



May 22, 2014

## Catalog of Products and Services

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SQUG/EPRI has developed several types of products and services for use by SQUG members. This “Catalog of Products and Services” illustrates those products and services that are currently available from SQUG and the EPRI related to use of the experience-based method for seismic qualification of equipment.

### **Products include:**

- Implementation procedures, guidance documents, reference documents, and other reports
- Computer software to assist in implementation and analysis using the method
- Training materials, including DVDs, CDs, workbooks, and administration guidance
- SQUG web site containing reference documents, guidance, and reports
- SQUG List Server for communicating with other members of SQUG
- Earthquake Experience Database containing records of thousands of items of equipment that had experienced a real earthquake

### **Services include:**

- SQUG-sponsored training courses
- Training courses held on-site at member facilities (arranged to meet the individual needs of the host utility/company). Assistance can include complete preparation and conduct of the course, follow-up Q&A sessions to follow self-instruction, small scope administrative support, and customized course content. Individual instructors are also available for specific topics in their area of expertise.
- SQUG-funded support for implementing plant-specific, seismic qualification of new and replacement equipment (NARE) using the SQUG method

Note that this catalog is intended primarily for use by SQUG/EPRI members, though certain products and services may also be available for others. Membership in SQUG has numerous benefits, including reduced costs for many of these products and services.

Contact Dr. Robert Kassawara, the EPRI Program Manager at (650) 855-2775 or send an email to the SQUG Webmaster at [squgwebmaster@mpr.com](mailto:squgwebmaster@mpr.com) to discuss the cost of membership in SQUG and/or EPRI.

### **How to Order Products and Services:**

For SQUG members, there are two ways to order products or services. One way is to use this catalog and complete the Order Form included in Table 1. The other way is to go to the EPRI web site (<http://my.epri.com/portal/server.pt?>) to order EPRI Reports or go to the SQUG web site (<http://squgweb.mpr.com/>) to download SQUG Products.

For non-members, it is necessary to complete the Order Form included in Table 1.

If you need assistance in identifying or ordering products and services, contact Richard Starck or Robert Kassawara using the following contact information.

Richard Starck (for SQUG Products & Services)  
MPR Associates, Inc.  
320 King Street  
Alexandria, VA 22314  
*Phone: (703) 519-0511*  
*FAX: (703) 519-0224*

Dr. Robert Kassawara (for EPRI Reports)  
EPRI  
3420 Hillview Avenue  
Palo Alto, CA 94304  
*Phone: (650) 855-2775*  
*FAX: (650) 855-1026*

### **Summary**

There are three types of products and services described in this catalog:

- EPRI Reports are listed in Table 2.
- SQUG Products are listed in Table 3.
- SQUG Services are listed in Table 4.

Note that **EPRI Members** may also independently order the EPRI Reports listed in Table 2 directly from the [EPRI web site](#), by contacting the Customer Assistance Center at (800) 313-3774, or by email: [askepri@epri.com](mailto:askepri@epri.com).

**Please note: The materials and intellectual property in this catalog are for use by SQUG members and licensees only for their use at their own facilities. Transfer or sale to a third party is not permitted and commercial use must be negotiated separately.**

**Table 1. SQUG/EPRI Products and Services  
Order Form\***

Qty	Item Number	Report Number or Description	Unit Price		Total	
<b>Total**</b>						

\* Please allow four to six weeks for delivery. Rush delivery is available; please call for details.

\*\* Postage, handling, and applicable sales tax are included in catalog price.

EPRI Member  Yes Member # \_\_\_\_\_  No  
 NAME: \_\_\_\_\_ COMPANY: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_  
 E-MAIL: \_\_\_\_\_

Fax or mail this form and, if applicable, a check, money order, or purchase order made payable to "**Electric Power Research Institute**" to:

SQUG Products                    Phone: 703-519-0200  
 c/o Richard Starck              Fax:     703-519-0224  
 MPR Associates, Inc.  
 320 King Street  
 Alexandria, VA 22314-3238

Note that EPRI Members may order EPRI Reports (i.e., those items in Table 2) directly from the EPRI web site or by contacting the Customer Assistance Center at (800) 313-3774 or by email [askepri@epri.com](mailto:askepri@epri.com).

