UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 15, 1993

Docket No. 50-461

Mr. Richard F. Phares
Director - Licensing
Clinton Power Station
P. O. Box 678
Mail Code V920
Clinton, Illinois 61727

Dear Mr. Phares:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NOS. M77615 AND M81393)

The U. S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 79 to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit No. 1. The amendment is in response to your applications dated October 30, 1987 (U-601048), August 31, 1990 (U-601730), and August 16, 1991 (U-601872), as revised December 20, 1990 (U-601738), and October 17, 1991 (U-601884).

The amendment includes modifications to the Clinton Power Station Technical Specification 3/4.3.1, "Reactor Protection System Instrumentation," 3/4.3.6, "Control Rod Block Instrumentation," and 3/4.3.7.6, "Source Range Monitors." The amendment eliminates contradictory statements, allows adequate time to perform required surveillances without resulting in a violation of Technical Specification 4.0.4, clarifies startup surveillance requirements, and establishes plant conditions to perform surveillances associated with change of plant operational conditions.

Technical Specification pages 3/4 3-11, 3/4 3-38a, and 3/4 3-65 are included to correct typographical errors contained in Amendment No. 71. In addition, the enclosed Safety Evaluation includes a discussion of the change to note (b) of page 3/4 3-69 which was inadvertently included in Amendment No. 71.

A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance related to the August 31, 1990, and August 16, 1991, submittals will be included in the Commission's next biweekly Federal Register notice. Also enclosed is a copy of the Notice of Issuance of Amendment to Facility

Operating License related to the October 30, 1987, submittal that has been sent to the Office of the Federal Register for publication.

Sincerely,

Original signed by:

Douglas V. Pickett, Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 79 to NPF-62
2. Safety Evaluation
3. Notice

cc w/enclosures:
See next page

DISTRIBUTION:
Docket File
NRC & Local PDRs
PDIII-2 p/f
J. Roe
J. Zwolinski
J. Dyer
C. Moore
D. Pickett
J. Wermiel
S. Mazumdar
OGC
G. Hill (2)
W. Jones
C. Grimes
ACRS (10)
OPA
OC/LFDCB
B. Clayton, RIII
D. Hagan
R. Stransky
E. Baker
P. O'Connor

DVP

OFC	LA:PDIII-2	PM:PDIII-2	D:PDIII-2	OGC
NAME	CMOORE	DPICKETT	JDYER	R Bachmann
DATE	7/ /93	7/7/93	7/15/93	7/ /93

Subject to noted modifications

Mr. Richard F. Phares
Illinois Power Company

Clinton Power Station
Unit No. 1

cc:

Mr. J. S. Perry
Senior Vice President
Clinton Power Station
Post Office Box 678
Clinton, Illinois 61727

Mr. J. A. Miller
Manager Nuclear Station
Engineering Department
Clinton Power Station
Post Office Box 678
Clinton, Illinois 61727

Sheldon Zabel, Esquire
Schiff, Hardin & Waite
7200 Sears Tower
233 Wacker Drive
Chicago, Illinois 60606

Resident Inspector
U.S. Nuclear Regulatory Commission
RR#3, Box 229 A
Clinton, Illinois 61727

Ms. K. K. Berry
Licensing Services Manager
General Electric Company
175 Curtner Avenue, M/C 382
San Jose, California 95125

Regional Administrator, Region III
799 Roosevelt Road, Building 4
Glen Ellyn, Illinois 60137

Chairman of DeWitt County
c/o County Clerk's Office
DeWitt County Courthouse
Clinton, Illinois 61727

Mr. Robert Neumann
Office of Public Counsel
State of Illinois Center
100 W. Randolph, Suite 11-300
Chicago, Illinois 60601

Illinois Department
of Nuclear Safety
Office of Nuclear Facility Safety
1035 Outer Park Drive
Springfield, Illinois 62704

Mr. Donald Schopfer
Project Manager
Sargent & Lundy Engineers
55 East Monroe Street
Chicago, Illinois 60603

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ILLINOIS POWER COMPANY

SOYLAND POWER COOPERATIVE, INC.

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 79
License No. NPF-62

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Illinois Power Company* (IP), and Soyland Power Cooperative, Inc. (the licensees) dated October 30, 1987, August 31, 1990, and August 16, 1991, as supplemented December 20, 1990, and October 17, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-62 is hereby amended to read as follows:

*Illinois Power Company is authorized to act as agent for Soyland Power Cooperative, Inc. and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 79 , are hereby incorporated into this license. Illinois Power Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

James E. Dyer, Director
Project Directorate III-2
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 15, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 79

FACILITY OPERATING LICENSE NO. NPF-62

DOCKET NO. 50-461

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages, as indicated by an asterisk, are provided to maintain document completeness. Those pages indicated by a double asterisk, are corrected pages from Amendment No. 71.

Remove Pages	Insert Pages
3/4 3-1*	3/4 3-1*
3/4 3-2	3/4 3-2
3/4 3-7*	3/4 3-7*
3/4 3-8	3/4 3-8
3/4 3-9*	3/4 3-9*
3/4 3-10	3/4 3-10
3/4 3-11**	3/4 3-11**
3/4 3-12*	3/4 3-12*
3/4 3-38a**	3/4 3-38a**
3/4 3-63	3/4 3-63
3/4 3-64	3/4 3-64
3/4 3-65	3/4 3-65
3/4 3-66	3/4 3-66
3/4 3-67	3/4 3-67
3/4 3-68	3/4 3-68
3/4 3-69	3/4 3-69
3/4 3-70*	3/4 3-70*
3/4 3-89*	3/4 3-89*
3/4 3-90	3/4 3-90
---	3/4 3-90a

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1 As a minimum, the reactor protection system instrumentation channels shown in Table 3.3.1-1 shall be OPERABLE* with the REACTOR PROTECTION SYSTEM RESPONSE TIME as shown in Table 3.3.1-2.

