(4) EOI, pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(5) EOI, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(6) EOI, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This amended license shall be deemed to contain and is subject to conditions specified in the following Commission regulations in 10 CFR Chapter I; Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

EOI is authorized to operate the facility at steady state reactor core power levels not in excess of 3026 megawatts thermal. Prior to attaining this power level EOI shall comply with the conditions in Paragraph 2.C.(3).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 244 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

Exemptive 2nd paragraph of 2.C.2 deleted per Amendment 20, 3/3/81.

(3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following issuance of the license or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the license supported by a favorable evaluation by the Commission.

2.C.(3)(a) Deleted per Amendment 24, 6/19/81.

DEFINED TERMS

1.1 The DEFINED TERMS of this section appear in capitalized type and are applicable, throughout these Technical Specifications.

THERMAL POWER

1.2 THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

RATED THERMAL POWER

1.3 RATED THERMAL POWER shall be a total reactor core heat transfer rate to the reactor coolant of 3026 MWt.

OPERATIONAL MODE - MODE

1.4 An OPERATIONAL MODE (i.e. MODE) shall correspond to any one inclusive combination of core reactivity condition, power level and average reactor coolant temperature specified in Table 1.1.

ACTION

1.5 ACTION shall be those additional requirements specified as corollary statements to each principle specification and shall be part of the specifications.

OPERABLE - OPERABILITY

1.6 A system, subsystem, train, component or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified function(s). Implicit in this definition shall be the assumption that all necessary attendant instrumentation, controls, normal and emergency electrical power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its function(s) are also capable of performing their related support function(s).

REPORTABLE OCCURRENCE

1.7 A REPORTABLE OCCURRENCE shall be any of those conditions specified in Section 50.73 to 10CFR Part 50.

TABLE 2.2-1

REACTOR PROTECTIVE INSTRUMENTATION TRIP SETPOINT LIMITS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. Manual Reactor Trip	Not Applicable	Not Applicable
2. Linear Power Level - High		
a. Four Reactor Coolant Pumps Operating	≤ 110% of RATED THERMAL POWER	≤ 110.712% of RATED THERMAL POWER
3. Logarithmic Power Level - High (1)	≤ 0.75%	≤ 0.819%
4. Pressurizer Pressure - High	≤ 2362 psia	≤ 2370.887 psia
5. Pressurizer Pressure - Low	≥ 1650 psia (2)	≥ 1618.9 psia (2)
6. Containment Pressure - High	≤ 18.3 psia	≤ 18.490 psia
7. Steam Generator Pressure - Low	≥ 751 psia (3)	≥ 738.6 psia (3)
8. Steam Generator Level - Low	≥ 22.2% (4)	≥ 21.5% (4)

3/4.1.3 CONTROL ELEMENT ASSEMBLIES

CEA POSITION

LIMITING CONDITION FOR OPERATION

3.1.3.1 All CEAs shall be OPERABLE with each CEA of a given group positioned within 7 inches (indicated position) of all other CEAs in its group.

APPLICABILITY: MODES 1* and 2*.

ACTION:

a. With one or more CEA(s) inoperable due to being immovable as a result of excessive friction or mechanical interference or known to be untrippable, determine that the SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is satisfied within 1 hour and be in at least HOT STANDBY within the next 6 hours.

b. With one CEA trippable but inoperable due to causes other than addressed by ACTION (a) above, but within its above specified alignment requirements, operation in MODES 1 and 2 may continue pursuant to the requirements of Specifications 3.1.3.5 and 3.1.3.6.

c. With more than one CEA trippable but inoperable due to causes other than addressed by ACTION (a) above, but within the above specified alignment requirements, restore the inoperable CEA(s) to OPERABLE status within 72 hours, or be in at least HOT STANDBY within the next 6 hours.

d. With one CEA trippable but misaligned from any other CEA in its group by more than 7 inches, operation in MODES 1 and 2 may continue, provided that, for inward deviations, core power is reduced in accordance with the limits specified in the CORE OPERATING LIMITS REPORT and, for all deviations, within 2 hours either:

