

August 23, 1990

Docket No. 50-461

Mr. Frank A. Spangenberg
Licensing and Safety
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Dear Mr. Spangenberg:

SUBJECT: ISSUANCE OF AMENDMENT NO. 44 TO FACILITY OPERATING LICENSE NO.
NPF-62 (TAC NO. 73802)

The Commission has issued the enclosed Amendment No. 44 to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit No. 1. This amendment is in response to your application dated February 5, 1988.

This amendment revises the applicable operational conditions for the containment building fuel transfer pool ventilation plenum radiation monitor.

A copy of the Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

Original signed by John N. Hannon for

John B. Hickman, Project Manager
Project Directorate III-3
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 44 to License No. NPF-62
2. Safety Evaluation

cc w/enclosures:
See next page

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

ILLINOIS POWER COMPANY, ET AL.

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 44
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 February 5, 1988 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.

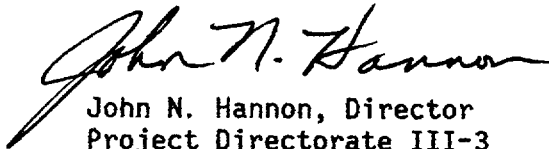
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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No.44 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION



John N. Hannon, Director
Project Directorate III-3
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 23, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 44

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 are provided to maintain document completeness.

Remove

3/4 3-13

3/4 3-18

3/4 3-27

3/4 3-32

Insert

3/4 3-13

3/4 3-18

3/4 3-27

3/4 3-32

TABLE 3.3.2-1
CRVICS INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>ISOLATION SIGNAL ††</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
1. <u>PRIMARY AND SECONDARY CONTAINMENT ISOLATION</u>				
a. Reactor Vessel Water Level-Low Low, Level 2	B ^{(b)(f)}	2 ^(a)	1, 2, 3 #	20 25
b. Reactor Vessel Water Level-Low Low, Level 2 (ECCS Div. I and II)	B	2 ^(a)	1, 2, 3	29
c. Reactor Vessel Water Level-Low Low, Level 2 (ECCS Div. III)	B	2 ^(a)	1, 2, 3	29
d. Drywell Pressure - High	L ^{(b)(f)}	2 ^(a)	1, 2, 3	20
e. Drywell Pressure - High (ECCS Div. I and II)	L	2 ^(a)	1, 2, 3	29
f. Drywell Pressure - High (ECCS Div. III)	L	2 ^(a)	1, 2, 3	29
g. Containment Building Fuel Transfer Pool Ventilation Plenum Radiation - High	Z ^{(b)(f)}	2 ^(a)	##	25
h. Containment Building Exhaust Radiation - High				
1) Containment Bldg. HVAC (VR) and Drywell Purge (VQ)	M ^{(b)(f)}	2 ^(a)	1, 2, 3 #	29 25
2) Containment Monitoring (CM) and Process Sampling (PS)	M	1 ^(k)	1, 2, 3 #	29 25
i. Containment Building Continuous Containment Purge (CCP) Exhaust Radiation - High	5 ^{(b)(f)}	2 ^(a)	1, 2, 3 #	29 25
j. Reactor Vessel Water Level-Low Low Low, Level 1	U	2 ^(k)	1, 2, 3 #	29 25
k. Containment Pressure-High	P	1 ^{(k)(1)}	1, 2, 3 #	29 25

TABLE 3.3.2-1 (Continued)

CRVICS INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>ISOLATION SIGNAL ††</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
l. Main Steam Line Radiation - High	C	2 ^(a)	1, 2, 3	23
m. Fuel Building Exhaust Radiation - High	(b)(f)(j)	2 ^(a)	1, 2, 3 #	25 25
n. Manual Initiation	R(b)(f)	1	1, 2, 3 #	26 25
2. <u>MAIN STEAM LINE ISOLATION †</u>	<u>ISOLATION SIGNAL</u>	<u>APPLICABLE TABLE NOTES</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>ACTION</u>
a. Reactor Vessel Water Level-Low Low Low, Level 1	U	NA	1, 2, 3	20
b. Main Steam Line Radiation - High	C	d	1, 2, 3	23
c. Main Steam Line Pressure - Low	H	NA	1	23
d. Main Steam Line Flow - High	D	NA	1, 2, 3	23
e. Condenser Vacuum - Low	J	NA	1, 2**, 3**	23
f. Main Steam Line Tunnel Temp. - High	E	NA	1, 2, 3	23
g. Main Steam Line Tunnel Δ Temp. - High	F	NA	1, 2, 3	23
h. Main Steam Line Turbine Bldg. Temp. - High	G	P	1, 2, 3	23
i. Manual Initiation	R	NA	1, 2, 3	22

