

R. R. Sgarro
Director - Regulatory Affairs

PPL Bell Bend, LLC
Two North Ninth Street
Allentown, PA 18101-1179
Tel. 610.774.7552 Fax 610.774.2618
rrsgarro@pplweb.com



November 15, 2013

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

**BELL BEND NUCLEAR POWER PLANT
UPDATED FRACTILE CURVES FOR BBNPP
COLA PART 2, (FSAR); SECTION 2.5
BNP-2013-151 Docket No. 52-039**

Reference: BNP-2013-050, R. R. Sgarro (PPL Bell Bend, LLC) to U.S. NRC, "Submittal of Bell Bend COLA Revision 4" dated April 12, 2013

In the referenced correspondence, PPL Bell Bend, LLC (PPL) submitted to the U.S. Nuclear Regulatory Commission (NRC), Revision 4 to the Combined License Application (COLA) for the Bell Bend Nuclear Power Plant (BBNPP). Subsequent to the submittal, an error was found in code used to calculate some of the Fractile Curves used in COLA Part 2 Final Safety Analysis Report (FSAR) Section 2.5. The purpose of this letter is to provide updated tables and figures based on the corrected Fractile Curves. The Enclosure provides marked-up tables and figures indicating which tables and figures are to be replaced.

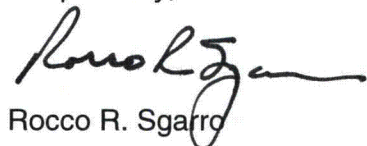
The marked-up tables and figures will be included in a future COLA revision and that is the only new regulatory commitment in this correspondence.

Should you have questions, please contact the undersigned at 610.774.7552.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 15, 2013.

Respectfully,



Rocco R. Sgarro

RRS/kw

Enclosure: FSAR 2.5 Tables and Figures Mark-up

D102
A053

cc: w/ Enclosure

Mr. Michael Takacs
Project Manager
U.S. Nuclear Regulatory Commission
11545 Rockville Pike, Mail Stop T6-E55M
Rockville, MD 20852

w/o Enclosure

Mr. William Dean
Regional Administrator
U.S. Nuclear Regulatory Commission
Region I
2100 Renaissance Blvd., Suite 100
King of Prussia, PA 19406-2713

Enclosure

FSAR 2.5 Tables and Figures Mark-up

Table 2.5-6— {Mean and Fractile Rock Hazard Curves for PGA}

Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	3.71E-03	1.91E-03	2.31E-03	3.28E-03	4.89E-03	6.41E-03
0.02	1.39E-03	6.63E-04	8.27E-04	1.19E-03	1.86E-03	2.59E-03
0.03	7.17E-04	3.32E-04	4.16E-04	6.14E-04	9.88E-04	1.37E-03
0.04	4.34E-04	2.02E-04	2.52E-04	3.70E-04	5.90E-04	8.42E-04
0.05	2.90E-04	1.36E-04	1.70E-04	2.48E-04	3.90E-04	5.51E-04
0.06	2.08E-04	9.99E-05	1.23E-04	1.78E-04	2.76E-04	3.86E-04
0.07	1.56E-04	7.62E-05	9.60E-05	1.35E-04	2.05E-04	2.85E-04
0.08	1.23E-04	6.00E-05	7.58E-05	1.07E-04	1.60E-04	2.18E-04
0.09	9.90E-05	4.86E-05	6.16E-05	8.92E-05	1.29E-04	1.74E-04
0.10	8.19E-05	4.02E-05	5.11E-05	7.41E-05	1.07E-04	1.42E-04
0.20	2.48E-05	1.14E-05	1.50E-05	2.25E-05	3.35E-05	4.26E-05
0.25	1.71E-05	7.81E-06	1.02E-05	1.51E-05	2.31E-05	2.96E-05
0.30	1.26E-05	5.51E-06	7.44E-06	1.11E-05	1.71E-05	2.22E-05
0.40	7.69E-06	3.11E-06	4.29E-06	6.90E-06	1.05E-05	1.40E-05
0.50	5.18E-06	1.94E-06	2.72E-06	4.54E-06	7.52E-06	9.99E-06
0.60	3.70E-06	1.29E-06	1.85E-06	3.15E-06	5.44E-06	7.62E-06
0.70	2.76E-06	9.42E-07	1.30E-06	2.31E-06	4.09E-06	5.88E-06
0.80	2.12E-06	6.85E-07	9.97E-07	1.72E-06	3.17E-06	4.65E-06
0.90	1.67E-06	5.10E-07	7.54E-07	1.32E-06	2.49E-06	3.75E-06
1.00	1.34E-06	3.90E-07	5.83E-07	1.05E-06	2.01E-06	3.08E-06
2.00	2.54E-07	5.14E-08	8.37E-08	1.74E-07	3.94E-07	7.18E-07
3.00	7.72E-08	1.19E-08	2.04E-08	4.82E-08	1.15E-07	2.40E-07
5.00	1.27E-08	1.36E-09	2.54E-09	6.79E-09	1.92E-08	4.49E-08

Replace with T2.5-6

T2.5-6

Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	3.71E-03	1.32E-03	1.81E-03	3.07E-03	5.63E-03	8.11E-03
0.02	1.39E-03	4.21E-04	5.98E-04	1.09E-03	2.19E-03	3.37E-03
0.03	7.18E-04	2.10E-04	3.04E-04	5.45E-04	1.13E-03	1.82E-03
0.04	4.34E-04	1.25E-04	1.86E-04	3.32E-04	6.71E-04	1.09E-03
0.05	2.90E-04	8.12E-05	1.24E-04	2.25E-04	4.46E-04	7.17E-04
0.06	2.08E-04	5.78E-05	8.82E-05	1.65E-04	3.17E-04	5.10E-04
0.07	1.56E-04	4.29E-05	6.68E-05	1.26E-04	2.38E-04	3.79E-04
0.08	1.23E-04	3.33E-05	5.25E-05	9.80E-05	1.86E-04	2.94E-04
0.09	9.90E-05	2.66E-05	4.23E-05	8.01E-05	1.50E-04	2.36E-04
0.10	8.19E-05	2.15E-05	3.49E-05	6.70E-05	1.26E-04	1.95E-04
0.20	2.48E-05	5.22E-06	9.55E-06	2.10E-05	4.00E-05	5.79E-05
0.25	1.71E-05	3.31E-06	6.19E-06	1.41E-05	2.81E-05	4.12E-05
0.30	1.26E-05	2.23E-06	4.29E-06	1.02E-05	2.10E-05	3.12E-05
0.40	7.69E-06	1.17E-06	2.38E-06	5.86E-06	1.33E-05	2.03E-05
0.50	5.18E-06	6.71E-07	1.45E-06	3.80E-06	8.79E-06	1.45E-05
0.60	3.70E-06	4.24E-07	9.42E-07	2.60E-06	6.36E-06	1.09E-05
0.70	2.76E-06	2.80E-07	6.43E-07	1.88E-06	4.82E-06	8.26E-06
0.80	2.12E-06	1.96E-07	4.60E-07	1.40E-06	3.73E-06	6.63E-06
0.90	1.67E-06	1.38E-07	3.35E-07	1.05E-06	2.95E-06	5.40E-06
1.00	1.34E-06	9.92E-08	2.50E-07	8.03E-07	2.36E-06	4.43E-06
2.00	2.54E-07	8.73E-09	2.66E-08	1.14E-07	4.21E-07	9.57E-07
3.00	7.72E-08	1.58E-09	5.26E-09	2.82E-08	1.23E-07	3.25E-07
5.00	1.27E-08	1.09E-10	4.65E-10	3.36E-09	1.73E-08	6.15E-08

Table 2.5-7— {Mean and Fractile Rock Hazard Curves for 25-Hz PSA}

Pseudo- Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	8.08E-03	4.38E-03	5.26E-03	7.20E-03	1.05E-02	1.37E-02
0.02	4.08E-03	1.97E-03	2.40E-03	3.44E-03	5.61E-03	7.87E-03
0.03	2.60E-03	1.18E-03	1.47E-03	2.13E-03	3.61E-03	5.24E-03
0.04	1.82E-03	8.08E-04	9.99E-04	1.50E-03	2.56E-03	3.79E-03
0.05	1.36E-03	5.82E-04	7.35E-04	1.10E-03	1.90E-03	2.88E-03
0.06	1.06E-03	4.40E-04	5.58E-04	8.60E-04	1.48E-03	2.25E-03
0.07	8.46E-04	3.47E-04	4.41E-04	6.82E-04	1.20E-03	1.83E-03
0.08	6.94E-04	2.81E-04	3.57E-04	5.55E-04	9.98E-04	1.50E-03
0.09	5.79E-04	2.32E-04	2.96E-04	4.60E-04	8.38E-04	1.26E-03
0.10	4.91E-04	1.96E-04	2.50E-04	3.88E-04	7.12E-04	1.08E-03
0.20	1.55E-04	6.28E-05	8.11E-05	1.22E-04	2.17E-04	3.41E-04
0.25	1.05E-04	4.28E-05	5.55E-05	8.51E-05	1.44E-04	2.25E-04
0.30	7.64E-05	3.12E-05	4.06E-05	6.24E-05	1.05E-04	1.61E-04
0.40	4.61E-05	1.86E-05	2.48E-05	3.84E-05	6.47E-05	9.74E-05
0.50	3.11E-05	1.25E-05	1.67E-05	2.63E-05	4.35E-05	6.32E-05
0.60	2.26E-05	9.31E-06	1.20E-05	1.92E-05	3.16E-05	4.47E-05
0.70	1.72E-05	6.99E-06	9.50E-06	1.46E-05	2.40E-05	3.36E-05
0.80	1.36E-05	5.39E-06	7.41E-06	1.14E-05	1.91E-05	2.64E-05
0.90	1.10E-05	4.28E-06	5.92E-06	9.70E-06	1.55E-05	2.13E-05
1.00	9.15E-06	3.46E-06	4.83E-06	8.03E-06	1.29E-05	1.77E-05
2.00	2.54E-06	7.85E-07	1.11E-06	2.04E-06	3.84E-06	5.73E-06
3.00	1.12E-06	2.79E-07	4.30E-07	8.55E-07	1.71E-06	2.79E-06
5.00	3.60E-07	6.61E-08	1.05E-07	2.35E-07	5.61E-07	1.00E-06

Replace with T2.5-7

T2.5-7

Pseudo-Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	8.08E-03	3.25E-03	4.22E-03	6.67E-03	1.14E-02	1.79E-02
0.02	4.08E-03	1.36E-03	1.87E-03	3.15E-03	5.90E-03	1.04E-02
0.03	2.60E-03	7.62E-04	1.10E-03	1.94E-03	3.85E-03	6.97E-03
0.04	1.82E-03	5.00E-04	7.20E-04	1.32E-03	2.76E-03	5.10E-03
0.05	1.36E-03	3.55E-04	5.18E-04	9.50E-04	2.07E-03	3.93E-03
0.06	1.06E-03	2.67E-04	3.92E-04	7.27E-04	1.60E-03	3.12E-03
0.07	8.46E-04	2.08E-04	3.08E-04	5.75E-04	1.27E-03	2.54E-03
0.08	6.94E-04	1.68E-04	2.50E-04	4.69E-04	1.04E-03	2.08E-03
0.09	5.79E-04	1.38E-04	2.07E-04	3.87E-04	8.52E-04	1.77E-03
0.10	4.91E-04	1.15E-04	1.75E-04	3.29E-04	7.17E-04	1.50E-03
0.20	1.55E-04	3.26E-05	5.28E-05	1.06E-04	2.22E-04	4.82E-04
0.25	1.05E-04	2.17E-05	3.59E-05	7.27E-05	1.50E-04	3.23E-04
0.30	7.64E-05	1.53E-05	2.60E-05	5.38E-05	1.11E-04	2.34E-04
0.40	4.61E-05	8.59E-06	1.56E-05	3.34E-05	6.88E-05	1.34E-04
0.50	3.11E-05	5.50E-06	1.03E-05	2.32E-05	4.88E-05	8.70E-05
0.60	2.26E-05	3.82E-06	7.16E-06	1.70E-05	3.66E-05	6.20E-05
0.70	1.72E-05	2.77E-06	5.28E-06	1.31E-05	2.85E-05	4.64E-05
0.80	1.36E-05	2.09E-06	4.05E-06	9.91E-06	2.32E-05	3.68E-05
0.90	1.10E-05	1.59E-06	3.17E-06	7.98E-06	1.89E-05	3.01E-05
1.00	9.15E-06	1.26E-06	2.54E-06	6.54E-06	1.59E-05	2.53E-05
2.00	2.54E-06	2.23E-07	5.10E-07	1.58E-06	4.47E-06	8.17E-06
3.00	1.12E-06	6.69E-08	1.70E-07	5.81E-07	1.99E-06	4.02E-06
5.00	3.60E-07	1.21E-08	3.44E-08	1.45E-07	5.93E-07	1.40E-06

