin air, the residual smoke of a cigarette is only one of a number of gases that gets recycled back into the cabin air. However, tobacco

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<sup>52</sup> *Id.* at 3. Maki’s testimony did not specify how much the presence of airborne toxins, viruses, and bacteria would increase in the aircraft cabin due to a reduction in the fresh air circulation.

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> Maki, *supra* note 46, at 3. The HEPA filters can remove dust, bacteria, and viruses, but not gases or odors. CONSUMER REP., *supra* note 20, at 501.

<sup>56</sup> Maki, *supra* note 46, at 3.

<sup>57</sup> *Id.* It has been stated that “[a]ircraft recirculation systems have filtration that is on a par with that found in hospitals” and that the “[p]article sizes filtered are over 1000 times smaller than those captured in home filters.” Robeson, *supra* note 1, at 2.

<sup>58</sup> Maki, *supra* note 46, at 3.

<sup>59</sup> *Id.* With the use of the newer ventilation systems, which recirculate a higher percentage of “stale” air than “fresh” air, logically, this problem of single viruses circulating in the cabin is greatly amplified.

<sup>60</sup> *Id.*

smoke remains one of the more controversial contributors to air quality in the aircraft cabin.

The health and comfort of international air travelers are impaired by cigarette smoke.<sup>61</sup> Although passengers are most affected "by the acute, irritating effects of environmental tobacco smoke," there are some who may not travel by air because "their reactions to environmental tobacco smoke are life-threatening."<sup>62</sup> For flight attendants, exposure to tobacco smoke is an "occupational hazard."<sup>63</sup>

### 1. Health Risks

Non-smokers' exposure to environmental tobacco smoke poses clear health risks. Today, there exists a "large and cohesive body of scientific information" documenting the risks of such exposure.<sup>64</sup> The accumulation of this information culminated "in the release of the Environmental Protection Agency's risk assessment, Respiratory Health Effects of Passive Smoking, in January 1993,"<sup>65</sup> which summarizes many of the scientific findings.

Even though the EPA risk assessment was not based on the aircraft passenger cabin, "there is no reason to anticipate that the health effects of exposure to environmental tobacco smoke would be any different in this environment than any other."<sup>66</sup> Logically, the small, enclosed structure of an aircraft passenger cabin would exacerbate the effects of environmental tobacco smoke.<sup>67</sup> The aridity also intensifies smoking-related symptoms that are frequently experienced by the non-smoker.<sup>68</sup>

Although tobacco smoking has been banned on many flights, it is still a major contributor to the diminished cabin air quality for most international flights. "Cigarette smoke is the single

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<sup>61</sup> *Airliner Cabin Air Quality: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transp.*, 103d Cong., 2d Sess. 2 (1994) (statement of John White, Ph.D., on behalf of the Coalition on Smoking or Health) [hereinafter White].

<sup>62</sup> *Id.*

<sup>63</sup> *Id.* "Nose and throat irritation, headaches, dizziness and nausea caused by the heavy concentration of tobacco smoke found in passenger cabin smoking sections, and the recirculation of polluted air throughout the cabin, are an unhealthy fact of life for too many flight attendants." *Id.*

<sup>64</sup> *Id.*

<sup>65</sup> *Id.*

<sup>66</sup> White, *supra* note 61, at 4.

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

largest complaint by passengers and crew members concerning overall air quality on international flights. There is no wall, barrier, or even curtain to separate the smoking section from the nonsmoking section."<sup>69</sup> This environment is where a flight attendant spends eight to twelve hours a day. One flight attendant stated: "[O]ur work situation is unique. One cannot open a window, take a walk during your lunch hour, or step outside for a breath of fresh air."<sup>70</sup> Long-term exposure to environmental tobacco smoke has been detrimental to many flight attendants' health.<sup>71</sup> For example, one attorney in Miami, Florida, represents "thousands of flight attendants who have been injured by their years of exposure to environmental tobacco smoke on both domestic and international flights."<sup>72</sup> Although carriers may lose some customers from a smoking ban, the benefits may outweigh the costs.<sup>73</sup> Potential benefits include increased employee health and increased business from nonsmoking passengers.<sup>74</sup>

## 2. Safety Risks

Tobacco smoke not only causes a risk to the health of exposed passengers and crew members but it also causes a risk to the equipment on board. Many safety considerations arise from cigarette smoking in airline passenger cabins. Some of these considerations are discussed below.

First, "high concentrations of carbon monoxide . . . [can] impair [cabin and flight crew] performance, especially in the event of an emergency."<sup>75</sup> Second, matches, lighters, and lighted to-

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<sup>69</sup> *Airliner Cabin Air Quality: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transp.*, 103d Cong., 2d Sess. 1 (1994) (statement of Joyce Hagan, International Flight Attendant) [hereinafter Hagan].

<sup>70</sup> *Id.* Hagan testified that the work environment of the flight attendant is likely the worse case for exposure to tobacco smoke. "[I]n this situation, smokers, who are in the minority, are granted 100% of their right to smoke, 100% of the time. Non-smokers, who are in the majority, are granted 0% of their right to breath clean air, 0% of the time." *Id.*

<sup>71</sup> *Id.* at 1-2.

<sup>72</sup> *Id.* at 2.

<sup>73</sup> *Id.* at 5.

<sup>74</sup> *Id.*

<sup>75</sup> White, *supra* note 61, at 67.

These [problems] can be traced to possible decreased blood oxygen levels. As cabin altitude increases, the oxygen level in the blood of the passengers and the crew decreases. Tobacco smoke in the air makes this situation worse. Carbon monoxide from environ-

bacco products, are obvious fire hazards.<sup>76</sup> Passengers often fall asleep while holding lit cigarettes, "occasionally dropping the cigarette between the fuselage and seat, resulting in seat cushion fires."<sup>77</sup> Cabin crew members have also been carelessly burned by passengers cigarettes.<sup>78</sup> Third, smoking on board aircraft may compromise safety equipment.<sup>79</sup> For example, in at least one reported case, the cabin oxygen masks failed to release when needed.<sup>80</sup> The problem was tar buildup on the oxygen mask compartment latches.<sup>81</sup> Another disturbing and potentially dangerous side effect of in-flight smoking is that air outflow valves have shown evidence of tar buildup.<sup>82</sup>

### C. SPRAYING OF INSECTICIDES

Although the ventilation system may be the root of the cabin air quality problem, spraying insecticides is another factor that diminishes passenger air quality. "Australia, New Zealand and countries in the South Pacific, Latin America and the Caribbean require all airlines to spray insecticide before landing."<sup>83</sup> Countries require the spraying of insecticide out of the fear that passengers and their baggage will spread disease-carrying insects.<sup>84</sup> The United States has not required insecticide spraying since 1979; however, many other countries still maintains the requirement.<sup>85</sup>

The newer aircraft ventilation systems do not supply as much fresh air to the aircraft cabin as was previously supplied. This greatly exacerbates the effect of the spraying of these insecticides greatly exacerbated. In countries where such spraying is performed, the process works as follows: "With the ventilation

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mental tobacco smoke further reduces the oxygen-carrying ability of the blood.

*Id.* at 438.

<sup>76</sup> *Id.*

<sup>77</sup> *Id.*

<sup>78</sup> *Id.* Out of 750 flight attendants surveyed, 59% have seen cigarette fires or fire hazard in the passenger cabin from cigarettes. *Id.* A frightening thought is that an airplane is like a crowded airborne theater, with flammable fuel attached. *Id.* at 7-8.

<sup>79</sup> White, *supra* note 61, at 8.

