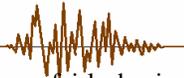


*Here the second SQUG/SEQUAL Newsletter of 2003. It's a quick update on a variety of activities and a preview of the topics we'll discuss at the Winter meeting on December 10 through 12.*

*As always, we encourage you to send in your comments and thoughts so that we can make the Newsletters as valuable as possible.*

**John Richards**  
**SQUG/SEQUAL Chairman**

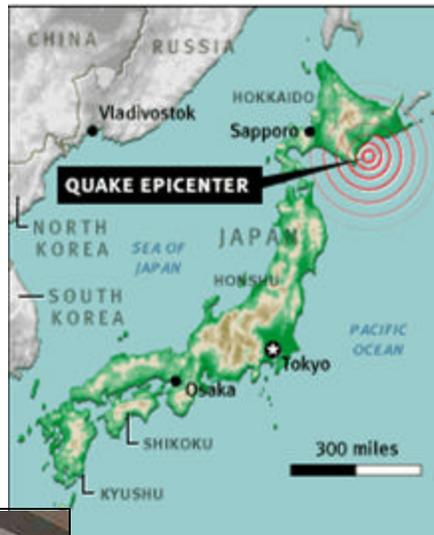
## Recent 2003 Earthquakes



This was looking like a fairly benign year for large earthquakes until ...

### Hokkaido Japan Earthquake

A VERY large earthquake (8.3M) struck just off the island of Hokkaido, Japan on September 25, 2003. There was some damage and almost 600 injuries but the earthquake's impact appears to have been limited due to it's depth (~17 miles).



MSNBC

There is a nuclear plant on the west side of the island (near Sapporo on the map). We don't know how the plant responded but early indications are that the ground motion accelerations were not very high at the plant location. Some recordings nearer to the epicenter appear to be quite high (~ 0.7 to 0.9 g PGA) so there may turn out to be some interesting information. We'll provide an update at the December annual meeting in San Antonio.

## NARE Training



NARE Training was held on September 23 & 24. Special thanks to Progress Energy who hosted the training at

## In This Edition

- Recent 2003 Earthquakes... 1
- NARE Training..... 1
- Piping Guideline..... 1
- SQUG Savings..... 1
- Meetings with International Members..... 2
- Seismic Training Task..... 2
- SEQUAL Update..... 2
- Risk Informed Option 2, RISC-3 Requirements ..... 2
- ASME QME & IEEE 344 Standards..... 3
- Winter Meeting ..... 3

their offices in Raleigh, NC. The training was well attended and by all reports very successful.

## Piping Guideline



The Piping Evaluation Guideline is nearing completion. We have completed two rounds of reviews and comments and are resolving the final comments. We hope to have the Guideline completed by the end of the year. A preview of the Guideline will be provided at the December meeting.

## SQUG Savings



The Steering Group is developing information that SQUG members can use toward justifying the costs of continued membership. We are interested in any actual examples SQUG members have where they applied NARE for seismic qualification of new or replacement equipment. If you have a "real-world" example, please consider submitting a brief description of it to us (with your utility identification removed, or we can remove it) so that we might include it in a listing of cost-



**Collapsed suspended ceiling at the Kushiro airport in eastern Hokkaido**

savings/benefits from use of the SQUG products. We will not identify specific utilities in the examples. In addition, if you have any estimates on cost savings achieved using NARE, we'd be interested in those estimates, even if you don't send an example. Finally, if you have any examples of cost savings through SQUG membership, please let us know.

## Meetings with International Members

In October, Bob Kassawara, John Richards, Greg Hardy, and Paul Baughman traveled to Europe to meet with some of our International Members. As you know, it is difficult for many of them to attend our annual meeting and yet it is important to maintain a consistent dialogue with them.

The meetings went very well and the International members were pleased that we'd made the effort to come visit with them. They were also very interested in a number of the ongoing SQUG activities and provided valuable feedback on their interests for future support. In particular, there was a lot of interest in having a training session somewhere in Europe. We will be considering all of this feedback as we propose plans for 2004.

## Seismic Training Task

The Seismic Training development task we are co-funding with SR&I, PSE, and SQRSTS is making steady progress. The following training modules have been completed:

- Seismic Design Basis, Structural Dynamics, and Response Spectra
- Qualification by Testing

- Qualification by Similarity and STERI

Work is in progress on the Qualification by Analysis Module. Future modules will cover Design Changes and awareness level information on Seismic PRA and Hazards. All of the training modules are expected to be complete by the middle of next year. If you have an EPRIWeb ID, you can check out the first 2 Modules on EPRIWeb at the SQRSTS Web page (<http://www.epri.com/targethigh.asp?program=208025&value=00T023031&objid=244938>).

The Seismic Training working group will meet in San Antonio right before the SQUG/SEQUAL Winter meeting. Their meeting will start Tuesday morning, December 9<sup>th</sup> and will finish at noon on Wednesday, December 10<sup>th</sup>. Contact Ken Huffman at EPRI (704-547-6055, [khuffman@epri.com](mailto:khuffman@epri.com)) for additional information on this task.

## SEQUAL Update

On July 15<sup>th</sup> we sent an e-mail to our members recommending that they suspending SEQUAL funding for 2004 until we can develop a definitive plan of action. This decision was motivated by the NRC's April 25, 2003 letter rejecting the SEQUAL Topical.

In late August, SQUG / SEQUAL representatives (Patricia Campbell and Jim Fisicaro) met with Chris Grimes (Deputy Director of Engineering) to discuss the NRC's April letter and explore opportunities for continuing SEQUAL efforts.