**Table 2. EPRI Reports**

Item Number	Report Number	Description	Price (U.S. Dollars)	
			SQUG/EPRI Member	Non-Member
E1	NP-7146-SL	Guidelines for Development of In-Cabinet Amplified Response Spectra for Electrical Benchboards and Panels	No Cost	No Cost
E2	NP-7146-SL R1	Guidelines for Development of In-Cabinet Seismic Demand for Devices Mounted in Electrical Cabinets	No Cost	No Cost
E3	NP-7147-SL	Seismic Ruggedness of Relays (Includes Addenda)	No Cost	No Cost
E4	NP-7148-SL	Procedure for Evaluating Nuclear Power Plant Relay Seismic Functionality (Includes Addendum)	No Cost	No Cost
E5	NP-7149-SL	Summary of the Seismic Adequacy of Twenty Classes of Equipment Required for the Safe Shutdown of Nuclear Plants	No Cost	No Cost
E6	NP-7149-D SUPPLEMENT	Summary of the Seismic Adequacy of Twenty Classes of Equipment Required for the Safe Shutdown of Nuclear Plants, Supplement 1, January 1996	No Cost	No Cost
E7	NP-7150-D	The Performance of Raceway Systems in Strong-Motion Earthquakes	No Cost	<a href="#">See EPRI</a>
E8	NP-7151-D	Cable Trays and Conduit System Seismic Evaluation Guidelines	No Cost	<a href="#">See EPRI</a>
E9	NP-7152-D	Seismic Evaluation of Rod Hanger Supports for Electrical Raceway Systems	No Cost	No Cost
E10	NP-7153-SL	Longitudinal Load Resistance in Seismic Experience Database Raceway Systems	No Cost	<a href="#">See EPRI</a>
E11	NP-5223-SL R1	Generic Seismic Ruggedness of Power Plant Equipment	No Cost	<a href="#">See EPRI</a>
E12	TR-105988	GERS Formulated Using Data from the SQRSTS Program	No Cost	<a href="#">See EPRI</a>
E13	1014833	Applicability of the Generic Equipment Ruggedness Spectra (GERS) for Internationally Manufactured Equipment	No Cost	<a href="#">See EPRI</a>

**Table 2. EPRI Reports**

Item Number	Report Number	Description	Price (U.S. Dollars)	
			SQUG/EPRI Member	Non-Member
E14	NP-5228-SL R1	Seismic Verification of Nuclear Plant Equipment Anchorage (Revision 1) <ul style="list-style-type: none"> <li>• Volume 1: Development of Anchorage Guidelines (Includes Addendum)</li> <li>• Volume 2: Anchorage Inspection Workbook</li> <li>• Volume 3: EPRI/Blume Anchorage Computer Program – EBAC</li> <li>• Volume 4: Guidelines on Tanks and Heat Exchangers</li> </ul>	No Cost	<a href="#">See EPRI</a>
E15	TR-102180	Guidelines for Estimation or Verification of Equipment Natural Frequency	No Cost	<a href="#">See EPRI</a>
E16	TR-103960	Recommended Approaches for Resolving Anchorage Outliers	No Cost	No Cost
E17	NP-6041-SL R1	A Methodology for Assessment of Nuclear Power Plant Seismic Margin (Revision 1)	No Cost	No Cost
E18	NP-7498	Industry Approach to Seismic Severe Accident Policy Implementation	No Cost	No Cost
E19	TR-101055	Comparison of the Guidance in Generic Implementation Procedure for Seismic Verification of Nuclear Plant Equipment (GIP) and NP 6041, Rev. 1	No longer available	No longer available
E20	NP-7484	Guideline for the Seismic Technical Evaluation of Replacement Items for Nuclear Power Plants (STERI)	No Cost	No Cost
E21	1016694	Generic Seismic Technical Evaluations of Replacement Items for Nuclear Power Plants--Item-Specific Evaluations - TR-105849 Rev. 1	No Cost	<a href="#">See EPRI</a>
E22	TR-112579	Critical Characteristics for Acceptance of Seismically Sensitive Items (CCASSI)	No Cost	No Cost
E23	1009040	SQUG Electronic Database User's Guide: eSQUG, Version 2.0 (QA) -- Revision to TR-113705	No Cost	No Cost
E24	---	Access to eSQUG – EPRI web site containing Earthquake Experience Database	No Cost <sup>1</sup>	See Note 1
E25	1012022	Experience Based Seismic Verification Guidelines for Overhead Crane Systems	No Cost	<a href="#">See EPRI</a>

<sup>1</sup> For access to eSQUG (Table 2 Catalog Item E24), call Robert Kassawara, EPRI (650) 855-2775.