<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

<sup>82</sup> *Id.*

<sup>83</sup> Rhonda Richards, *Air Quality on Jets Questioned Again*, USA TODAY, Dec. 21, 1993, at 8B.

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

turned off . . . flight attendants walk down the aisles spraying the insecticide, which then settles on the skin and clothing of passengers and crew and is inhaled because of lack of ventilation."<sup>86</sup> The U.S. Environmental Protection Agency has said that "even though the insecticide has low toxicity to humans, the spraying could create medical problems for people with allergies, chemical sensitivities, asthma and other respiratory problems."<sup>87</sup>

In response to the possibility that the insecticide could create medical problems, its use is now being challenged in court.<sup>88</sup> The types of cases being filed are numerous.

First, in 1993 Julia Kendall filed an \$8.5 million personal injury suit against American Airlines.<sup>89</sup> She charges that on a 1992 flight from San Juan, Puerto Rico to St. Maarten, Dutch West Indies, flight attendants walked the aisles spraying the cabin. The insecticide fell on Kendall despite her protests. Her suit alleges that the insecticide retriggered her leukemia.<sup>90</sup>

Second, a retired teacher from Congers, New York, unsuccessfully sued Qantas Airlines. Irene Kleiner sued to recover \$35,000 for injuries she claimed were sustained from the spraying of pesticide on an Australian vacation in 1988.<sup>91</sup>

Third, Diane Fairechild of Hawaii has filed suit against United Airlines, claiming that the spraying on her flights caused multiple chemical sensitivities.<sup>92</sup> These chemical sensitivities have kept her medically grounded since 1987.<sup>93</sup>

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<sup>86</sup> *Id.* (comment by Sen. Patrick J. Leahy). There are various methods used to disseminate the insecticides:

It may be applied in the hangar or ramp, by a bomb left on the plane overnight, by a flight attendant with an aerosol on debarking, at point of descent or on landing, or by agricultural department staff on arrival. It may also be introduced through the airplane's ventilation system during flights.

Winegar, *supra* note 89 at G1.

<sup>87</sup> Martin Tolchin, *Congressmen Vow Action on Quality of Air in Jetliners*, INT'L HERALD TRIB., Apr. 25, 1994, at 1.

<sup>88</sup> Karin Winegar, *Airlines' Policy on Spraying Pesticide Draws Critical Fire*, STAR. TRIB. Sept. 11, 1994, at G1.

<sup>89</sup> *Id.* The suit was filed in the Marin County Superior Court in San Francisco.

<sup>90</sup> *Id.* "Kendall's case is the largest and latest in a string of other complaints and lawsuits against airlines for spraying passengers, whose symptoms include eye, ear, nose, throat and skin problems, flu-like symptoms and one fatality." *Id.* Although the EPA said earlier that pyrethroids were "very safe compounds," Kendall's complaint has since prompted the EPA to re-examine both pyrethroids and the insecticide sprays' inert ingredients. *Id.*

<sup>91</sup> *Id.*

<sup>92</sup> *Id.*

<sup>93</sup> *Id.* Fairchild has been a flight attendant for twenty-one years.

Fourth, in 1983 a death occurred that was linked to the pesticide spraying. A Great Britain resident with emphysema, on a flight landing in Sydney, Australia, pleaded with the flight crew to be allowed to depart from the plane before the spraying commenced. The crew denied his request. His widow, British author Mollie Gillen, said that he died eighteen hours after the insecticide spraying. She said that the cause of death on the medical certificate was "acute exacerbation of chronic airways obstruction." Consequently, Gillen settled with the airline out of court.<sup>94</sup>

Because the United States no longer requires pre-arrival insecticide spraying of international flights,<sup>95</sup> it is the foreign countries' mandatory spraying requirements of foreign countries with which the American public must be concerned. This concern that should be addressed by passing future legislation and regulations.

### III. HISTORY

#### A. FEDERAL REGULATIONS ON AIR QUALITY

The issue of air quality and ventilation standards is not some "mysterious and poorly understood scientific issue,"<sup>96</sup> however, regulations providing air quality and ventilation standards for aircraft cabins are vague and relatively scarce. In comparison the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) has established specific building ventilation standards for buildings. The building standards are widely accepted and are used in the design and construction of buildings. "Yet while the construction industry is making progress in healthful design, the airline industry [and the FAA are] moving rapidly in the opposite direction."<sup>97</sup>

No legal standard specifies how much fresh air passengers are entitled to breathe during a flight.<sup>98</sup> The existing federal regulations state only in vague terms that "each passenger and crew

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<sup>94</sup> Winegar, *supra* note 88, at G10.

<sup>95</sup> *Airliner Cabin Air Quality: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transp.*, 103d Cong., 2d Sess. 3 (1994) (statement of Joseph P. Canny, Deputy Assistant Secretary for Transportation Policy) [hereinafter Canny].

<sup>96</sup> *Airliner Cabin Air Quality: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transp.*, 103d Cong., 2d Sess. 32 (1994) (statement of Rep. Jerrold Nadler) [hereinafter Nadler].

<sup>97</sup> *Id.*

<sup>98</sup> *Id.* at 31.



compartment must be ventilated" and "free from harmful or hazardous concentrations of gases or vapors."<sup>99</sup>

A question remains as to what exactly this language requires for ventilation rates in passenger cabins.<sup>100</sup> There are no explicit requirements for fresh air ventilation rates in aircraft cabins.<sup>101</sup> The regulations spell out specific limits only for carbon monoxide (50 ppm), carbon dioxide (30,000 ppm) and ozone concentrations.<sup>102</sup>

In 1989, the FAA issued a "Notice of Proposed Rule Making" that "set limited air flow standards for aircraft yet to be certificated."<sup>103</sup> The AFA, however, feels that the proposal falls short of the standards necessary to assure adequate fresh air for pas-

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<sup>99</sup> Maki, *supra* note 46, at 8 (quoting FAA Airworthiness Standards: Ventilation, 14 C.F.R. § 25.831(a)-(b) (1994)). The Association of Flight Attendants (AFA) is concerned because despite years of talk about aircraft cabin air quality, there has been little action. As Maki testified:

A 1981 article distributed by the *Washington Post* news service told readers that "[f]resh air in airplane cabins has been a subject of perennial complaint." Here we are thirteen years later and it is still a subject of great debate and not much action as far as the government is concerned. The government has not actively sought to compile data on health problems associated with cabin air quality, let alone set adequate regulations.

*Id.*

<sup>100</sup> "Despite repeated requests from union and congressional critics, the FAA has yet to adopt minimum ventilation standards for airline cabins. Its regulations specify only that the cabins be 'ventilated,' whatever that means." CONSUMER REP., *supra* note 20, at 503. In contrast to the "questionable" amount of fresh air required for aircraft cabins, by FAA regulation, every aircraft must have a completely separate ventilation system for the cockpit. *Id.* at 502. These separate ventilation systems typically supply several times the amount of fresh air per person as compared to the cabin ventilation systems. *Id.*

<sup>101</sup> Maki, *supra* note 46, at 8.

<sup>102</sup> *Id.* at 8-9. On May 2, 1994, the FAA released a "Notice of Proposed Rulemaking" that lowered the limit for carbon dioxide in aircraft. The AFA announced it was pleased that the FAA finally acknowledged the current high levels of carbon dioxide in aircraft. The AFA, however, continues to be concerned that the recommended lower limit is still not low enough. *Id.* at 9. According to James Cone, a medical consultant for the AFA, "[t]he FAA's proposed rulemaking to reduce the legal limit of carbon dioxide aboard aircraft to 5000 [ppm] still would leave passengers and flight attendants breathing air potentially over six times as contaminated as barely acceptable indoor air on the ground." *Airliner Cabin Air Quality: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transp.*, 103d Cong., 2d Sess. 3 (1994) (statement of James E. Cone, medical consultant for the AFA) [hereinafter Cone].