Table 2.5-8— {Mean and Fractile Rock Hazard Curves for 10 Hz PSA}

Pseudo-Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	8.34E-03	5.13E-03	6.00E-03	7.76E-03	1.03E-02	1.25E-02
0.02	3.66E-03	2.07E-03	2.44E-03	3.27E-03	4.65E-03	6.05E-03
0.03	2.10E-03	1.14E-03	1.38E-03	1.86E-03	2.68E-03	3.60E-03
0.04	1.37E-03	7.43E-04	8.94E-04	1.21E-03	1.76E-03	2.39E-03
0.05	9.61E-04	5.13E-04	6.20E-04	8.56E-04	1.24E-03	1.68E-03
0.06	7.10E-04	3.76E-04	4.55E-04	6.28E-04	9.29E-04	1.24E-03
0.07	5.44E-04	2.89E-04	3.48E-04	4.82E-04	7.08E-04	9.70E-04
0.08	4.30E-04	2.29E-04	2.76E-04	3.80E-04	5.57E-04	7.61E-04
0.09	3.48E-04	1.86E-04	2.24E-04	3.07E-04	4.47E-04	6.05E-04
0.10	2.87E-04	1.54E-04	1.86E-04	2.55E-04	3.67E-04	4.95E-04
0.20	8.00E-05	4.37E-05	5.40E-05	7.46E-05	1.02E-04	1.27E-04
0.25	5.33E-05	2.86E-05	3.57E-05	4.98E-05	6.90E-05	8.52E-05
0.30	3.84E-05	2.02E-05	2.55E-05	3.59E-05	5.01E-05	6.16E-05
0.40	2.31E-05	1.15E-05	1.47E-05	2.13E-05	3.03E-05	3.74E-05
0.50	1.55E-05	7.69E-06	9.98E-06	1.41E-05	2.05E-05	2.56E-05
0.60	1.12E-05	5.32E-06	7.03E-06	1.02E-05	1.48E-05	1.86E-05
0.70	8.50E-06	3.88E-06	5.19E-06	7.89E-06	1.11E-05	1.42E-05
0.80	6.64E-06	2.94E-06	3.96E-06	6.12E-06	9.20E-06	1.13E-05
0.90	5.32E-06	2.27E-06	3.10E-06	4.85E-06	7.42E-06	9.62E-06
1.00	4.34E-06	1.80E-06	2.48E-06	3.93E-06	6.10E-06	7.99E-06
2.00	1.00E-06	3.58E-07	5.15E-07	8.78E-07	1.42E-06	2.01E-06
3.00	3.70E-07	1.16E-07	1.72E-07	3.08E-07	5.51E-07	8.06E-07
5.00	8.74E-08	2.37E-08	3.66E-08	6.98E-08	1.27E-07	2.02E-07

Replace with T2.5-8

T2.5-8

Pseudo-Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	8.34E-03	3.94E-03	5.09E-03	7.53E-03	1.14E-02	1.56E-02
0.02	3.66E-03	1.50E-03	2.04E-03	3.21E-03	5.10E-03	7.49E-03
0.03	2.10E-03	7.95E-04	1.11E-03	1.82E-03	3.00E-03	4.54E-03
0.04	1.37E-03	5.01E-04	6.95E-04	1.17E-03	1.99E-03	3.03E-03
0.05	9.61E-04	3.46E-04	4.83E-04	8.09E-04	1.41E-03	2.16E-03
0.06	7.10E-04	2.53E-04	3.57E-04	5.99E-04	1.04E-03	1.60E-03
0.07	5.44E-04	1.94E-04	2.75E-04	4.61E-04	7.84E-04	1.23E-03
0.08	4.30E-04	1.51E-04	2.18E-04	3.66E-04	6.19E-04	9.54E-04
0.09	3.48E-04	1.23E-04	1.77E-04	2.97E-04	5.02E-04	7.64E-04
0.10	2.87E-04	9.87E-05	1.47E-04	2.48E-04	4.15E-04	6.28E-04
0.20	8.00E-05	2.56E-05	3.97E-05	7.01E-05	1.21E-04	1.69E-04
0.25	5.33E-05	1.60E-05	2.59E-05	4.71E-05	8.07E-05	1.14E-04
0.30	3.84E-05	1.09E-05	1.82E-05	3.41E-05	5.93E-05	8.09E-05
0.40	2.31E-05	5.72E-06	1.03E-05	2.04E-05	3.64E-05	5.00E-05
0.50	1.55E-05	3.49E-06	6.37E-06	1.37E-05	2.49E-05	3.48E-05
0.60	1.12E-05	2.32E-06	4.36E-06	9.50E-06	1.86E-05	2.59E-05
0.70	8.50E-06	1.67E-06	3.15E-06	7.08E-06	1.41E-05	2.03E-05
0.80	6.64E-06	1.22E-06	2.36E-06	5.48E-06	1.12E-05	1.63E-05
0.90	5.32E-06	8.94E-07	1.83E-06	4.34E-06	8.84E-06	1.34E-05
1.00	4.34E-06	6.90E-07	1.44E-06	3.50E-06	7.29E-06	1.12E-05
2.00	1.00E-06	1.05E-07	2.53E-07	7.21E-07	1.77E-06	2.90E-06
3.00	3.70E-07	2.87E-08	7.71E-08	2.49E-07	6.53E-07	1.16E-06
5.00	8.74E-08	4.27E-09	1.39E-08	5.17E-08	1.58E-07	2.97E-07

Table 2.5-9— {Mean and Fractile Rock Hazard Curves for 5 Hz PSA}

Pseudo-Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	7.50E-03	4.57E-03	5.41E-03	7.08E-03	9.29E-03	1.10E-02
0.02	2.91E-03	1.65E-03	1.96E-03	2.63E-03	3.65E-03	4.65E-03
0.03	1.55E-03	8.46E-04	1.01E-03	1.38E-03	1.95E-03	2.59E-03
0.04	9.51E-04	5.05E-04	6.13E-04	8.45E-04	1.21E-03	1.65E-03
0.05	6.41E-04	3.34E-04	4.06E-04	5.60E-04	8.19E-04	1.13E-03
0.06	4.58E-04	2.38E-04	2.89E-04	3.97E-04	5.82E-04	8.20E-04
0.07	3.43E-04	1.77E-04	2.15E-04	2.96E-04	4.31E-04	6.08E-04
0.08	2.65E-04	1.38E-04	1.68E-04	2.30E-04	3.33E-04	4.67E-04
0.09	2.11E-04	1.10E-04	1.34E-04	1.84E-04	2.64E-04	3.66E-04
0.10	1.72E-04	9.12E-05	1.10E-04	1.50E-04	2.15E-04	2.95E-04
0.20	4.37E-05	2.28E-05	2.85E-05	4.02E-05	5.67E-05	7.18E-05
0.25	2.83E-05	1.44E-05	1.83E-05	2.60E-05	3.68E-05	4.59E-05
0.30	1.99E-05	1.00E-05	1.26E-05	1.81E-05	2.59E-05	3.23E-05
0.40	1.14E-05	5.57E-06	7.25E-06	1.04E-05	1.48E-05	1.86E-05
0.50	7.34E-06	3.46E-06	4.56E-06	6.83E-06	9.98E-06	1.20E-05
0.60	5.10E-06	2.31E-06	3.08E-06	4.69E-06	7.00E-06	8.93E-06
0.70	3.73E-06	1.62E-06	2.19E-06	3.39E-06	5.15E-06	6.64E-06
0.80	2.82E-06	1.19E-06	1.62E-06	2.54E-06	3.92E-06	5.13E-06
0.90	2.20E-06	9.33E-07	1.23E-06	1.94E-06	3.04E-06	4.02E-06
1.00	1.75E-06	7.25E-07	9.97E-07	1.53E-06	2.43E-06	3.24E-06
2.00	3.35E-07	1.14E-07	1.65E-07	2.84E-07	4.86E-07	6.94E-07
3.00	1.10E-07	3.39E-08	5.06E-08	9.12E-08	1.59E-07	2.43E-07
5.00	2.28E-08	5.69E-09	8.97E-09	1.69E-08	3.43E-08	5.73E-08

Replace with T2.5-9

T2.5-9

Pseudo-Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	7.50E-03	3.43E-03	4.61E-03	6.99E-03	1.04E-02	1.33E-02
0.02	2.91E-03	1.16E-03	1.62E-03	2.63E-03	4.18E-03	5.68E-03
0.03	1.55E-03	5.71E-04	8.01E-04	1.36E-03	2.27E-03	3.23E-03
0.04	9.51E-04	3.39E-04	4.81E-04	8.11E-04	1.41E-03	2.08E-03
0.05	6.41E-04	2.24E-04	3.21E-04	5.43E-04	9.37E-04	1.43E-03
0.06	4.58E-04	1.58E-04	2.28E-04	3.87E-04	6.71E-04	1.03E-03
0.07	3.43E-04	1.17E-04	1.70E-04	2.91E-04	5.03E-04	7.62E-04
0.08	2.65E-04	8.84E-05	1.32E-04	2.27E-04	3.90E-04	5.86E-04
0.09	2.11E-04	6.98E-05	1.05E-04	1.82E-04	3.11E-04	4.65E-04
0.10	1.72E-04	5.62E-05	8.36E-05	1.48E-04	2.54E-04	3.76E-04
0.20	4.37E-05	1.31E-05	2.09E-05	3.84E-05	6.64E-05	9.25E-05
0.25	2.83E-05	7.77E-06	1.32E-05	2.50E-05	4.38E-05	6.03E-05
0.30	1.99E-05	5.11E-06	8.75E-06	1.75E-05	3.11E-05	4.31E-05
0.40	1.14E-05	2.62E-06	4.70E-06	9.74E-06	1.84E-05	2.56E-05
0.50	7.34E-06	1.54E-06	2.87E-06	6.20E-06	1.21E-05	1.73E-05
0.60	5.10E-06	9.78E-07	1.90E-06	4.27E-06	8.33E-06	1.23E-05
0.70	3.73E-06	6.69E-07	1.32E-06	3.08E-06	6.16E-06	9.03E-06
0.80	2.82E-06	4.74E-07	9.44E-07	2.31E-06	4.70E-06	6.98E-06
0.90	2.20E-06	3.49E-07	7.12E-07	1.77E-06	3.69E-06	5.52E-06
1.00	1.75E-06	2.62E-07	5.47E-07	1.41E-06	2.95E-06	4.50E-06
2.00	3.35E-07	3.24E-08	8.06E-08	2.39E-07	5.80E-07	9.60E-07
3.00	1.10E-07	7.71E-09	2.13E-08	7.05E-08	1.94E-07	3.47E-07
5.00	2.28E-08	9.06E-10	2.94E-09	1.23E-08	3.94E-08	8.01E-08

