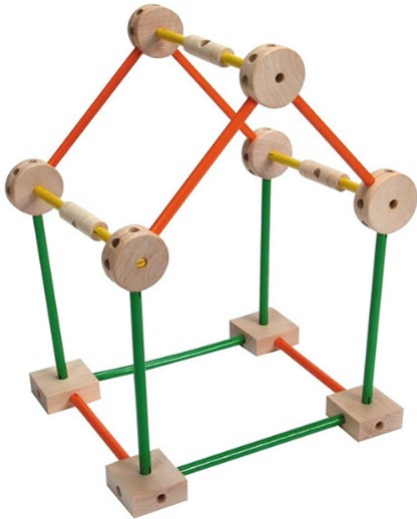


## EPRI SQRSTS Program Test Sample Preparation Guidance



**TEST READY**  
**(No Assembly Required)**



**NOT TEST READY**  
**(Assembly Required)**

The SQRSTS Program was founded to further the knowledge of how nuclear power plant components perform during seismic events. This has resulted in an extensive library of test reports and data analysis to aid members in component selection and evaluation as it relates to seismic performance in their plants. Access to the library provides tremendous value to the members. To maximize that value, the program was designed to be efficient and minimize the cost of testing by standardizing the processes, forms, procedures and reports, and testing items to generic levels where practical, enabling the testing of multiple items simultaneously which reduces table time required. This provides significant cost savings to the membership.

To maintain this value, and to assist in achieving the aggressive testing schedule set forth by the SQRSTS program, it is necessary for the sponsoring members who are supplying the test samples for test to supply them "ready to test". This reduces the effort (cost) to the program by minimizing time and materials needed for custom and/or part specific set up. The sponsoring member who is directly benefiting the most from the test is expected to assume that responsibility. This reduces the overall costs to the program and makes those funds available for more testing.

The purpose of this communication is to provide some guidance as to what is considered "ready to test" and outline the preparation responsibilities of the SQRSTS program and what would be considered the responsibility of the sponsoring member.

The testing vendor, Curtiss-Wright, has a variety of fixtures available to simulate wall, panel, rack, ceiling, line, and floor mounting that are available to the SQRSTS program. Additionally, there is a variety of common hardware that are considered consumables for mounting, connecting, plumbing and wiring that are supplied through the SQRSTS program. A list of commonly used materials include:

- Commercial Grade (Typically zinc plated steel) #6-32, #8-32, #10-32 bolts, nuts, flat and lock washers and metric equivalents
- Grade A307 bolts, nuts, flat and lock washers for sizes  $\geq 1/4$ "-20 and metric equivalents
- SCH 40 NPT black iron pipe
- Plastic or steel tubing
- Unistrut Channel, bolt and nuts
- Standard pneumatic fittings
- DIN rail
- Wire sizes up to 8 AWG. Standard size used is 14 AWG or 16 AWG shielded multi-conductor with connectors and lugs. Larger gauge wire may be available.

If the test sample requires something beyond what is listed above to be tested, the sponsor should either provide the specific materials and fixturing needed with the test sample or consult with EPRI Steering committee to determine whether the materials can be managed and provided by the program.

In addition to material requirements, some test samples may require reconfiguration or programming. The examples are too numerous to describe here, but in general the sponsoring utility should consider any complex disassembly/ reassembly activities, assembly or interconnecting of multiple components, panel build outs or specific programming to be the scope of the sponsor. This includes mass loading of cabinets and panels to account for the mass of uninstalled items.

In summary, "ready to test" means that the test vendor can receive, functionally test and mount test samples utilizing common tools and test equipment, standard fixtures and common consumables above. Should the test require unique fixturing, uncommon, specific grades or large sizes of hardware, complex assembly or configuring, or specialized M&TE the sponsor should be prepared to supply those items and/or support to complete the testing. All test members are encouraged to participate in the test week at the test site, especially in these scenarios.

Curtiss-Wright has extensive capabilities to prepare test samples on behalf of the sponsoring members should the effort be out of the scope of the EPRI SQRSTS program. Any member may contract Curtiss-Wright outside of the SQRSTS program to complete any and all special preparation of a test sample, including procurement of the test sample to make it "ready to test".

Any questions regarding the requirements or capabilities of the test vendor may be directed to the SQRSTS Steering Committee or Curtiss-Wright.