<sup>103</sup> Maki, *supra* note 46, at 9.

sengers and flight attendants.<sup>104</sup> After seven years, this limited proposal has yet to be acted on.

Some industry executives say that the absence of airline cabin air standards is a result of disagreement on what constitutes safe air. While the FAA has not yet set standards for airborne toxins, viruses or bacteria, it has set standards for carbon monoxide and carbon dioxide; however, these standards are far less rigorous than those recommended by ASHRAE.<sup>105</sup>

## B. REGULATIONS ON TOBACCO SMOKE

In the late 1980s, a series of government-commissioned studies documented high carbon dioxide and particulate levels in aircraft air. As a result, a number of the the studies recommended that in-flight smoking be restricted or banned altogether.<sup>106</sup> In gradual steps, that is exactly what happened.

The federal government first regulated smoking on commercial aircraft in 1973.<sup>107</sup> Regulations separated smokers from non-smokers, and required that all commercial flights provide non-smoking sections large enough to accommodate every non-smoker.<sup>108</sup>

In 1979, the government further regulated smoking on the aircraft by amending Regulation 252.<sup>109</sup> The amended regulation required airlines to segregate cigar and pipe smokers, to ban smoking altogether when the ventilation system in the aircraft was not functioning properly, to guarantee seating to non-smokers in designated non-smoking sections, and to ensure that non-smokers were not unreasonably burdened if seated between two smoking sections.<sup>110</sup>

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<sup>104</sup> *Id.* The testimony of Dee Maki did not specify why these limited air flow standards are inadequate.

<sup>105</sup> Martin Tolchin, *Inquiry Will Check Air Quality on Airplanes*, N.Y. TIMES, June 25, 1993, at A16. The FAA requires that CO<sup>2</sup> be maintained at less than 30,000 ppm. This requirement is nearly 100 times the level of CO<sup>2</sup> in outdoor air, and 30 times the level that ASHRAE recommends for buildings. Cone, *supra* note 102, at 2-3.

<sup>106</sup> CONSUMER REP., *supra* note 20, at 502.

<sup>107</sup> Smoking Aboard Aircraft, 14 C.F.R. § 252 (1973).

<sup>108</sup> H.R. REP. NO. 771, 103d Cong., 2d Sess. 2 (1994) (concerning the Airliner Cabin Air Quality Act of 1994, *see infra* note 145 and accompanying text). These requirements are codified in Smoking Aboard Aircraft, 14 C.F.R. § 252.7 (1973).

<sup>109</sup> Smoking Aboard Aircraft, 14 C.F.R. § 252 (1979).

<sup>110</sup> H.R. REP. NO. 771, *supra* note 108, at 2 (referring to Smoking Aboard Aircraft, 14 C.F.R. §§ 252.15, 252.9, 252.7(a)(2), 252.7(a)(4) (1979)). Regulation 252 requires:

In 1984, five years after amending Regulation 252, the Civil Aeronautics Board (CAB) issued a set of revised rules regarding smoking aboard aircraft. These rules prohibited: smoking on airline aircraft with less than thirty seats; cigar and pipe smoking on all flights; and smoking when the aircraft was on the ground.<sup>111</sup>

In December 1987, as part of the Continuing Resolution for the 1989 fiscal year, Congress imposed a two year smoking ban on all domestic flights scheduled for two hours or less.<sup>112</sup> This law also imposed a \$2000 penalty for tampering with aircraft lavatory smoke alarms.<sup>113</sup>

The government took its biggest step in the effort to effectively put an end to smoking on domestic flight in 1989. Public law number 101-164 banned smoking on flights within the United States and its territories, excluding flights scheduled for more than six hours to Alaska or Hawaii.<sup>114</sup> This ban went into effect on February 25, 1990.<sup>115</sup>

### C. HISTORY AND REGULATIONS ON THE SPRAYING OF INSECTICIDES ON AIRCRAFT FOR DISINSECTION

Federal responsibility for disease control began with the passage of the first quarantine law in 1794, and has been under the auspices of the Public Health Service (PHS) since 1883.<sup>116</sup> By the 1920s, international airplane service to the United States had begun and the transmission of yellow fever had been linked

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On direct flights outside the United States, domestic airlines [must] by Regulation 252 [as amended] provide non-smoking seats in each class to every passenger who wants one who holds a reservation and meets the check-in deadline for the flight. Further, the rule says that if a non-smoking section is between two smoking sections, the passengers in the middle are not to be "unreasonably burdened."

Betsy Wade, *A Smoke Bomb? Law Professor's Recent Air France Lawsuit Win May Provide Opening for More Anti-Smoking Litigation*, CHI. TRIB., June 12, 1994, at C20.

<sup>111</sup> H.R. REP. NO. 771, *supra* note 108, at 2.

<sup>112</sup> *Id.* (referring to Pub. L. No. 100-102 (1987)).

<sup>113</sup> *Id.*

<sup>114</sup> *Id.* In essence, the 1989 smoking ban applies to domestic U.S. flights of six hours or less. Wade, *supra* note 110, at C20.

<sup>115</sup> H.R. REP. NO. 771, *supra* note 108, at 2.

<sup>116</sup> *Airliner Cabin Air Quality: Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transp.*, 103d Cong., 2d Sess. 6 (1994) (statement of Alan R. Hinman, M.D., M.P.H., Director of the National Center for Prevention Services, Centers for Disease Control and Prevention) [hereinafter Hinman].

to the *Aedes aegypti* mosquito.<sup>117</sup> In light of new risks to public health, the PHS extended quarantine inspection services to international airports in 1927, concentrating its efforts on airports in the southern U.S., where infected mosquitoes could survive if introduced to the geographical area.<sup>118</sup> During the late 1930s, "the Public Health Service expanded its inspection services and instituted insecticide spraying . . . requirements to include all aircraft arriving at any U.S. port from an area infected with any vector-borne communicable disease."<sup>119</sup>

In 1979, the Centers for Disease Control and Prevention (CDC) amended the Foreign Quarantine Regulations,<sup>120</sup> terminating routine spraying insecticide.<sup>121</sup> This amendment was spurred by: concern for the health of passengers and flight crews; the lack of evidence that "aircraft spraying played a significant role in disease control[;] and the belief that discontinuation of spraying would not present a significant public health threat."<sup>122</sup>

Today, the "CDC retains regulatory authority to 'require disinsection of an aircraft if it has left a foreign area that is infected with insect-borne communicable disease and the aircraft is suspected of harboring insects of public health importance.'"<sup>123</sup> The responsibility of disinsection falls on the shoulders of the air carrier. The disinsection is performed immediately after landing and blocking the wheels. "The aircraft cargo compartment is disinfected before the mail, baggage, and other cargo

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<sup>117</sup> *Id.*

<sup>118</sup> Hinman, *supra* note 116, at 6.

<sup>119</sup> *Id.* Reportedly, the first insecticides used were "pyrethrum mixed with refined kerosene. This mixture was subsequently replaced with a freon-propelled aerosol containing pyrethrum and DDT." *Id.* at 6-7. Other disease control measures included "vector surveillance and mosquito abatement programs at airports, and the development of an effective vaccine for yellow fever." *Id.* The practice continued through the late 1970s. *Id.*

<sup>120</sup> Foreign Quarantine Regulations, 42 C.F.R. § 71 (1979).

