# FUME EVENT GUIDE DATE 06/2019

#### **DEFINITION:**

A fume event is an inhalation accident of aircraft cabin air, which was contaminated by either heated fluids such as engine oil, hydraulic fluid, anti-icing fluid or other potentially hazardous chemicals.

# BRIEFING

Discuss procedures, communication and self protection.

# **ON BOARD**

Inform Cockpit Crew and Head Flight Attendant about any smell. Protect yourself if necessary according to Dangerous Goods Procedure (smoke hoods).

## **IMMEDIATE ACTION:**

Avoid further exposure. First aid: O2 saturation with pulse oximeter

#### **DOCUMENTATION:**

Cpt: Incident must be noted in technical logbook. Cockpit and Cabin Crew: fill in "Smell/Bad Air Report" which stay onboard as info for mechanics (copy).

#### **CONTACT DOCTOR/HOSPITAL**

Due to an occupational accident, a so called "Durchgangs-Arzt" has to be contacted in case of any symptoms. We recommend rather a medical office than a hospital, due to possible long waiting time at emergency room units. 3500 "D-Ärzte" are listed in the following database, you will find one in your area: http://bit.ly/dguvsuche

BG offers in 12 hospitals a case data collection, examining some compounds in urine and blood samples. The participation is voluntary, but not relevant for any therapy.

Important: desinfection before taking the blood sample should not be conducted with solvent borne desinfectant, but with a 3% aqueous hydrogen peroxide solution (AMR 6.2.); If not possible, pls note name of desinfectant.

Symptoms may occur immediately or later on, they can develop over days or weeks. Referral to a medical specialist for occupational health, toxicology, neurology and/or pneumology if necessary (let the doctor mark with a cross "besondere" Heilbehandlung, nicht "allgemeine" Heilbehandlung according \$11 & \$12 Abkommen Ärzte/Unfallversicherungsträger).

### Health effects could be:

mucosa irritation, headache, abdominal cramps, muscle weakness, flu-symptoms, vomiting, difficulties with balance and walking, prickling and numbness.

Have a laboratory provide you with:

- complete blood count (CBC), white blood count (WBC) + Differential, liver transaminases, creatine kinase with isoenzymes.
- blood gas analysis including CO-Hb, MET Hb and O2-saturation have to be measured as quick as possible since the half-life period of CO-Hb (Carboxyhemoglobine) is 245 minutes. Measurements on the following day might be normal again. Smoking will affect the results.
- AChE (Acetyl-Cholin-Esterase) should be analyzed immediately and monitored within the following weeks.

Moreover, the following symptoms should be examined and documented: cardiac arrhythmia, electrocardiogram ECG, respiratory distress, neurologic deficits.

Additionally get two samples of 30ml blood (EDTA) for further toxicogical testing (preservation of evidence, analysis preferably in Göttingen after reopening). Collect 3 urine samples within the first day, then at least one per day the following 5 days. Store frozen (sterile urine beakers are available at pharmacies or use normal cup or bottle with lid).

#### Long-term effects of neurotoxicity can be:

fatigue, memory dysfunction, trouble concentrating and speaking. Symptoms must be logged and supervised by a doctor continously. An event-diary with all medical results is important, therefore a detailed documentation is necessary. In case of 30 days of long term effects: please develop a small fiber neuropathy tests (possible at a lot of hospitals with neurological department). If a pneumological examinations are necessary: spiro ergo, lung ventilation, perfusion and diffusion (DLCO, DLNO). Pls contact pneumology departments with Carefusion devices.

#### DOCUMENTATION

According to EU-edicts 996/2010 & 376/2014 a governmental report is mandatory. Every crew member is authorized and responsible for reporting to:

German Federal Bureau of Aircraft Accident Investigation Fon: +49 531 3548-0 http://bit.ly/bfuformular

Fill in the online and mark with a cross both, BFU and LBA, in order to make sure, that both agencies will be informed.

#### **FLIGHT REPORT**

ASAP: pls write & copy (e.g. by photo) flight/cosmic reports for your company. Describe the incident as detailed as possible.

# **ACCIDENT NOTIFICATION (BG)**

Fill in the accident report and send it to your airline, as well as PV and internal work safety (online reports are possible at some airlines). Print copy or photocopy. The employer is obliged to forward the accident report to the BG in accordance with SGB 7 §193.

If no forward confirmation from the employer to the BG has been received after a week, pls request this confirmation from your airline.

If this request is not follwed, please file a copy of the accident report by yourself to BG:

BG Verkehr Hauptverwaltung Hamburg Ottenser Hauptstraße 54 22765 Hamburg Tel.: +49 40 325220-0 Fax: +49 40 325220-2699 http://bit.ly/unfallanzeige

**Update** your employee representatives (PV) and inform UFO about the accident by forwarding the BFU/LBA- & flight reports. (smellevent@ufo-online.aero)