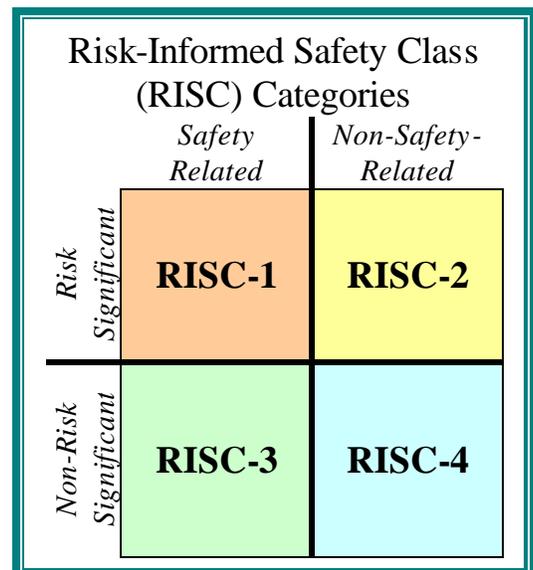
While they rejected the Topical (for a number of technical as well as budgetary and workload

priority reasons), they still appear to be open to considering future opportunities for success. The Steering Group will be meeting in November to discuss options and develop a proposal for future activities to be presented at the SQUG/SEQUAL Winter meeting in December.

## Risk Informed Option 2, RISC-3 Requirements

The October 2002 Newsletter included a long article (perhaps more of a rant and rave) on part of the language in SECY-02-0176, Proposed Rulemaking to add new Section 10 CFR 50.69, "Risk-Informed Categorization and Treatment of Structures, Systems, and Components." The SECY included language suggesting that earthquake experience-based methods might not be acceptable for RISC-3 equipment (see the diagram below).

A follow up Proposed Rule was issued in the May 16, 2003 Federal Register with the same language in the Statements of Consideration for the Rule.



With a lot of help from Patricia Campbell, SQUG provided a strong response to the Proposed Rule. That response stated in part ...

---

*“SQUG recommends that the highlighted language, which goes beyond the high-level requirements delineated in the proposed rule, be removed from the Statement of Considerations (“SOC”) for the final rule, if enacted. The prescriptive nature of the SOC language is inconsistent with the discussion of other design basis functional capabilities contained therein. In addition, it is inconsistent with the NRC’s position regarding the use of an experience-based method for assuring the seismic capability and adequacy for RISC-1 SSCs in the majority of licensed nuclear plants, as described in Supplement 1 to Generic Letter (“GL”) 87-02. Retaining the language in the final rule SOC would effectively preclude the A-46 plants (which represent the majority of currently operating plants) from applying an alternative treatment for RISC-3 SSCs required to function in the event of an earthquake.”*

---

We have not received any official response to our comment but conversations we’ve had with NEI and NRC representatives suggest that our comments were well received and that the NRC now recognizes that some of the statements could have implications that were unintended. We’ll see how it comes out in the end but we are hopeful that the language will be modified or removed.

## ASME QME & IEEE 344 Standards

---

In the last Newsletter, I applauded the ASME QME Working Group for their efforts in updating that Standard. While all of those accolades were well warranted, a small administrative bump in the road has appeared just as the Standard was about to receive final approval. The Board of Nuclear Codes and Standards (BNCS) wants the scope of the Standard changed back to “Nuclear Power Plants” rather than “Nuclear Facilities” as well as a few other editorial changes. Tim Adams is preparing an updated draft for a January rebalancing by the QME Main Committee. Assuming that goes well, the new formal release date will probably be in 2005 or 2006. While this last minute delay is disappointing, it should not change any of the technical content of the experience-based qualification sections.

In the mean time, the QME Working Group members are busy writing several papers to be presented at the ASME/USNRC Pump and Valve Symposium in Washington, DC in July 2004. Those papers will help provide additional information and examples of how to implement various sections of the QME criteria (e.g. overall technical bases, developing ground motion estimates, combining ground spectra into equipment class capacity spectra, etc.)

On the IEEE side, the IEEE 344 Working Group continues to meet and formally resolve comments. There is another meeting scheduled for November 12<sup>th</sup> in Clearwater, FL (in conjunction with the IEEE SC2 meeting). The draft Standard is still on schedule to be released for balloting at the end of the year.

## Winter Meeting

---

We hope you’re planning to join us for the SQUG/SEQUAL Winter meeting at the Holiday Inn Riverwalk in San Antonio, Texas ([www.holiday-inn.com/sat-riverwalk](http://www.holiday-inn.com/sat-riverwalk)). The meeting will start at 1:00pm Wednesday, December 10<sup>th</sup> and will end around noon or 1:00pm on Friday December 12<sup>th</sup>. You should have received the e-mail meeting announcement and draft agenda sent out on October 31<sup>st</sup>. We have a block of rooms under the EPRI/SQUG name with a \$39/night rate. The cutoff date for reservations is November 9<sup>th</sup>. You can see that there is a lot going on and your input and participation is critical to the success of the organization.

We look forward to seeing you in December!

## That’s It

---

We hope you find this Newsletter of value and that it helps to keep you up to date on our SQUG/SEQUAL activities.

If you have any comments, thoughts, or contributions for the Newsletters, please let us know.



SQUG/SEQUAL Chairman

Duke Energy

Phone: (704) 382-3916

Fax: (704) 382-3993

[jmricha@duke-energy.com](mailto:jmricha@duke-energy.com)



Program Manager

EPRI

Phone: (650) 855-2775

Fax: (650) 855-1026

[rkassawa@epri.com](mailto:rkassawa@epri.com)