<sup>121</sup> Hinman, *supra* note 116, at 7.

<sup>122</sup> *Id.* According to Hinman:

[T]he spraying caused undue discomfort to many passengers, and had the potential for creating acute allergic reactions, asthmatic attacks, and other allergic or respiratory problems in certain passengers. Furthermore, yellow fever vaccine was readily available and very effective in providing long-term immunity for travelers going abroad, and routine mosquito surveillance and abatement procedures around U.S. international airports were utilized to prevent the introduction and spread of insect vectors.

*Id.*

<sup>123</sup> *Id.*

are discharged.”<sup>124</sup> The remaining areas of the aircraft are sprayed only after the passengers and the crew have departed the plane.<sup>125</sup>

Since 1979, the CDC has not invoked its authority to require disinsection of an aircraft arriving at a U.S. airport. Interestingly, since the routine spraying was discontinued in the United States in 1979, “there have been no outbreaks of vector-borne disease in the United States that can be attributed to imported vectors.”<sup>126</sup>

As previously stated, many countries still require pre-arrival spraying of international flights.<sup>127</sup> This mandatory spraying is performed with the passengers and crew on board.<sup>128</sup> Not surprisingly, some travelers strongly object to being “sprayed with an insecticide the label of which warns that the product is hazardous to humans.”<sup>129</sup> Although efforts are being made to address these concerns, to date, there have been no U.S. regulations or legislation passed controlling such spraying.

#### IV. PROPOSED SOLUTIONS

##### A. SETTING FEDERAL STANDARDS FOR FRESH AIR IN AIRCRAFT CABINS

###### 1. Which Government Agency Has Jurisdiction Over the Setting of Such Standards?

There is a question as to which government agency has the jurisdiction to set fresh air standards. Federal officials have said that “no Government agency had the responsibility to set and enforce standards that would limit the levels of airborne toxins, viruses and bacteria on airline cabins.”<sup>130</sup>

###### a. Federal Aviation Administration (FAA)

One possible governmental body that could address cabin air quality concerns is the FAA. The FAA’s mission is “to insure [sic] flight safety and to promote the financial well-being of the airline industry.”<sup>131</sup> In 1975, the FAA claimed total jurisdiction

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<sup>124</sup> *Id.*

<sup>125</sup> *Id.*

<sup>126</sup> *Id.*

<sup>127</sup> Canny, *supra* note 95, at 3-4.

<sup>128</sup> *Id.*

<sup>129</sup> *Id.* at 3.

<sup>130</sup> Tolchin, *supra* note 105, at A16.

<sup>131</sup> *Id.*

over airline crewmember health and safety.<sup>132</sup> The FAA has claimed total jurisdiction over airline crewmember health and safety. The FAA's response to the numerous complaints from crewmembers has been weak,<sup>133</sup> despite many union efforts to get help from airline carriers and the government concerning the cabin air quality problem.<sup>134</sup>

U.S. Representatives Gerald Nadler and Peter DeFazio have introduced a bill<sup>135</sup> in the House Committee on Public Works and Transportation "directing the FAA to issue fresh-air regulations for commercial aircraft."<sup>136</sup> This bill would require airlines to provide "20 cubic feet of fresh air per minute per passenger, twice what is sometimes received."<sup>137</sup> The bill would also require the FAA to monitor how often each airline changes its recirculating ventilation air filters. Such action would ensure that filters are changed when needed in order to maintain a minimum standard of humidity in the aircraft's cabin. It would

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<sup>132</sup> *OSHA Reform Coverage and Enforcement: Hearings Before the Subcomm. on Labor of the Senate Comm. on Labor and Human Resources*, 103d Cong., 1st Sess. 40 (1993) (statement of Deanne Clarke, flight attendant for a national airline and AFA member) [hereinafter Clarke]. The Association of Flight Attendants, AFL-CIO, represents more than 35,000 flight attendants from twenty-two airlines and is the largest flight attendant union in the world. *Association of Flight Attendants Testifies on Indoor Air Quality*, PR Newswire, Sept. 28, 1994, available in LEXIS, Nexis Library, Prnews file [hereinafter *Ass'n of Flight Attendants*].

<sup>133</sup> Clarke, *supra* note 132, at 40. From July 1989 to October 1993 "[t]here were 235 separate flights with air quality incidents and 506 related flight attendant illnesses reported" on Clarke's carrier alone. *Id.* at 38. The AFA contacted the FAA immediately when the flight attendants reported headaches, blurred vision, and many other health problems. *Id.* at 40. Clarke describes the FAA's inaction to the complaints as follows:

Despite numerous calls and letters, the FAA has never taken any action. In fact, my union learned last week that in September of 1991, the FAA requested that the carrier no longer send reports on air quality incidents and illnesses to the agency. In other words, the FAA did not want to be bothered any further. The union was never notified that the FAA had stopped collecting these important documents.

*Id.*

<sup>134</sup> *Id.* At the hearing, Clarke provided a chronology of "some of the union's efforts to get help from the airline carrier and the government" concerning poor cabin air quality. *Id.* at 40-41.

<sup>135</sup> Fresh Air Recirculation on Commercial Aircraft Act, H.R. 2985, 103d Cong., 1st Sess. (1993) [hereinafter Fresh Air Act].

<sup>136</sup> *Airline Passengers Complain About Rarefied Cabin Air*, PLAIN DEALER, Feb. 6, 1994, at A23.

<sup>137</sup> Martin Tolchin, *Plenty of Complaints on Airline Air Quality, Lawmakers Say*, N.Y. TIMES, May 19, 1994, at A19.

also require the FAA to enforce maximum ozone and minimum humidity levels to assure compliance with current regulations.<sup>138</sup>

b. Occupational Safety and Health Administration (OSHA)

Another governmental body that may be called upon to address these concerns is OSHA. OSHA, however, only has responsibility for activities on the ground.<sup>139</sup> Therefore, "OSHA standards are not applied to the air in airplane cabins, nor any other flight attendant safety and health issue."<sup>140</sup> Yet the AFA maintains that since the FAA claimed total jurisdiction over the health and safety of airline crewmembers in 1975, the FAA has "failed to make any serious effort to address occupational safety and health issues outside the area of crash survivability."<sup>141</sup> Because of the FAA's lack of effort to protect the health and safety of airline crewmembers, in October of 1993 flight attendants asked Congress for jurisdictional coverage under OSHA regulations.<sup>142</sup> The request by the flight attendants to have OSHA extend its coverage to airplane cabins was again made to Congress in September of 1994.<sup>143</sup>

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<sup>138</sup> DAILY REP. FOR EXECUTIVES, *supra* note 21, at A95. As of July 19, 1994, this bill was pending and had ten co-sponsors. Fresh Air Act, *supra* note 135.

<sup>139</sup> Tolchin, *supra* note 105, at A16.

<sup>140</sup> *Ass'n of Flight Attendants*, *supra* note 132.

<sup>141</sup> Clarke, *supra* note 132, at 40.

<sup>142</sup> *Flight Attendants Ask Congress for Protection Under OSHA Standards*, AVIATION DAILY, Oct. 6, 1993, at 26. Clarke appealed to Congress for OSHA coverage by describing the occupational workplace of flight attendants as follows:

The threat of turbulence, explosive decompressions, assaultive passengers, radiation, passengers' viral illnesses, 200 pound, poorly designed meal and beverage carts, lengthy duty days, noise, and inadequate climate controls argues forcefully for strong agency oversight of occupational hazards on aircraft. Yet, the reality is that flight attendants are unprotected and desperately need OSHA coverage.