TABLE 3.3.2-1 (Continued)
CRVICS INSTRUMENTATION

TABLE NOTATIONS

- # When handling irradiated fuel in the primary or secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.
- ## When handling irradiated fuel in the primary containment (building) and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.
- * With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- ** When any turbine stop valve is greater than 95% open or the reactor mode switch is in the run position.
- † Main steam line isolation trip functions have 2-out-of-4 isolation logic except for the main steam line flow - high trip function which has 2-out-of-4 isolation logic for each main steam line.
- †† See Specification 3.6.4 Table 3.6.4-1 for valves which are actuated by these isolation signals.
- (a) A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter.
- (b) Also actuates the standby gas treatment system.
- (c) Deleted
- (d) Also trips and isolates the mechanical vacuum pumps.
- (e) Isolates RWCU valves 1G33-F001 and 1G33-F004 only.
- (f) Also actuates secondary containment ventilation isolation dampers per Table 3.6.6.2-1.
- (g) Manual Switch closes RWCU system inboard isolation valves F001, F028, F053, F040 and outboard isolation valves F004, F039, F034 and F054.
- (h) Vacuum breaker isolation valves require RCIC system steam supply pressure low coincident with drywell pressure high for isolation of vacuum breaker isolation valves.
- (i) A single manual isolation switch isolates outboard steam supply line isolation valve (F064) and the RCIC pump suction from suppression pool valve (F031) only following a manual or automatic (Reactor Vessel Water Level 2) RCIC system initiation.
- (j) Only actuates secondary containment ventilation isolation dampers per Table 3.6.6.2-1. Note †† is not applicable to this Trip Function.
- (k) A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the trip system in the trip condition provided that the redundant trip system is OPERABLE and monitoring that parameter.
- (l) Not required to be OPERABLE when valves 1VR002A,B and 1VQ006A,B are sealed closed in accordance with Specification 3.6.4.
- (p) Each channel consists of five temperature modules and their associated sensors. A channel is OPERABLE if and only if five temperature modules and their associated sensors are OPERABLE.

TABLE 3.3.2-1 (Continued)

CRVICS INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>ISOLATION SIGNAL ††</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
5. <u>RHR SYSTEM ISOLATION</u>				
a. RHR Heat Exchanger A, B Ambient Temperature - High	T	1/room ^(k)	1, 2, 3	28
b. RHR Heat Exchanger A, B ΔTemp. - High	S	1/room ^(k)	1, 2, 3	28
c. Reactor Vessel Water Level - Low, Level 3	A	2 ^(a)	1, 2, 3	28
d. Reactor Vessel Water Level - Low Low Low, Level 1	U	2 ^(k)	1, 2, 3	28
e. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	X	2 ^(a)	1, 2, 3	28
f. Drywell Pressure - High				
1) RHR Test Lines	L	2 ^(k)	1, 2, 3	28
2) Fuel Pool Cooling	L	2 ^(a)	1, 2, 3	28
g. Manual Initiation	R	1	1, 2, 3	26

TABLE 4.3.2.1-1

CRVICS INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. <u>PRIMARY AND SECONDARY CONTAINMENT ISOLATION</u>				
a. Reactor Vessel Water Level - Low Low, Level 2	S	M	R ^(b)	1, 2, 3, #
b. Reactor Vessel Water Level - Low Low, Level 2 (ECCS Div. I and II)	S	M	R ^(b)	1, 2, 3
c. Reactor Vessel Water Level - Low Low, Level 2 (ECCS Div. III)	S	M	R ^(b)	1, 2, 3
d. Drywell Pressure - High	S	M	R ^(b)	1, 2, 3
e. Drywell Pressure - High (ECCS Div. I and II)	S	M	R ^(b)	1, 2, 3
f. Drywell Pressure - High (ECCS Div. III)	S	M	R ^(b)	1, 2, 3
g. Containment Building Fuel Transfer Pool Ventilation Plenum Radiation - High	S	M	R	##
h. Containment Building Exhaust Radiation - High				
1) Containment Building HVAC (VR) and Drywell Purge (VQ)	S	M	R	1, 2, 3, #
2) Containment Monitoring (CM) and Process Sampling (PS)	S	M	R	1, 2, 3, #
i. Containment Building Contin- uous Containment Purge (CCP) Exhaust Radiation - High	S	M	R	1, 2, 3, #

TABLE 4.3.2.1-1 (Continued)
CRVICS INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. <u>PRIMARY AND SECONDARY CONTAINMENT ISOLATION (Continued)</u>				
j. Reactor Vessel Water Level- Low Low Low, Level 1	S	M	R ^(b)	1, 2, 3, #
k. Containment Pressure - High	S	M	R	1, 2, 3, #
l. Main Steam Line Radiation - High	S	M	R	1, 2, 3
m. Fuel Building Exhaust Radiation - High	S	M	R	1, 2, 3, #
n. Manual Initiation	NA	R	NA	1, 2, 3, #
2. <u>MAIN STEAM LINE ISOLATION</u>				
a. Reactor Vessel Water Level - Low Low Low, Level 1	S	M	R ^(b)	1, 2, 3
b. Main Steam Line Radiation - High	S	M	R	1, 2, 3
c. Main Steam Line Pressure - Low	S	M	R ^(b)	1
d. Main Steam Line Flow - High	S	M	R ^(b)	1, 2, 3
e. Condenser Vacuum - Low	S	M	R ^(b)	1, 2**, 3**
f. Main Steam Line Tunnel Temp. - High	S	M	R	1, 2, 3
g. Main Steam Line Tunnel Δ Temp. - High	S	M	R	1, 2, 3
h. Main Steam Line Turbine Bldg. Temp. - High	S	M	R	1, 2, 3
i. Manual Initiation	NA	R	NA	1, 2, 3