1. Restore the misaligned CEA to within its above specified alignment requirements, or

2. Verify the SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is satisfied. Operation in MODES 1 and 2 may continue pursuant to the requirements of Specification 3.1.3.5 and 3.1.3.6 provided:

a) Within two hours following the misalignment the remainder of the CEAs in the group with the inoperable CEA shall be aligned to within 7 inches of the inoperable CEA while maintaining the allowable CEA sequence and insertion limits specified in the CORE OPERATING LIMITS REPORT, and

b) The SHUTDOWN MARGIN requirement of Specification 3.1.1.1 is determined at least once per 12 hours;

Otherwise, be in at least HOT STANDBY within the next 6 hours.

*See Special Test Exceptions 3.10.2 and 3.10.4.

ACTION: (Continued)

e. With more than one CEA misaligned from any other CEA in its group by more than 7 inches (indicated position), be in at least HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

4.1.3.1.1 The position of each CEA shall be determined to be within 7 inches (indicated position) of all other CEAs in its group at least once per 12 hours.

4.1.3.1.2 Each CEA not fully inserted in the core shall be determined to be OPERABLE by movement of at least 5 inches in any one direction at least once per 92 days. (Note 1)

Note 1 - Movement of CEA #43 is not required for the remainder of cycle 15. If an outage of sufficient duration occurs prior to the end of Cycle 15, maintenance activities will be performed to restore the CEA.

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REGULATING AND GROUP P CEA INSERTION LIMITS

LIMITING CONDITION FOR OPERATION

3.1.3.6 The regulating CEA groups and Group P CEAs shall be maintained within the following limits:

a. One or more CEACs OPERABLE:

1. The regulating CEA groups and Group P CEAs shall be limited to the withdrawal sequence and to the insertion limits specified in the CORE OPERATING LIMITS REPORT. CEA insertion between the Long Term Steady State Insertion Limits and the Transient Insertion Limit is restricted to:

a) ≤ 5 Effective Full Power Days per 30 Effective Full Power Day interval, and

b) ≤ 14 Effective Full Power Days per calendar year.

2. CEA insertion between the Short Term Steady State Insertion Limit and the Transient Insertion Limit shall be restricted to ≤ 4 hours per 24 hour interval.

b. Both CEACs inoperable:

Regulating CEA Group 6 may be inserted no further than 127.5 inches withdrawn which is the Transient Insertion Limit when both CEACs are inoperable. All other CEAs must be maintained fully withdrawn.

APPLICABILITY: MODES 1* and 2*#

ACTION:

a. With the regulating CEA groups or Group P CEAs inserted beyond the Transient Insertion Limit, except for surveillance testing pursuant to Specification 4.1.3.1.2, within two hours of exceeding the Transient Insertion Limit either:

1. Restore the regulating CEA groups or Group P CEAs to within the limits, or

2. Reduce THERMAL POWER as follows:

a) One or more CEACs OPERABLE:

1) Reduce THERMAL POWER to less than or equal to that fraction of RATED THERMAL POWER which is allowed by the CEA group position specified in the CORE OPERATING LIMITS REPORT, or

2) Be in at least HOT STANDBY within 8 hours of exceeding the Transient Insertion Limit.

* See Special Test Exceptions 3.10.2 and 3.10.4

With $K_{eff} \geq 1.0$.

LIMITING CONDITION FOR OPERATION

ACTION: (Continued)

b) Both CEACs inoperable:

Be in at least HOT STANDBY within 8 hours of exceeding the Transient Insertion Limit.

b. With the regulating CEA groups or Group P CEAs inserted between the Long Term Steady State Insertion Limit and the Transient Insertion Limit for intervals > 5 EFPD per 30 EFPD interval or > 14 EFPD per calendar year, either:

1. Restore the regulating groups or Group P CEAs to within the Long Term Steady State Insertion Limit within two hours, or

2. Be in at least HOT STANDBY within the next 6 hours.

c. With the regulating CEA groups or Group P CEAs inserted between the Short Term Steady State Insertion Limit and the Transient Insertion Limit for intervals > 4 hours per 24 hour interval, operation may proceed provided any subsequent increase in thermal power is restricted to ≤ 5% of rated thermal power per hour.