Clarke, *supra* note 132, at 41. OSHA coverage would also include whistleblower protection for all aviation workers who bring complaints about air quality, or any other problems with which they are concerned. *Id.*

In an effort to get OSHA involved in these concerns, Sen. Edward M. Kennedy introduced a bill in 1993 that would amend the Occupational Safety and Health Act of 1970 by requiring OSHA to set standards for air contaminants in industries where those standards are not set by other agencies. S. 575, 103d Cong., 1st Sess. (1993). "Under the current law, OSHA lacks jurisdiction when another agency, like the F.A.A., has the authority to set air standards but fails to act." Tolchin, *supra* note 105, at A16. However, to date, this bill has not been passed.

<sup>143</sup> *Ass'n of Flight Attendants*, *supra* note 132. In urging OSHA to extend its coverage to airplane cabins, it was said by one flight attendant, "the fact that I work on an airplane should not preclude the federal government from requiring that I

c. Environmental Protection Agency (EPA)

In addition to the FAA and OSHA, the EPA is another governmental body which could address these concerns. The problem, however, is that "[t]he Environmental Protection Agency sets no standards for indoor air."<sup>144</sup> Therefore, the EPA has no jurisdiction to set standards or regulations regarding air quality inside the aircraft cabins.

B. PROPOSED REGULATIONS TO BAN SMOKING

Although a smoking ban on aircraft has already been statutorily created in certain instances, it seems as though those initial regulations are being subjected to heightened restrictions on smoking by more recent proposed regulations. For example, in May 1994, the Aviation Subcommittee of the Public Works and Transportation Committee proposed a ban on smoking on all international flights by U.S. airlines.<sup>145</sup> The bill, if passed, would:

prohibit individuals from smoking in the passenger cabin or lavatory, in flights in intrastate and interstate air transportation, and in addition would require DOT [Department of Transportation] to issue regulations requiring air carriers and foreign air carriers to prohibit smoking in passenger cabins and lavatories on flights in foreign air transportation between points in the United States and foreign points.<sup>146</sup>

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work in a safe and healthy environment." *Id.* One of the OSHA regulations under which the flight attendants want protection concerns environmental tobacco smoke, "[f]or flight attendants exposure to tobacco smoke represents a preventable occupational hazard." White, *supra* note 61, at 5. As White testified:

[I]t is important to note that the Occupational Safety and Health Administration recently announced a proposed rulemaking on indoor air quality which, in part, would eliminate exposure to environmental tobacco smoke in all industrial and nonindustrial worksites under its jurisdiction. Flight attendants on international flights would remain one of the last groups of workers without protection from the health effects of environmental tobacco smoke.

*Id.*

<sup>144</sup> Tolchin, *supra* note 105, at A16.

<sup>145</sup> Airliner Cabin Air Quality Act of 1994, H.R. 4495, 103d Cong., 2d Sess. (1994) [hereinafter Air Quality Act of 1994]. In February of 1995, the House of Representatives introduced a new bill that is essentially identical to the Airliner Cabin Air Quality Act of 1994. See Airliner Cabin Air Quality Act of 1995, H.R. 969, 104th Cong., 1st Sess. (1995) [hereinafter Air Quality Act of 1995]. Apparently, the 1994 bill did not pass in the Senate as expected. See *infra* notes 142-43 and accompanying text. Therefore, the Airliner Cabin Air Quality Act of 1995 is another attempt by the House to achieve an international smoking ban.

<sup>146</sup> H.R. REP. NO. 771, *supra* note 108, at 3.



The amendment also applies to U.S. airline cabin crews; however, foreign air carrier pilots could continue to smoke on flights to and from the United States.<sup>147</sup>

On October 4, 1994, the Airliner Cabin Air Quality Act of 1994 was passed by voice vote on the House floor.<sup>148</sup> Interestingly, many congressmembers have admitted that they let the anti-smoking bill pass only "because they are convinced it will never become law."<sup>149</sup> The reason behind this conviction is that the chairman of the Senate subcommittee most likely to handle the issue is a legislator from a tobacco industry state.<sup>150</sup> The Senate is not expected to consider the matter before the end of the 103d congressional session.<sup>151</sup>

Although there have been recent proposed regulations by the government to ban smoking inside the aircraft cabin, it appears that the airlines may try to solve the problem themselves. In the months of August and September of 1994, four major airlines announced a non-smoking policy on their transatlantic flights.<sup>152</sup> Spokespersons for the airlines stated that the decisions for the bans were caused by customer desires and preferences for non-smoking flights.<sup>153</sup> Even without mandatory restrictions, the airlines seem headed in the direction of banning smoking on more flights.<sup>154</sup>

The smoking ban is being addressed not only on the national level but also on the international level. A United Nations reso-

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<sup>147</sup> *Id.* at 2.

<sup>148</sup> *Smoking Ban on International Flights Approved*, DAILY LAB. REP. (BNA) No. 192, Oct. 6, 1994, at D-22.

<sup>149</sup> Jonathan Freedland, *U.S. Congressmen Pass Bill to Stop All Puffing on International Flights*, GUARDIAN, Oct. 6, 1994, at 16.

<sup>150</sup> *Smoking Ban on International Flights Approved*, *supra* note 148, at D22. The Senate subcommittee likely to assume jurisdiction over the bill is the Senate Commerce, Science and Transportation Subcommittee on Aviation chaired by Sen. Wendall H. Ford. *Id.* Sen. Ford has been called "one of the tobacco lobby's loudest voices in Washington." Freedland, *supra* note 149, at 22.

<sup>151</sup> *Smoking Ban on International Flights Approved*, *supra* note 148, at D22.

<sup>152</sup> Cath Urquhart, *Travel: Ban That Flies in the Face of Smokers Worldwide*, DAILY TELEGRAPH, Sept. 3, 1994, at 25.

<sup>153</sup> *Id.* The four airlines announcing a non-smoking policy on their transatlantic flights were Delta Air Lines, British Airways, American Airlines, and Singapore Airlines. *Id.*

<sup>154</sup> .

U.S. and other [international] airlines have begun to voluntarily prohibit smoking on some international flights. International flights between the U.S. and Canada are already smoke-free. Three U.S. carriers offer some non-smoking flights between the U.S. and Europe.

lution, which was proposed and adopted by the International Civil Aviation Organization (ICAO)<sup>155</sup> in October of 1992, urges all Contracting States "to take necessary measures as soon as possible to restrict smoking progressively on all international passenger flights with the objective of implementing complete smoking bans by 1 July 1996."<sup>156</sup> Congressional testimony described the resolution as follows:

To promote health and safety, cooperation among nations and to facilitate effective competition among international carriers, the resolution states that "globalization of air carrier operations requires harmonization of rules on smoking restrictions." The resolution also requests ICAO to develop standards the nations of the world can use to achieve that goal.<sup>157</sup>

Although the resulting health effects of environmental tobacco smoke are of serious concern, passenger health and comfort were not the primary consideration of the ICAO resolution.<sup>158</sup> "Rather, the overriding objective was safety as per the Convention on International Civil Aviation."<sup>159</sup> Some of the safety considerations arising from cigarette smoking in airline passenger cabins that concerned ICAO member states were: (1) impaired performance of the flight crew due to high concentrations of carbon monoxide; (2) fire hazards in the cabins; and (3) the possibility that the safety equipment on board the air-

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Numerous other countries, including Russia and China, as well as other central European and Asian countries, have imposed smoking bans on some or all of their domestic flights.

H.R. REP. NO. 771, *supra* note 108, at 3-4.

