ATTACHMENT 2

Proposed Amendments to Sections 5.3.1 and 6.9.3.2 of the WNP-2 Technical Specifications

5.3 REACTOR CORE

FUEL ASSEMBLIES

~~5.3.1 The reactor core shall contain 764 fuel assemblies with each initial core fuel assembly containing 62 fuel rods and two water rods clad with Zircaloy-2. Each fuel rod shall have a nominal active fuel length of 150 inches. The initial core loading shall have a maximum average enrichment of 1.90 weight percent U-235. Reload fuel shall be similar in physical design to the initial core loading except that the reload fuel may employ a 9 x 9 array of fuel rods. Lead Fuel Assembly (LFA) designs with the same material constituents but different geometric configurations are allowed.~~

5.3.1 The reactor shall contain 764 fuel assemblies. Each assembly shall consist of a matrix of Zircaloy clad fuel rods with an initial composition of natural or slightly enriched uranium dioxide (UO_2) as fuel material and water rods or channels. Limited substitutions of zirconium alloy or stainless steel filler rods for fuel rods, in accordance with approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with applicable NRC staff approved codes and methods and shown by tests or analyses to comply with all safety design bases. A limited number of lead fuel assemblies that have not completed representative testing may be placed in nonlimiting core positions.

CONTROL ROD ASSEMBLIES

5.3.2 The reactor core shall contain 185 cruciform shaped control rod assemblies. The control materials shall be boron carbide, B_4C, and hafnium.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

5.4.1 The reactor coolant system is designed and shall be maintained:

a. In accordance with the code requirements specified in Section 5.2 of the FSAR, with allowance for normal degradation pursuant to the applicable surveillance requirements,

b. For a pressure of:

1. 1250 psig on the suction side of the recirculation pump.
2. 1650 psig from the recirculation pump discharge to the outlet side of the discharge shutoff valve.
3. 1550 psig from the discharge shutoff valve to the jet pumps.

c. For a temperature of 575°F.

VOLUME

5.4.2 The total water and steam volume of the reactor vessel and recirculation system is approximately 22,539 cubic feet at a nominal steam dome saturation temperature of 545°F.

CORE OPERATING LIMITS REPORT (Continued)

6.9.3.2 The analytical methods used to determine the core operating limits shall be those topical reports and those revisions and/or supplements of the topical report previously reviewed and approved by the NRC, which describe the methodology applicable to the current cycle. For WNP-2 the topical reports are:

1. ANF-1125(P)(A), and Supplements 1 and 2, "ANFB Critical Power Correlation," April 1990
2. Letter, R. C. Jones (NRC) to R. A. Copeland (ANF), "NRC Approval of ANFB Additive Constants for ANF 9x9-9X BWR Fuel," dated November 14, 1990
3. ANF-NF-524(P)(A), Revision 2 and Supplements 1 and 2, "Advanced Nuclear Fuels Corporation Critical Power Methodology for Boiling Water Reactors," November 1990

~~4. ANF-913(P)(A), Volume 1, Revision 1 and Volume 1, Supplements 2, 3 and 4, "COTRANSA 2: A Computer Program for Boiling Water Reactor Transient Analysis," August 1990~~

~~5. ANF-CC-33(P)(A), Supplement 2, "HUXY: A Generalized Multirod Heatup Code with 10 CFR 50, Appendix K Heatup Option," January 1991~~

~~6. XN-NF-80-19(P)(A), Volume 1, Supplements 3 and 4, "Advanced Nuclear Fuel Methodology for Boiling Water Reactors," November 1990~~

~~7. XN-NF-80-19(P)(A), Volume 4, Revision 1, "Exxon Nuclear Methodology Boiling Water Reactors: Application of the ENC Methodology to BWR Reloads," June 1986~~

~~8. XN-NF-80-19(P)(A), Volume 3, Revision 2, "Exxon Nuclear Methodology for Boiling Water Reactors THERMEX: Thermal Limits Methodology Summary Description," January 1987~~

4. ~~9.~~ XN-NF-85-67(P)(A), Revision 1, "Generic Mechanical Design for Exxon Nuclear Jet Pump BWR Reload Fuel," September 1986
5. ~~10.~~ ANF-89-014(P)(A), Revision 1 and Supplements 1 and 2, "Advanced Nuclear Fuels Corporation Generic Mechanical Design for Advanced Nuclear Fuels Corporation 9x9-IX and 9x9-9X BWR Reload Fuel," October 1991
6. ~~11.~~ XN-NF-81-22(P)(A), "Generic Statistical Uncertainty Analysis Methodology," November 1983
7. ~~12.~~ NEDE-24011-P-A-10-US, "General Electric Standard Application for Reactor Fuel," U.S. Supplement, March 1991
8. ~~13.~~ NEDE-23785-1-PA, Revision 1, "The GESTR-LOCA and SAFER Models for the Evaluation of the Loss-of-Coolant Accident, Volume III, SAFER/GESTR Application Methodology," October 1984
9. ~~14.~~ NEDO-20566A, "General Electric Company Analytical Model for Loss-of-Coolant Analysis in Accordance with 10 CFR 50 Appendix K," September 1986
10. ~~15.~~ EMF-CC-074(P)(A), "Volume 1 -- STAIF - A Computer Program for BWR Stability in the Frequency Domain, Volume 2 -- STAIF A Computer Program for BWR Stability in the Frequency Domain, Code Qualification Report," July 1994.