APPLICABILITY: **As shown in Table 3.3.1-1.**

ACTION:

a. **For all functional units of Table 3.3.1-1 other than Reactor Mode Switch Shutdown Position.**

   1. **With one of the four channels required for any Trip Function inoperable, operation may continue provided the inoperable channel is placed in the tripped condition within 48 hours. The provisions of Specification 3.0.4 are not applicable.**

   2. **With two of the four channels required for any Trip Function inoperable, place one channel in the tripped condition within six hours provided no tripped channel for that Trip Function already exists. The provisions of Specification 3.0.4 are not applicable.**

   3. **With three of the four channels required for any Trip Function inoperable, take the ACTION required by Table 3.3.1-1.**

b. **For Reactor Mode Switch Shutdown Position take the ACTION as shown in Table 3.3.1-1.**

SURVEILLANCE REQUIREMENTS

4.3.1.1 Each reactor protection system instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.1.1-1.

4.3.1.2 LOGIC SYSTEM FUNCTIONAL TESTS shall be performed at least once per 18 months. Reactor protection system divisional logic and portions of the channel coincident logic shall be manually tested independent of the SELF TEST SYSTEM during each refueling outage such that all trip functions are tested at least once every four fuel cycles.

---

*A channel may be placed in an inoperable status for up to 6 hours for required surveillance provided at least two OPERABLE channels are monitoring that parameter.

SURVEILLANCE REQUIREMENTS (Continued)

4.3.1.3 The REACTOR PROTECTION SYSTEM RESPONSE TIME of each reactor trip functional unit shown in Table 3.3.1-2 shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least two logic trains such that all logic trains are tested at least once per 36 months and one channel per trip function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip function.

4.3.1.4 The provisions of Specification 4.0.4 are not applicable to the Intermediate Range Monitor Surveillance Requirements for entry into OPERATIONAL CONDITION 2 or 3 from Operational Condition 1, provided the surveillances are performed within 12 hours after entering OPERATIONAL CONDITION 2 or 3.

TABLE 3.3.1-2

REACTOR PROTECTION SYSTEM RESPONSE TIMES

FUNCTIONAL UNIT	RESPONSE TIME (Seconds)
1. Intermediate Range Monitors:	
a. Neutron Flux - High	NA
b. Inoperative	NA
2. Average Power Range Monitor*:	
a. Neutron Flux - High, Setdown	NA
b. Flow Biased Simulated Thermal Power - High	$\leq$ 0.09**
c. Neutron Flux - High	$\leq$ 0.09
d. Inoperative	NA
3. Reactor Vessel Steam Dome Pressure - High	$\leq$ 0.33
4. Reactor Vessel Water Level - Low, Level 3	$\geq$ 1.03
5. Reactor Vessel Water Level - High, Level 8	$\leq$ 1.03
6. Main Steam Line Isolation Valve - Closure	$\leq$ 0.04
7. Main Steam Line Radiation - High	NA
8. Drywell Pressure - High	NA
9. Scram Discharge Volume Water Level - High	
a. Level Transmitter	NA
b. Float Switches	NA
10. Turbine Stop Valve - Closure	$\leq$ 0.04
11. Turbine Control Valve Fast Closure, Valve Trip System Oil Pressure - Low	$\leq$ 0.05#
12. Reactor Mode Switch Shutdown Position	NA
13. Manual Scram	NA

*Neutron detectors are exempt from response time testing. Response time shall be measured from the detector output or from the input of the first electronic component in the channel.

**Not including a simulated thermal power time constant specified in the COLR.

#Measured from start of turbine control valve fast closure.

TABLE 4.3.1.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION[a]	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED
1. Intermediate Range Monitors:				
a. Neutron Flux - High	S/U,S,(b) S	W W	R R	2 3, 4, 5
b. Inoperative	NA	W	NA	2, 3, 4, 5
2. Average Power Range Monitor:[f]				
a. Neutron Flux - High, Setdown	S/U,S,(b) S	W W	SA SA	2 3, 4, 5
b. Flow-Biased Simulated Thermal Power - High	S	S/U[c], Q	W[d][e], SA, R[i]	1
c. Neutron Flux - High	S	S/U[c], Q	W[d], SA	1
d. Inoperative	NA	Q	NA	1, 2, 3, 4, 5
3. Reactor Vessel Steam Dome Pressure - High	S	Q	R[g]	1, 2[j]
4. Reactor Vessel Water Level - Low, Level 3	S	Q	R[g]	1, 2
5. Reactor Vessel Water Level - High, Level 8	S	Q	R[g]	1
6. Main Steam Line Isolation Valve - Closure	NA	Q	R	1
7. Main Steam Line Radiation - High	S	Q	R	1, 2[j]
8. Drywell Pressure - High	S	Q	R[g]	1, 2[l]

TABLE 4.3.1.1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION[a]	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED
9. Scram Discharge Volume Water Level - High				
a. Level Transmitter	S	Q	R[g]	1, 2, 5[k]
b. Float Switches	NA	Q	R	1, 2, 5[k]
10. Turbine Stop Valve - Closure	NA	Q[m]	R[m]	1
11. Turbine Control Valve Fast Closure Valve Trip System Oil Pressure - Low	NA	Q[m]	R[m]	1
12. Reactor Mode Switch Shutdown Position	NA	R	NA	1, 2, 3, 4, 5
13. Manual Scram	NA	Q	NA	1, 2, 3, 4, 5

Amendment No. 71
APR 9 1993

TABLE 4.3.1.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TABLE NOTATIONS

(a) Neutron detectors may be excluded from CHANNEL CALIBRATION.

