TABLE II.–HIRF ENVIRONMENT II—Continued

Frequency	Field strength (volts/meter)	
	Peak	Average
30 MHz–100 MHz	10	10
100 MHz–200 MHz	30	10
200 MHz–400 MHz	10	10
400 MHz–1 GHz	700	40
1 GHz–2 GHz	1,300	160
2 GHz–4 GHz	3,000	120
4 GHz–6 GHz	3,000	160
6 GHz–8 GHz	400	170
8 GHz–12 GHz	1,230	230
12 GHz–18 GHz	730	190
18 GHz–40 GHz	600	150

In this table, the higher field strength applies at the frequency band edges.

(c) *Equipment HIRF Test Level 1.* (1) From 10 kilohertz (kHz) to 400 megahertz (MHz), use conducted susceptibility tests with continuous wave (CW) and 1 kHz square wave modulation with 90 percent depth or greater. The conducted susceptibility current must start at a minimum of 0.6 milliamperes (mA) at 10 kHz, increasing 20 decibels (dB) per frequency decade to a minimum of 30 mA at 500 kHz.

(2) From 500 kHz to 40 MHz, the conducted susceptibility current must be at least 30 mA.

(3) From 40 MHz to 400 MHz, use conducted susceptibility tests, starting at a minimum of 30 mA at 40 MHz, decreasing 20 dB per frequency decade to a minimum of 3 mA at 400 MHz.

(4) From 100 MHz to 400 MHz, use radiated susceptibility tests at a minimum of 20 volts per meter (V/m) peak with CW and 1 kHz square wave modulation with 90 percent depth or greater.

(5) From 400 MHz to 8 gigahertz (GHz), use radiated susceptibility tests at a minimum of 150 V/m peak with pulse modulation of 4 percent duty cycle with a 1 kHz pulse repetition frequency. This signal must be switched on and off at a rate of 1 Hz with a duty cycle of 50 percent.

(d) *Equipment HIRF Test Level 2.* Equipment HIRF test level 2 is HIRF environment II in table II of this appendix reduced by acceptable aircraft transfer function and attenuation curves. Testing must cover the frequency band of 10 kHz to 8 GHz.

(e) *Equipment HIRF Test Level 3.* (1) From 10 kHz to 400 MHz, use conducted susceptibility tests, starting at a minimum of 0.15 mA at 10 kHz, increasing 20 dB per frequency decade to a minimum of 7.5 mA at 500 kHz.

(2) From 500 kHz to 40 MHz, use conducted susceptibility tests at a minimum of 7.5 mA.

(3) From 40 MHz to 400 MHz, use conducted susceptibility tests, starting at a minimum of 7.5 mA at 40 MHz, decreasing 20 dB per frequency decade to a minimum of 0.75 mA at 400 MHz.

(4) From 100 MHz to 8 GHz, use radiated susceptibility tests at a minimum of 5 V/m.

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APPENDIX M TO PART 25—FUEL TANK SYSTEM FLAMMABILITY REDUCTION MEANS

M25.1 *Fuel tank flammability exposure requirements.*

(a) The Fleet Average Flammability Exposure of each fuel tank, as determined in accordance with Appendix N of this part, may not exceed 3 percent of the Flammability Exposure Evaluation Time (FEET), as defined in Appendix N of this part. As a portion of this 3 percent, if flammability reduction means (FRM) are used, each of the following time periods may not exceed 1.8 percent of the FEET:

(1) When any FRM is operational but the fuel tank is not inert and the tank is flammable; and

(2) When any FRM is inoperative and the tank is flammable.

(b) The Fleet Average Flammability Exposure, as defined in Appendix N of this part, of each fuel tank may not exceed 3 percent of the portion of the FEET occurring during either ground or takeoff/climb phases of flight during warm days. The analysis must consider the following conditions.

(1) The analysis must use the subset of those flights that begin with a sea level ground ambient temperature of 80 °F (standard day plus 21 °F atmosphere) or above, from the flammability exposure analysis done for overall performance.

(2) For the ground and takeoff/climb phases of flight, the average flammability exposure must be calculated by dividing the time during the specific flight phase the fuel tank is flammable by the total time of the specific flight phase.

(3) Compliance with this paragraph may be shown using only those flights for which the airplane is dispatched with the flammability reduction means operational.

M25.2 *Showing compliance.*

(a) The applicant must provide data from analysis, ground testing, and flight testing, or any combination of these, that:

(1) Validate the parameters used in the analysis required by paragraph M25.1 of this appendix;

(2) Substantiate that the FRM is effective at limiting flammability exposure in all compartments of each tank for which the FRM is used to show compliance with paragraph M25.1 of this appendix; and

(3) Describe the circumstances under which the FRM would not be operated during each phase of flight.

(b) The applicant must validate that the FRM meets the requirements of paragraph