SURVEILLANCE REQUIREMENTS

4.1.3.6 The position of each regulating CEA group and Group P CEAs shall be determined to be within the Transient Insertion Limits at least once per 12 hours except during time intervals when the PDIL Alarm is inoperable, then verify the individual CEA positions at least once per 4 hours. The accumulated times during which the regulating CEA groups or Group P CEAs are inserted beyond the Long Term Steady State Insertion Limit or the Short Term Steady State Insertion Limit but within the Transient Insertion Limit shall be determined at least once per 24 hours.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS

ACTION 4 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 or 3.1.1.2, as applicable, within 1 hour and at least once per 12 hours thereafter.

ACTION 5 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, place the reactor trip breakers of the inoperable channel in the tripped condition within 1 hour or be in HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 1 hour for surveillance testing per Specification 4.3.1.1.1.

ACTION 6 - a. With one CEAC inoperable, operation may continue for up to 7 days provided that at least once per 4 hours, each CEA is verified to be within 7 inches (indicated position) of all other CEAs in its group. After 7 days, operation may continue provided that ACTION 6.b is met.

b. With both CEACs inoperable, operation may continue provided that:

1. Within 1 hour the margin required by Specification 3.2.4.b (COLSS in service) or Specification 3.2.4.d (COLSS out of service) is satisfied.

2. Within 4 hours:

a) All CEA groups are withdrawn within the limits of Specifications 3.1.3.5 and 3.1.3.6.b, except during surveillance testing pursuant to the requirements of Specification 4.1.3.1.2.

b) The "RSPT/CEAC Inoperable" addressable constant in the CPCs is set to both CEACs inoperable.

c) The Control Element Drive Mechanism Control System (CEDMCS) is placed in and subsequently maintained in the "OFF" mode except during CEA motion permitted by a) above, when the CEDMCS may be operated in either the "Manual Group" or "Manual Individual" mode.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS

3. At least once per 4 hours, all CEAs are verified fully withdrawn, except during surveillance testing pursuant to the requirements of Specification 4.1.3.1.2, or as permitted by Specification 3.1.3.6.b, then verify at least once per 4 hours that the inserted CEAs are aligned within 7 inches (indicated position) of all other CEAs in their group.

ACTION 7 - With three or more auto restarts of one non-bypassed calculator during a 12-hour interval, demonstrate calculator OPERABILITY by performing a CHANNEL FUNCTIONAL TEST within the next 24 hours.

ACTION 8 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement restore the inoperable channel to OPERABLE status within 48 hours or open the affected reactor trip breakers within the next hour. The trip breakers associated with the inoperable channel may be closed for up to 1 hour for surveillance testing per Specification 4.3.1.1.

TABLE 3.3-4

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. SAFETY INJECTION (SIAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure - High	≤ 18.3 psia	≤ 18.490 psia
c. Pressurizer Pressure - Low	≥ 1650 psia	≥ 1618.9 psia
2. CONTAINMENT SPRAY (CSAS)		
a. Manual (Trip Buttons	Not Applicable	Not Applicable
b. Containment Pressure - High-High	≤ 23.3 psia	≤ 23.490 psia
3. CONTAINMENT ISOLATION (CIAS)		
a. Manual (Trip Buttons	Not Applicable	Not Applicable
b. Containment Pressure - High	≤ 18.3 psia	≤ 18.490 psia

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
4. MAIN STEAM AND FEEDWATER ISOLATION (MSIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Steam Generator Pressure - Low	≥ 751 psia (2)	≥ 738.6 psia (2)
5. CONTAINMENT COOLING (CCAS)		
a. Manual (Trip Buttons	Not Applicable	Not Applicable
b. Containment Pressure - High	≤ 18.3 psia	≤ 18.490 psia
c. Pressurizer Pressure - Low	≥ 1650 psia	≥ 1618.9 psia
6. RECIRCULATION (RAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Refueling Water Tank - Low	6.0 ± 0.5% indicated level	between 5.111% and 6.889% indicated level
7. LOSS OF POWER		
a. 4.16 kv Emergency Bus Undervoltage	(4)	2300 ± 699 volts with a 0.64 ± 0.34 second time delay
b. 460 volt Emergency Bus Undervoltage	(4)	429.6 ± 6.4 volts with an 8.0 ± 1.0 second time delay

