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NS-TMA-2391

Mr. Samuel J. Chilk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

SUBJECT: Comments to Proposed Rule - Domestic Licensing of Production and Utilization Facilities; Design and Other Changes in Nuclear Power Plant Facilities After Issuance of Construction Permit

Dear Mr. Chilk:

This letter is in response to the Commission's request for comment on a Proposed Rule to define more clearly the limitations on a construction permit holder to make changes in a facility during construction, 45 Fed. Reg. 81602 (December 11, 1980).

Westinghouse has been involved in the nuclear industry from its inception and has participated extensively in nuclear power plant design, construction, operation, and corresponding regulatory activities. From this posture of experience, Westinghouse has studied the five proposed NRC alternatives to bound the safety-related designs of a CP holder during the construction of a plant. We believe the appropriate approach is Alternative 1, as explained in the following paragraphs. The proposed rule states that a rulemaking is needed which "would improve the present licensing process"; however, Alternatives 2, 3, and 4 basically are impractical, restrictive, and burdensome. Alternative 5 is a part of the broader need for licensing reform requiring legislative action. The public does not need more regulations when existing laws, regulations, and established practices are adequate.

Changes do and will occur in a nuclear power plant during construction and operation. These changes, which vary in importance from minor to significant, include refinements in the design as a result of the following:

1) New regulatory requirements (e.g., TMI Action Plan)
2) Operational feedback
3) Construction needs
4) Improvement in "state of the art"
5) Scope changes and additions
6) Specific hardware vendor changes.

Acknowledged by card 2/13/81

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The original PSAR presents and documents the design criteria, codes and standards to which the construction permit holder is bound. It also documents the Quality Assurance plan which will be applied to ensure that these as well as other applicable regulatory requirements are met. The basic criteria, codes and standards do not change during construction even though physical changes do occur. System design, functional requirements, hardware modifications, and field changes are reviewed and verified subject to NRC, utility, vendor and A/E audits and inspections to assure that applicable requirements are observed.

Adequate regulations as illustrated by Tables 1 and 2 currently exist. These regulations, which include the requirement for a Quality Assurance Plan and an extensive system of audits, inspections, and reporting requirements, provide assurance that designs documented in the FSAR will be licensable. Figure 1 shows how the Quality Assurance Program interacts with the design during the construction phase to ensure that the final design will conform to NRC regulatory requirements.

Westinghouse believes that the identification and review of plant changes during the OL application review is adequate when the previously described controls are imposed. A proposed rule to subject plant changes to continuous formal review during construction and then again at the OL stage is neither cost effective nor beneficial to safety. Guidelines that describe the existing process and regulatory controls may be all that is required. Also, in our judgment, neither the industry nor the NRC has the resources to add this additional burden to NRR and I&E and accomplish the needed review of backlog applications.

Alternative 5 suggests that a "restructuring of the licensing process" may be required to provide final design information at the initial license application stage. Westinghouse agrees that the licensing process must be restructured but we believe this subject is for legislation, not rulemaking, and one-step licensing should be considered in any overall legislative reform of the licensing process.

In summary, Alternative 1 is recommended. Westinghouse believes it is unnecessary to add additional regulations when those existing ones cover the subject of concern for this proposed rulemaking. Also, the NRC should consider recommending to Congress the restructuring of the licensing process to include "one-step licensing." Westinghouse recommends the NRC consider these comments before taking any action on this proposed rulemaking. We would be pleased to discuss our comments with you.

Very truly yours,

for T. M. Anderson, Manager
Nuclear Safety Department

WRS/bek
Attachments

TABLE 1

REGULATORY REQUIREMENTS RELATED TO

RECORD KEEPING, INSPECTION AND REPORTING

1. Sec. 10CFR50.55(e) - Duty to report Significant Deficiencies in design and construction.

2. Sec. 10CFR50.57 - Issuance of operating license - General requirements for licensability.

3. Sec. 10CFR50.59 - Changes, tests and experiments - Definition of Unreviewed Safety Questions.

4. Sec. 10CFR50.70 - Inspections - Right of NRC to Inspect.*

5. Sec. 10CFR50.71 - Maintenance of records, making reports.

6. Sec. 10CFR50, App. B - Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants.

7. Sec. 10CFR21 - Reporting Defects and Noncompliance.

* See also Atomic Energy Act of 1954 as amended, Sec. 161; Energy Reorganization Act of 1974, Sec. 206.

