

NRC INSPECTION MANUAL

PART 9900: TECHNICAL GUIDANCE

STS30T.TG

STANDARD TECHNICAL SPECIFICATIONS SECTION 3.0 ACCEPTABLE MEASUREMENT TOLERANCES FOR TECHNICAL SPECIFICATION LIMITS

A. PURPOSE

To provide guidance to the IE inspectors regarding acceptable measurement tolerances for Technical Specification limits.

B. DISCUSSION

Numerical parameter limits are identified in the Technical Specifications of a nuclear facility. Questions regarding acceptable measurement tolerances for the parameter limits have occasionally been received from inspectors. The NRC position regarding acceptable measurement tolerances for Technical Specification parameter limits is as follows:

The TS limits are established with allowance for measurement tolerances already incorporated. The limits take into consideration measurement uncertainties as necessary to assure safe plant operation. The stated limit presupposes that the licensees have tolerances consistent with normal industry standards (e.g., ASTM, IEEE, ACI, etc.).

For example, assume the TS limit for the boron concentration in an accumulator is ≥ 1900 ppm. Assume an accumulator solution sample measurement was performed in accordance with Monitor Potentiometric Procedure D3032, resulting in a measured value of 1910 ppm. The 1910 ppm measurement would be considered acceptable because the TS limit of 1900 ppm was determined allowing for measurement tolerances. (The tolerance of this measurement is $\pm 2.4\%$ according to ASTM, Part 31, D302-74).

C. REFERENCES

Memorandum, D. L. Capton to J. H. Sniezek dtd 1/24/78.

Memorandum, J. I. Riesland to D. L. Capton dtd 3/13/78.

Discussion between J. M. McGough and J. I. Riesland on 3/6/78.

END