Table 2.5-10— {Mean and Fractile Rock Hazard Curves for 2.5-Hz PSA}

Pseudo- Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	4.88E-03	2.72E-03	3.29E-03	4.48E-03	6.22E-03	7.72E-03
0.02	1.67E-03	8.41E-04	1.02E-03	1.45E-03	2.19E-03	3.06E-03
0.03	8.22E-04	3.84E-04	4.75E-04	6.85E-04	1.06E-03	1.61E-03
0.04	4.81E-04	2.16E-04	2.67E-04	3.84E-04	6.09E-04	9.94E-04
0.05	3.11E-04	1.38E-04	1.71E-04	2.43E-04	3.83E-04	6.50E-04
0.06	2.15E-04	9.66E-05	1.18E-04	1.68E-04	2.58E-04	4.46E-04
0.07	1.56E-04	6.97E-05	8.70E-05	1.22E-04	1.86E-04	3.18E-04
0.08	1.18E-04	5.23E-05	6.55E-05	9.37E-05	1.40E-04	2.37E-04
0.09	9.13E-05	4.05E-05	5.09E-05	7.28E-05	1.09E-04	1.82E-04
0.10	7.27E-05	3.22E-05	4.05E-05	5.82E-05	8.86E-05	1.42E-04
0.20	1.55E-05	7.14E-06	9.23E-06	1.32E-05	2.00E-05	2.78E-05
0.25	9.43E-06	4.29E-06	5.61E-06	8.42E-06	1.23E-05	1.67E-05
0.30	6.29E-06	2.81E-06	3.71E-06	5.64E-06	8.61E-06	1.11E-05
0.40	3.33E-06	1.41E-06	1.90E-06	2.96E-06	4.60E-06	6.09E-06
0.50	2.02E-06	8.50E-07	1.12E-06	1.77E-06	2.82E-06	3.77E-06
0.60	1.34E-06	5.36E-07	7.40E-07	1.15E-06	1.85E-06	2.53E-06
0.70	9.38E-07	3.61E-07	5.04E-07	8.28E-07	1.30E-06	1.81E-06
0.80	6.85E-07	2.52E-07	3.57E-07	5.98E-07	9.92E-07	1.33E-06
0.90	5.17E-07	1.84E-07	2.62E-07	4.46E-07	7.53E-07	1.02E-06
1.00	3.99E-07	1.36E-07	1.96E-07	3.39E-07	5.81E-07	8.37E-07
2.00	6.34E-08	1.65E-08	2.59E-08	5.01E-08	9.64E-08	1.45E-07
3.00	1.85E-08	4.00E-09	6.64E-09	1.34E-08	2.83E-08	4.73E-08
5.00	3.22E-09	4.95E-10	9.04E-10	2.11E-09	5.10E-09	9.20E-09

Replace with T2.5-10

T2.5-10

Pseudo-Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	4.88E-03	2.11E-03	2.86E-03	4.51E-03	6.91E-03	8.96E-03
0.02	1.67E-03	6.01E-04	8.45E-04	1.45E-03	2.47E-03	3.57E-03
0.03	8.22E-04	2.72E-04	3.89E-04	6.73E-04	1.22E-03	1.93E-03
0.04	4.81E-04	1.50E-04	2.19E-04	3.81E-04	6.92E-04	1.18E-03
0.05	3.11E-04	9.18E-05	1.38E-04	2.42E-04	4.42E-04	7.68E-04
0.06	2.15E-04	6.16E-05	9.23E-05	1.66E-04	3.03E-04	5.37E-04
0.07	1.56E-04	4.38E-05	6.63E-05	1.21E-04	2.22E-04	3.92E-04
0.08	1.18E-04	3.23E-05	4.96E-05	8.94E-05	1.68E-04	2.95E-04
0.09	9.13E-05	2.48E-05	3.84E-05	6.99E-05	1.32E-04	2.28E-04
0.10	7.27E-05	1.95E-05	3.05E-05	5.61E-05	1.05E-04	1.79E-04
0.20	1.55E-05	3.56E-06	6.15E-06	1.28E-05	2.42E-05	3.67E-05
0.25	9.43E-06	2.05E-06	3.65E-06	7.71E-06	1.53E-05	2.26E-05
0.30	6.29E-06	1.28E-06	2.37E-06	5.16E-06	1.03E-05	1.54E-05
0.40	3.33E-06	5.97E-07	1.18E-06	2.71E-06	5.51E-06	8.25E-06
0.50	2.02E-06	3.27E-07	6.49E-07	1.60E-06	3.39E-06	5.22E-06
0.60	1.34E-06	1.94E-07	4.01E-07	1.04E-06	2.28E-06	3.59E-06
0.70	9.38E-07	1.23E-07	2.64E-07	6.97E-07	1.62E-06	2.60E-06
0.80	6.85E-07	7.92E-08	1.83E-07	4.98E-07	1.18E-06	1.95E-06
0.90	5.17E-07	5.47E-08	1.30E-07	3.71E-07	8.85E-07	1.52E-06
1.00	3.99E-07	3.84E-08	9.37E-08	2.81E-07	6.87E-07	1.20E-06
2.00	6.34E-08	2.81E-09	8.89E-09	3.59E-08	1.14E-07	2.21E-07
3.00	1.85E-08	4.55E-10	1.77E-09	8.64E-09	3.27E-08	6.91E-08
5.00	3.22E-09	3.13E-11	1.62E-10	1.12E-09	5.29E-09	1.36E-08

Table 2.5-11— {Mean and Fractile Rock Hazard Curves for 1 Hz PSA}

Pseudo-Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	1.87E-03	7.58E-04	9.92E-04	1.55E-03	2.67E-03	3.93E-03
0.02	5.97E-04	1.84E-04	2.44E-04	4.10E-04	8.72E-04	1.59E-03
0.03	2.81E-04	7.58E-05	1.01E-04	1.72E-04	3.84E-04	8.28E-04
0.04	1.57E-04	3.85E-05	5.28E-05	9.17E-05	2.00E-04	4.73E-04
0.05	9.78E-05	2.26E-05	3.12E-05	5.41E-05	1.16E-04	2.89E-04
0.06	6.49E-05	1.46E-05	2.03E-05	3.51E-05	7.45E-05	1.93E-04
0.07	4.54E-05	1.01E-05	1.41E-05	2.42E-05	5.01E-05	1.31E-04
0.08	3.29E-05	7.39E-06	1.03E-05	1.76E-05	3.55E-05	9.55E-05
0.09	2.45E-05	5.48E-06	7.79E-06	1.32E-05	2.61E-05	6.98E-05
0.10	1.88E-05	4.19E-06	5.99E-06	1.03E-05	1.97E-05	5.22E-05
0.20	2.93E-06	7.19E-07	1.05E-06	1.89E-06	3.66E-06	6.85E-06
0.25	1.59E-06	3.93E-07	5.99E-07	1.10E-06	2.13E-06	3.68E-06
0.30	9.74E-07	2.39E-07	3.72E-07	7.19E-07	1.35E-06	2.27E-06
0.40	4.57E-07	1.08E-07	1.72E-07	3.49E-07	6.99E-07	1.08E-06
0.50	2.57E-07	5.77E-08	9.61E-08	1.95E-07	4.00E-07	6.36E-07
0.60	1.61E-07	3.33E-08	5.73E-08	1.20E-07	2.51E-07	4.04E-07
0.70	1.08E-07	2.05E-08	3.63E-08	8.16E-08	1.68E-07	2.75E-07
0.80	7.64E-08	1.34E-08	2.41E-08	5.63E-08	1.17E-07	1.95E-07
0.90	5.59E-08	9.42E-09	1.68E-08	4.01E-08	8.95E-08	1.43E-07
1.00	4.22E-08	6.58E-09	1.20E-08	2.94E-08	6.79E-08	1.11E-07
2.00	5.59E-09	4.95E-10	1.07E-09	3.27E-09	9.17E-09	1.68E-08
3.00	1.45E-09	8.62E-11	2.08E-10	7.51E-10	2.31E-09	4.87E-09
5.00	2.13E-10	6.90E-12	1.95E-11	8.70E-11	3.30E-10	7.73E-10

Replace with T2.5-11

T2.5-11

Pseudo-Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	1.87E-03	5.73E-04	8.49E-04	1.59E-03	2.91E-03	4.23E-03
0.02	5.97E-04	1.26E-04	2.02E-04	4.16E-04	9.52E-04	1.71E-03
0.03	2.81E-04	4.60E-05	7.80E-05	1.73E-04	4.28E-04	8.72E-04
0.04	1.57E-04	2.19E-05	3.90E-05	8.87E-05	2.27E-04	5.17E-04
0.05	9.78E-05	1.21E-05	2.24E-05	5.27E-05	1.33E-04	3.27E-04
0.06	6.49E-05	7.23E-06	1.41E-05	3.40E-05	8.40E-05	2.21E-04
0.07	4.54E-05	4.74E-06	9.31E-06	2.35E-05	5.74E-05	1.55E-04
0.08	3.29E-05	3.27E-06	6.52E-06	1.68E-05	4.11E-05	1.11E-04
0.09	2.45E-05	2.35E-06	4.74E-06	1.25E-05	3.08E-05	8.16E-05
0.10	1.88E-05	1.75E-06	3.57E-06	9.46E-06	2.40E-05	6.20E-05
0.20	2.93E-06	2.17E-07	4.95E-07	1.64E-06	4.55E-06	9.09E-06
0.25	1.59E-06	1.04E-07	2.55E-07	8.97E-07	2.70E-06	5.08E-06
0.30	9.74E-07	5.41E-08	1.47E-07	5.55E-07	1.74E-06	3.22E-06
0.40	4.57E-07	1.95E-08	5.64E-08	2.58E-07	8.35E-07	1.62E-06
0.50	2.57E-07	8.10E-09	2.65E-08	1.38E-07	4.81E-07	9.07E-07
0.60	1.61E-07	3.79E-09	1.39E-08	7.92E-08	3.03E-07	5.88E-07
0.70	1.08E-07	1.96E-09	7.56E-09	4.95E-08	2.04E-07	4.13E-07
0.80	7.64E-08	1.07E-09	4.48E-09	3.23E-08	1.44E-07	3.00E-07
0.90	5.59E-08	6.14E-10	2.77E-09	2.22E-08	1.05E-07	2.27E-07
1.00	4.22E-08	3.68E-10	1.77E-09	1.55E-08	7.68E-08	1.78E-07
2.00	5.59E-09	8.52E-12	6.63E-11	1.20E-09	8.91E-09	2.59E-08
3.00	1.45E-09	6.69E-13	7.00E-12	2.00E-10	2.09E-09	6.76E-09
5.00	2.13E-10	1.81E-14	3.05E-13	1.59E-11	2.45E-10	9.63E-10