<sup>155</sup> The mission and purpose of the ICAO is as follows:

The [ICAO] was created in 1944 to promote the safe and orderly development of civil aviation in the world. A specialised agency of the United Nations, it sets international standards and regulations necessary for the safety, security, efficiency and regularity of air transport and serves as the medium for cooperation in all fields of civil aviation among its 172 Contracting States.

R.I.R. Abeyratne, *Tobacco Smoking in Aircraft—A Fog of Legal Rhetoric?*, 18 AIR & SPACE L. 50, 50 n.3 (1993).

<sup>156</sup> *Smoking Restrictions on International Passenger Flights*, Ass. Res. A29-15, at 75, ICAO Doc. 9600 (1992). The vote to prohibit smoking on all international airline passenger flights took place at the triennial Assembly meeting in 1992. White, *supra* note 61, at 5. Representatives of 168 nations to the ICAO took part in the vote. *Id.* Australia, Canada, Pakistan, the Russian Federation, and the United States were cosponsors of the resolution. *Id.*

<sup>157</sup> White, *supra* note 61, at 5-6.

<sup>158</sup> *Id.* at 6.

<sup>159</sup> *Id.*

craft will malfunction due to tobacco tar buildup within the cabin.<sup>160</sup>

The resolution's implementation is a complex process that will require much international cooperation.<sup>161</sup> Because the member nations are not bound to comply with the ICAO resolution, a smoking ban on all international flights will be realized only if it is implemented by the Contracting States.<sup>162</sup> This cooperation among nations to comply with the ICAO resolution can be accomplished if the nations enter into "regional compacts to ban smoking through multilateral agreements."<sup>163</sup> For example, the United States began negotiations with Australia, Canada, and New Zealand to form a "quadripartite agreement that [would] ban smoking on non-stop flights between these countries."<sup>164</sup>

The State Department's international efforts to limit inflight smoking have not been confined to Australia, Canada, and New Zealand.<sup>165</sup> "The Department has also been pursuing other bilateral and multilateral agreements."<sup>166</sup> These efforts demonstrate the United States' determination to protect non-smokers from the unnecessary exposure to environmental tobacco smoke.<sup>167</sup> According to Canny, "to our knowledge, no other na-

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<sup>160</sup> *Id.* at 5. See also *supra* notes 70-78 and accompanying text.

<sup>161</sup> White, *supra* note 61, at 5.

<sup>162</sup> Canny, *supra* note 95, at 1.

<sup>163</sup> *Id.*

<sup>164</sup> *Id.* at 1-2. In May 1994, negotiations were underway for the United States to produce an agreement with expectations of its signing by the four countries in the near future. *Id.* In describing this agreement, Canny testified:

This agreement will go beyond enabling passengers and crew on the routes serving these countries to travel without exposure to environmental tobacco smoke (ETS). It should serve as a catalyst for the creation of other regional compacts by demonstrating to the world community that a smoking ban on flights over 14 hours in duration is not only feasible but welcomed by passengers and crew.

*Id.* at 2.

<sup>165</sup> *Id.*

<sup>166</sup> *Id.* One of the U.S. initiatives showed success when the government of Jamaica authorized the continuation of negotiations with the United States and Canada, with the ultimate goal of achieving an agreement to ban smoking on all international flights between Jamaica and other signing nations. *Id.* The Jamaican government also recommended that Jamaica seek the support of the countries in the Caribbean Community (CARICOM) for the ICAO initiative with hope that all CARICOM countries will join the ICAO smoking ban. *Id.* This announcement by the Jamaican government was significant because "[t]he U.S., Canada and the 13 nations of CARICOM constitute about one fourth of all U.S. international passenger flights." *Id.*

<sup>167</sup> *Id.*

tion is so aggressively pursuing multilateral actions to advance the ICAO goal."<sup>168</sup>

C. PROPOSED EFFORTS TO PROTECT PASSENGERS AND FLIGHT CREWS FROM THE SPRAYING OF INSECTICIDES ON INTERNATIONAL FLIGHTS

An informed public and political diplomacy are the primary means by which the U.S. hopes to curb a number of foreign countries' policies of spraying insecticides in airplanes arriving at points of entry with passengers and crew on board. Secretary of Transportation, Federico Peña, announced that the traveling public will be notified of the countries maintaining the spraying requirement "to discourage its continued application."<sup>169</sup> "Such notification will permit the public to consider alternative travel arrangements."<sup>170</sup> In an effort to compile an accurate list of the countries that still require the insecticide spraying, the State Department in April of 1994, through its embassies, "delivered a letter from the Secretary of Transportation to the ministers of transportation of every country recognized by the United States."<sup>171</sup> As an alternative source of information the DOT also requested that the Air Transport Association "obtain from its member airlines any information they have on disinsection" requirements.<sup>172</sup>

In July of 1994, lawmakers sought to stop the spraying of insecticide inside arriving airplanes by releasing the list of countries that responded to the Secretary's letter and continued to

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<sup>168</sup> *Id.* The United States has also held discussions with Latin American, European, and Asian countries to establish agreements that will further the non-smoking ban of the ICAO resolution. *Id.* The Department of Transportation is confident that other future agreements will also be signed in a timely manner. *Id.*

<sup>169</sup> Canny, *supra* note 95, at 4.

<sup>170</sup> *Id.* Although Secretary Pena's effort to notify passengers of the countries still requiring insecticide spraying will give the traveling public the opportunity to consider alternative travel arrangements, this effort probably does not go far enough. Concededly, notification will protect passengers who have the luxury to alter their travel plans, but will not protect passengers having no choice of travel plans. Moreover, the notification effort will not in any way force the countries still spraying to discontinue the practice. Therefore, a discontinuation of the spraying seems as though it would only be done on a voluntary basis.

<sup>171</sup> *Id.* "In addition to requesting information on disinsection requirements within 30 days, the letter 'urged those nations that are continuing to spray while passengers and crew are on board to reconsider the practice and spray only when passengers and crew are not on board.'" *Id.*

<sup>172</sup> Canny, *supra* note 95, at 4-5.

follow the practice.<sup>173</sup> "The hope is that the publicity will persuade the countries to discontinue the spraying."<sup>174</sup> Thus far, twenty-eight countries have been identified as still following the practice of spraying insecticides inside arriving airplanes,<sup>175</sup> and as a result of publishing the list of countries, one country has since discontinued the practice.<sup>176</sup>

Efforts to force a ban on spraying are severely limited because the United States has no jurisdiction to require other countries to stop the practice.<sup>177</sup> As sovereign states, these countries may mandate aircraft disinsection.<sup>178</sup> Therefore, efforts by the United States to enforce a ban must be limited to notifying the traveling public of the countries that continue to require spraying.<sup>179</sup> But in an effort to force the issue internationally, lawmakers have also suggested lobbying world health organizations to oppose the spraying.<sup>180</sup> To date, there has been no firm step taken to implement an international effort the world health organizations.

Another effort by lawmakers to protect passengers is proposed legislation that would require airlines and travel agents to inform travelers which flights will be sprayed, thus affording passengers an opportunity to decline boarding.<sup>181</sup> Again, this type of legislation does not interfere with the sovereignty of the "spraying" nations. It simply allows the traveling public to be fully aware of any possible spraying and gives them the choice of whether or not to be exposed to insecticide.

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<sup>173</sup> James. T. Yenckel, *Is Travel a Hazard to Your Health?*, WASH. POST, July 31, 1994, at E1.

<sup>174</sup> *Id.* at E6.

<sup>175</sup> Cassandra Burrell, *Lawmakers List Countries Requiring Insecticide Spraying of Flights*, Associated Press, July 21, 1994, available in LEXIS, Nexis Library, AP File.

