

Mailing Address
Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 783-6081

F. L. Clayton, Jr.
Senior Vice President
Flintridge Building



March 4, 1983

Docket Nos. 50-348
50-364

Director, Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. S. A. Varga

Joseph M. Farley Nuclear Plant - Units 1 and 2
Charcoal Filter Technical Specifications

Gentlemen:

The current Farley Nuclear Plant Technical Specifications on charcoal filters have been determined to be difficult to interpret and contain references to testing standards that have been superseded by later editions. In an effort to clarify and update the technical specifications, Alabama Power Company proposes the changes as described in Attachment 1 and contained in Attachment 2.

The proposed changes can be generally categorized as follows:

1. Incorporate Specific Efficiency Requirements. The current technical specifications reference Regulatory Guide 1.52, Revision 2, rather than state specific filter efficiency requirements. Since Regulatory Guide 1.52, Revision 2, is difficult to interpret, the proposed technical specification change is to remove the regulatory guide reference and replace it with specific efficiency values based on FSAR values. This change will ensure that the appropriate requirements are properly incorporated into the Farley Nuclear Plant testing procedures.
2. Eliminate Penalty for Non-Existent Farley Design Features. The current technical specifications are based on a filter system designed with filter bypass capability. Since the Farley Nuclear Plant design does not include filter bypass capability, the proposed change eliminates reference to bypass and removes the leakage limit penalty associated with a filter design that includes bypass.

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3. Update References to ANSI Standards. The current technical specifications reference ANSI N509-1976, "Nuclear Power Plant Air Cleaning Units and Components," and N510-1975, "Testing of Nuclear Air-Cleaning Systems." The NRC has endorsed the use of ANSI N509-1980 and ANSI N510-1980 in the Standard Review Plan (NUREG-0800). Since the 1980 versions of these ANSI standards are NRC approved updates of the charcoal filter testing procedures, the proposed change is to reference the 1980 standards. This change will update charcoal filter testing methods to the latest guidance.

Based on the above and the detailed safety evaluation contained in Attachment 1, Alabama Power Company proposes to make changes to the Farley Nuclear Plant Technical Specifications 3/4.7.7, 3/4.7.8 and 3/4.9.14 as contained in Attachment 2. Alabama Power Company's Plant Operations Review Board has reviewed these proposed changes and has determined that no unreviewed safety question is involved as shown in Attachment 1. The Nuclear Operations Review Board will review these proposed changes at a future meeting.

The class of this proposed change is designated as Class III for Unit 1 and Class 1 for Unit 2 in accordance with 10 CFR 170.22 requirements. Enclosed is a check for \$4,400 to cover the total amount of fees required.

In accordance with 10 CFR 50.30(c)(1)(i), three signed originals and forty (40) additional copies of this proposed change are enclosed.

Yours very truly,

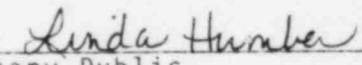

F. L. Clayton, Jr.

FLCJr/GGY:lsh-D31

Attachments

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge
Mr. J. P. O'Reilly
Mr. E. A. Reeves
Mr. W. H. Bradford

SWORN TO AND SUBSCRIBED BEFORE ME
THIS 4th DAY OF March, 1983


Notary Public

My Commission Expires: 1-10-87

ATTACHMENT 1

SAFETY EVALUATION FOR PROPOSED CHANGES TO FNP-1 AND 2 TECHNICAL SPECIFICATIONS SECTIONS 4.7.7, 4.7.8, AND 4.9.14

Background:

NRC Regulatory Guide 1.52, Revision 2, dated March 1978, provides recommended guidelines for testing requirements and acceptance criteria of safety-related filters. Testing of the Control Room Emergency Ventilation System and the Penetration Room Filtration System is performed in accordance with Technical Specifications 4.7.7 and 4.7.8 respectively. Testing of the Containment Purge Exhaust Filter is performed in accordance with Technical Specification 4.9.14. As written, these technical specifications do not fully reflect the appropriate testing requirements that should be implemented based on actual plant design. In addition, clarification of the requirements of Regulatory Guide 1.52, Revision 2, is necessary in order to assure proper implementation of the regulatory guide recommendations. Also, Regulatory Guide 1.52, Revision 2, references ANSI N509-1976 and ANSI N510-1975 for standards for testing nuclear air-cleaning systems, which have been superseded by ANSI N509-1980 and ANSI N510-1980, respectively, which have been endorsed by the NRC in the Standard Review Plan (NUREG-0800). The reference to ANSI N509 in Regulatory Guide 1.52 for testing used charcoal absorbers has been replaced with specific charcoal testing requirements (i.e., 80°C and 70% relative humidity) and reference to Section 13 of ANSI N510. The 1980 version of ANSI N510 has incorporated improvements in these testing standards and should be incorporated into the Farley Plant Technical Specifications with specific sections of the ANSI identified. Therefore, a change to FNP Unit 1 and 2 Technical Specifications 4.7.7, 4.7.8 and 4.9.14 is necessary to incorporate these improvements.

References:

- (1) FNP Unit 1 and 2 Technical Specifications 4.7.7, 4.7.8 and 4.9.14
- (2) Standard Technical Specifications for Westinghouse PWR's, NUREG-0452
- (3) Regulatory Guide 1.52, Revision 2, March 1978
- (4) ANSI N509-1980, Nuclear Power Plant Air Cleaning Units and Components
- (5) ANSI N510-1980, Testing of Nuclear Air-Cleaning Systems

Bases:

The following provides the bases for the proposed technical specification changes by paragraphs.

Technical Specification 4.7.7

Paragraph c.1: The Standard Technical Specifications (NUREG-0452) allow up to one percent leakage through a filter system if bypass piping is installed around the filters. FNP does not have filter bypass provisions, and therefore, total system leakage is equal to the leakage through the HEPA and charcoal absorbers (i.e., filter penetration). When

the filters are tested per the above specifications for filter penetration, Regulatory Guide 1.52, Section C.5.c and C.5.d are applicable. This requires a filter penetration of less than 0.05 percent through the HEPA filters and charcoal absorbers based on an additional bypass leakage of up to 0.95 percent. This criteria is too restrictive for FNP since no bypass path exists around the filters. Thus the testing acceptance criteria for filter penetration in the above specifications should be 99 percent or less than or equal to one percent filter penetration.

Reference to Regulatory Guide 1.52, Revision 2, has been replaced with the specific testing requirements applicable to the FNP filters. In addition, reference to ANSI N510-1975 has also been replaced with ANSI N510-1980, Sections 5, 10 and 12 for clarification purposes.

Paragraph c.2: Reference to Regulatory Guide 1.52, Revision 2, has been replaced with specific testing requirements and acceptance criteria from the regulatory guide which is applicable to the FNP filters. Note 2 is proposed to clarify the acceptable efficiencies for the charcoal filters. As stated in FSAR Section 9.4.1.6, the following efficiencies for the charcoal filters were assumed for the Post-LOCA control room doses:

- | | |
|---|-------|
| a) Control Room Recirculation Filter Unit | 95.0% |
| b) Control Room Filter Unit | 95.0% |
| c) Control Room Pressurization (Inlet)
Filter Unit | 99.0% |

In accordance with Regulatory Guide 1.52, Revision 2, in order to assume the above efficiencies, laboratory analyses must demonstrate the following efficiencies for the charcoal filters.

- | | |
|--|---------|
| a) Control Room Recirculation Filter Unit
(2 inch sample size) | 99.0% |
| b) Control Room Filter Unit
(2 inch sample size) | 99.0% |
| c) Control Room Pressurization (Inlet)
Filter Unit
(4 inch or greater sample size) | 99.825% |

Paragraph c.3: Reference to ANSI N510-1975 has been replaced with ANSI N510-1980, Section 8 for clarification purposes.

Paragraph d: Same justification as provided in Bases for changes to Paragraph 4.7.7.C.2.

Paragraph e.4: Reference to ANSI N510-1975 has been replaced with ANSI N510-1980 Section 14 for clarification purposes.