(b) The IRM and SRM channels shall be determined to overlap for at least 1/2 decade during each startup after entering OPERATIONAL CONDITION 2 and the IRM and APRM channels shall be determined to overlap for at least 1 decade during each controlled shutdown, if not performed within the previous 7 days.

(c) Within 7 days prior to startup.

(d) This calibration shall consist of the adjustment of the APRM channel to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER $\geq$ 25% of RATED THERMAL POWER*. Adjust the APRM channel if the absolute difference is greater than 2% of RATED THERMAL POWER.

(e) This calibration shall consist of a setpoint verification of the Flow Biased Simulated Thermal Power-High trip function. The Flow Biased Simulated Thermal-High trip function is verified using a calibrated flow signal.

(f) The LPRMs shall be calibrated at least once per 1000 effective full power hours (EFPH) using the TIP system.

(g) Calibrate the analog trip module at least once per 92 days.

(h) Deleted.

(i) This calibration shall consist of verifying that the simulated thermal power time constant is within the limits specified in the COLR.

(j) This function is not required to be OPERABLE when the reactor pressure vessel head is removed per Specification 3.10.1.

(k) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

(l) This function is not required to be OPERABLE when DRYWELL INTEGRITY is not required to be OPERABLE per Special Test Exception 3.10.1.

(m) The CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION shall include the turbine first stage pressure instruments.

---

*The provisions of Specification 4.0.4 are not applicable, provided the surveillance is performed within 12 hours after exceeding 25% of RATED THERMAL POWER.

3/4.3.2 CONTAINMENT AND REACTOR VESSEL ISOLATION CONTROL SYSTEM

LIMITING CONDITION FOR OPERATION

3.3.2 The containment and reactor vessel isolation control system (CRVICS) channels shown in Table 3.3.2-1 shall be OPERABLE* with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.2-2 and with ISOLATION SYSTEM RESPONSE TIME as shown in Table 3.3.2-3.

APPLICABILITY: As shown in Table 3.3.2-1.

ACTION:

a. With a CRVICS channel trip setpoint less conservative than the value shown in the Allowable Value column of Table 3.3.2-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.

b. For CRVICS Main Steam Line Isolation Trip Functions:

   1. With one of the four channels required for any Trip Function inoperable, operation may continue provided the inoperable channel is placed in the tripped condition within 48 hours. The provisions of Specification 3.0.4 are not applicable.

   2. With two of the four channels required for any Trip Function inoperable, place one channel in the tripped condition within six hours provided no tripped channel for that Trip Function already exists. The provisions of Specification 3.0.4 are not applicable.

   3. With three of the four channels required for any Trip Function inoperable, take the ACTION required by Table 3.3.2-1.

c. For other CRVICS Isolation Trip Functions:

   1. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for one trip system, place the inoperable channel(s) and/or that trip system in the tripped condition** within 24 hours. The provisions of Specification 3.0.4 are not applicable.

---

*For CRVICS Main Steam Line Isolation Trip Function, a channel may be placed in an inoperable status for up to 6 hours for required surveillance provided at least two OPERABLE channels are monitoring that parameter.

For other CRVICS Isolation Trip Function, a channel may be placed in an inoperable status for up to 6 hours for required surveillance provided the requirements of Table 3.3.2-1 are fulfilled.

**An inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to OPERABLE status within 6 hours or the ACTION required by Table 3.3.2-1 for that Trip Function shall be taken.

LIMITING CONDITION FOR OPERATION (Continued)

3.3.2 ACTION (Continued):

2. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for both trip systems, place at least one trip system* in the tripped condition within 1 hour and take the ACTION required by Table 3.3.2-1.

SURVEILLANCE REQUIREMENTS

4.3.2.1 Each CRVICS channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.2.1-1.

4.3.2.2 LOGIC SYSTEM FUNCTIONAL TESTS shall be performed at least once per 18 months. CRVICS main steam line isolation divisional logic and portions of the channel coincident logic shall be manually tested independent of the SELF TEST SYSTEM during each refueling outage. Each of the two trip systems or divisions of the CRVICS trip system logic shall be alternately and manually tested independent of the SELF TEST SYSTEM during every other refueling outage. All manual testing shall be completed such that all trip functions are tested at least once every four fuel cycles.

4.3.2.3 The CRVICS RESPONSE TIME of each CRVICS trip function shown in Table 3.3.2-3 shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one logic train tested at least once per 36 months, and one channel per trip function such that all channels are tested at least once every N times 18 months, where N is the total number of redundant channels in a specific CRVICS trip function.

*The trip system need not be placed in the tripped condition if this would cause the Trip Function to occur. When a trip system can be placed in the tripped condition without causing the Trip Function to occur, place the trip system with the most inoperable channels in the tripped condition; if both systems have the same number of inoperable channels, place either trip system in the tripped condition.

TABLE 3.3.3-1 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

ACTION

ACTION 38 - With the number of OPERABLE channels less than the Total Number of Channels, declare the associated emergency diesel generator inoperable and take the ACTION required by Specifications 3.8.1.1 or 3.8.1.2, as appropriate.

ACTION 39 - With the number of OPERABLE channels one less than the Total Number of Channels, place the inoperable channel in the tripped condition within 1 hour*; operation may then continue until performance of the next required CHANNEL FUNCTIONAL TEST.

ACTION 40 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, verify within one hour that a sufficient number of channels remain OPERABLE or are in the tripped condition to maintain automatic actuation capability of either Division I or Division II ECCS, and restore the inoperable channel(s) to OPERABLE status within 7 days. Otherwise, declare the associated system(s) inoperable.

