

DRAFT

Approved 3-11-78  
Enclosure 1

PRELIMINARY VALUE/IMPACT STATEMENT ON  
QUALITY ASSURANCE REQUIREMENTS FOR INSTALLATION, INSPECTION,  
AND TESTING OF STRUCTURAL CONCRETE, STRUCTURAL STEEL, SOILS AND  
FOUNDATIONS DURING THE CONSTRUCTION PHASE OF NUCLEAR POWER PLANTS

RG 1.94  
REV 2

I. The Proposed Action

A. Description

The applicant for a permit to construct a nuclear power plant is required by the Commission's regulations to establish and implement a quality assurance program. The proposed action will provide updated guidance on quality assurance program requirements for structural concrete, structural steel, soils and foundations for nuclear power plants.

B. Need for the Proposed Action

Existing guidance on quality assurance requirements for structural concrete and structural steel is contained in Regulatory Guide 1.94, "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants", Revision 1 dated April 1976 and Regulatory Guide 1.55, "Concrete Placement in Category I Structures" dated June 1973. Regulatory Guide 1.94, Revision 1 endorses ANSI/ASME Standard N45.2.5-1974. Regulatory Guide 1.55 contains general requirements concerning quality

assurance for concrete placement. Regulatory Guide 1.94 contains more specific requirements for concrete placement.

Revision 1 to ANSI/ASME N45.2.5-1974 has been approved by ANSI and designated ANSI/ASME N45.2.5-1978. The revision provides more detailed guidance reflecting additional experience with quality assurance requirements for structural steel and structural concrete and includes requirements for soils, earthwork and foundation inspection. Current NRC guidance should be updated to reflect experience in the use of the guidance and to establish an NRC position on the approved national standard. Consistent with past NRC practice, promulgation of this guidance should be in the form of a regulatory guide endorsing the revised national standard.

C. Value /Impact of the Proposed Action

1. NRC

The NRC staff has been involved in the development, review, and approval of the revised national standard. The proposed action will establish an NRC position by taking advantage of previous staff effort in conjunction with approval of the revised national standard and therefore will have minimal impact.

2. Other Government Agencies

Not applicable, unless the government agency is an applicant, such as TVA.

3. Industry

The proposed action establishes an NRC position to an existing national standard and therefore reduces uncertainty as to what the staff considers acceptable in the area of quality assurance requirements for structural concrete, structural steel, soils and foundations during the construction phase of nuclear power plants. Most of the impact on industry has already been accomplished in conjunction with development, review and approval of the national standard. Additional impact associated with NRC endorsement of the standard should be minimal.

4. Workers (relative to ALARA)

Not applicable.

5. Public

No impact on the public can be foreseen.

Regulatory Position 1 provides an NRC staff position concerning maximum allowable concrete delivery and placement times and has minimal impact.

Regulatory Position 2 clarifies guidance concerning the calibration of measuring and test equipment and has no impact.

Regulatory Position 3 provides additional guidance concerning placement inspections and has minimal impact.

Regulatory Position 4 clarifies guidance concerning calibration of torque wrenches and has no impact.

Regulatory Position 5 provides information to the user of the guide concerning applicability of referenced standards and has no impact.

D. Decision on the Proposed Action

As previously stated, guidance should be issued on the revised quality assurance requirements for structural concrete, structural steel, soils and foundations during the construction phase of nuclear power plants.

II. Technical Approach

This section is not applicable to this value/impact statement since the proposed action is an endorsement of a recently approved and issued national standard. The technical issues have been previously discussed:

III. Procedural Approach

Previously discussed.

IV. Statutory Considerations

A. NRC Authority

This guide would fall under the authority and safety requirements of the Atomic Energy Act. In particular, Criterion II of Appendix B to 10 CFR Part 50 requires, in part, that an applicant (licensee) of a nuclear power plant establish a quality assurance program.

B. Need for NEPA Assessment

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

V. Relationship to Other Existing or Proposed Regulations or Policies

No conflicts or overlaps with requirements promulgated by other agencies are foreseen. Implementation of the proposed action is discussed in Section D of the proposed guide.

VI. Summary and Conclusions

The proposed revision to Regulatory Guide 1.94 on supplementary quality assurance requirements for installation, inspection and testing of structural concrete, structural steel, soils and foundations during the construction phase of nuclear power plants should be issued.