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DRAFT

RG 1.58
REV 1

VALUE/IMPACT ASSESSMENT ON QUALIFICATION OF NUCLEAR POWER PLANT INSPECTION, EXAMINATION, AND TESTING PERSONNEL

SD TASK NUMBER: RS 901-5

I. The Proposed Action

A. Description

The Commission's Regulations require that an applicant establish a quality assurance program that provides for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained. The proposed action will provide updated guidance concerning the qualification of personnel who perform inspections, examinations, and tests during fabrication, receipt at the construction site, construction, preoperational and startup testing, and the operation phase of nuclear power plants.

B. Need for the Proposed Action

Regulatory Guide 1.58, "Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel," dated August 1973, provides guidance on the qualifications of inspection, examination, and testing personnel and endorses ANSI Standard N45.2.6-1973. On August 31, 1978, a revised version of the standard was approved by the ANSI Board of Standards Review and

was designated ANSI N45.2.6-1978. The revision reflects increased experience in the qualification of nuclear power plant inspection, examination, and testing personnel. Some confusion has developed concerning the applicability of Regulatory Guide 1.58 and ANSI Standard N45.2.6 to certain categories of key personnel involved in preoperational and startup test programs. Current NRC guidance should be updated to reflect experience in the application of qualification criteria, to remove any confusion with regard to acceptance criteria, and to establish an NRC position on the approved National Standard.

C. Value/Impact of the Proposed Action

Guidance on the qualification of nuclear power plant inspection, examination, and testing personnel is currently contained in Regulatory Guide 1.58 (August 1973) and is being used by the NRC staff in the evaluation of applications for operating licenses. Since the purpose of the proposed action is to provide updated guidance to reflect experience with use of current guidance, to remove any confusion with regard to acceptance criteria, and to establish an NRC position on the approved National Standard, the value/impact will be based on changes proposed to guidance contained in Regulatory Guide 1.58 (August 1973).

The following is a list of the proposed changes to be made to Regulatory Guide 1.58 (August 1973) as a result of the revision of the standard and the associated value/impact assessment for each change. (The first two changes result in the deletion of two Regulatory Positions contained in the August 1973 version of Regulatory Guide 1.58. The last six changes concern the addition or modification of Regulatory Positions included in the proposed revision to the regulatory guide.)

1. The revised standard expands the applicability of its requirements and recommendations from personnel who perform inspections, examinations and tests during the construction phase to personnel who perform these activities during fabrication, receipt at the construction site, construction, preoperational and startup testing, and the operation phase. Therefore, Regulatory Position 1 in the August 1973 version of Regulatory Guide 1.58 which expresses this applicability is unnecessary and has been deleted from the proposed revision. There is no change in the current position of Regulatory Guide 1.58 and present regulatory bases will not be altered.

2. In the August 1973 version of Regulatory Guide 1.58, Regulatory Position 3 provides additional guidance concerning the information to be included in the certificate of qualification under the category of "basis used for certification."

The revised standard incorporates this additional guidance that was lacking in the previous version of the standard. Therefore, this Regulatory Position is unnecessary and has been deleted from the proposed revision to the regulatory guide. There is no change in staff position and present regulatory bases will not be altered.

3. The revised National Standard states that it is applicable to personnel who perform preoperational and startup testing. Regulatory Guide 1.8 is being revised to encompass requirements for personnel who perform preoperational and startup testing and will provide more definitive criteria for these personnel. Modifications to the requirements for the qualification of these personnel will be addressed in the value/impact assessment for the revision to Regulatory Guide 1.8. Regulatory Position 1 of the proposed revision to Regulatory Guide 1.58 references Regulatory Guide 1.8 for the qualification of these personnel.

The value of the proposed action will be the clarification of the applicability of Regulatory Guide 1.58 and Regulatory Guide 1.8 to personnel who perform preoperational and startup testing. This action will benefit the NRC staff by providing additional guidance for license evaluations. This action is a clarification of regulatory requirements. The additional guidance will remove any confusion concerning

qualification requirements of these personnel. Since there will be no change in the regulatory bases for license evaluations, the impact will be negligible.

4. The August 1973 version of Regulatory Guide 1.58 endorses ASNT Recommended Practice No. SNT-TC-1A as acceptable for the qualification of nondestructive test personnel for the test methods covered by that document. The proposed revision to the regulatory guide endorses SNT-TC-1A-1975 in Regulatory Position 2. For those nondestructive examinations required by Section III and Section XI of the ASME Boiler and Pressure Vessel Code, SNT-TC-1A-1975 is recommended for use in conjunction with the additional provisions of the Code.