Table 2.5-12— {Mean and Fractile Rock Hazard Curves for 0.5 Hz PSA}

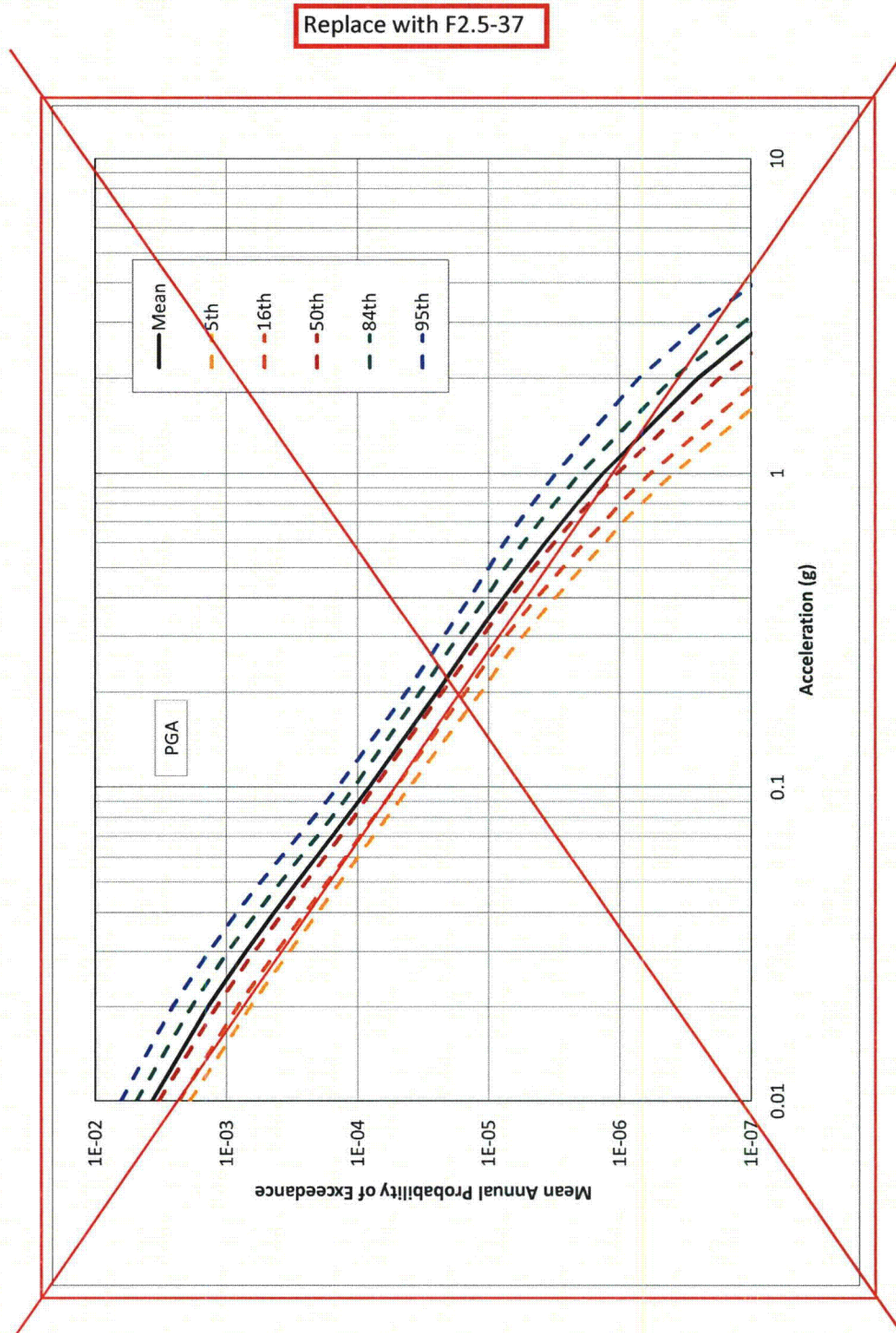
Pseudo-Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	9.72E-04	2.26E-04	3.29E-04	6.53E-04	1.55E-03	2.69E-03
0.02	3.30E-04	4.86E-05	7.44E-05	1.57E-04	4.76E-04	1.17E-03
0.03	1.65E-04	1.81E-05	2.82E-05	6.23E-05	1.94E-04	6.48E-04
0.04	9.82E-05	8.97E-06	1.40E-05	3.05E-05	9.70E-05	4.02E-04
0.05	6.39E-05	4.99E-06	8.14E-06	1.73E-05	5.38E-05	2.57E-04
0.06	4.40E-05	3.08E-06	5.09E-06	1.09E-05	3.28E-05	1.71E-04
0.07	3.17E-05	2.04E-06	3.39E-06	7.43E-06	2.12E-05	1.21E-04
0.08	2.34E-05	1.42E-06	2.39E-06	5.22E-06	1.44E-05	8.68E-05
0.09	1.77E-05	1.04E-06	1.75E-06	3.83E-06	1.05E-05	6.33E-05
0.10	1.37E-05	7.90E-07	1.32E-06	2.89E-06	7.98E-06	4.94E-05
0.20	1.94E-06	1.05E-07	1.96E-07	4.74E-07	1.22E-06	5.38E-06
0.25	9.47E-07	5.46E-08	1.05E-07	2.64E-07	7.05E-07	2.35E-06
0.30	5.16E-07	3.05E-08	6.27E-08	1.61E-07	4.39E-07	1.23E-06
0.40	1.95E-07	1.19E-08	2.61E-08	7.71E-08	2.07E-07	5.16E-07
0.50	9.22E-08	5.67E-09	1.29E-08	4.12E-08	1.14E-07	2.63E-07
0.60	5.08E-08	2.92E-09	7.37E-09	2.40E-08	7.26E-08	1.51E-07
0.70	3.12E-08	1.61E-09	4.36E-09	1.51E-08	4.78E-08	9.98E-08
0.80	2.07E-08	9.99E-10	2.74E-09	1.02E-08	3.34E-08	7.00E-08
0.90	1.45E-08	6.26E-10	1.77E-09	7.31E-09	2.40E-08	5.05E-08
1.00	1.06E-08	4.09E-10	1.20E-09	5.25E-09	1.76E-08	3.74E-08
2.00	1.32E-09	1.68E-11	7.09E-11	4.43E-10	2.10E-09	5.10E-09
3.00	3.44E-10	1.92E-12	9.99E-12	8.53E-11	5.33E-10	1.36E-09
5.00	5.09E-11	9.36E-14	6.36E-13	8.16E-12	7.21E-11	2.17E-10

Replace with T2.5-12

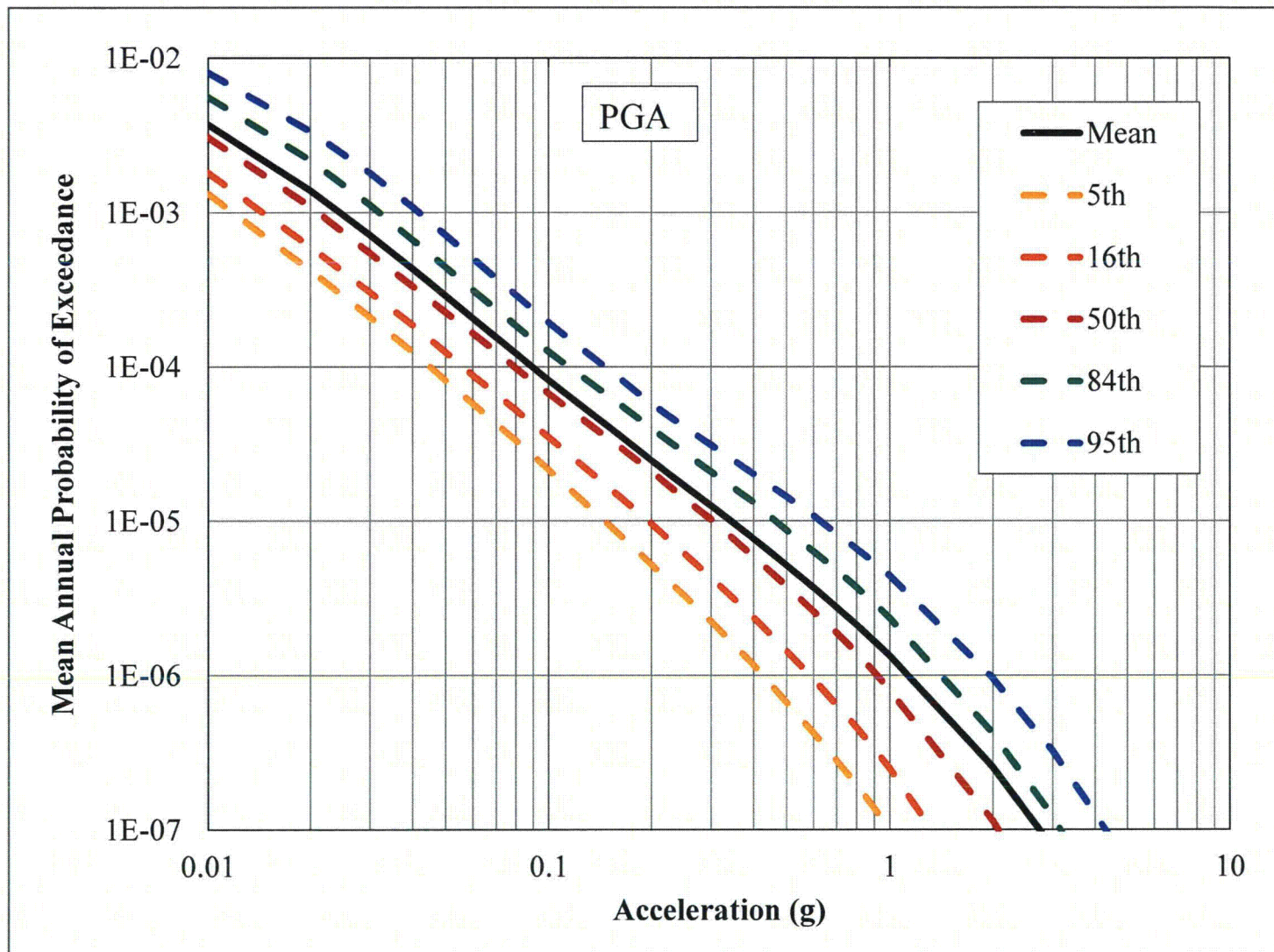
T2.5-12

Pseudo-Spectral Acceleration (g)	Annual Probability of Exceedance					
	Mean	5 th	16 th	50 th	84 th	95 th
0.01	9.72E-04	1.55E-04	2.80E-04	6.68E-04	1.68E-03	2.81E-03
0.02	3.30E-04	2.61E-05	5.54E-05	1.59E-04	5.16E-04	1.23E-03
0.03	1.65E-04	8.08E-06	1.94E-05	6.09E-05	2.15E-04	6.66E-04
0.04	9.82E-05	3.39E-06	8.63E-06	3.00E-05	1.06E-04	4.11E-04
0.05	6.39E-05	1.68E-06	4.54E-06	1.69E-05	5.88E-05	2.69E-04
0.06	4.40E-05	9.25E-07	2.65E-06	1.04E-05	3.61E-05	1.82E-04
0.07	3.17E-05	5.59E-07	1.67E-06	6.79E-06	2.39E-05	1.31E-04
0.08	2.34E-05	3.59E-07	1.10E-06	4.74E-06	1.66E-05	9.31E-05
0.09	1.77E-05	2.42E-07	7.45E-07	3.42E-06	1.20E-05	6.88E-05
0.10	1.37E-05	1.68E-07	5.28E-07	2.54E-06	8.94E-06	5.36E-05
0.20	1.94E-06	1.29E-08	4.64E-08	3.31E-07	1.58E-06	6.19E-06
0.25	9.47E-07	5.01E-09	2.00E-08	1.70E-07	8.78E-07	2.94E-06
0.30	5.16E-07	2.25E-09	9.42E-09	9.53E-08	5.45E-07	1.74E-06
0.40	1.95E-07	5.53E-10	2.70E-09	3.72E-08	2.56E-07	7.36E-07
0.50	9.22E-08	1.78E-10	9.77E-10	1.74E-08	1.38E-07	3.93E-07
0.60	5.08E-08	6.60E-11	4.10E-10	8.79E-09	7.82E-08	2.39E-07
0.70	3.12E-08	2.78E-11	1.89E-10	4.97E-09	4.97E-08	1.56E-07
0.80	2.07E-08	1.25E-11	9.33E-11	2.99E-09	3.34E-08	1.05E-07
0.90	1.45E-08	6.00E-12	4.97E-11	1.83E-09	2.31E-08	7.29E-08
1.00	1.06E-08	3.14E-12	2.80E-11	1.20E-09	1.65E-08	5.28E-08
2.00	1.32E-09	2.30E-14	3.95E-13	4.31E-11	1.26E-09	6.27E-09
3.00	3.44E-10	2.67E-16	1.96E-14	4.40E-12	2.37E-10	1.63E-09
5.00	5.09E-11	0.00E+00	5.38E-17	1.79E-13	2.22E-11	2.11E-10