EMERGENCY CORE COOLING SYSTEMS

REFUELING WATER TANK

LIMITING CONDITION FOR OPERATION

3.5.4 The refueling water tank shall be OPERABLE with:

a. An available borated water volume of between 384,000 and 503,300 gallons

b. Between 2500 and 3000 ppm of boron,

c. A minimum solution temperature of 40°F, and

d. A maximum solution temperature of 110°F

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With the refueling water tank inoperable, restore tank to OPERABLE status within 1 hour or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.5.4 The RWT shall be demonstrated OPERABLE:

a. At least once per 7 days by:

1. Verifying the contained borated water volume in the tank, and

2. Verifying the boron concentration of the water.

b. At least once per 24 hours by verifying the RWT temperature.

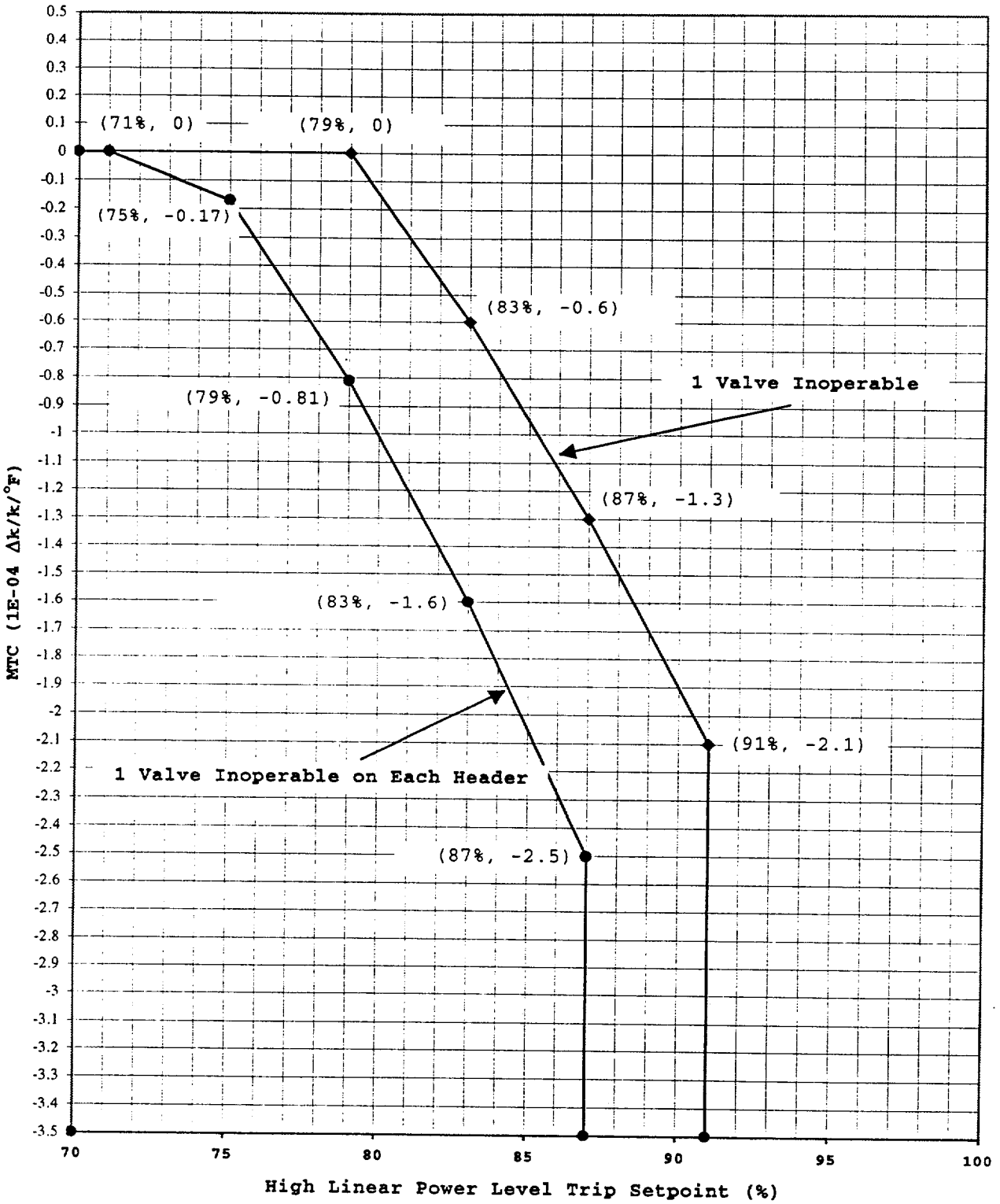
TABLE 3.7-1

MAXIMUM ALLOWABLE LINEAR POWER LEVEL AND HIGH TRIP SETPOINT WITH INOPERABLE STEAM LINE SAFETY VALVES DURING OPERATION WITH BOTH STEAM GENERATORS

Number of Inoperable Safety Valves	Maximum Allowable Linear Power Level And High Trip Setpoint (Percent of RATED THERMAL POWER)
1 Valve Inoperable	79% (except as allowed by Figure 3.7-1)
1 Valve Inoperable on Each Header	71% (except as allowed by Figure 3.7-1)
Maximum of 2 Valves Inoperable on Each Header	43.0
Maximum of 3 Valves Inoperable on Each Header	25.0

FIGURE 3.7-1

Maximum High Linear Power Level And Trip Setpoint Versus MTC



CORE OPERATING LIMITS REPORT

10) "Calculative Methods for the CE Small Break LOCA Evaluation Model," CENPD-137, Supplement 2-P-A, dated April, 1998 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

11) "CESEC-Digital Simulation of a Combustion Engineering Nuclear Steam Supply System," December 1981 (Methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margin, 3.1.1.4 for MTC, 3.1.3.1 for CEA Position, 3.1.3.6 for Regulating CEA and Group P Insertion Limits, and 3.2.4.b for DNBR Margin).