TABLE 4.3.2.1-1 (Continued)
CRVICS INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
5. <u>RHR SYSTEM ISOLATION</u>				
a. RHR Heat Exchanger Rooms A, B Ambient Temp. - High	S	M	R	1, 2, 3
b. RHR Heat Exchanger Rooms A, B Δ Temp. - High	S	M	R	1, 2, 3
c. Reactor Vessel Water Level - Low, Level 3	S	M	R ^(b)	1, 2, 3
d. Reactor Vessel Water Level - Low Low Low, Level 1	S	M	R ^(b)	1, 2, 3
e. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	S	M	R ^(b)	1, 2, 3
f. Drywell Pressure - High				
1) RHR Test Line	S	M	R ^(b)	1, 2, 3
2) Fuel Pool Cooling	S	M	R ^(b)	1, 2, 3
g. Manual Initiation	NA	R	NA	1, 2, 3

TABLE 4.3.2.1-1 (Continued)

CRVICS INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TABLE NOTATIONS

- # When handling irradiated fuel in either the secondary or the primary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.
- ## When handling irradiated fuel in the primary containment (building) and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.
- * With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- ** When any turbine stop valve is greater than 95% open or the reactor mode switch is in the run position.
- (a) Each train or logic channel shall be tested at least every other 31 days.
- (b) Calibrate the analog trip modules at least once per 31 days.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 44 TO FACILITY OPERATING LICENSE NO. NPF-62
ILLINOIS POWER COMPANY, ET AL.
CLINTON POWER STATION, UNIT NO. 1
DOCKET NO. 50-461

1.0 INTRODUCTION

The proposed amendment would revise the operational conditions for the containment building fuel pool ventilation plenum radiation monitor. The current wording in Technical Specification 3.3.2 requires the containment building fuel transfer pool ventilation plenum radiation monitors (there are four monitors located radially around one location on the flow path) to be operable when handling irradiated fuel in the primary or secondary containment, during core alterations and operations with a potential for draining the reactor vessel, and during operational conditions 1, 2, and 3. The licensee has requested that the Technical Specification be changed to reflect the operational purpose of the monitor.

2.0 EVALUATION

The containment building fuel pool ventilation plenum radiation monitor (fuel pool plenum monitor) monitors an air flow that is drawn from just above and surrounding the perimeter of the upper refueling pool inside containment. This flow path is used only during operation of the containment vent system, not during operation of the containment continuous purge system. The containment vent system is a high volume (16,270 cfm) ventilation system intended for use primarily during modes 4 and 5 (cold shutdown and refueling). Use of the containment vent system is limited by technical specifications to 500 hours annually while in modes 1, 2, or 3. The containment continuous purge system provides 8,000 cfm of ventilation to the containment during modes 1, 2, and 3 (power operation, startup, and hot shutdown). Both of the containment ventilation systems have safety-grade radiation monitoring systems to provide containment isolation if required.

The licensee has proposed to modify the operability requirements for the fuel pool plenum monitor to delete the required operability when handling fuel in the secondary containment, and during modes 1, 2, and 3. The fuel pool plenum monitor is located in a flow path which cannot see flow from the secondary containment. Therefore, operability when handling fuel in the secondary containment is an unnecessary condition and the deletion is

acceptable. During modes 1, 2, and 3 the fuel pool plenum monitor will see flow during the limited operation of the containment vent system; however, the containment vent system already has a full flow monitor for containment isolation purposes. The containment continuous purge system, which is used primarily during modes 1, 2, and 3, has only one flow monitor for containment isolation purposes. There is no necessity for the vent system, which has more limited operation, to have two monitors in operation. Based on the above, the deletion of required operability during modes 1, 2, and 3 is acceptable. The licensee has also proposed to delete the Action required (Action 29) when the fuel pool plenum monitor is out of service in modes 1, 2, and 3. Action 29 requires that certain valves be closed or initiate a shutdown. The monitor is now required to be operable only when shutdown and not in modes 1, 2, and 3 so an Action for this condition is unnecessary and if the unit is already shutdown, the action is inappropriate. Therefore, the deletion is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or a change to a surveillance requirement. The staff has determined that the amendment 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment 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 this amendment.

4.0 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: John Hickman, NRR

Dated: August 23, 1990