Paragraph f: The Standard Technical Specifications (NUREG-0452) allow up to one percent leakage through a filter system if bypass piping is installed around the filters. FNP does not have filter bypass provisions, and therefore, total system leakage is equal to the leakage through the HEPA and charcoal absorbers (i.e., filter penetration). When the filters are tested per the above specifications for filter penetration, Regulatory Guide 1.52, Section C.5.c and C.5.d are applicable. This requires a filter penetration of less than 0.05 percent through the HEPA filters and charcoal absorbers based on an additional bypass leakage of up to 0.95 percent. This criteria is too restrictive for FNP since no bypass path exists around the filters. Thus the testing acceptance criteria for filter penetration in the above specifications should be 99 percent or less than or equal to one percent filter penetration.

Reference to ANSI N510-1975 has been replaced with ANSI N510-1980, Section 10 for clarification purposes.

Paragraph g: The Standard Technical Specifications (NUREG-0452) allow up to one percent leakage through a filter system if bypass piping is installed around the filters. FNP does not have filter bypass provisions, and therefore, total system leakage is equal to the leakage through the HEPA and charcoal absorbers (i.e., filter penetration). When the filters are tested per the above specifications for filter penetration, Regulatory Guide 1.52, Section C.5.c and C.5.d are applicable. This requires a filter penetration of less than 0.05 percent through the HEPA filters and charcoal absorbers based on an additional bypass leakage of up to 0.95 percent. This criteria is too restrictive for FNP since no bypass path exists around the filters. Thus the testing acceptance criteria for filter penetration in the above specifications should be 99 percent or less than or equal to one percent filter penetration.

Reference to ANSI N510-1975 has been replaced with ANSI N510-1980, Section 12 for clarification purposes.

Technical Specification 4.7.8

Paragraph b.1: Same justification as provided in Bases for changes to Paragraph 4.7.7.c.1.

- Paragraph b.2: Reference to Regulatory Guide 1.52, Revision 2, has been replaced with specific testing requirements and acceptance criteria from the regulatory guide which is applicable to the FNP filters. Accordingly, Section 13 of ANSI N510-1980 has been referenced for the testing requirements. With respect to the acceptance criteria, an efficiency of 95% was assumed for the charcoal filter in the spent fuel pool fuel handling accident as stated in FSAR Section 15.4.5.2. In accordance with the regulatory guide, in order to assume this efficiency the laboratory analysis must demonstrate a charcoal efficiency of 99% (2 inch sample size).
- Paragraph b.3: Reference to ANSI N510-1975 has been replaced with ANSI N510-1980, Section 8 for clarification.
- Paragraph c: Same justification as provided in Bases for changes to Paragraph 4.7.8.b.2.
- Paragraph d.3: Reference to ANSI N510-1975 has been replaced with ANSI N510-1980, Section 14 for clarification.
- Paragraph e: Same justification as provided in Bases for changes to Paragraph 4.7.7.f.
- Paragraph f: Same justification as provided in Bases for changes to Paragraph 4.7.7.g.

Technical Specification 4.9.14

- Paragraph a.1: This specification should be deleted because the Farley Nuclear Plant does not have any bypass piping installed around the containment purge exhaust filters.
- Paragraph a.2: Same justification as provided in Bases for changes to Paragraph 4.7.7.c.1.
- Paragraph a.3: Reference to Regulatory Guide 1.52, Revision 2, has been replaced with ANSI N510-1980, Section 13 for clarification purposes. The laboratory testing criteria of greater than or equal to 75% efficiency has been stated for clarification purposes. A 75% efficiency acceptance criteria is required because the fuel handling accident inside containment analysis assumed a 70% efficiency as stated in FSAR Section 15.4.5.2.
- Paragraph b: Same justification as provided in Bases for changes to Paragraph 4.9.14.a.3.
- Paragraph d: Same justification as provided in Bases for changes to Paragraph 4.7.7.f.

Paragraph e: Same justification as provided in Bases for changes to Paragraph 4.7.7.g.

Conclusion:

The proposed changes to Technical Specifications 4.7.7, 4.7.8 and 4.9.14 do not involve an unreviewed safety question as defined by 10CFR50.59.