12) "Technical Manual for the CENTS Code," CENPD 282-P-A, February 1991 (Methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margin, 3.1.1.4 for MTC, 3.1.3.1 for CEA Position, 3.1.3.6 for Regulating and Group P Insertion Limits, and 3.2.4.b for DNBR Margin.

13) Letter: O.D. Parr (NRC) to F.M. Stern (CE), dated June 13, 1975 (NRC Staff Review of the Combustion Engineering ECCS Evaluation Model). NRC approval for 6.9.5.1.4, 6.9.5.1.5, and 6.9.5.1.8 methodologies.

14) Letter: O.D. Parr (NRC) to A.E. Scherer (CE), dated December 9, 1975 (NRC Staff Review of the Proposed Combustion Engineering ECCS Evaluation Model changes). NRC approval for 6.9.5.1.6 methodology.

15) Letter: K. Kniel (NRC) to A.E. Scherer (CE), dated September 27, 1977 (Evaluation of Topical Reports CENPD-133, Supplement 3-P and CENPD-137, Supplement 1-P). NRC approval for 6.9.5.1.9 methodology.

16) Letter: 2CNA038403, dated March 20, 1984, J.R. Miller (NRC) to J.M. Griffin (AP&L), "CESEC Code Verification." NRC approval for 6.9.5.1.11 methodology.

17) "Calculative Methods for the CE Nuclear Power Large Break LOCA Evaluation Model," CENPD-132-P, Supplement 4-P-A, Revision 1 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

6.9.5.2 The core operating limits shall be determined so that all applicable limits (e.g. fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met.

6.9.5.3 The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

3/4.1.3 MOVABLE CONTROL ASSEMBLIES

The specifications of this section ensure that (1) acceptable power distribution limits are maintained, (2) the minimum SHUTDOWN MARGIN is maintained, and (3) the potential effects of CEA misalignments are limited to acceptable levels.

