



May 14, 2010

Via Electronic & Certified Mail

Mr. Kenneth J. Hylander
Senior Vice President - Corporate Safety, Security & Compliance
Delta Air Lines, Inc.
P.O. Box 20706
Atlanta, GA 30320

Re: Prevention of Exposure to Toxic Oil Fumes on Delta Aircraft

Dear Mr. Hylander:

This is to acknowledge receipt of and thank you for your letter of April 9, 2010 with respect to the (AFA's) ongoing concerns relative to crew health and the flight safety impact from exposure to contaminated bleed air on certain aircraft in our fleet. At this time, I would like to direct your attention to the fact that, since January 1, 2010, we have become aware of the following reports of sub-standard air quality on Delta aircraft:

April 14, 2010 (AC9883, DC9): Strong smell of sulfur during taxi and takeoff. On return flight, motor oil smell coming from ceiling vent near the flight deck door.

April 8, 2010 (MD88): Smoke and burning odor on takeoff that returned upon descent. Flight attendants and passengers experienced coughing. Also, strong odor on previous flight. One FA sought emergency medical care upon arrival.

April 8, 2010: Media story reported a smoky odor in the flight deck on flight from ATL to CUN; flight was diverted to TPA.

March 30, 2010 (B757): Smoke filled the cabin in flight en route from JFK to SFO, resulting in an emergency landing in STL.

March 26, 2010 (AC9852, DC9): Smoke in cabin after takeoff; emergency declared and aircraft returned to DTW.

February 22, 2010 (AC3359, A330-200): Three flight attendants and one passenger required oxygen in flight on an aircraft with a history of air quality problems.

February 19, 2010 (AC3359, A330-200): Five flight attendants required oxygen in flight, were completely incapacitated for part of the flight, and have been left with chronic, debilitating neurological symptoms. (Note that occupants also reported symptoms on this aircraft during flights on November 12, 2009, December 13, 2009 and February 22, 2010. During the November 12th event, a Federal Air Marshal noted a haze in the cabin).

February 19, 2010 (AC3127, A319): Flight attendants and passengers smelled smoke on approach to RSW; an emergency was declared.

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January 27, 2010: Media clip reported a smoky odor in the cabin on a Delta commuter flight from NYC to CHS; the aircraft was diverted to MYR.

January 19, 2010 (AC 3355, A330-200): Three flight attendants were on oxygen in flight after reporting dizziness, shortness of breath and nausea on an aircraft with a history of fumes.

January 14, 2010 (AC9862, DC9): The pilots reported smoke in the flight deck on flight from MEM to MSY; the aircraft returned to MEM.

January 10, 2010 (AC3269, A320): "Electrical fumes" were reported in the flight deck in flight from SFO to MSP; the flight was diverted to RNO.

January 9, 2010: Media clip reported smoke in the flight deck on a Delta shuttle flight from BOS to LGA; the flight returned to BOS.

The above represents a conservative list that does not include some in flight reports of passenger and crew reporting symptoms consistent with exposure to oil fumes if they did not also report either an odor or visible smoke/fumes. Also, it does not include reports of hydraulic system leaks if air supply contamination was not confirmed.

In your April 9th response, you indicated that there was "no unusual maintenance activity in air conditioning or pressurization system noted" and "no application of insecticide before the incidents." Presumably, you were referring to the February 19, 2010 incident on AC3359; although (over the past six months), flight attendants have reported debilitating symptoms after working in the cabin of subject aircraft on the following dates: November 12, 2009, December 13, 2009, February 19, 2010 and February 22, 2010.

There must be an explanation for their symptoms which are consistent with exposure to engine oil fumes. As such, we would like to request the following:

- A copy of the maintenance records for AC3359 that are filed under the ATA Maintenance Manual: Chapters 5 (Maintenance Checks), 21 (Air Conditioning), 29 (Hydraulic Power), 36 (Pneumatics), 49 (APU), 78 (Exhaust) and 79 (Oil); for the period mid-September 2009 through mid-March 2010.
- Conduct a more thorough investigation (and share such findings) of any crew rest facility maintenance items that may be relevant; such as the condition of the seal between the actual bunk area and the cargo hold, as well as any maintenance products that may have been applied in either the crew rest area or the ducting that supplies the bunk area, specifically.

It is hoped that these records and investigations will provide an indication of the nature of the mechanical faults/issues in question.

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Your April 9th letter noted that the ozone converters were replaced well before the "noted events on June 5, 2009." However, ozone alone does not explain the symptoms reported by our members on June 5th. They may still have been exposed to other toxins. Also, it is not clear if the ozone converters on the many other aircraft with reported fume events were within their recommended maintenance interval. Finally, bleed air contaminants can quickly "poison" an ozone catalyst, such that the service life of the unit in question can effectively end, even if it was installed the day before.

Further, you noted that the "aircraft's eight high efficiency particulate air filters were changed as part of the normal maintenance cycle on December 2, 2009." HEPA filters on the Delta fleet remove particulate from the recirculated air stream, not the bleed air stream. Any oil-based particulate or semi-volatile contaminants in the bleed air stream, and bound for the cabin/flight deck, are likely to fall out of the air (due to gravity) and settle in the ventilation ductwork and in the cabin/flight deck, including the occupants. It is unlikely that any particulate contaminants would stay airborne in the cabin and be entrained into the recirculated air stream.