Figure 2.5-37—{Mean and Fractile Rock Hazard Curves for PGA}

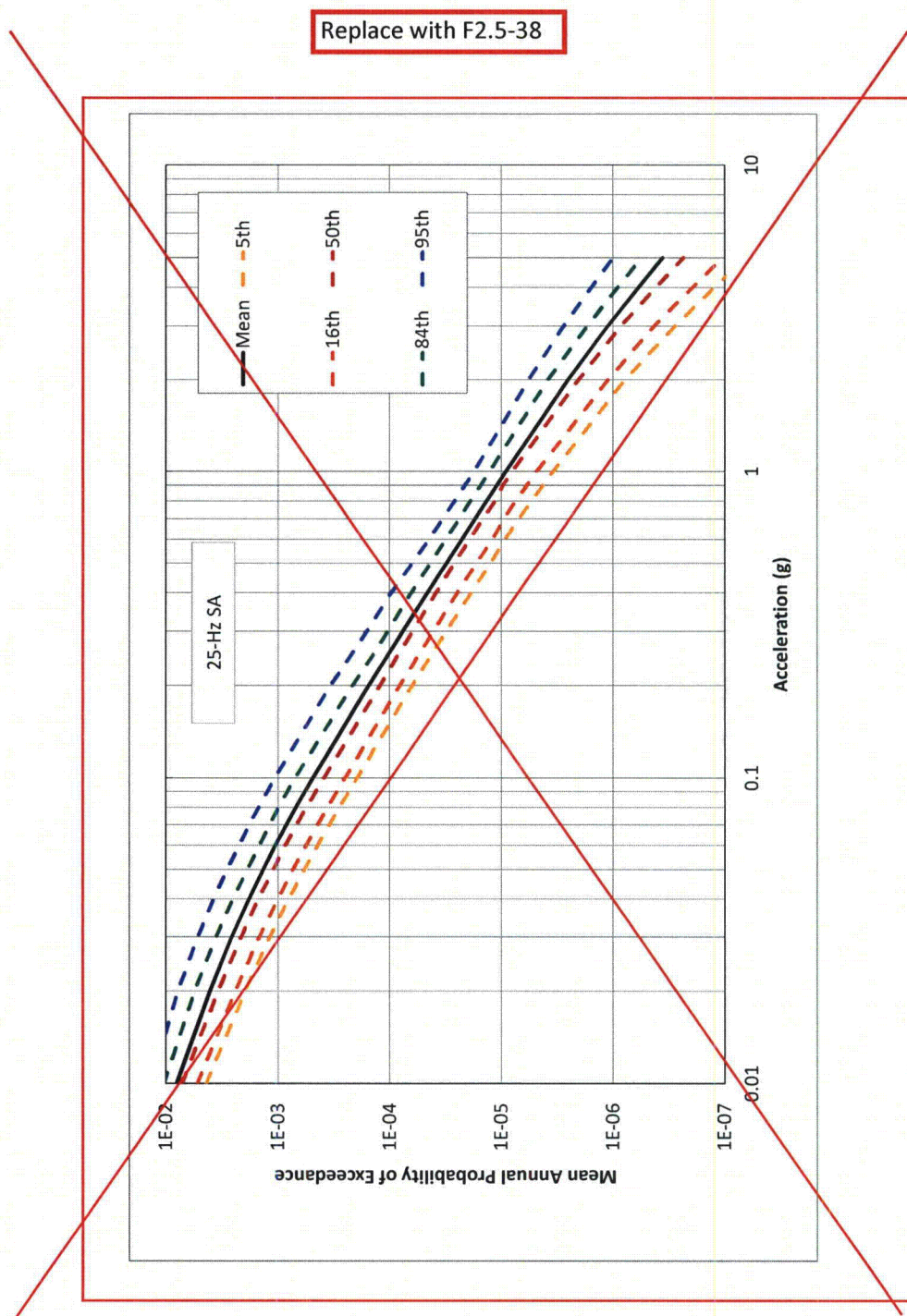


10-4310-GIS-A223

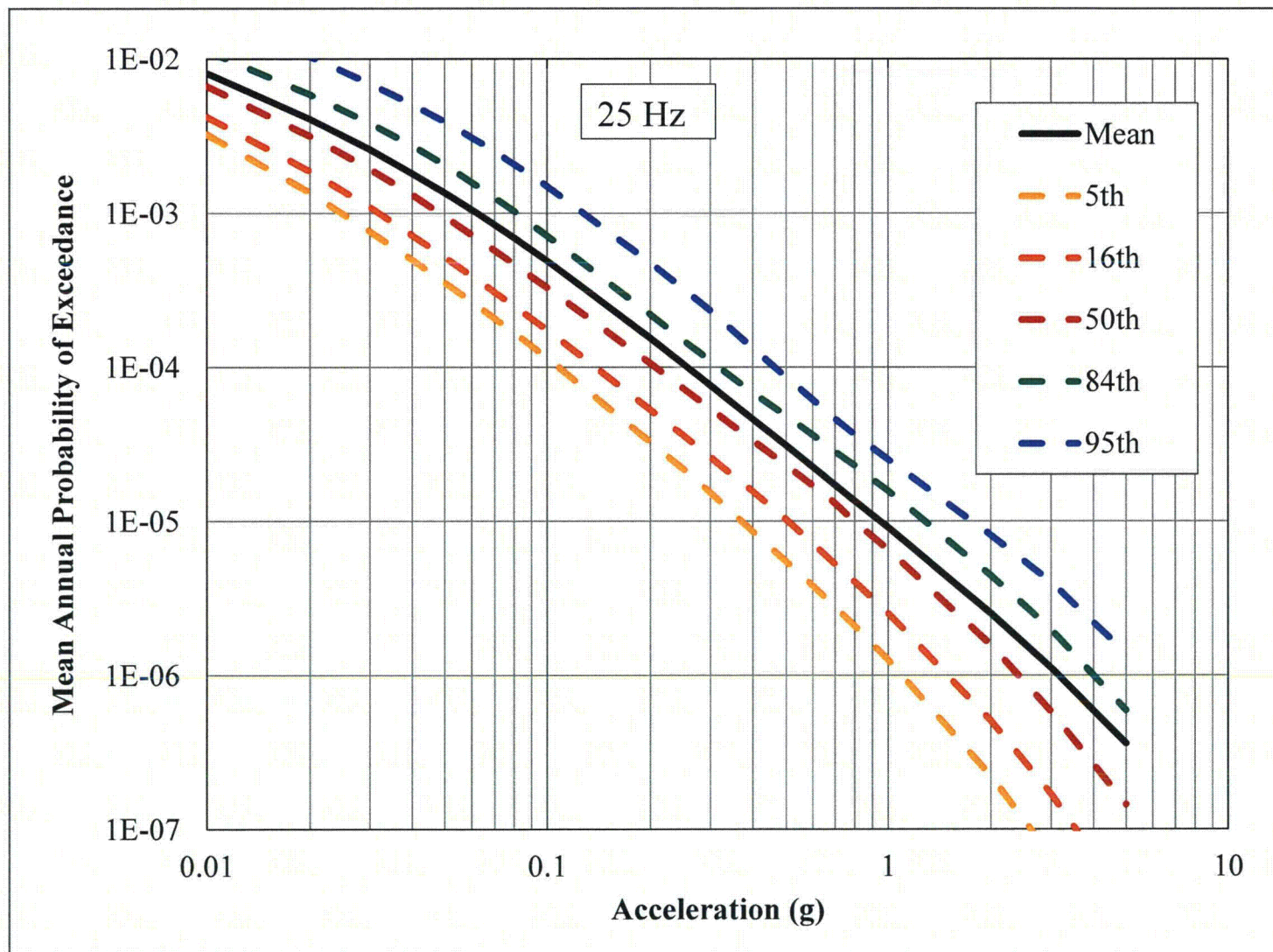


F2.5-37

Figure 2.5-38— {Mean and Fractile Rock Hazard Curves for 25Hz}

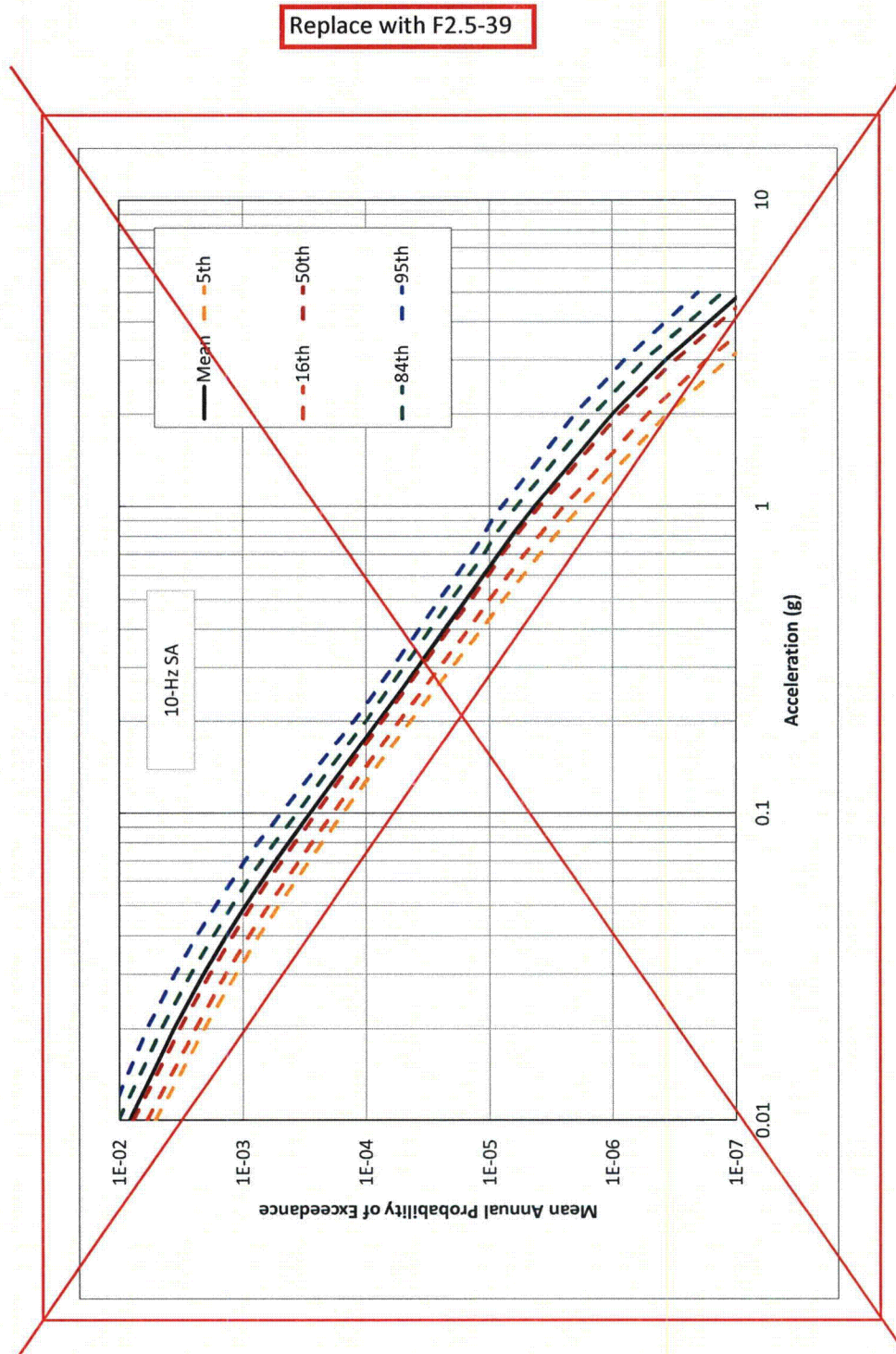


10-4310-GIS-A224