The ACTION statements which permit limited variations from the basic requirements are accompanied by additional restrictions which ensure that the original design criteria are met.

The ACTION statements applicable to a stuck or untrippable CEA or a misalignment of two or more CEAs, require a prompt shutdown of the reactor since either of these conditions may be indicative of a possible loss of mechanical functional capability of the CEAs and in the event of a stuck or untrippable CEA, the loss of SHUTDOWN MARGIN. CEAs that are confirmed to be inoperable due to problems other than addressed by ACTION (a) of Specification 3.1.3.1 will not impact SHUTDOWN MARGIN as long as their relative positions satisfy the applicable alignment requirements.

For a single CEA misalignment, there is 1) a small effect on the time dependent long term power distributions relative to those used in generating LCOs and LSSS setpoints, 2) a small effect on the available SHUTDOWN MARGIN, and 3) a small effect on the ejected CEA worth used in the safety analysis. Therefore, the ACTION

statement associated with a trippable but misaligned CEA permits a two hour time interval during which attempts may be made to restore the CEA to within the alignment requirements. The time limit is sufficient to (1) identify causes of a misaligned CEA, (2) take appropriate corrective action to realign the CEAs and (3) minimize the effects of xenon redistribution. Problems may also cause more than one control rod to be immovable where the control rods continue to be trippable. With trippable but multiple inoperable rods, the alignment limits and the restriction on THERMAL POWER in accordance with the provisions of Specification 3.1.3.6 for insertion limits assures fuel rod integrity during continued operation. These provisions are sufficient to allow 72 hours to restore the inoperable rods to operable status when it is confirmed that the cause of the immovable rods is an electrical problem in the rod control system or an electrical or mechanical problem with the rod stepping mechanism exclusive of the rod holding coil that must function for a reactor trip. In such cases, the control rods will continue to be capable of fulfilling their primary safety function.

The CPCs provide protection to the core in the event of a large outward misalignment of a CEA by applying appropriate penalty factors to the calculation to account for the misaligned CEA.

The ACTION statements applicable to a trippable but misaligned or inoperable CEA include requirements to align the OPERABLE CEAs in a given group with the inoperable CEA. Conformance with these alignment requirements brings the core, within a short period of time, to a configuration consistent with that assumed in generating LCO and LSSS setpoints. However, extended operation with CEAs significantly inserted in the core may lead to perturbations in 1) local burnup, 2) peaking factors and 3) available SHUTDOWN MARGIN which are more adverse than the conditions assumed to exist in the safety analyses and LCO and LSSS setpoints determination. Therefore, time limits have been imposed to preclude such adverse conditions from developing.

Operability of at least two CEA position indicator channels is required to determine CEA positions and thereby ensure compliance with the CEA alignment and insertion limits. The CEA "Full In" and "Full Out" limits provide an additional independent means for determining the CEA positions when the CEAs are at either their fully inserted or fully withdrawn positions. Therefore, the ACTION statements applicable to inoperable CEA position indicators permit continued operations when the positions of CEAs with inoperable position indicators can be verified by the "Full In" or "Full Out" limits.

3/4.2.1 LINEAR HEAT RATE

The limitation on linear heat rate ensures that in the event of a LOCA, the peak temperature of the fuel cladding will not exceed 2200°F. This limitation also ensures fuel pin pressures will not exceed design limits.

Either of the two core power distribution monitoring systems, the Core Operating Limit Supervisory System (COLSS) and the Local Power Density channels in the Core Protection Calculators (CPCs), provide adequate monitoring of the core power distribution and are capable of verifying that the linear heat rate does not exceed its limits. The COLSS performs this function by continuously monitoring the core power distribution and calculating a core power operating limit corresponding to the allowable peak linear heat rate.