11. CENPD-300-A, "Reference Safety Report For Boiling Water Reactor Reload Fuel", dated .....
12. WPPSS-FTS-131(A), Revision 1, "Applications Topical Report For BWR Design And Analysis," dated March 1996

ATTACHMENT 3
No Significant Hazards Consideration Determination

In accordance with the criteria for a significant hazards consideration established in 10 CFR 50.92, the Supply System has evaluated the proposed amendment to the WNP-2 Technical Specifications and determined that it does not represent a significant hazards consideration. The following discussion is provided in support of this conclusion.

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   The proposed amendment consists of revision of sections 5.3.1 and 6.9.3.2 of the WNP-2 Technical Specifications. The proposed revision of Section 5.3.1 makes the description of the fuel assemblies consistent with the description previously submitted as part of the WNP-2 Improved Technical Specifications, and provides a clearer description of the fuel assemblies. Lead Fuel Assemblies (LFA) potentially included in non-limiting core positions as indicated in Section 5.3.1 would be included in the scope of the anaylsis performed using NRC approved methodologies to prepare the Core Operating Limit Reports (COLR). Thus, limitations pertinent to LFAs would be included in the scope of the COLR if such LFAs are included in the core. The proposed revision to Technical Specification Section 6.9.3.2 is submitted in accordance with the guidance of Generic Letter 88-16 to identify the methodologies used to develop the COLR that define cycle-specific parameter limits for each fuel cycle. The revision deletes analytical methodologies no longer pertinent to determining WNP-2 core operating limits, and adds reference to methodologies authored by ABB CENO Fuel Operations (ABB) and the Supply System. The ABB methodology will be used to prepare the Cycle 12 and 13 COLR. The NRC approved Supply System methodology is being added to support potential future use. These methodologies are in accordance with accepted principles and have been determined to have the capability to correctly define operating limits for a core consisting of SPC and ABB fuel assemblies. The WNP-2 Technical Specification requires that core power distribution be maintained within limits defined by the COLR to assure that all applicable limits of the plant safety analysis are met. Therefore, the proposed amendment to the WNP-2 Technical Specification does not involve a significant increase in the probability or consequences of an accident previously evaluated because the reactor will be operated within limits of the plant safety analysis and the ability to mitigate the consequences of all accidents previously evaluated will be maintained.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

   The proposed amendment consists of revision of sections 5.3.1 and 6.9.3.2 of the WNP-2 Technical Specification. The proposed revision of Section 5.3.1 makes the description of the fuel assemblies consistent with the description previously submitted as part of the WNP-2 Improved Technical Specifications and provides a clearer description of the fuel assemblies. Lead Fuel Assemblies potentially included in non-limiting core positions as indicated in Section 5.3.1 would be included in the scope of

the analysis perfomed using NRC approved methodologies to prepare the COLR. Utilization of 10x10 fuel assemblies manufactured by ABB in the core together with 9x9 fuel assemblies manufactured by SPC is similar to earlier core reloads involving concurrent use of SPC and 8x8 fuel assemblies manufactured by General Electric (GE). The 10x10 fuel assemblies are a standard design for boiling water reactors and have been operating as LFAs in various locations in the WNP-2 reactor core for six operating cycles without adverse effects. Reload core designs are analyzed to determine the operating limits to be included in the COLRs, to assure that the reactor will be operated within the bounds of the plant safety analysis. The ABB methodology has been validated by comparison with other analytical methodologies, such that, consistent with acceptance criteria in Section 4.4 of the Standard Review Plan, there is more than 95% confidence that calculations performed using the ABB methodology bound 95% of the calculations performed using methodologies previously approved by the NRC. The NRC approved Supply System methodology is being added to support potential future use. These methodologies are in accordance with accepted principles and have been previously approved by the staff. Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated because the reactor has been previously operated safely with a mixture of different fuel assembly designs, the 10x10 fuel assemblies have been safely operated in other boiling water reactors and in the WNP-2 reactor as LFAs, and the COLR developed with either the ABB or Supply System methodologies will provide operating safety limits such that the reactor will be operated within the bounds of the plant safety analysis.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Plant safety limits are established through LCOs, limiting safety system settings, and safety limits specified in the Technical Specification. There will be no changes to these settings and limits as a result of revising Section 5.3.1 or Section 6.9.3.2 except as reflected in the COLR. The reactivity and power distribution of the core will continue to be maintained within analyzed limits as defined by the COLR, and the COLR defined limits will be determined by an analytical methodology that assures that the reactor will be operated within the bounds of the plant safety analysis. Therefore the proposed amendment to the WNP-2 Technical Specifications does not significantly reduce any margin of safety.