ACTION 41 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, restore the inoperable channel(s) to OPERABLE status within 7 days. Otherwise, declare the HPCS system inoperable.

*The provisions of Specification 3.0.4 are not applicable.

3/4.3.6 CONTROL ROD BLOCK INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.6 The control rod block instrumentation channels shown in Table 3.3.6-1 shall be OPERABLE, with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.6-2.

APPLICABILITY: As shown in Table 3.3.6-1.

ACTION:

a. With a control rod block instrumentation channel trip setpoint less conservative than the value shown in the Allowable Value column of Table 3.3.6-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.

b. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, take the ACTION required by Table 3.3.6-1.

SURVEILLANCE REQUIREMENTS

4.3.6.1 Each of the above required control rod block trip systems and instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.6-1.

4.3.6.2 The provisions of Specification 4.0.4 are not applicable to the Intermediate Range Monitor and Source Range Monitor Surveillance Requirements for entry into OPERATIONAL CONDITION 2 and 2#, respectively, from OPERATIONAL CONDITION 1, provided the surveillances are performed within 12 hours after entering OPERATIONAL CONDITION 2 and 2#, respectively.

#With IRMs on range 2 or below.

TABLE 3.3.6-1

CONTROL ROD BLOCK INSTRUMENTATION

TRIP FUNCTION	MINIMUM OPERABLE CHANNELS PER TRIP FUNCTION(e)	APPLICABLE OPERATIONAL CONDITIONS	ACTION
1. ROD PATTERN CONTROL SYSTEM			
a. Low Power Setpoint	2	1, 2	60
b. RWL High Power Setpoint	2	1	60
2. APRM			
a. Flow Biased Neutron Flux - Upscale	3	1	61
b. Inoperative	3	1, 2, 5	61
c. Downscale	3	1	61
d. Neutron Flux - Upscale, Startup	3	2, 5	61
3. SOURCE RANGE MONITORS			
a. Detector not full in(a)	3	2#	61
	2**	5	62
b. Upscale(b)	3	2#	61
	2**	5	62
c. Inoperative(b)	3	2#	61
	2**	5	62
d. Downscale(c)	3	2#	61
	2**	5	62
4. INTERMEDIATE RANGE MONITORS			
a. Detector not full in	6	2, 5	61
b. Upscale	6	2, 5	61
c. Inoperative	6	2, 5	61
d. Downscale(d)	6	2, 5	61
5. SCRAM DISCHARGE VOLUME			
a. Water Level-High	2	1, 2, 5*	64
6. REACTOR COOLANT SYSTEM RECIRCULATION FLOW			
a. Upscale	3	1	64
7. REACTOR MODE SWITCH			
a. Shutdown Mode	2	3, 4	63
b. Refuel Mode	2	5	63

CONTROL ROD BLOCK INSTRUMENTATION

TABLE NOTATIONS

* With more than one control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

** OPERABLE channels must be associated with SRMs required OPERABLE per Specification 3.9.2.

\# With IRMs on range 2 or below.

(a) This function shall be automatically bypassed if detector count rate is > 100 cps or the IRM channels are on range 3 or higher.

(b) This function shall be automatically bypassed when the associated IRM channels are on range 8 or higher.

(c) This function shall be automatically bypassed when the IRM channels are on range 3 or higher.

(d) This function shall be automatically bypassed when the IRM channels are on range 1.

(e) A channel may be placed in an inoperable status for up to 6 hours for required surveillance provided at least one other OPERABLE channel in the same trip function is monitoring that parameter.

ACTION

ACTION 60 - Declare the RPCS inoperable and take the ACTION required by Specification 3.1.4.2.

ACTION 61 - With the number of OPERABLE Channels:

a. One less than required by the Minimum OPERABLE Channels per Trip Function requirement, restore the inoperable channel to OPERABLE status within 7 days or place the inoperable channel in the tripped condition within the next hour.

b. Two or more less than required by the Minimum OPERABLE Channels per Trip Function requirement, place at least one inoperable channel in the tripped condition within 1 hour.

ACTION 62 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, place the inoperable channel in the tripped condition within 1 hour.

ACTION 63 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, initiate a rod block.

ACTION 64 - With the number of OPERABLE Channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, verify within one hour that a sufficient number of channels remain OPERABLE to initiate a rod block by the associated Trip Function, and place at least one inoperable channel in the tripped condition within 24 hours. Otherwise, initiate a rod block.

TABLE 3.3.6-2
CONTROL ROD BLOCK INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
1. ROD PATTERN CONTROL SYSTEM		
a. Low Power Setpoint	138.0 ± 2.3 psig*	≥ 115.0 psig, ≤ 175.0 psig*
b. RWL High Power Setpoint	≤ 361.6 psig*	≤ 400 psig*
2. APRM		
a. Flow Biased Neutron Flux - Upscale		
1) During two recirculation loop operation:		
a) Flow Biased	≤ 0.66W + 58%** with a maximum of	≤ 0.66W + 61%** with a maximum of
b) High Flow Clamped	≤ 108.0% of RATED THERMAL POWER	≤ 110.0% of RATED THERMAL POWER
2) During single recirculation loop operation:		
a) Flow Biased	≤ 0.66(W-ΔW) + 42%**	≤ 0.66(W-ΔW) + 45%**
b) High Flow Clamped	Not required OPERABLE	Not required OPERABLE
b. Inoperative	NA	NA
c. Downscale	≥ 5% of RATED THERMAL POWER	≥ 3% of RATED THERMAL POWER
d. Neutron Flux - Upscale Startup	≤ 12% of RATED THERMAL POWER	≤ 14% of RATED THERMAL POWER
3. SOURCE RANGE MONITORS		
a. Detector not full in	NA	NA
b. Upscale	≤ 1×10^5 cps	≤ 1.6×10^5 cps
c. Inoperative	NA	NA
d. Downscale	≥ 3 cps	≥ 1.8 cps
4. INTERMEDIATE RANGE MONITORS		
a. Detector not full in	NA	NA
b. Upscale	≤ 108/125 division of full scale	≤ 110/125 division of full scale
c. Inoperative	NA	NA
d. Downscale	≥ 5/125 division of full scale	≥ 3/125 division of full scale

TABLE 3.3.6-2 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION SETPOINTS

TABLE NOTATIONS

* These are turbine first stage pressure valves.