The COLSS calculated core power and the COLSS calculated core power operating limits based on linear heat rate are continuously monitored and displayed to the operator. A COLSS alarm is annunciated in the event that the core power exceeds the core power operating limit. This provides adequate margin to the linear heat rate operating limit for normal steady state operation. Normal reactor power transients or equipment failures which do not require a reactor trip may result in this core power operating limit being exceeded. In the event this occurs, COLSS alarms will be annunciated. If the event which causes the COLSS limit to be exceeded results in conditions which approach the core safety limits, a reactor trip will be initiated by the Reactor Protective Instrumentation. The COLSS calculation of the linear heat rate limit includes appropriate uncertainty and penalty factors necessary to provide a 95/95 confidence level that the maximum linear heat rate calculated by COLSS is greater than or equal to that existing in the core. To ensure that the design margin to safety is maintained, the COLSS computer program includes uncertainties associated with planar radial peaking measurement, engineering design factors, state parameter measurement, software algorithm modeling, computer processing, rod bow, and core power measurement.

Parameters required to maintain the operating limit power level based on linear heat rate, margin to DNB and total core power are also monitored by the CPCs. Therefore, in the event that the COLSS is not being used, operation within the limits specified in the CORE OPERATING LIMITS REPORT can be maintained by utilizing a predetermined local power density margin and a total core power limit in the CPC trip channels. The above listed uncertainty and penalty factors are also included in the CPCs.

The available water volume limits represent the analytically assumed maximum and minimum volume of water that can be transferred from the refueling water tank to containment via the emergency core cooling system and containment spray before pump suction is switched to the sump. An RWT indicated level between 100% and 91.7%, in combination with the RAS setpoint, ensures that the analysis assumptions with respect to available borated water volume are maintained.

The limits on water volume and boron concentration of the boric acid sources, when mixed with the trisodium phosphate, ensures a long term pH value of $\geq$ 7.0 for the solution recirculated within containment after a LOCA. This pH limit minimizes the evolution of iodine and helps to inhibit stress corrosion cracking of austenitic stainless steel components in containment during the recirculation phase following an accident.

3/4.7.1 TURBINE CYCLE

3/4.7.1.1 SAFETY VALVES

The OPERABILITY of the main steam line code safety valves ensures that the secondary system pressure will be limited to within 110% of its design pressure during the most severe anticipated system operational transient. The maximum relieving capacity is associated with a turbine trip from 102% RATED THERMAL POWER coincident with an assumed loss of condenser heat sink (i.e., no steam bypass to the condenser).

The specified valve lift settings and relieving capacities are in accordance with the requirements of Section III of the ASME Boiler and Pressure Code, 1971 Edition. The "as-found" requirements are consistent with Section XI of the ASME Boiler and Pressure Vessel Code, 1986 Edition, and Addenda through 1987. The MSSV capacity exceeds that required to maintain steam generator pressure less than 110% of secondary system design pressure following a turbine trip with a loss of condenser vacuum from 102% RATED THERMAL POWER (100% + 2% for instrument error). A minimum of 2 OPERABLE safety valves per steam generator ensures that sufficient relieving capacity is available for removing decay heat.

STARTUP and/or POWER OPERATION is allowable with safety valves inoperable within the limitations of the ACTION requirements on the basis of the reduction in secondary system steam flow and THERMAL POWER required by the reduced reactor trip settings of the Power Level-High channels. The reactor trip setpoint reductions are derived by an analysis of a loss of condenser vacuum event initiated at the reduced power levels listed in Table 3.7-1 that shows peak steam generator pressures are maintained below 110% of design pressure.

To provide power level limits more amenable to MSSV testing, the LOCV analysis also determines the combination of allowable initial power levels and moderator temperature coefficients (MTC) that yield acceptable results for the single most limiting valve and one bank of valves inoperable. These power level/MTC combinations are the basis of Figure 3.7-1.

The 4-hour completion time for required Action (a) is a reasonable time period to reduce power level and is based on the low probability of an event occurring during this period that would require activation of the MSSVs. An additional 8 hours is allowed in Action (a) to reduce the setpoints in recognition of the difficulty of resetting all channels of this trip function within a period of 4 hours. The completion time of 12 hours for Action (a) is based on operating experience in resetting all channels of a protective function and on the low probability of the occurrence of a transient that would result in steam generator overpressure during this period.