Under such conditions, smoke/fume events should not compromise the quality of the HEPA filters and replacing the HEPA filters is an ineffective remedy for these events. Further on this subject, you state that you have sent some recirculated air filters from AC3359 to ACER researchers at Kansas State University, who will analyze them for bleed air contaminants. This effort is expected to yield little, if any, fruit for the reasons cited above. Instead, we recommend that you swab the insides of the ventilation ducting, upstream of the cabin and the flight attendant crew rest facility (not on the recirculated air side), to determine what is being supplied to those areas; not what is being recirculated.

We appreciate that the team from In-Flight, TechOps Engineering and Corporate Safety met in Detroit on April 7th with some of our affected members to discuss possible causes of the events they reported, in addition to discussing remedies to prevent future events. When a follow-on meeting is scheduled, we ask if more advance notice would be provided so that an AFA representative with direct expertise in this area could also be present.

At the meeting, it was understood that Delta committed to purchasing ten van Netten samplers to better assess the nature of any air supply contamination on AC3359 specifically. To date, we are not aware of the samplers being onboard or of crews having been sufficiently briefed on when and how to use them.

Our members reported that their outstanding Workers' Compensation claims were not on the April 7th meeting agenda. AFA generally does not get involved in its members' WC claims; however, the unreasonable denial of the claims of the six flight attendants on AC3359 is unprecedented. Flight attendants D. Smith, B. Mong, C. Smith, B. Nelson, J. Kormos and C. Shirey all developed symptoms while working on AC3359, with multiple FAs reporting similar symptoms on the same flights.

They continue to report symptoms and are being billed for medical appointments, tests and medications. Indeed, it is unconscionable that their claims have been denied, particularly when it was stated at the meeting, by Mr. Lederman, that Delta was their 'advocate.'

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Finally, last November, a French oil company, NYCO S.A., notified the European Aviation Safety Agency (EASA) that it is developing a less toxic aviation engine oil. The oil still meets specification MIL-PRF-23699 Class HTS. Using a less toxic aviation engine oil would mitigate the reported health and safety impact of exposure to oil-contaminated bleed air.

NYCO would like to partner with airlines who may be interested in evaluating its product. Crewmember unions, including AFA, applaud NYCO's efforts to develop a less toxic oil and we would like to encourage Delta Air Lines to show good faith and contact them to learn more. NYCO is currently working with Lufthansa and Air France and is endeavoring to coordinate meetings with U.S. air carriers.

In light of the issues and concerns cited above, we would like to request the following actions:

1. Provide AFA with a copy of the mechanical records described above and instruct your maintenance team to review these records to identify the cause of the noted events and preventive measures.
2. Educate flight attendants on their right to report what may involve maintenance problems directly to the Operations Control Center (OCC) if the pilots do not take their reports seriously; and provide the appropriate OCC phone contact.
3. Raise pilot and flight attendant awareness of the potential for exposure to oil fumes at recurrent (Continuing Qualification) training. Ensure that pilots understand that they can be exposed and should, therefore, don oxygen masks if they develop symptoms, even if they do not see or smell smoke/fumes.
4. Educate the physicians and medical personnel at UPMC on this issue by providing them with a copy of the FAA-sponsored Health Care Providers' Guide and copies of the pertinent MSDSs for the engine oils and hydraulic fluids used to service Delta's fleet; in addition to further background that AFA can provide.
5. Collect and analyze swab samples from the insides of the ducting upstream from the flight attendant crew rest facilities and the cabin (not in the recirculated air stream).
6. Stock at least five A330 aircraft with no less than two van Netten samplers, including AC3318 and AC359. Perhaps installing one in each crew rest area and one in the forward part of the cabin.
7. Contact Mr. Eric Piveteau, General Manager, NYCO S.A., and schedule a meeting to learn more about NYCO's less toxic aviation engine oil.
8. Effective immediately, instruct ESIS to carefully consider the Workers' Compensation claims of flight attendants affected by exposure to airborne contaminants; commencing with a reconsideration of the denial of the FAs on AC3318 and AC3359 - both "repeat offender" aircraft in the fleet.

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9. As referenced in your April 9th letter, please let us know the date of the "cross divisional team" meeting intended to address our concerns, and advise us of the outcome of such meeting.

It is hoped that Delta Air Lines will act in good faith to identify both the causes and remedies to the air quality problems noted above and those identified in our letter of April 7th to the benefit of our passengers and crewmembers alike. Please do not hesitate to contact me for any additional information with respect to the above.

Sincerely,



Janette Rook
NWA Master Executive Council President
Association of Flight Attendants-CWA, AFL-CIO

cc: Richard Anderson, DAL Chief Executive Officer
Mike Campbell, DAL Executive Vice President - HR & Labor Relations
Steve Gorman, DAL Executive Vice President and Chief Operating Officer
Joanne D. Smith, DAL Senior Vice President - In-Flight Service
Britt Reller, DAL Regional Director - Base Operations, In-Flight Service
Chris Witkowski, AFA Director - Air Safety, Health & Security Department
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JKR:kjc