** The Average Power Range Monitor rod block function is varied as a function of recirculation loop flow (W). The trip setting of this function must be maintained in accordance with note (a) of Table 2.2.1-1.

\# Instrument zero is 758' 5" msl.

\#\# Instrument zero is 758' 4 1/2" msl.

TABLE 4.3.6-1

CONTROL ROD BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TRIP FUNCTION	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION[a]	OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED
1. ROD PATTERN CONTROL SYSTEM				
a. Low Power Setpoint	NA	S/U[b], Q	R[f]	1, 2
b. RWL High Power Setpoint	NA	S/U[b], Q	R[f]	1
2. APRM				
a. Flow Biased Neutron Flux - Upscale	NA	S/U[b],Q	SA	1
b. Inoperative	NA	S/U[b],Q	NA	1, 2, 5
c. Downscale	NA	S/U[b],Q	SA	1
d. Neutron Flux - Upscale, Startup	NA	S/U[b],Q	SA	2, 5
3. SOURCE RANGE MONITORS				
a. Detector not full in	NA	W	NA	2**, 5
b. Upscale	NA	W	R	2**, 5
c. Inoperative	NA	W	NA	2**, 5
d. Downscale	NA	W	R	2**, 5
4. INTERMEDIATE RANGE MONITORS				
a. Detector not full in	NA	W	NA	2, 5
b. Upscale	NA	W	R	2, 5
c. Inoperative	NA	W	NA	2, 5
d. Downscale	NA	W	R	2, 5
5. SCRAM DISCHARGE VOLUME				
a. Water Level-High	S	Q	R[f]	1, 2, 5*
6. REACTOR COOLANT SYSTEM RECIRCULATION FLOW				
a. Upscale	NA	S/U[b],Q	SA	1
7. REACTOR MODE SWITCH				
a. Shutdown Mode	NA	R	NA	3, 4
b. Refuel Mode	NA	R	NA	5

TABLE 4.3.6-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TABLE NOTATIONS

(a) Neutron detectors may be excluded from CHANNEL CALIBRATION.

(b) Within 7 days prior to startup.

(c) Deleted

(d) Deleted

(e) Deleted

(f) Calibrate the analog trip module at least once per 92 days.

* With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

** With IRMs on range 2 or below.

INSTRUMENTATION

3/4.3.7 MONITORING INSTRUMENTATION

RADIATION MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.7.1 The radiation monitoring instrumentation channels shown in Table 3.3.7.1-1 shall be OPERABLE, with their alarm/trip setpoints within the specified limits.

APPLICABILITY: **As shown in Table 3.3.7.1-1.**

ACTION:

a. **With a radiation monitoring instrumentation channel alarm/trip setpoint exceeding the value shown in Table 3.3.7.1-1, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable.**

b. With one or more radiation monitoring channels inoperable, take the ACTION required by Table 3.3.7.1-1.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.1 Each of the above required radiation monitoring instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the conditions and at the frequencies shown in Table 4.3.7.1-1.

TABLE 4.3.7.5-1

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	APPLICABLE OPERATIONAL CONDITIONS
1. Reactor Vessel Pressure	M	R	1, 2, 3
2. Reactor Vessel Water Level	M	R	1, 2, 3
3. Suppression Pool Water Level	M	R	1, 2, 3
4. Suppression Pool Water Temperature	M	R	1, 2, 3
5. Drywell Pressure	M	R	1, 2, 3
6. Drywell Air Temperature	M	R	1, 2, 3
7. Drywell/Containment Hydrogen and Oxygen Concentration Analyzer and Monitor	M*	Q*	1, 2, 3
8. Containment Pressure	M	R	1, 2, 3
9. Containment Temperature	M	R	1, 2, 3
10. Safety/Relief Valve Acoustic Monitor	NA	R	1, 2, 3
11. Containment/Drywell High Range Gross Gamma Radiation Monitors	M	R**	1, 2, 3
12. HVAC Stack High Range Radioactivity Monitor#	M	R##	1, 2, 3
13. SGTS Exhaust High Range Radioactivity Monitor#	M	R##	1, 2, 3
14. Primary Containment Isolation Valve Position Indication	M	R†	1, 2, 3

*Accomplished automatically using an integral sample gas supply containing 3.2 vol.% hydrogen, 21 vol.% oxygen, 0.9 vol.% argon and 74.9 vol.% nitrogen.

**The CHANNEL CALIBRATION shall consist of an electronic calibration of the channel, not including the detector, for range decades above 10 R/hr and a one point calibration check of the detector below 10 R/hr with an installed or portable gamma source.

#High range noble gas monitor, and iodine/particulate sampler.

##Channel calibration is not required to be performed on iodine/particulate sampler.

†The CHANNEL CALIBRATION should demonstrate that valve operation is accurately indicated.

INSTRUMENTATION

SOURCE RANGE MONITORS

LIMITING CONDITION FOR OPERATION

3.3.7.6 At least the following source range monitor channels shall be OPERABLE:

a. In OPERATIONAL CONDITION 2*, three.
b. In OPERATIONAL CONDITIONS 3 and 4, two.

