# framatome

## **SEISMIC SAFETY DATABASE**

Support in seismic licensing and re-evaluation for LTO or new seismic requirements

Facilitates seismic data collection and handling to reduce the cost of seismic licensing and re-evaluation.

### Challenge

Seismic licensing for new builds, re-evaluating equipment for LTO, and adapting to changing seismic requirements are crucial challenges for nuclear licensees. Data documenting the **seismic safety** of NPP are of highly heterogeneous nature (design reports, calculation notes, qualification reports, walkdown records). Inevitably these data are often **scattered** in a multitude of files, databases and archives.

Without a well-designed database infrastructure, the fulfillment of **safety-related obligations** of utilities and other safety stake-holders (authorities, TSO, consultants, vendors) is likely to be unnecessarily costly.

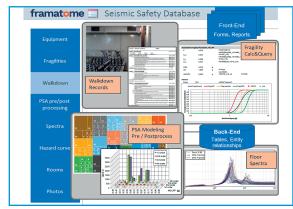
#### **Solution**

Collect seismic relevant data in a database, which **reduces effort** for assembling, evaluating, processing and documentation of data through a **smart** data recognition and allocation **routine**. Improve data handling, quality and **leverage the data value** with interface applications. **Significantly control and reduce risks** due to outdated or inconsistent data.

#### **Customer benefits**

- Manages know-how preservation: logical data structure, easy access → supports seismic knowledge transfer and data traceability
- Supplier diversification/independence: data collection can be performed by staff with a variety of backgrounds
- Reduced collection time: tailor-made adaptation to plant design and customer needs
- Reduce evaluation costs: high quality equipment data, consistent, up-to-date documentation
- High ROI by massive savings in safety re-evaluations
- Flexible embedding based on customer needs
- · Data protection for customer proprietary information

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Seismic safety database dashboard

#### **Technical information**

The seismic safety database covers the most work-intensive phases of the seismic safety evaluation workflows (IAEA NS-G 2-13)

- · Seismic equipment list
- Walkdown checklists (SQUG GIP, EPRI 3002012994) and photos
- Fragility calculations interface with the fragility archive
- Pre-/postprocessing for PSA → grouping, automated fault trees (IAEA SSG-3, ASME/ANS RA-S)
- · Simultaneous access to multiple users

## **Key figures**

**250** fragility database records

**30%** estimated saving on performing a seismic safety evaluation

8 modules: equipment design data, fragilities, walkdown checklists, PSA pre/post processing, spectra, hazard curves, rooms and photos

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