**Table 2. EPRI Reports**

Item Number	Report Number	Description	Price (U.S. Dollars)	
			SQUG/EPRI Member	Non-Member
E26	1019199	Experience-Based Seismic Verification Guidelines for Piping and Tubing	No Cost	<a href="#">See EPRI</a>
E27	1014608	Seismic Evaluation Guidelines for HVAC Duct and Damper Systems	No Cost	No Cost
E28	1007683	SQUG Walkdown Screening and Seismic Evaluation Training Course – Set of 6 video DVDs and 3 CDs for students. The Instructor version of this course contains an additional CD with the Administrator's Manual and answer keys.	No Cost	<a href="#">See EPRI</a>

**Table 3. SQUG Products**

Item Number	Description	Price (U.S. Dollars)		
		SQUG/EPRI Member	Non-Member <sup>2</sup> Licensed for Utility Support	Independent <sup>3</sup> Unrestricted Single-User
<b>Reports</b>				
S1	Generic Implementation Procedure (GIP) on a CD – Includes Revisions 2, 2A, 3, and 3A plus related references	25	1,000	25,000
S2	SSRAP Report, "Use of Seismic Experience Data to Show Ruggedness of Equipment in Nuclear Power Plants," Rev. 4.0	25	125	125
S3	SSRAP/Cable Tray Report, "Review Procedure to Assess Seismic Ruggedness of Cantilever Bracket Cable Tray Supports"	25	125	125
<b>Software</b>				
S4	SSEM "Safe Shutdown Equipment Manager"	100	500	1,000
S5	GENRS (Calculates In-Cabinet Amplification Factors for Relay Seismic Demand)	No Cost <sup>4</sup>	No Cost <sup>4</sup>	No Cost <sup>4</sup>
S6	EBAC (Anchorage Evaluation)	No Cost <sup>5</sup>	See Note <sup>5</sup>	See Note <sup>5</sup>
<b>Training Materials</b>				
S7	SQUG Walkdown Screening and Seismic Evaluation Training Course – Video DVDs and CDs	See Note <sup>6</sup>	See Note <sup>6</sup>	See Note <sup>6</sup>
S8	SQUG/NARE Awareness Training Course – CD with PowerPoint slides, Instructor's Manual, and Quiz	100	500	1,000

<sup>2</sup> A Non-Member who will be supporting a SQUG/EPRI member utility in the performance of seismic verification must obtain an EPRI license for the reference reports and can receive the price reduction listed (versus the price listed for the Independent Unrestricted Single-User – see footnote 3). Contact Robert Kassawara, EPRI (650) 855-2775, for details.

<sup>3</sup> A Non-Member who will not be using the reference reports in support of a SQUG/EPRI member (e.g., an oil company) must obtain an EPRI license for the reference reports. Contact Robert Kassawara, EPRI (650) 855-2775, for details.

<sup>4</sup> Software Included with EPRI Report NP-7146-SL (Table 2 Catalog Item E1).

<sup>5</sup> Software Included with EPRI Report NP-5228-SLR1, Volume 3 (Table 2 Catalog Item E14).

<sup>6</sup> Training material for the SQUG Walkdown Screening and Seismic Evaluation Training Course may be obtained from EPRI (see Table 2 Catalog Item E28).

**Table 4. SQUG Services**

Item Number	Description	Price (U.S. Dollars)
<b>SQUG Sponsored Services</b>		
SS1	A-46 Walkdown Course Sponsored by SQUG (Schedule and location to be announced) (Minimum enrollment: 20 students)	1,500 - 2,000/student
SS2	SSEL/Relay Course Sponsored by SQUG (Schedule and location to be announced) (Minimum enrollment: 20 students)	1,500/student
SS3	Seismic/IPE Add-On Course Sponsored by SQUG (Schedule and location to be announced) (Minimum enrollment: 20 students)	No long offered
SS4	New and Replacement Parts and Equipment (NARE) Course Sponsored by SQUG (Schedule and location to be announced) (Minimum enrollment: 20 students)	1,500/student
SS5	SQUG/NARE Awareness Training Course (Schedule and location to be announced) (Minimum enrollment: 20 students)	800/student
SS6	NARE Evaluation Support (Scope of work to be negotiated with NARE Protocol Chairman) (Minimum enrollment: 20 students)	No Cost to Members
<b>Non-SQUG Sponsored Services (Arranged on a Case Basis)</b>		
NS1	A-46 Walkdown Course Held at Utility/Company	10,000 – 45,000 <sup>7</sup>
NS2	SSEL (Equipment Selection) Course Only, Held at Utility/Company	15,000 – 25,000 <sup>7</sup>
NS3	Relay Course Only, Held at Utility/Company	15,000 – 25,000 <sup>7</sup>
NS4	SSEL/Relay Course Held at Utility/Company	20,000 – 30,000 <sup>7</sup>
NS5	Seismic IPE Add-On Course Held at Utility/Company	25,000 – 45,000 <sup>7</sup>
NS6	NARE Course Held at Utility/Company	20,000 – 30,000 <sup>7</sup>
NS7	SQUG/NARE Awareness Training Course Held at Utility/Company	5,000 – 7,000 <sup>7</sup>

<sup>7</sup> Price is negotiable based on number of instructors/coordinators, food, audio/visual requirements, study material, etc. These prices are for courses given in the continental U.S. For international courses or additional information, call Robert Kassawara, EPRI (650) 855-2775.