APPLICABILITY: OPERATIONAL CONDITIONS 2*, 3 and 4.

ACTION:

a. In OPERATIONAL CONDITION 2* with one of the above required source range monitor channels inoperable, restore at least three source range monitor channels to OPERABLE status within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours.

b. In OPERATIONAL CONDITION 3 or 4 with one or more of the above required source range monitor channels inoperable, verify all insertable control rods to be fully inserted in the core and lock the reactor mode switch in the Shutdown position within 1 hour.

SURVEILLANCE REQUIREMENTS

4.3.7.6 Each of the above required source range monitor channels shall be demonstrated OPERABLE by:

a. Performance of a:

1. CHANNEL CHECK at least once per:

a) 12 hours in OPERATIONAL CONDITION 2* and
b) 24 hours in OPERATIONAL CONDITION 3 or 4.

2. CHANNEL CALIBRATION** at least once per 18 months.

The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 2* or 3 from OPERATIONAL CONDITION 1, provided the surveillance is performed within 12 hours after entering OPERATIONAL CONDITION 2* or 3.

*With IRMs on range 2 or below.

**Neutron detectors may be excluded from CHANNEL CALIBRATION.

LIMITING CONDITION FOR OPERATION (Continued)

b. Performance of a CHANNEL FUNCTIONAL TEST:

1. Within 7 days prior to moving the reactor mode switch from the Shutdown position, and

2. At least once per 31 days.

The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 2* or 3 from OPERATIONAL CONDITION 1, provided the surveillance is performed within 12 hours after entering OPERATIONAL CONDITION 2* or 3.

c. Verifying, prior to withdrawal of control rods, that the SRM count rate is at least 3 cps** with the detector fully inserted.

*With IRMs on range 2 or below.

**For the initial core loading, the count rate may be reduced to 0.7 cps provided signal to noise ratio is ≥20.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 79 TO FACILITY OPERATING LICENSE NO. NPF-62

ILLINOIS POWER COMPANY

SOYLAND POWER COOPERATIVE, INC.

CLINTON POWER STATION, UNIT NO. 1

DOCKET NO. 50-461

1.0 INTRODUCTION

Pursuant to 10 CFR 50.90, the Illinois Power Company (IP, the licensee) operator of the Clinton Power Station (CPS), submitted proposals to amend the CPS Technical Specifications (TS) to eliminate confusing and contradictory statements, to allow adequate time to perform required surveillances without resulting in a violation of TS 4.0.4, to clarify startup surveillance requirements, and to establish plant conditions to perform surveillances associated with change of plant operational conditions.

By letter dated October 30, 1987, IP proposed changes to the channel functional test requirements for the high and low power setpoints associated with the Rod Pattern Control System (RPCS) of TS Table 4.3.6-1. The proposed changes would delete notes "(c)," "(d)," "D," and "(e)" from the Channel Functional Test column of TS Table 4.3.6-1.

By letter dated August 31, 1990, IP proposed changes to the following TS:

- Neutron monitoring functions of the Reactor Protection System Instrumentation, TS 4.3.1.4 and TS Table 4.3.1.1-1.
- Control Rod Block Instrumentation, TS 4.3.6.1, 4.3.6.2, Table 3.3.6-1, and Table 4.3.6-1.
- Source Range Monitors TS 4.3.7.6.

By letter dated August 16, 1991, IP proposed changes to the Control Rod Block Instrumentation power setpoints in TS Table 3.3.6-2.

IP supplemented the proposed changes described above in letters dated December 20, 1990, and October 17, 1991. These supplements consisted of revisions/clarifications which did not change the staff's initial proposed no significant hazards consideration determination.

2.0 EVALUATION

2.1 Exceptions to TS 4.0.4 During Plant Shutdown

The largest number of the proposed changes relates to exceptions to TS 4.0.4 during plant shutdown. TS 4.0.4 states, "Entry into an OPERATIONAL CONDITION or other specified applicable condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the applicable surveillance interval or as otherwise specified." Furthermore, TS 4.0.3 states, "Failure to perform a Surveillance Requirement within the specified time interval shall constitute a failure to meet the OPERABILITY requirements for a Limiting Condition for Operation. Exceptions to these requirements are stated in the individual Specifications. Surveillance requirements do not have to be performed on inoperable equipment."

In several cases, during plant shutdown, it is not desirable to implement surveillance tests prior to entering the lower operational condition. The following proposals relate to exceptions to TS 4.0.4 during plant shutdown:

A. Addition of TS 4.3.1.4 to the surveillance requirement for the reactor protection system instrumentation. Technical Specification 4.3.1.4 states, "The provisions of Specification 4.0.4. are not applicable to the Intermediate Range Monitor Surveillance Requirements for entry into OPERATIONAL CONDITION 2 or 3 from Operational Condition 1, provided the surveillances are performed within 12 hours after entering OPERATIONAL CONDITION 2 or 3."

B. Addition of TS 4.3.6.2 to the surveillance requirement for the control rod block instrumentation. TS 4.3.6.2 states, "The provisions of Specification 4.0.4 are not applicable to the Intermediate Range Monitor and Source Range Monitor Surveillance Requirements for entry into OPERATIONAL CONDITION 2 and 2#, respectively, from OPERATIONAL CONDITION 1, provided the surveillances are performed within 12 hours after entering OPERATIONAL CONDITION 2 and 2#, respectively."

C. Addition of the following insert to TS 4.3.7.6.a for source range monitor (SRM) channel checks and calibrations, and to TS 4.3.7.6.b for SRM channel functional tests:

> "The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 2* or 3 from OPERATIONAL CONDITION 1, provided the surveillance is performed within 12 hours after entering OPERATIONAL CONDITION 2* or 3."

