

# POSITIONPAPER OF THE INDEPENDENT FLIGHT ATTENDANT ORGANISATION (UFO E. V.) REGARDING CONTAMINATED CABIN AIR ON PASSENGER AIRCRAFTS

Time and again incidents occur on passenger aircrafts in which toxic substances enter the cockpit and the cabin, they are called „fume events“. These events are caused by technical circumstances (often in moments of full power i.e. in the process of taking off and landing as well as during „load changes“ of the engines). These substances contain, amongst other things, toxic fumes from heated (pyrolised) hydraulic and engine oils as well as from the defrosting liquid.

Under certain circumstances these incidents are accompanied by odors which are, however, often not noticeable. This leads to a high estimated number of unknown cases. Regarding the resulting damage to human health, one has to differentiate between acute symptoms and chronic symptoms.

## **The following acute symptoms can occur:**

Mucosal irritation, severe headache, abdominal cramps, nausea, emesis, muscle weakness (myasthenia), symptoms of the flu, difficulties with balance and walking, prickling, numbness, vision problems and trouble with breathing.

## **The long-term effects of neurotoxicity can be:**

Fatigue, memory dysfunction, trouble concentrating and speaking.

An increasing number of crew members has complained about health issues following the incidents mentioned above. Additionally, several affected employees were able to furnish proof for long-term health damage caused by contamination on board during „fume events“.

Due to the German legal situation and underestimation of this topic by airlines, as well as aircraft and engine manufacturers, many affected crew members and passengers are confronted with great difficulties in clarifying and eliminating this hazard.

Accordingly, the process of establishing evidence in court in order to receive benefits is complicated due to the fact that confirmation of a causality between the toxic substances and the health damages is necessary and has to be provided by the person affected without access to technical documents. Moreover, there are no safety limits for breathing air for many of the discovered substances in question. Guidelines exist for some of them; however, they only apply for workplaces connected with hazardous material and aircraft cabins of commercial aircrafts do not count as such.

Furthermore, due to their attitude of denial, the occupational insurance association of transportation (BG Verkehr) forces those affected into an elaborate, long-lasting, expensive trial at the social courts.

For permanent control of contamination, it would be reasonable to install sensors which analyze the cabin air at all times. Until further technical developments regarding the air flow in aircrafts are made, a filter solution for protection of crew and passengers is necessary. These procedures could ensure a distinct improvement of cabin air quality, in accordance with the German Occupational Safety and Health Act, with European guidelines for occupational safety and with consumer protection.

Furthermore, airlines do not provide a sufficient range of preventive health care and aftercare.

The trade union of cabin staff in Germany, UFO, has been attending to the problem of harmful substances in passenger cabins for years. UFO is also internationally active in different committees regarding this issue.

Airlines, industry, Federal Government, EU Commission, EASA, IATA and ICAO are requested to participate constructively in the process of solving this problem. In our opinion it is no longer tolerable that in the near future aircrafts, which contain the risks of intoxication as mentioned before, are still admitted to operate in spite of the latest technical developments of cabin air systems (i.e. Boeing 787 Dreamliner or Fa. Liebherr Aerospace - Toulouse for A320 NEO). We consider the consequent application of the principle of prevention as essential.

Therefore, the cabin staff union UFO makes the following demands to permanently decrease the dangers of health damages for crews and passengers:

**Demands regarding technical development:**

- Equipment of existing fleet with filters
- Permanent examination of the quality of cabin air through sensors
- (Further) development of neurotoxically harmless oils
- Abandonment of „bleed air“ technique for cabin pressure and cabin air systems on passenger aircrafts (depending on the construction)

**Demands regarding health prevention and aftercare for crews:**

- Ensuring respiratory protection for every crew member (by smoke hoods or respirators) at every flight attendant seat in case of smell/smoke events
- Reestablishment of the competence center at Universitätsmedizin Göttingen (UMG) for the chronically affected (not only for acute cases)
- A study about human biomonitoring
- Establishing of a compensation fund system by the industry
- Acknowledgement of damages through harmful substances in cabin air as an occupational disease by the occupational insurance association of transportation

**Demands regarding clarification:**

- Intensified courses of instruction and information for crews about risks and possible consequences of fume events (especially in the beginning of employment and in regular intervals thereafter).

Further information:

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