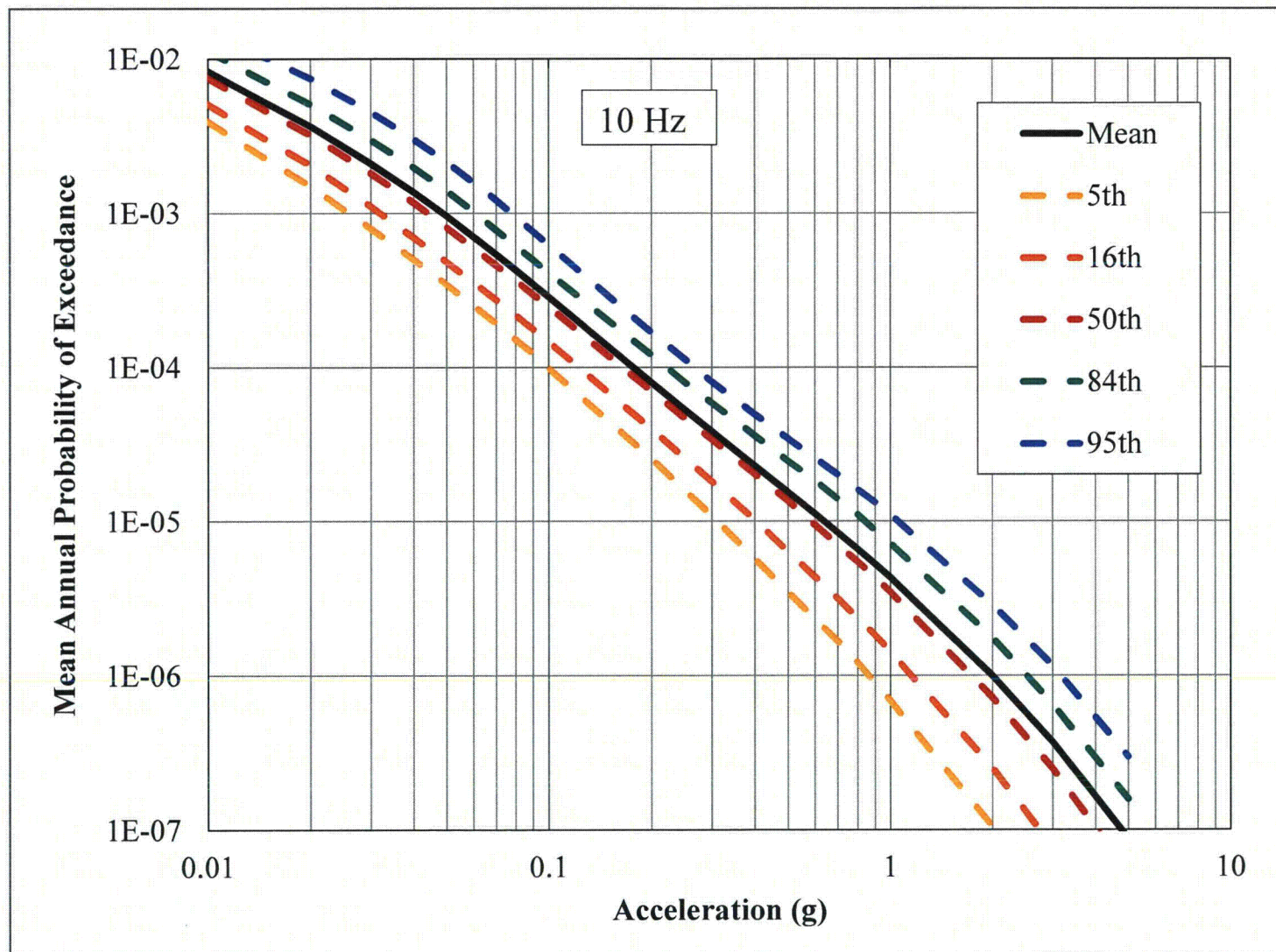


F2.5-38

Figure 2.5-39— {Mean and Fractile Rock Hazard Curves for 10 Hz}

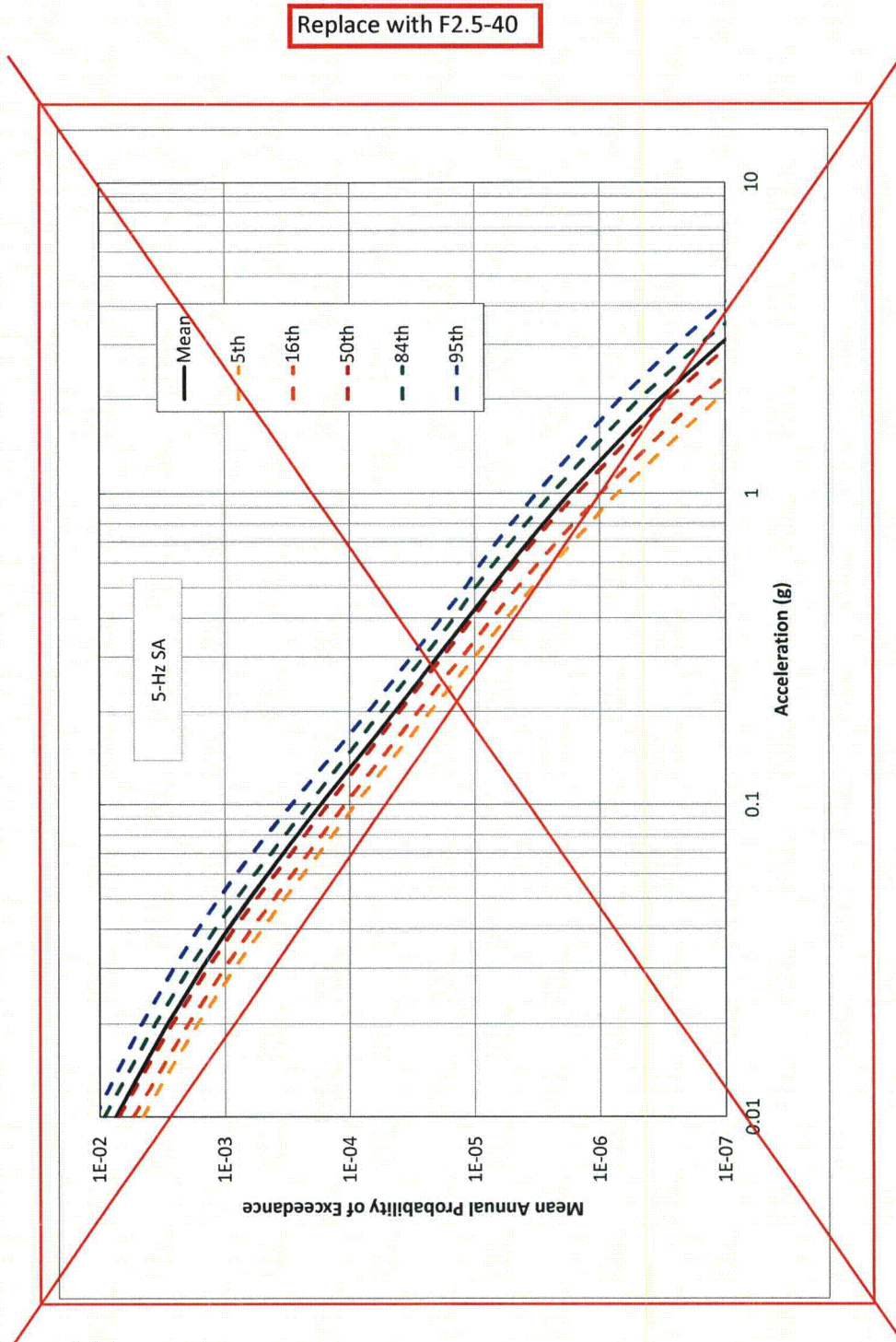


10-4310-GIS-A025

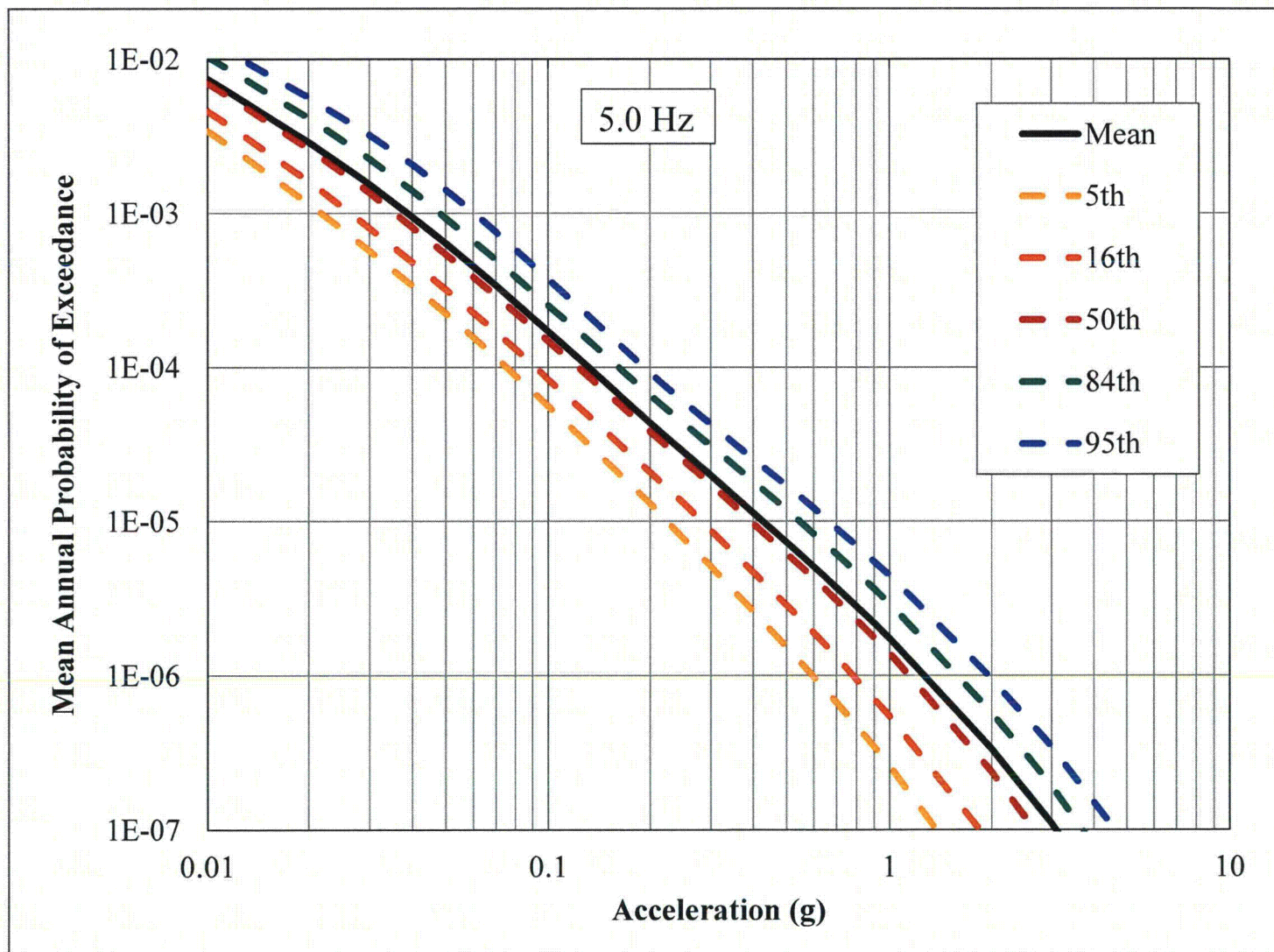


F2.5-39

Figure 2.5-40— {Mean and Fractile Rock Hazard Curves for 5.0 Hz}