The licensee provided extensive justifications for the proposed changes. The justifications are as follows:

(1) The Intermediate Range Monitor (IRM) and SRM are not required in Operational Condition 1 and their trip functions are bypassed with the reactor mode switch in the run position to prolong their life. Because of these limitations, the IRM and SRM surveillances can not be maintained current during extended operation in Operational Condition 1.

(2) Under the current requirements, during plant shutdown operation after extended operation in Mode 1, all IRM and SRM channels would have to be declared inoperable upon entry into the applicable lower operational conditions, and appropriate Action Statements would have to be entered.

(3) The proposed exceptions to TS 4.0.4 would apply only for the initial part of the plant shutdown operation from extended operation in Operational Condition 1. During this period, the average power range monitors (APRM) would be operable and would provide scram protection which would be provided by the IRM after the initial operation in Operational Condition 2.

(4) During Operational Condition 3, the control rods would be fully inserted and the reactor mode switch shutdown mode function would provide control rod block to prevent control rod withdrawal.

The proposed exceptions are consistent with those suggested by the NRC Generic Letter (GL) 87-09. Generic Letter 87-09 recognized that exceptions to TS 4.0.4 would be appropriate and recommended an exception to TS 4.0.3 to allow up to 24 hours to complete the surveillance requirements before implementing the Action Statements.

By letters dated March 20, 1992, and August 10, 1992, NRC approved similar changes for the Perry Nuclear Power Plant, Unit 1, and Grand Gulf Nuclear Station, Unit 1, respectively. These changes also comply with the current version of STS for BWR/6 plants.

2.2 Exceptions to TS 4.0.4 During Plant Startup

By letter dated August 31, 1990, IP proposed addition of a new footnote (*) to note (d) of TS Table 4.3.1.1-1. Note (d) applies to channel calibration required for the APRM flow-biased simulated thermal power-high and neutron flux-high reactor protection system (RPS) functions during plant startups. Note (d) states, "This calibration shall consist of the adjustment of the APRM channel to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER $\geq$ 25% of RATED THERMAL POWER*. Adjust the APRM channel if the absolute difference is greater than 2% of RATED THERMAL POWER."

The new footnote(*) refers to "RATED THERMAL POWER" of note (d) and states, "*The provisions of Specification 4.0.4 are not applicable, provided the surveillance is performed within 12 hours after exceeding 25% of RATED THERMAL POWER."

This note clarifies the intent of the current surveillance by providing addition of a time limit on the performance of the surveillance. This change is consistent with the current STS for BWR/6 and GL 87-09. NRC has approved similar changes for Perry 1 and Grand Gulf 1.

2.3 Clarification of Startup Surveillance Requirements

By letter dated October 30, 1987, IP proposed a revision to note (b) of TS Table 4.3.6-1 for the control block instrumentation surveillance requirements. The modification clarified the time period specified for channel functional test requirements for the low and high power setpoints associated with the rod pattern control system. The current note states that the channel functional tests shall be performed, "Within 24 hours prior to startup, if not performed within the previous 7 days." The proposed note states, "Within 7 days prior to startup."

By letter dated October 17, 1991, IP proposed a revision to note (c) of TS Table 4.3.1.1-1, for IRM and APRM channel functional test requirements for RPS identical to the revision of note (b).

By letter dated August 31, 1990, IP also proposed to modify TS 4.3.7.6.b.1 for surveillance requirements for SRMs. The current TS 4.3.7.6.b.1 states SRM channel functional tests should be performed, "Within 24 hours prior to moving the reactor mode switch from the Shutdown position if not performed within the previous 7 days." The new statement reads, "Within 7 days prior to moving the reactor mode switch from the Shutdown position."

By letter dated August 31, 1990, IP proposed to delete "S/U$^{(b)}$" from SRM and IRM channel functional tests in TS Table 4.3.6-1 for control rod block instrumentation surveillance requirements. Furthermore, in their letter of August 31, 1990, IP proposed deletion of note "S/U$^{(c)}$" from channel functional test of IRMs Neutron Flux-High and APRM Neutron Flux-High, Setdown. These correspond to Items 1.a and 2.a of TS Table 4.3.1.1-1. With the deletion of "S/U$^{(b)}$" and "S/U$^{(c)}$" for SRM and IRM channel functional tests, these channels would be subjected to weekly tests specified in the current TS Table 4.3.6-1 and Table 4.3.1.1-1.

The proposed notes would provide reactor operational flexibility and at the same time ensure that the instrumentation is operable for its intended function within the time period specified in the current notes. Furthermore, the proposed notes agree with the current note (b) of TS Table 4.3.6-1 of Perry 1 and Grand Gulf 1 and the current STS for BWR/6.

2.4 Deletion of Notes (c), (d), (e) and D From TS Table 4.3.6-1

By letter dated October 30, 1987, IP proposed deletion of notes (c), (d), (e), and D from TS Table 4.3.6-1 for the channel functional test requirements for the Low and High Power Setpoint associated with the RPCS.

Note (c) is associated with the daily (D) surveillance requirements in the channel functional test column. Note (c) states, "Within one hour prior to control rod movement, unless performed within the previous 24 hours, and as each power range above the RPCS low power setpoint is entered for the first time during any 24 hour period during power increase or decrease." The rod pattern controller would be adequately tested in accordance with TS 4.1.4.2. This deletion of D and (c) is consistent with the current TS for Perry 1 and Grand Gulf 1 and the current STS for BWR/6.

Note (d) is associated with the monthly (M) surveillance requirements in the channel functional test column. Note (d) states, "At least once per 31 days while operation continues within a given power range above the RPCS low power setpoint." Deletion of note (d) from M would simplify the requirement and is consistent with the current TS for Perry 1 and Grand Gulf 1 and the current STS for BWR/6.