The proposed action results in clarification of the applicability of ASNT Recommended Practice No. SNT-TC-1A-1975 and the ASME Boiler and Pressure Vessel Code to personnel performing nondestructive examinations and does not represent a change in NRC staff or industry practice. There should be no impact.

5. Regulatory Position 3 of the proposed revision to the regulatory guide addresses the compatibility of the ANSI Standard N45.2.6-1978 and Section III and Section XI of the ASME Boiler

and Pressure Vessel Code for the qualification of personnel who perform inspection, examination, and testing at nuclear power plants. It is stated that ANSI N45.2.6-1978, subject to the exceptions of the regulatory position, should be used in conjunction with the ASME Code where the ASME Code does not address the requirements covered by ANSI N45.2.6-1978. The original version of the standard ANSI N45.2.6-1973 which is endorsed by Rev. 0 of Regulatory Guide 1.58 did not contain the Code exclusion statement and was considered applicable to Code covered activities. This new regulatory position does not represent a change from present staff practice. The impact should be minimal.

6. The revised standard, together with Regulatory Position 5 of the proposed revision to the regulatory guide, delineates the capability requirements for Level I, II, and III personnel in greater detail and does not represent a significant change in qualification requirements for inspection, examination, and testing personnel. The action provides additional guidance to the NRC staff and industry but does not alter present regulatory bases for license evaluations. Therefore, any impact should be minimal.

7. The education and experience recommendations presented in the standard for the qualification of nuclear power plant inspection, examination, and testing personnel have been

revised to reflect current experience in the use of the standard. The revised standard also encompasses more alternatives for meeting the education and experience provisions of the standard.

Regulatory Position 6 of the proposed revision to the regulatory guide states that a commitment to comply with the regulatory guide will mean that the education and experience recommendations of the standard will be followed.

The value to the NRC staff should be reduced effort in determining the acceptability of various alternate proposals submitted by applicants. The revision of the education and experience recommendations reflects current experience in the use of the standard and does not represent a significant change in the regulatory basis for license evaluations. Therefore, the impact should be minimal.

8. The revised standard includes a statement that personnel not meeting the requirements of the standard may be used in data-taking assignments or in plant or equipment operation provided these personnel are under supervision by a qualified individual participating in the test. To prevent possible abuse of this authorization, Regulatory Position 7 of the proposed revision to the regulatory guide states that

personnel involved in inspections, examinations, or tests who do not meet the requirements of the standard should have sufficient training to ensure an acceptable level of competence in the performance of their activities.

The value to industry will be the ability to utilize lesser trained personnel for those tasks which require little formal training. This proposed action will not represent a significant change in present NRC staff practice. There should be no impact as a result of this position.

9. An important concept that is not addressed directly in ANSI N45.2.6-1978, ANST Recommended Practice No. SNT-TC-1A-1975, or the ASME Boiler and Pressure Vessel Code is that occupational radiation exposures should be maintained as low as is reasonably achievable (ALARA). To provide guidance in this area, Regulatory Position 8 of the proposed revision to the regulatory guide states that inspection, examination, and testing personnel who may be exposed to radiation fields during their activities should receive instruction in radiation protection and safety.

The value of the proposed action will be to provide increased awareness of the ALARA concept. Present practice within the industry should not be effected. Therefore, the impact to

industry should be minimal. Since the proposed action does not represent a change in NRC staff position, there will be no impact on NRC staff.

II. Technical Approach

This section is not applicable to this value/impact statement since the proposed action is an update of previously issued guidance.

III. Procedural Approach

Since the proposed action is an update of information contained in an existing regulatory guide, the only appropriate procedural alternative is a revision to the existing guide.

IV. Statutory Considerations

A. NRC Authority

This guide would fall under the authority and safety requirements of the Atomic Energy Act. In particular, under 10 CFR Part 50, Appendix B, which requires that the quality assurance program provide for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained.

B. Need for NEPA Assessment

The proposed action is not a major action, as defined by 10 CFR 51.5(a)(10), and does not require an environmental impact statement.

V. Relationship to Other Existing or Proposed Regulations or Policies

Regulatory Guide 1.8, "Personnel Selection and Training," contains recommendations for the selection and training of nuclear power plant personnel. Regulatory Guide 8.10, "Operating Philosophy for Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable," contains qualification and training recommendations for plant personnel for implementing the ALARA concept. The guidance of the proposed action will be consistent with the guidance furnished in these Regulatory Guides.

VI. Summary and Conclusions

A proposed revision to Regulatory Guide 1.58, "Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel," has been prepared. The proposed revision endorses, with certain exceptions, ANSI N45.2.6-1978.