IMPROVE AIRCRAFT CABIN AIR QUALITY

Studies and first hand accounts continue to document poor air quality onboard aircraft, heightening concern for crew members and the flying public. While poor air quality affects everyone, the impact of contaminated and poor cabin air especially affects flight attendants since the cabin is their workplace. The Federal Aviation Administration (FAA), aircraft manufacturers, and the airlines have failed to resolve or address this pressing health issue. The time for delay and excuses is over. Steps must be taken to improve cabin air quality and protect the health of those working in the aircraft cabin and air travelers.

Flight attendant unions have mounting evidence that a disproportionate number of flight attendants who routinely work in cabins with poor air quality suffer from respiratory problems and a range of health difficulties. Severe headaches, loss of balance, tremors and short-term memory loss are all too common. Despite reports of health related incidents, the FAA has refused to publish or enforce the most basic regulations to protect or offer recourse to those who work in this environment. Industry officials have successfully convinced the FAA that regulations are unnecessary and would impose an unfair burden on airlines and manufacturers. In turn, airlines and manufacturers spend millions of dollars to conduct and promote research designed such that it could only conclude that the air supplied on commercial aircraft is clean and healthy.

The refusal of airlines and manufacturers to allow independent researchers access to aircraft promulgates this data shortage. Further, the FAA's outright rejection of recommendations to institute and manage a centralized air quality incident reporting system that could be used to target problem aircraft or problem routes also contributes to this deficiency. Industry-funded "studies" typically find fault not with aircraft systems, but with occupants' physical and psychological states. Meanwhile, they continue to dismiss reports of illnesses by flight attendants as unreliable, and therefore irrelevant.

Poor cabin air quality is caused by many factors and is not simply a matter of dirty re-circulated air and increased exposure to possible contagious diseases from other passengers. While inadequate ventilation is indeed a problem, it is not the only problem. For example, aircraft air supply can be polluted while a plane is on the ground. Exhaust fumes and heated deicing fluids can be ingested into the air supply systems, exposing the cabin occupants to these dangerous chemicals.

Heated oils and hydraulic fluids pose another serious health threat. Both can leak or spill into the air supply systems during any phase of flight, exposing passengers and crew to carbon monoxide and dangerous neurotoxins. Many of the associated illnesses have been quite severe, including flight attendants who now suffer from permanent tremors and short-term memory loss. For example, one report stated:

> "After the aircraft door closed for departure, a strong odor came into back of cabin; at 10,000 feet, flight attendant in aft jumpseat felt 'weird', had difficulty focusing, metallic taste in mouth, body heavy, skin felt hot, nauseous; she went to cockpit to use their oxygen; when there, warning light went off; pilot said there was a hydraulic leak in the main system."

There are few protective measures in place to prevent air supply contamination and the FAA routinely dispatches contaminated aircraft as "airworthy." Chronic and permanent neurological damage can result, yet without any record of air monitoring or access to maintenance records affected passengers and crew are left with little recourse. The cockpit is also susceptible to these chemicals potentially incapacitating flight deck crews, placing passengers and crew at further risk.

The FAA must also address the pressurization of the aircraft cabin. During flight, current industry practice dictates the aircraft cabin to be maintained at a reduced pressure, generally equivalent to an altitude of 6,000 – 8,000 feet, although sometimes higher. At an effective altitude of 8,000 feet, current standards reduce the supply of oxygen by 25% relative to sea level. Evidence exists that the current "8,000 feet standard", first issued by the FAA in 1957, is based not on health, but on operating costs, and that the reduced oxygen supply may be inappropriately low for a substantial portion of the flying public and especially for flight attendants who work in this reduced oxygen environment, thereby possibly increasing or enhancing the effects of fatigue.

Exposure to ozone gas is another risk associated with poor cabin air quality. Symptoms associated with ozone exposure are well documented and include respiratory distress and increased susceptibility to infection. Ozone levels increase with altitude and latitude and are highest in the late winter and early spring. The exposure limit for ozone cited in the Federal Aviation Regulations is 2.5 times higher than the workplace limit set by the National Institute for Occupational Safety and Health (NIOSH). Airlines are under no obligation to monitor or record ozone levels in the cabin.

Cabin temperature complicates the overall cabin environment for flight attendants. Especially in smaller, regional aircraft, the cabin temperature can reach extreme highs and lows, depending on the season. A standard that defines a target temperature range would address this problem. Door heaters have already proven an effective and practical remedy.

Currently, forty-eight countries require that incoming aircraft are sprayed with pesticides to kill any possible disease carrying insects that may be onboard. This practice subjects flight attendants and passengers to potentially high concentrations of pesticides, many of which are banned in the U.S. The pesticides are applied in occupied or soon-to-be-occupied aircraft cabins without any measures to inform or protect the health of passengers or crew. Reported symptoms range from sinus problems and rash to anaphylactic shock and nerve damage.

These problems and risk factors are not new. In fact, the National Research Council (NRC) made a number of recommendations in 1986 to address these problems. In January 2002, the NRC Committee on Air Quality in Passenger Cabins of Commercial Aircraft issued another report at the request of Congress. Many of the recommendations in the 2002 report echoed those made in 1986. Unfortunately, the majority of these recommendations have been ignored by industry, the FAA and Congress for 20 years.

It is shameful how little the airline industry has done to improve cabin air quality. And it is unconscionable that the FAA does nothing to mandate a safer and healthier aircraft cabin or provide recourse for injured workers. Transportation labor calls on Congress to step forward to enact meaningful legislation to improve cabin air quality and protect the safety and health of flight attendants and the flying public.

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