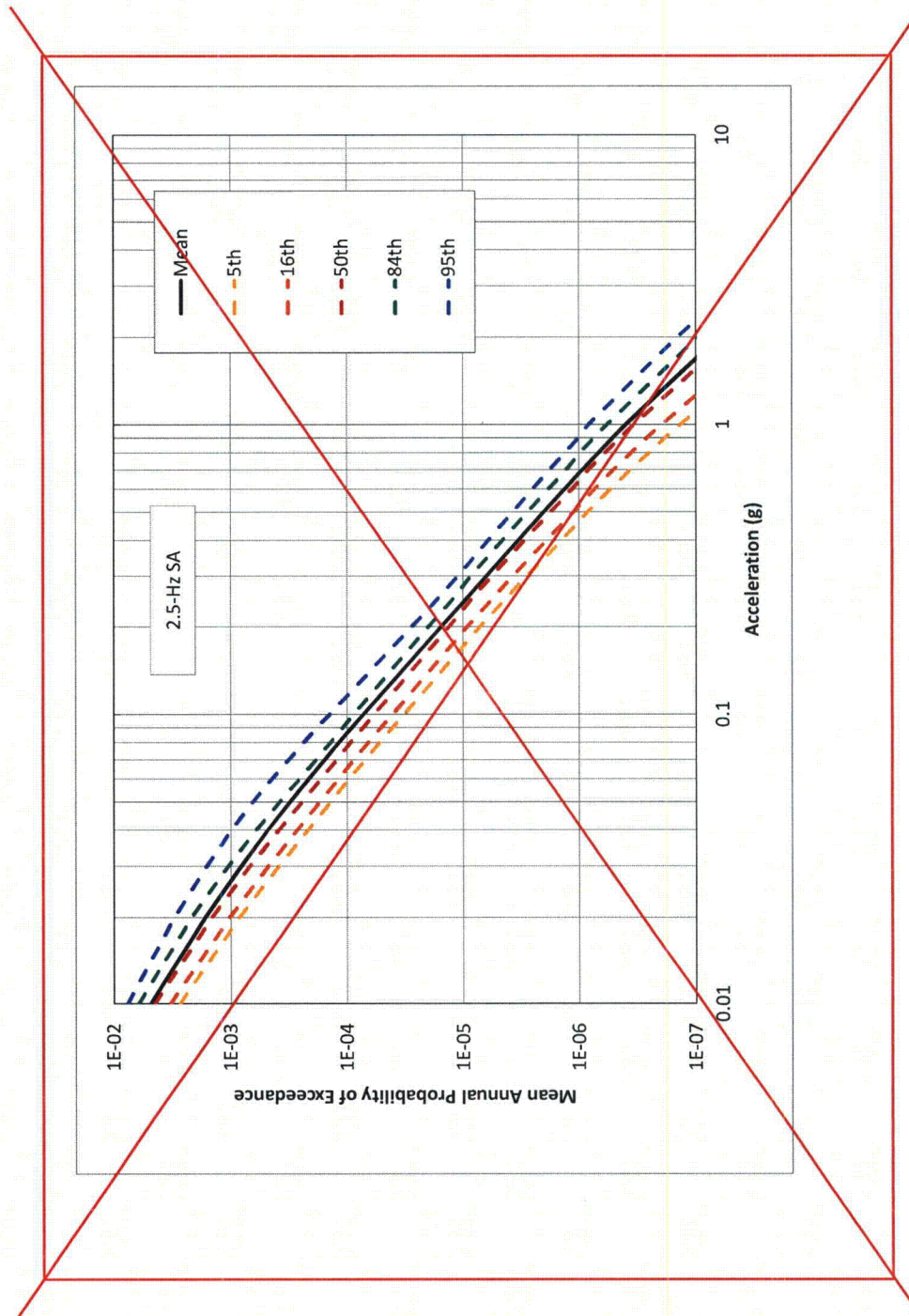
10-4310-GIS-A226



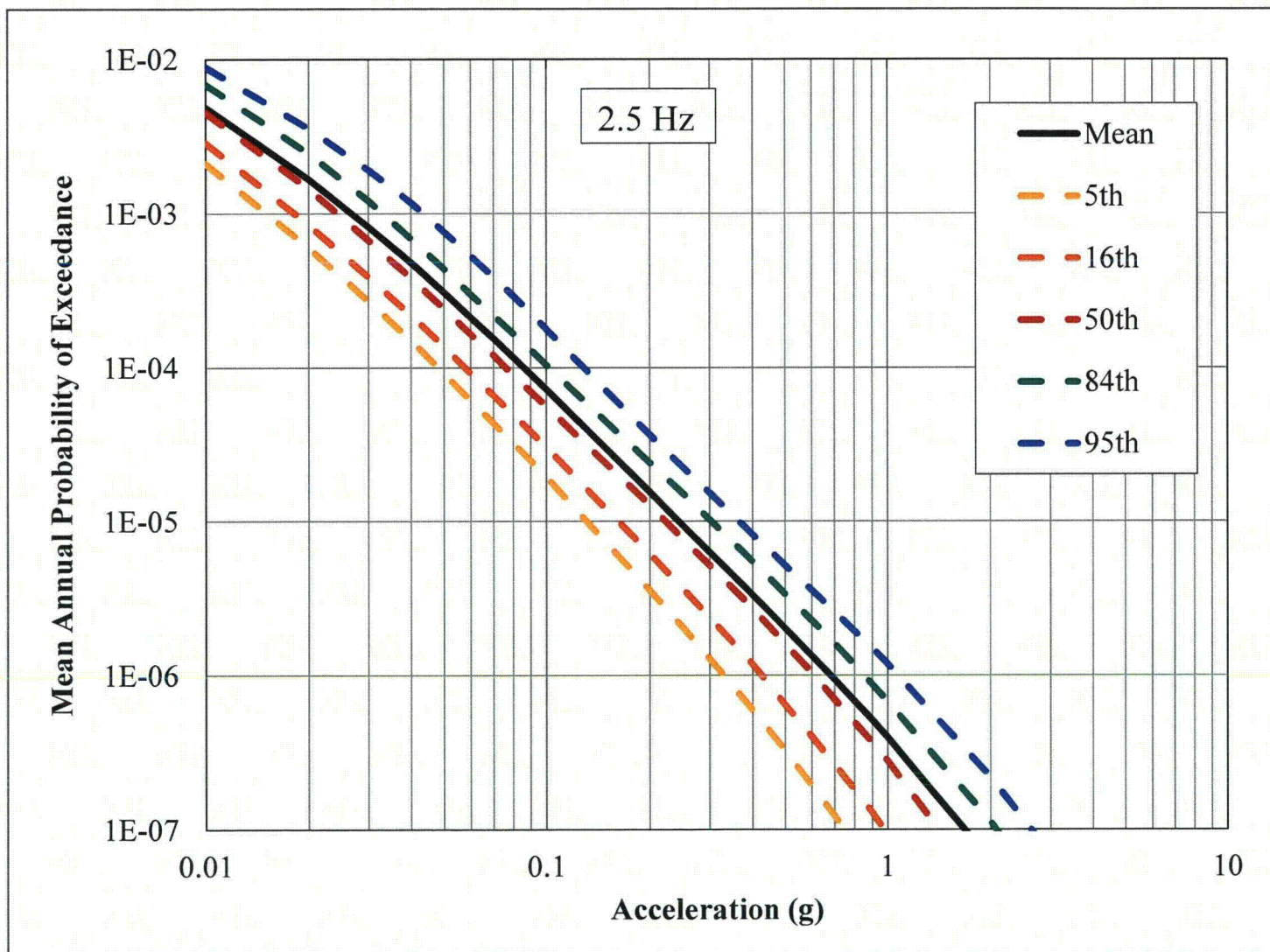
F2.5-40

Replace with F2.5-41

Figure 2.5-41— {Mean and Fractile Rock Hazard Curves for 2.5 Hz}

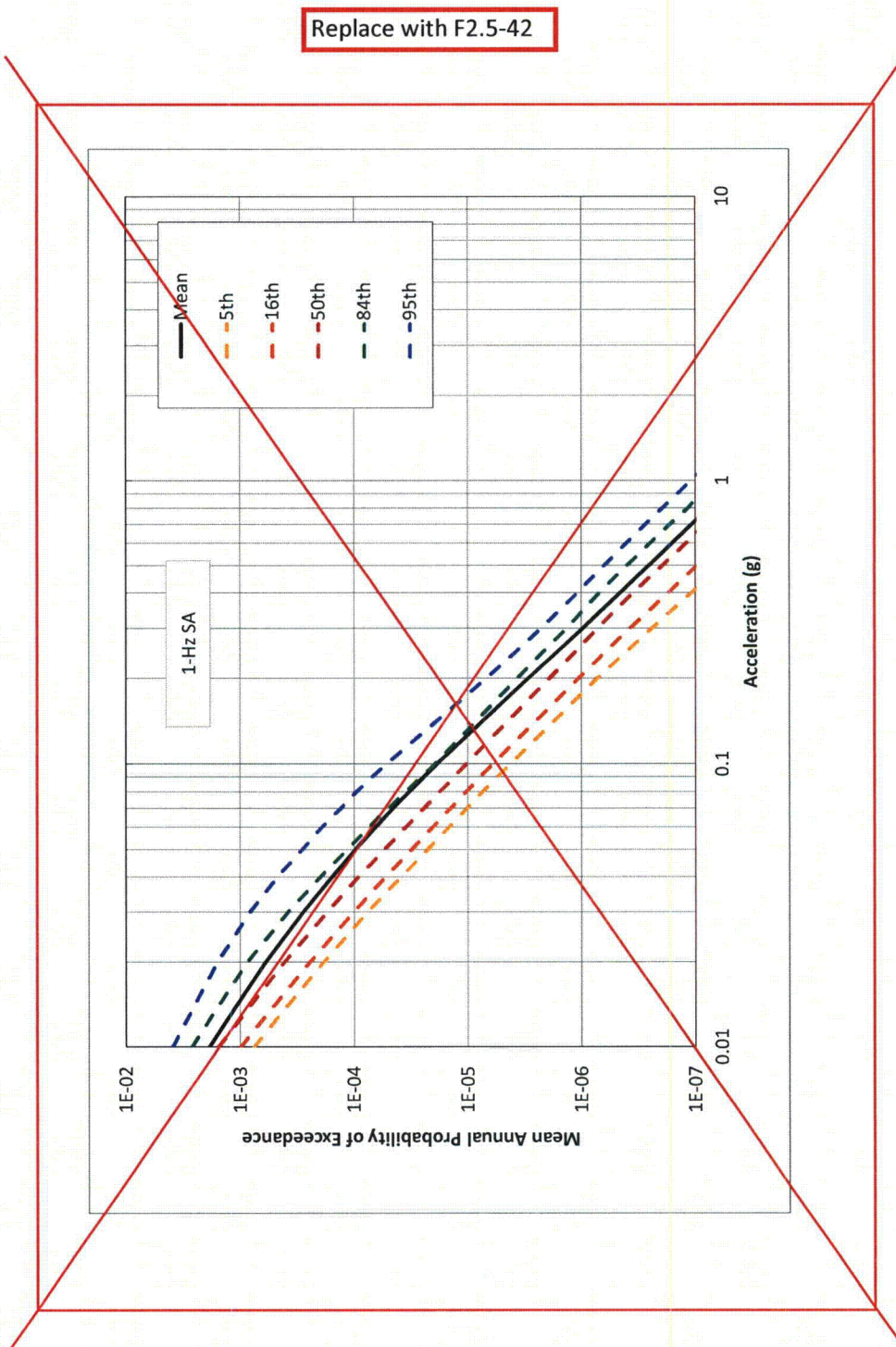


10-4310-GIS-A227

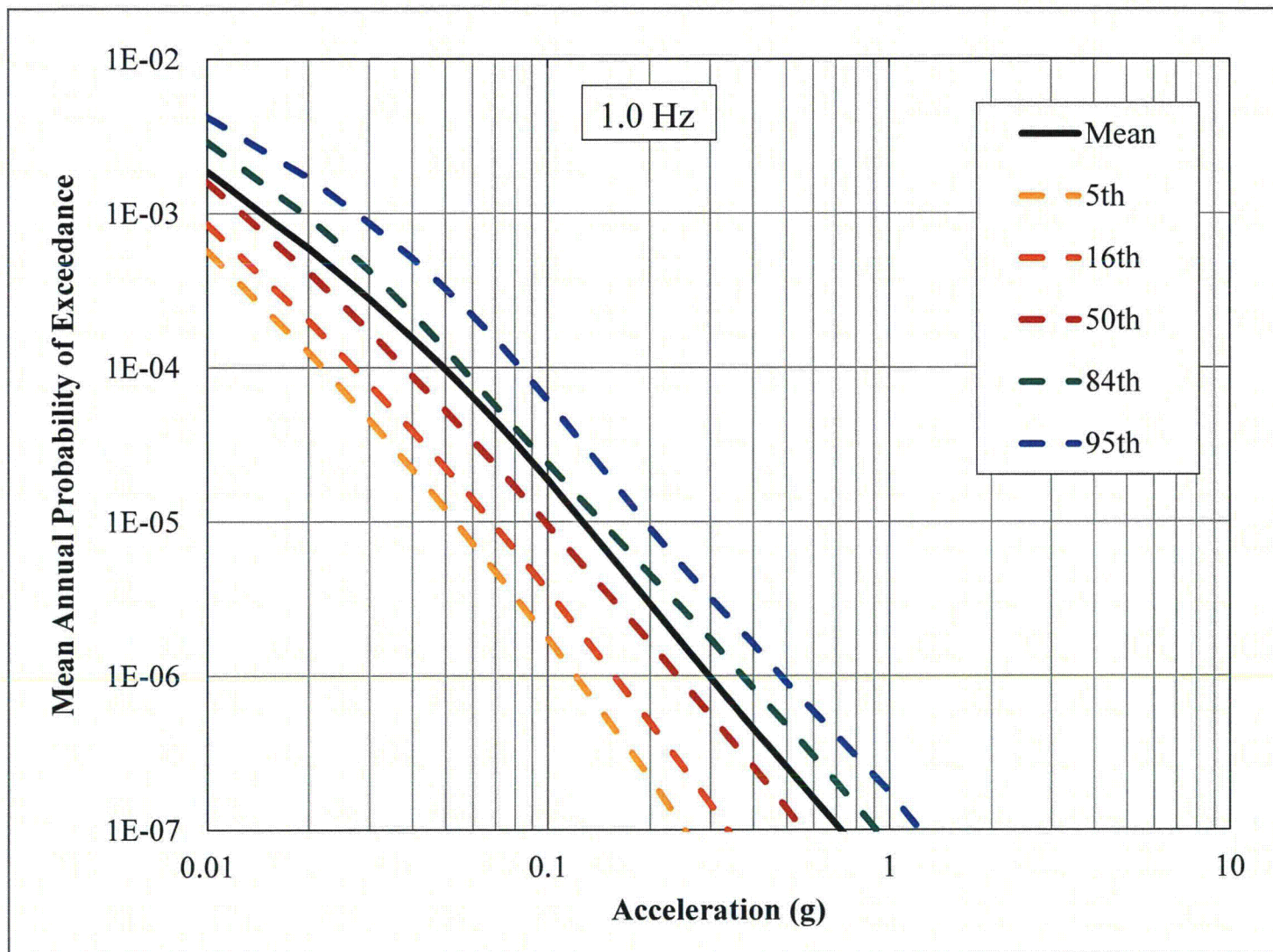