Note (e) is associated with both the startup (S/U) and monthly (M) surveillance requirements in the channel functional test column. Note (e) states, "Includes reactor manual control multiplexing system input." The licensee claims that this note is a carry over from earlier versions of the BWR STS and refers to reactor manual control. The RCIS/RPCS for CPS automatically performs testing that satisfies the intent of note (e). Also TS 4.1.4.2 satisfies the intent of note (e). NRC has approved deletion of similar note from TS 4.3.6-1 for Perry 1 and Grand Gulf 1. This amendment also agrees with the current STS for BWR/6.

2.5 Deletion of APRM Neutron Flux-High RPS Setpoint Verification

By letter dated August 31, 1990, IP proposed deletion of note (e) for channel calibration associated with the weekly (W) surveillance requirement of the RPS APRM Neutron Flux-High setpoints from TS Table 4.3.1.1-1. With this change the setpoint verification for the APRM flow-biased simulated thermal power-high function would be retained and the setpoint of the APRM Neutron Flux-High would be verified during semi-annual (S/A) channel calibration. The APRM Neutron Flux-High trip setpoint does not drift appreciably and does not require frequent verification. This change is consistent with the current TS for Perry 1 and Grand Gulf 1 and the current STS for BWR/6.

2.6 Revision of SRM Control Block Applicability

By letter dated August 31, 1990, IP proposes to add a new note (note "#") to be associated with applicable Operational Condition 2 for the SRM functions in TS Table 3.3.6-1 for control rod block instrumentation. This note states, "With IRMs on range 2 or below." IP also proposes to add note (**) with identical wording for TS 4.3.6-1, Control Rod Block Instrumentation Surveillance Requirements. By letter dated December 20, 1990, IP proposed addition of footnote #, "With IRMs on range 2 or below" to TS 4.3.6.2. These modifications will make operability requirements for the SRM consistent with TS 3.3.7.6. In addition, the proposed changes provide additional time for SRM

surveillance which cannot be performed in operational Condition 1. This amendment is consistent with the current TS Table 3.3.6-1 and 4.3.6-1 for Perry 1 and Grand Gulf 1 and the current STS for BWR/6.

2.7 Revision of IRM and SRM Control Rod Block Channel Calibration Frequency

By letter dated August 31, 1990, IP proposed to increase the channel calibration for the SRM and IRM control rod block functions specified in TS Table 4.3.6-1 from semiannual to at least once per 18 months (R) in line with TS 3/4.3.1 for RPS and TS 3/4.3.7.6 for SRM instrumentation. This amendment is consistent with the current TS Table 4.3.6-1 for Perry 1 and the current STS for BWR/6.

2.8 Trip Setpoints for Rod Pattern Control System (RPCS)

By letter dated August 16, 1991, IP proposed to specify the Trip Setpoints and Allowable Values associated with the RPCS in TS Table 3.3.6-2, Trip Function 1.a and 1.b and revision of note (*) to incorporate this change. The current note (*) specifies that these setpoints are to be determined during startup test program.

During the first and the second refueling outages the licensee conducted the necessary tests and performed the related calculations to determine the Low Power Setpoint and the Rod Withdrawal Limiter (RWL) High Power Setpoint for the RPCS. Based on their findings the licensee proposed the following setpoints.

	Trip Setpoint	Allowable Value
a. Low Power Setpoint	138.0 ± 2.3 psig*	≥115.0 psig, ≤175.0 psig*
b. RWL High Power Setpoint	≤361.6 psig*	≤400 psig*

*These are turbine first stage pressure values.

The low limit of the RPCS low setpoint (LPSP) has been based on turbine first stage steam pressure at 20 percent of the reactor rated thermal power. The licensee evaluated that below this power level a limiting control rod drop accident can not occur. The upper allowable value of the LPSP has been based on turbine first stage pressure at 35 percent of the reactor rated thermal power. The upper allowable value of the RWL high power setpoint has been based on turbine first stage pressure at 70 percent of the reactor rated thermal power. The proposed changes are consistent with the control rod drop accident analysis and rod withdrawal analysis of the CPS Updated Safety Analysis Report.

2.9 Editorial Change

Current TS 4.3.7.6.a.1 reads as follows:

a) 12 hours in CONDITION 2* and
b) 24 hours in CONDITION 3 or 4.

In their letter of August 31, 1990, the licensee proposed to insert the word "OPERATIONAL" in front of the word "CONDITION." This change is consistent with Definition 1.28 of CPS Technical Specifications.

2.10 Summary

Based on the above evaluation, we conclude that the proposed changes are acceptable because they eliminate confusing and contradictory statements, are consistent with the latest version of Standard Technical Specifications for General Electric BWR/6 Plants, and are similar to recently approved changes for the Perry Nuclear Power Plant, Unit 1, and Grand Gulf Nuclear Station, Unit 1.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32 and 51.35, an environmental assessment and finding of no significant impact pertaining to the October 30, 1987, submittal, has been prepared and published in the Federal Register on July 1, 1993 (58 FR 35475). Accordingly, based upon the environmental assessment, the Commission has determined that the issuance of the amendment, as proposed in the October 30, 1987, submittal, will not have a significant effect on the quality of the human environment.

The amendment, as proposed in the August 31, 1990, and August 16, 1991, submittals, changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment, as proposed in the August 31, 1990, and August 16, 1991, submittals, involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment, as proposed in the August 31, 1990, and August 16, 1991, submittals, involves no significant hazards consideration and there has been no public comment on such finding (55 FR 40469 and 56 FR 64654). Accordingly, the amendment, as proposed in the August 31, 1990, and

August 16, 1991, submittals, meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: S. Mazumdar, HICB

Date: July 15, 1993