<sup>176</sup> Chile has been the first and only country thus far to surrender to pressure from the United States to end requirements since the campaign was launched. *Chile Stops Spraying Insecticide in Full Aircraft*, TRAVEL WKLY., Aug. 22, 1994, at 10.

<sup>177</sup> Canny, *supra* note 95, at 4.

<sup>178</sup> *Id.*

<sup>179</sup> See 60 Fed. Reg. 3596 (1995) (to be codified at 14 C.F.R. pt. 259) (proposed Jan. 18, 1995). As stated previously, this is a seemingly simple but inadequate response to the problem of insecticide spraying in certain countries. See *supra* note 170.

<sup>180</sup> Burrell, *supra* note 175.

<sup>181</sup> *Id.* As with the other proposed efforts, informing the travelers about any planned spraying before boarding the aircraft is an inadequate response to the problem. This effort will only protect those passengers who can change their travel plans at the last minute, and not those passengers who have no choice. See *supra* notes 170 and 179.

U.S. legislation to protect passengers from the spraying of insecticides was proposed by Senator Patrick Leahy.<sup>182</sup> Leahy's proposed legislation would require airlines flying out of the United States to provide information about whether the flight will be sprayed. The Senator agreed to postpone action on the legislation until other countries have a chance to respond.<sup>183</sup>

#### V. IS THERE A WAY TO ENFORCE THESE PROPOSED REGULATIONS IF AND WHEN THEY ARE PASSED BY CONGRESS?

Past and more recent complaints of the inadequacy of the air quality in aircraft cabins have spurred Congress to "rethink" the problem. Congress has proposed more stringent guidelines for the Federal Aviation Administration in the areas of ventilation<sup>184</sup> and environmental tobacco smoke.<sup>185</sup> The question is whether more stringent regulations, if passed, will actually be enforced, and perhaps more importantly, how and by who?

The explicit language of a federal statute determines how and by who it may be enforced.<sup>186</sup> Frequently, the statute will specify whether private litigants, for whose benefit the legislation was passed, have a cause of action when they are injured by violation of the statute.<sup>187</sup> If a remedy is not explicitly within the language of the federal statute, however, the U.S. Supreme Court has stated:

[W]hen Congress intends private litigants to have a cause of action to support their statutory rights, the far better course is for it to specify as much when it creates those rights. But the Court has long recognized that under certain limited circumstances the failure of Congress to do so is not inconsistent with an intent on its part to have such a remedy available to the persons benefited by its legislation.<sup>188</sup>

Because the proposed federal statutes related to ventilation and tobacco smoking in the cabin do not explicitly provide a private cause of action to passengers and flight crews, determining whether a private cause of action exists will turn on interpre-

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<sup>182</sup> *Id.*

<sup>183</sup> *Id.*

<sup>184</sup> See Fresh Air Act, *supra* note 135 and accompanying text.

<sup>185</sup> See Air Quality Act of 1995, *supra* note 145 and accompanying text.

<sup>186</sup> See, e.g., *Roach v. United Instruments*, 548 F.2d 452, 457 (3d Cir. 1976).

<sup>187</sup> See, e.g., 42 U.S.C. § 2000a-3 (1988 & Supp. V 1993) (providing a private right of action for persons discriminated against in access to public facilities).

<sup>188</sup> *Cannon v. University of Chicago*, 441 U.S. 677, 717 (1979).

tation of Congressional intent.<sup>189</sup> "By definition, [private cause of action] implication cases concern statutes that contain no explicit provisions regarding private enforcement."<sup>190</sup> Therefore, under some circumstances, an injured party may have standing to sue as a result of a statutory violation, even though the statute does not expressly create a private cause of action.<sup>191</sup>

The doctrine of "implied" remedies was approved by the U.S. Supreme Court in the landmark case of *Texas & Pacific Ry. v. Rigsby*.<sup>192</sup> The *Rigsby* Court stated that "[a] disregard of the command of the statute is a wrongful act, and where it results in damage to one of the class for whose especial benefit the statute was enacted, the right to recover the damages from the party in default is implied."<sup>193</sup> The issue of whether a federal statute creates a private right of action has been difficult to resolve.<sup>194</sup>

A. GUIDELINES TO FOLLOW IN ORDER TO DETERMINE IF A  
FEDERAL STATUTE CAN BE ENFORCED BY AN IMPLIED  
PRIVATE CAUSE OF ACTION

In the unanimous Supreme Court decision of *Cort v. Ash*,<sup>195</sup> the Court attempted to provide comprehensive guidelines to determine whether an implied federal cause of action existed under a federal statute.<sup>196</sup> The Court held:

In determining whether a private remedy is implicit in a statute not expressly providing one, several factors are relevant. First, is the plaintiff "one of the class for whose *especial* benefit the statute was enacted,"—that is, does the statute create a federal right in favor of the plaintiff? Second, is there any indication of legislative intent, explicit or implicit, either to create such a remedy or to deny one? Third, is it consistent with the underlying purposes

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<sup>189</sup> See Fresh Air Act, *supra* note 135 and Air Quality Act of 1995, *supra* note 145.

<sup>190</sup> Nancy Eisenhauer, Comment, *Implied Causes of Action Under Federal Statutes: The Air Carriers Access Act of 1986*, 59 U. CHI. L. REV. 1183, 1189 (1992).

<sup>191</sup> See generally James D. Crawford & Deena J. Schneider, *The Implied Private Cause of Action and the Federal Aviation Act: A Practical Application of Cort v. Ash*, 23 VILL. L. REV. 657 (1978).

<sup>192</sup> 241 U.S. 33 (1916); see also Crawford & Schneider, *supra* note 191, at 657.

<sup>193</sup> *Id.* (quoting *Rigsby*, 241 U.S. at 39).

<sup>194</sup> *Id.* at 657-58; see also *Cort v. Ash*, 422 U.S. 66, 78-79, 82-83 n.14 (1975) (discussing various tests developed by the courts).

<sup>195</sup> 422 U.S. 66 (1975). In this case, the Court declined to accept the plaintiff shareholder's assertion that a private cause of action should be inferred under a criminal provision prohibiting corporate campaign contributions. Crawford & Schneider, *supra* note 191, at 658.

<sup>196</sup> *Cort*, 422 U.S. at 78; see also Crawford & Schneider, *supra* note 191, at 657-58.

of the legislative scheme to imply such a remedy for the plaintiff? And finally, is the cause of action one traditionally relegated to state law, in an area basically the concern of the States, so that it would be inappropriate to infer a cause of action based solely on federal law?<sup>197</sup>

Each of the four *Cort* factors will be discussed individually in analyzing whether an implied private cause of action will *or should* exist, if proposed legislation for ventilation rates<sup>198</sup> and smoking bans<sup>199</sup> are passed.

1. *The First Factor—Does the Act Create a Federal Private Right of Action?*

In order to address this first factor, the central issue is “whether the plaintiff is suing in his capacity as an individual intended to be protected by the statute against the type of harm he alleges has occurred.”<sup>200</sup> According to *Rauch v. United Instruments, Inc.*,<sup>201</sup> a case analyzing whether there was an implied private cause of action with regard to the safety provisions of the Federal Aviation Act,<sup>202</sup> the Court said that the safety provisions seek to assure “the personal safety of all persons who are potential passengers or crew members of civil and military aircraft.”<sup>203</sup>

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<sup>197</sup> 422 U.S. at 78 (quoting *Rigsby*, 241 U.S. at 39 (citations omitted)); see also *Crawford & Schneider*, *supra* note 191, at 658. The *Cort* test, however, has been thought to be essentially overruled in subsequent cases; *Thompson v. Thompson*, 484 U.S. 174, 189 (1988) (Scalia, J., concurring) (stating “It could not be plainer that we effectively overruled the *Cort v. Ash* analysis.”) (citations omitted). However, the Court seems to continually refer to the *Cort* test in implication cases; see, e.g., *Thompson*, 484 U.S. at 179 (majority opinion). Therefore, because the Court continues to refer to the *Cort* test in this manner, “current courts cannot be certain whether [this] test is valid or not.” *Eisenhauer*, *supra* note 190, at 1198 n.102. Because the *Cort* test has not been explicitly overruled, this Comment will use this test in analyzing whether an implied private cause of action will exist under the two proposed statutes concerning ventilation standards and a smoking ban.