TABLE 2

REGULATORY REQUIREMENTS RELATED TO
DESIGN AND CONSTRUCTION

1. Sec. 10CFR50.34 - Contents of applications: technical information.

2. Sec. 10CFR50.34a - Design objectives for equipment to control releases of radioactive material in effluents.

3. Sec. 10CFR50.35 - Issuance of construction permits.

4. Sec. 10CFR50.36 - Technical specifications.

5. Sec. 10CFR50.36a - Technical specifications on effluents from nuclear power reactors.

6. Sec. 10CFR50.44 - Standards for combustible gas control system in light-water cooled reactors.

7. Sec. 10CFR50.45 - Standards for construction permits.

8. Sec. 10CFR50.46 - Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors.

9. Sec. 10CFR50.48 - Fire protection schedules.

10. Sec. 10CFR50.50 - Issuance of licenses and construction permits - General requirements for licensability.

11. Sec. 10CFR50.55a - Codes and Standards - Reactor coolant system and protection system components.

12. Sec. 10CFR50.109 - Backfitting.

13. Sec. 10CFR50, App. A - General Design Criteria for Nuclear Power Plants.

14. Sec. 10CFR50, App. G - Fracture Toughness Requirements.

15. Sec. 10CFR50, App. H - Reactor Vessel Material Surveillance Program Requirements.

16. Sec. 10CFR50, App. I - Numerical Guides for Desigr Objectives and Limiting Conditions for Operation to Meet the Criterion "as Low as is Reasonably Achievable" for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents.

17. Sec. 10CFR50, App. J - Reactor Containment Leakage Testing for Water-Cooled Power Reactors.

18. Sec. 10CFR50, App. K - ECCS Evaluation Models.

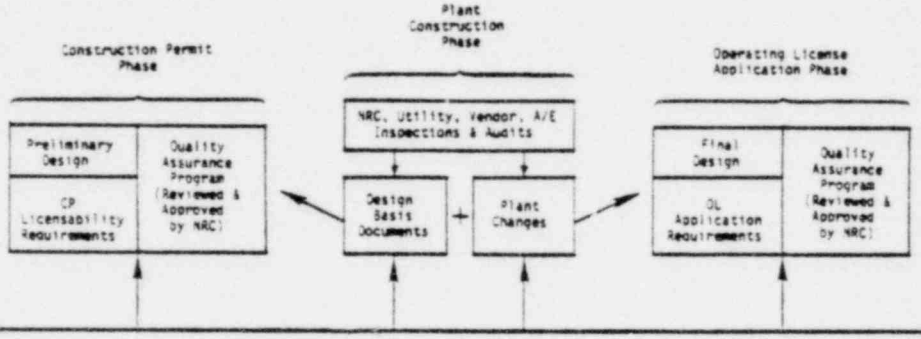
19. Sec. 10CFR100 - Reactor Site Criteria.

20. Sec. 10CFR100, App. A - Seismic and Geologic Siting Criteria for Nuclear Power Plants.

21. Sec. 10CFR20 - Protection Against Radiation.

FIGURE 1

NUCLEAR POWER PLANT DESIGN VERIFICATION CONTROL



10CFR50, APPENDIX B

I. Organization - to establish the authority and duties of persons and organizations performing activities affecting the safety-related functions of structures, systems, and components.

II. Quality Assurance Program - to provide control over activities affecting the quality of the identified structures, systems, and components, to an extent consistent with their importance to safety.

III. Design Control - to assure that applicable regulatory requirements and the design basis, as defined in Section 50.2 and as specified in the license application for those structures, systems, and components affecting safety-related functions are correctly translated into specifications, drawings, procedures, and instructions.

IV. - Procurement Document Control - to assure that applicable regulatory requirements, design bases, and other requirements which are necessary to assure adequate quality are suitable included or referenced in the documents for procurement of material, equipment, and services.

V. Instructions, Procedures, and Drawings - to ensure documented instructions, procedures, or drawings, for activities affecting quality.

VI. Document Control - to control the issuance of documents, such as instructions, procedures, and drawings, including changes thereto, which prescribe all activities affecting quality.

VII. - Control of Purchased Material, Equipment, and Services - to assure that purchased material, equipment, and services, whether purchased directly or through contractors and subcontractors, conform to the procurement documents.

VIII. - Identification and Control of Materials, Parts, and Components - for the identification and control of materials, parts, and components to prevent the use of incorrect or defective material, parts, and components.

IX. - Control of Special Processes - to assure that special processes, are controlled and accomplished by qualified personnel in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

X. Inspection - to verify conformance with the documented instructions, procedures, and drawings for accomplishing the activity by individuals other than those who performed the activity being inspected.

XI. Test Control - to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents.

XII. Control of Measuring and Test Equipment - to assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods.

XIII. Handling, Storage and Shipping - to control the handling, storage, shipping, cleaning and preservation of material and equipment in accordance with work and inspection instructions to prevent damage or deterioration.

XIV. Inspection, Test, and Operating Status - to indicate the status of inspections and tests, provide for the identification of items which have satisfactorily passed required inspections and tests, and to preclude inadvertent bypassing of such inspections and tests.

XV. Nonconforming Materials, Parts, or Components - to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation.

XVI. Corrective Action - to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.

XVII. Quality Assurance Records - to furnish evidence of activities affecting quality. The records shall include at least the following: Operating logs and the results of reviews, inspections, tests, audits, monitoring of work performance, and materials analyses.

XVIII. Audits - to verify compliance with all aspects of the quality assurance program and to determine the effectiveness of the program.