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October 1, 2004

B-H210-04-0460

Docket Management Facility
U.S. Department of Transportation
400 Seventh Street SW
Nassif Building, Room PL-401
Washington, DC 20590
Attention: Airworthiness Rules Docket No. FAA-2004-19082 - 7



Subject: **Boeing Comments on NPRM Docket No. FAA-2004-19082
(Directorate Identifier 2004-NM-79-AD): "Frequency
Converter Replacement for Medical/Utility Outlets",
Airplane Models 747, 767 and 777**

Comments

- 1) The Summary and Discussion sections identify the AD as applicable to Boeing 747-200F, 747-400, 767-400ER, and 777 model airplanes. The Summary and Discussion sections do not mention applicable 767-300 series airplanes, which were addressed by Boeing Service Bulletin 767-25-0334, Revision 1, dated June 19, 2003. The concerns identified in the subject AD would also apply to this series of airplanes, as some were delivered with outlet installations using Avionic Instruments Inc. frequency converters. In addition, the Relevant Service Information section does not reference this Service Bulletin.
- 2) The Summary section contains the following statement: "This proposed AD is prompted by a report that a hard short condition between the frequency converter's output and its downstream circuit breakers will produce a continuous circuit that could..."
The word "circuit" should be "current".

The Discussion section contains the following statement: "Boeing analysis has shown that on certain Boeing Model 747-200F and -400 series airplanes, Model 767-400ER series airplanes, and Model 777 series airplanes, a hard short condition between the output of the frequency converter (usually located in the main equipment center) and its downstream circuit breaker will produce a continuous current of 55 amps."

October 1, 2004
Page 2
Document Management Facility
B-H210-04-0460

The stated value of 55 amps is accurate only for installations using a converter that has a 3.5 KVA, 115VAC rated output. For the series of converters used on Boeing aircraft (supplied by Avionic Instruments, Inc.), a hard short circuit fault on the output of the converter will produce a fault current that is approximately 180% of the nominal rated output current. Since Boeing installations utilize multiple converter part numbers with different rated outputs, the short circuit fault current will vary depending on the converter used.



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/Original signed by/

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