



Civil Aeronautics Administration

Aviation Safety Bulletin

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Subject : It was reported that a burned odor was smelled from an oven of an MD-90 aircraft during flight and caused the flight crew to request for a priority landing.

Background :

1. The cabin crew detected in flight a burned odor from an oven at after galley of an MD-90 aircraft, operated by a carrier in Taiwan. The cabin crew immediately turned off the after galley power and informed the captain. It was difficult to pinpoint the origin of burned odor, so the captain decided to land at first priority. Finally, the aircraft landed safely at the destination airport.
2. After the incident, the defective oven, manufactured by SELL with part no. 8201-11-0000, was removed from aircraft and sent to shop for further investigation. The shop finding revealed that some coils of the fan motor melted and their impedance measurement was imbalanced as well. The root cause of burned odor might be attributed to aging fan motor coils or imbalanced impedance between the windings, and an extraordinary temperature rise leading to their melting.
3. Investigation revealed that similar event happened two days before and the cabin crew had made an entry in the Cabin Log about the burned odor. However, the mechanic just cleaned the oven interior, performed the functional test that was normal and released the aircraft. Two days later, as a consequence of high temperature environment and long-term operation, some defective coils of the fan motor began to melt, releasing a burned odor.

Recommendations :

- The operator shall
- Implement a one time inspection in accordance with maintenance manual on those ovens with the same manufacturer and part no. As soon as an abnormal odor is smelled, it's mandatory to remove the oven from the aircraft and sent it to shop for further repair.
- Evaluate and revise the maintenance program by adding the required inspection items. Subsequently, follow a reliability control program for analysis and adjustment.
- Include this incident as a case in the training material for newly recruited mechanics or recurrent trainees to enhance maintenance safety.