Replace with F2.5-4.1

Figure 2.5-42 — {Mean and Fractile Rock Hazard Curves for 1.0 Hz}

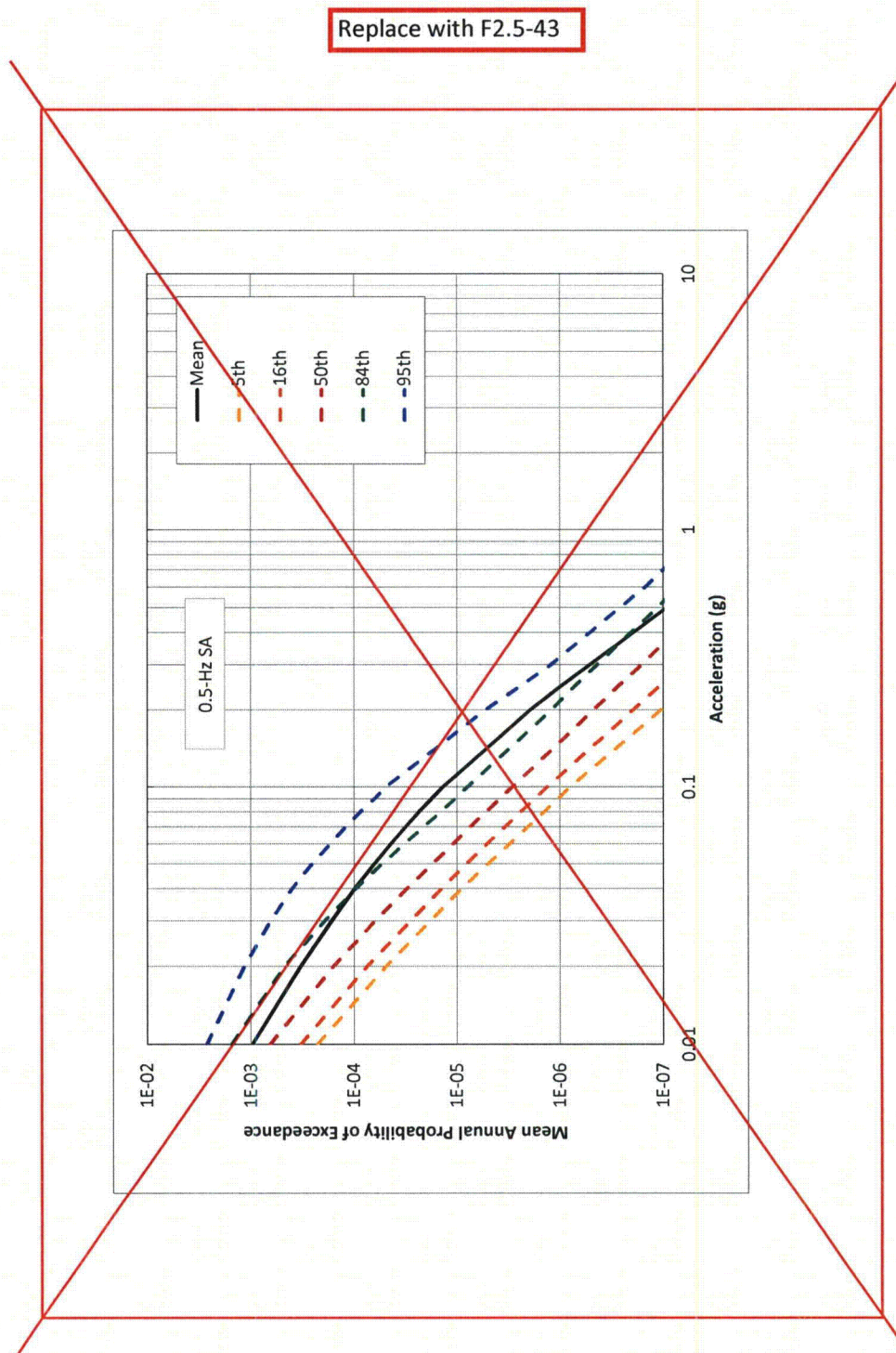


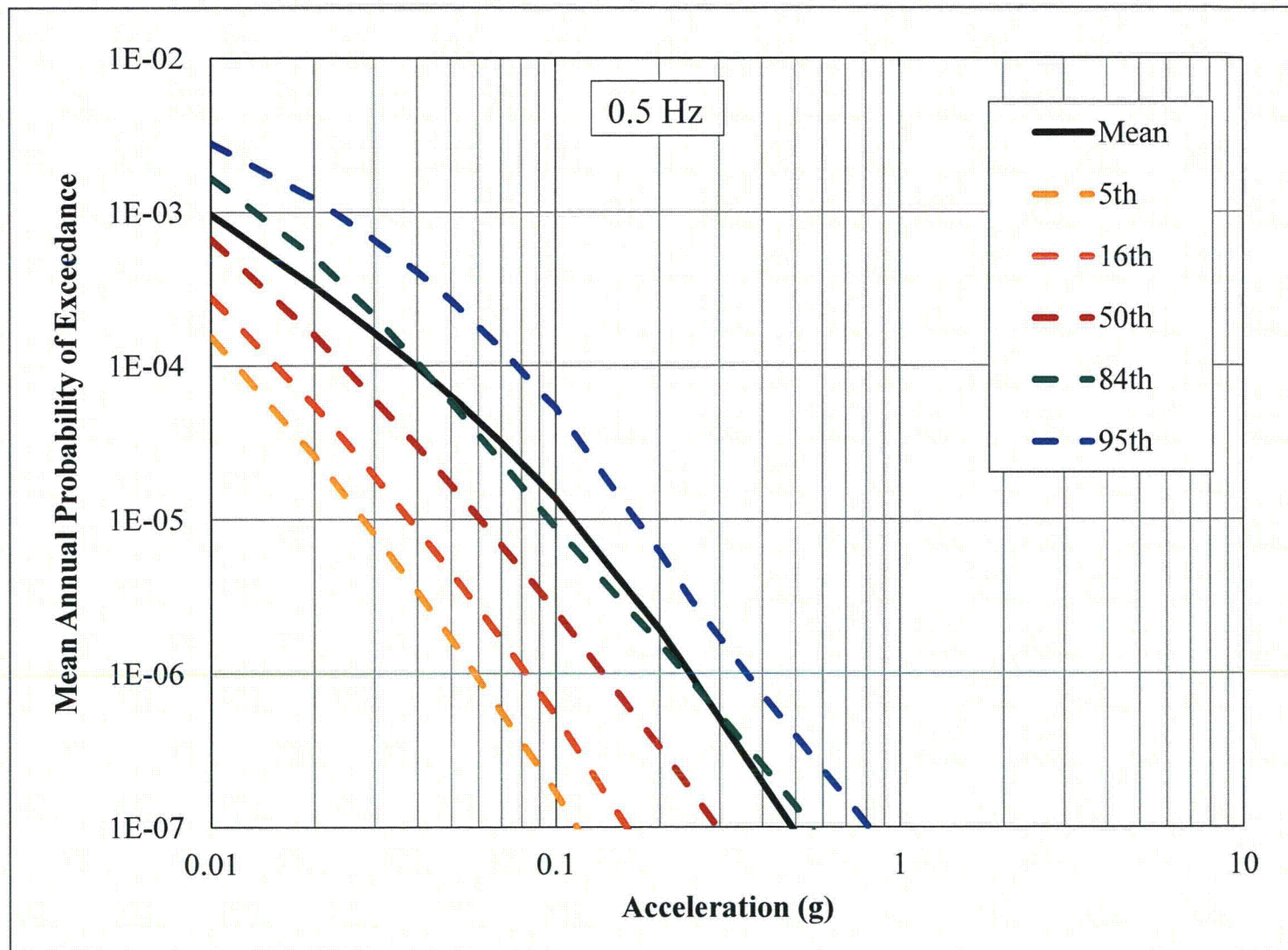
10-4310-GIS-A28



F2.5-42

Figure 2.5-43 — {Mean and Fractile Rock Hazard Curves for 0.5 Hz}
(Page 1 of 2)





F2.5-43