

Exelon Nuclear  
200 Exelon Way  
KSA3-N  
Kennett Square, PA 19348

Telephone 610.765.5662  
Fax 610.765.5765  
www.exeloncorp.com

52.17

October 12, 2005

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

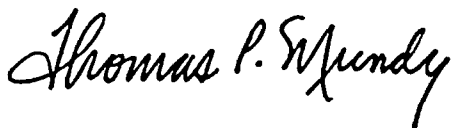
Early Site Permit (ESP) Application for the Clinton ESP Site  
Docket No. 52-007

Subject: ESP Site Soil Hazard Data

Enclosed is approximate soil hazard data for the EGC ESP site for 1, 2.5, 5, and 10 Hz. This data was verbally requested by NRC staff during the September 27, 2005, public meeting discussion of the supplemental draft safety evaluation report (DSER) open items.

Please contact Eddie Grant of my staff at 850-598-9801 if you have any questions regarding this submittal.

Sincerely yours,



Thomas P. Mundy  
Director, Project Development

TPM/erg

cc: U.S. NRC Regional Office (w/ enclosure)  
Mr. John P. Segala (w/ enclosure)

Enclosure

D073

**AFFIDAVIT OF THOMAS P. MUNDY**

State of Pennsylvania

County of Chester

The foregoing document was acknowledged before me, in and for the County and State aforesaid, by Thomas P. Mundy, who is Director, Project Development, of Exelon Generation Company, LLC. He has affirmed before me that he is duly authorized to execute and file the foregoing document on behalf of Exelon Generation Company, LLC, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged and affirmed before me this 12<sup>th</sup> day of October, 2005.

My commission expires 10-6-07.

Vivia V. Gallimore

Notary Public

COMMONWEALTH OF PENNSYLVANIA

Notarial Seal

Vivia V. Gallimore, Notary Public  
Kennett Square Boro, Chester County  
My Commission Expires Oct. 6, 2007

Member, Pennsylvania Association Of Notaries

**NRC Letter Dated: NA (verbal request)**

The following is approximate soil hazard data for the EGC ESP site for 1, 2.5, 5, and 10 Hz. Each set of data contains two columns. The first is spectral acceleration (in g) and the second is mean annual frequency of exceedance. The hazard data is based on the 10E-4 and 10E-5 soil ground motions computed for the EGC ESP site and were extended to cover the full range of hazard levels using the results of the Seismic Issues Task Force (Task G1.1) study to define the variation in soil amplification as a function of ground motion level.

**Approximate 1 Hz Soil hazard Data**

<b>PSA(g)</b>	<b>Frequency of Exceedance</b>
0.00128	5.306E-02
0.00200	3.854E-02
0.00314	2.747E-02
0.00493	1.912E-02
0.00773	1.289E-02
0.01211	8.718E-03
0.01899	5.784E-03
0.02977	3.703E-03
0.04668	2.244E-03
0.07319	1.228E-03
0.11475	5.691E-04
0.17991	2.389E-04
0.28207	8.601E-05
0.44224	2.931E-05
0.69336	1.007E-05
1.08709	3.540E-06
1.70439	1.082E-06
2.67223	3.160E-07
4.18966	8.337E-08
6.56876	1.379E-08
10.29882	1.858E-09
16.14700	3.244E-10

Approximate 2.5 Hz Soil hazard Data

PSA(g)	Frequency of Exceedance
0.00270	1.284E-01
0.00402	1.025E-01
0.00600	7.758E-02
0.00894	5.605E-02
0.01333	3.901E-02
0.01986	2.662E-02
0.02961	1.782E-02
0.04413	1.180E-02
0.06578	7.554E-03
0.09806	4.493E-03
0.14616	2.501E-03
0.21786	1.208E-03
0.32473	5.178E-04
0.48404	1.510E-04
0.72149	4.098E-05
1.07543	1.106E-05
1.60301	3.194E-06
2.38940	7.276E-07
3.56157	4.326E-08
5.30876	7.029E-09
7.91308	1.302E-09
11.79500	2.824E-10

Approximate 5 Hz Soil Hazard Data

PSA(g)	Frequency of Exceedance
0.00324	9.160E-02
0.00463	7.859E-02
0.00661	6.511E-02
0.00945	5.195E-02
0.01351	3.972E-02
0.01931	2.952E-02
0.02759	2.100E-02
0.03944	1.454E-02
0.05637	9.903E-03
0.08057	6.500E-03
0.11515	3.973E-03
0.16458	2.255E-03
0.23523	1.148E-03
0.33621	5.127E-04
0.48054	1.932E-04
0.68682	5.986E-05
0.98165	1.785E-05
1.40304	5.554E-06
2.00532	1.432E-06
2.86615	8.066E-08
4.09650	1.246E-08
5.85500	2.343E-09

Approximate 10 Hz Soil Hazard Data

PSA(g)	Frequency of Exceedance
0.00260	8.228E-02
0.00374	7.130E-02
0.00538	5.981E-02
0.00774	4.877E-02
0.01114	3.808E-02
0.01604	2.907E-02
0.02308	2.119E-02
0.03321	1.494E-02
0.04778	1.020E-02
0.06876	6.593E-03
0.09894	3.938E-03
0.14236	2.152E-03
0.20486	1.074E-03
0.29478	4.823E-04
0.42417	1.930E-04
0.61037	6.745E-05
0.87829	2.237E-05
1.26383	6.367E-06
1.81859	3.517E-07
2.61688	1.257E-07
3.76557	4.136E-08
5.41850	1.285E-08