



EAC Decision on Request for Interpretation 2008-05 2002 VSS Vol. I, Section 3.4.2, Durability 2005 VVSG Vol. I, Section 4.3.2, Durability

Date:

July 30, 2008

Question(s):

How are the VSTLs expected to evaluate this requirement?

Section of Standards or Guidelines:

2002 VSS Volume I, Section 3.4.2, and 2005 VVSG Volume I, Version 1.0, Section 4.3.2

Background:

The Sections state that:

“All voting systems shall be designed to withstand normal use without deterioration and without excessive maintenance cost for a period of ten years.”

Historically, product quality and durability were determined through environmental testing such as vibration tests, thermal cycling, and others. While these types of tests help to predict system durability and improve quality, they do not necessarily find the weakest link in a system because they are not reflective of real-world operating environments. More recently, Highly-Accelerated Life Testing (HALT) and Highly Accelerated Stress Screening (HASS) testing have been used to significantly increase the quality and reliability of many products. HALT testing provides a controlled, repeatable method of determining the quality of a product in an environment comparable to operating conditions in the field. HASS testing is a quick and effective way to ensure production units meet certified quality standards.

In the relatively small voting system industry, true HALT/HASS testing would likely add significantly to the short term manufacturing costs of a product, which would in turn be passed on to State and local jurisdictions purchasing new, or upgrading older voting systems. Until a way can be found to incorporate this testing in a cost effective manner, the mechanisms outlined in the Conclusion will need to be used to determine the durability of voting systems.

Conclusion:

Until more research is done on this issue and clearer scientific guidance is available, voting system manufacturers shall provide the VSTLs with a signed statement of compliance for this standard. VSTLs should review the compliance statement and, accept the statement unless VSTL engineering analysis and interaction with the system during the testing process would bring the durability of the system into question. In addition, additional review may be required in those instances where experience with fielded versions of the certified voting system show obvious problems related to the lack of durability.

Effective Date:

Immediate - upon publication and distribution.