<sup>198</sup> See Fresh Air Act, *supra* note 135 and accompanying text.

<sup>199</sup> See Air Quality Act of 1995, *supra* note 145 and accompanying text.

<sup>200</sup> *Crawford & Schneider*, *supra* note 191, at 661.

<sup>201</sup> 548 F.2d 452 (3d Cir. 1976).

<sup>202</sup> See 49 U.S.C.A. §§ 40101-46507 (West 1996) (recodified by Pub. L. No. 103-272, § 2(e) (1994)).

<sup>203</sup> 548 F.2d at 457; see *Brown v. Byard*, 600 F. Supp. 396, 398 (S.D. Ohio 1984); see also *In re Mexico City Aircrash*, 708 F.2d 400, 406 (9th Cir. 1983). A number of courts have denied an implied private right of action based on provisions of the Federal Aviation Act that were not related to safety. See, e.g., *Kodish v. United Air Lines, Inc.*, 628 F.2d 1301, 1302-03 (10th Cir. 1980) (holding that the Act creates no private right of action to challenge age discrimination in pilot selection).



While the proposed legislation regarding ventilation rates and a smoking ban are not "safety" provisions per se, such provisions do relate to the personal safety and health of aircraft passengers and crew. Thus, passengers and crew would arguably have standing to sue under the proposed legislation.

With regard to passengers suing as plaintiffs, it seems apparent that the law distinguishes between the rights of *potential* passengers and the rights of *actual* passengers who were injured in fact due to a statutory violation. "[I]t is clear that a private remedy is not likely to be implied when the injury did not arise from an actual accident caused by violation of the safety provisions of the Act."<sup>204</sup> Therefore, in order for passengers and flight crew to claim there is an implied private cause of action under the two proposed bills, it must be proven that, as a class of people to be protected under the legislation, they were actually injured.

2. *The Second Factor—Did Congress Intend to Create a Federal Right of Action as a Way to Enforce the Act?*

"The legislative history of a particular statute rarely contains a definitive indication as to congressional intent, either explicit or implicit, to create or deny a federal remedy."<sup>205</sup> The courts typically have determined congressional intent only from consideration of the other *Cort* factors.<sup>206</sup> For example, if the statute clearly grants a right to a plaintiff, then congressional intent to imply a remedy to enforce that right is generally implied.<sup>207</sup> On the other hand, if a statute expressly provides a particular remedy, then a presumption is created against congressional intent to provide other remedies.<sup>208</sup> Therefore, considering the fact that neither of the two proposed bills concerning ventilation rates and a smoking ban expressly provide for a particular remedy, the courts may consider providing an implied private cause of action.

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<sup>204</sup> Crawford & Schneider, *supra* note 191, at 666; see also *Rauch*, 548 F.2d at 457.

<sup>205</sup> Crawford & Schneider, *supra* note 191, at 667.

<sup>206</sup> *Id.*

<sup>207</sup> See *Texas & Pacific Ry. v. Rigsby*, 241 U.S. 33, 39-40 (1916). Accord *Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Curran*, 456 U.S. 353, 378 (1982).

<sup>208</sup> Crawford & Schneider, *supra* note 191, at 667 (citing *T.I.M.E. Inc. v. United States*, 359 U.S. 464, 470-71 (1969)); see also *National R.R. Passenger Corp. v. National Ass'n of R.R. Passengers*, 414 U.S. 453, 457-58 (1974).

3. *The Third Factor—Would a Federal Right of Action Further the Underlying Purposes of the Act?*

According to *Cort*, the legislative history need not show congressional intent to grant or withhold a private remedy for violations of a statute in order to determine whether the implication of such a remedy would be consistent with the legislative scheme.<sup>209</sup> Rather, the answer to the third factor “depends on such considerations as whether the remedy would further the purpose of the statute in question, whether existing remedies are adequate to enforce the federal interest involved, and whether the remedy to be implied would conflict with the statutory scheme.”<sup>210</sup> Thus, in the case of the two proposed bills, it appears that the purpose of the bills is to provide a safe and healthy environment for both the passengers and flight crew alike. By implying a private cause of action for the violation of either bill, the efforts of Congress to set standards with which the Federal Aviation Administration must comply will be furthered.

4. *The Fourth Factor—Would Such a Cause of Action Be One Traditionally Relegated to State Law?*

The fourth factor is especially important because of the United States’ system of federalism, which “presupposes that those matters that are local in nature should be dealt with by local authorities.”<sup>211</sup> “In short, the question is simply the degree of federal interest in the matter, which depends on the extent to which the matter is ‘essentially of local concern.’”<sup>212</sup> “Only where there is some countervailing national interest should the federal courts imply a federal private remedy when an adequate state remedy already exists.”<sup>213</sup>

Considering that the determining factor is whether an adequate state remedy already exists, and that the two proposed bills concern the Federal Aviation Administration and its obligation to set national aviation standards, it seems as though this is a federal issue rather than a state one. Therefore, the federal

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<sup>209</sup> Crawford & Schneider, *supra* note 191, at 669 (referring to *Cort*, 422 U.S. at 82).

<sup>210</sup> *Id.* at 669 (citations omitted).

<sup>211</sup> *Id.* at 671.

<sup>212</sup> *Id.* at 673 (quoting *Bank of America Nat’l Trust & Sav. Ass’n v. Parnell*, 352 U.S. 29, 33-34 (1956)).

<sup>213</sup> *Polansky v. Trans World Airlines, Inc.*, 523 F.2d 332, 337 (3d Cir. 1975).

interest in the enforcement of these proposed bills seems to be at a higher level than that of local interest. Consequently, a cause of action arising from the violation of either of the two proposed bills should not be relegated to state law but rather to federal enforcement.

## VI. CONCLUSION

Considering all the studies that have been performed and all of the congressional testimony that has been given by airline industry employees, one cannot deny that there has been, and still is, a problem with the air quality in the aircraft cabin. And, although there is existing legislation aimed at addressing some of the concerns that have been repeatedly raised, it appears that the existing legislation does not go far enough in the effort to correct the air quality problem.

In response to current complaints about the air quality problem, Congress has taken steps to introduce new legislation that attempts to raise the standards of air quality, at least with regard to increased ventilation rates and to an international smoking ban. However, assuming that these proposed bills are passed, the next problem will be whether there is an effective way to enforce the legislation. One way of encouraging compliance would be to allow the passengers and the flight crews to bring a private cause of action for violations.

Whether or not such a violation will allow for an implied private cause of action, it seems that policy dictates that some kind of private remedy be available for non-compliance. Considering that the FAA has been slow to respond to air quality complaints in the past, a more effective means of enforcement is necessary to ensure that the FAA itself takes affirmative measures to respond to the air quality problem. Therefore, if courts should decide that the legislation cannot be enforced by an implied private cause of action, Congress must provide an alternative means to enforce aircraft cabin air quality regulations.

## **Case Note**

