

Equipment Qualification for Vibration and Seismic Loads

We accompany you with our long-term experience and sophisticated knowledge on equipment qualification for vibration and seismic loads.

Challenge

Equipment used in a nuclear power plant may be subjected to long-term vibrations or even to profound vibrations caused by seismic events. Nuclear safety demands that equipment not fail – as long as the stresses are within design specifications. Customer's authority will not accept equipment unless it is qualified for vibrations and/or seismic loads.

Solution

Our Equipment Qualification for Vibration and Seismic Loads provides evidence of qualification that increases acceptance by the customer's authority. Beside this, we reduce the cost of qualification and speed up the performance of the qualification by:

- Re-using test results/records and lessons learned – analogy proof can be based on existing test results
 - Basis is our Equipment Qualification Database
 - Determining the requirements of the new project or the installation place
 - Checking if the old tests are suitable for analogy proof
 - Creation of specific analogy proof (suitability analysis)
- Substituting testing by analyses or analogy, if possible
 - Determination of the requirements of the new installation location
 - Evaluation of seismic margins
- Optimizing new seismic qualification
 - Scaling of the reality into a model which can be tested
 - Creation of test specification
 - Monitoring of vibration tests
 - Creation of specific suitability analysis.



Shaker table

Key figures

More than **40** years of experience in qualification for load cases

- Earthquake
- Airplane crash
- Shocks
- Operational vibrations
- Explosion pressure wave

Customer benefits

- Ensures proper component function under specified vibrations
- Provides evidence of qualification
- Reduces the cost of qualification
- Speeds up the performance of the qualification
- Increases acceptance by the customer's authority

Your performance
is **our** everyday **commitment**

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