September 8, 1993

Docket No. 50-461

Mr. Richared F. Phares
Director - Licensing
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Dear Mr. Phares:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NOS. M85815 AND M86270)

The U. S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 83 to Facility Operating License No. NPF-62 for the Clinton Power Station (CPS), Unit No. 1. The amendment is in response to your applications dated February 17 (U-602097) and April 16, 1993 (U-602116).

The amendment makes changes to the CPS Operating License and Technical Specification (TS) 3/4.6.1.2, "Primary Containment Leakage," and its associated Bases to reflect the partial exemptions to the requirements of 10 CFR Part 50, Appendix J, Sections III.D.1.(a), III.B.1.(b), III.B.3, and III.D.2 that were granted by the NRC on September 7, 1993. Additionally, CPS TS 3/4.6.1.2 is being revised to delete references to a previously approved and unrelated one-time exemption that is no longer applicable.

Requests for partial exemptions from the requirements of 10 CFR Part 50, Appendix J, Sections III.A.1.(a) and III.A.5.(b) have been deferred by the staff. The staff has deferred actions on these items pending resolution of current rule-making activities associated with Appendix J.

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:

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

101121

Enclosures:
1. Amendment No. 83 to NPF-62
2. Safety Evaluation

NRC FILE CENTER COPY

cc w/enclosures:
See next page

*See previous concurrence

OFC	LA:PDIII-2	PM:PDIII-2	BC:SCSB*	D:PDIII-2	OGC
NAME	CMOORE	DPICKETT	RBARRETT	JDYER (written for)	EHOLLER*
DATE	9/1/93	9/1/93	07/13/93	9/3/93	08/24/93

DF01

Mr. Richard F. Phares
Illinois Power Company

Clinton Power Station
Unit No. 1

cc:

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

ILLINOIS POWER COMPANY

SOYLAND POWER COOPERATIVE, INC.

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 83
License No. NPF-62

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

   A. The applications for amendment by Illinois Power Company[1] (IP) and Soyland Power Cooperative, Inc. (the licensees) dated February 17, 1993, and April 16, 1993, comply 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[2] 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:

1 Illinois Power Company is autnorized 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 Pages 5 and 6 are attached, for convenience, for the composite license to reflect this change.

(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. 83 , are hereby incorporated into this license. Illinois Power Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

D. The facility requires exemptions from certain requirements of 10 CFR Part 50 and 10 CFR Part 70. These include: (a) an exemption from the requirements of 10 CFR 70.24 for the criticality alarm monitors around the fuel storage area; (b) an exemption from the requirement of paragraph III.D.2(b)(ii) of Appendix J, substituting the seal leakage test at Pa of paragraph III.D.2(b)(iii) for the entire airlock test at Pa of paragraph III.D.2(b)(ii) of Appendix J when no maintenance has been performed in the airlock that could affect its sealing capability (Section 6.2.6 of SSER 6); (c) an exemption from the requirement of paragraph III.C.3 of Appendix J, exempting the measured leakage rates from the main steam isolation valves from inclusion in the combined leak rate for the local leak rate tests (Section 6.2.6 of SSER 6); (d) an exemption from the requirements of paragraph III.B.3 of Appendix J, exempting leakage from the valve packing and the body-to-bonnet seal of valve 1E51-F374 associated with containment penetration 1MC-44 from inclusion in the combined leakage rate for penetrations and valves subject to Type B and C tests; and (e) an exemption from the requirement of paragraph III.D.1.(a) to conduct the third Type A test of each 10-year service period when the plant is shut down for the 10-year plant inservice inspections. The special circumstances regarding each exemption, except for Items (a) and (d) above, are identified in the referenced section of the safety evaluation report and the supplements thereto.

An exemption was previously granted pursuant to 10 CFR 70.24. The exemption was granted with NRC materials license No. SNM-1886, issued November 27, 1985, and relieved IP from the requirement of having a criticality alarm system. IP is hereby exempted from the criticality alarm system provision of 10 CFR 70.24 so far as this section applies to the storage of fuel assemblies held under this license.

The special circumstances regarding the exemption identified in Item (d) above are identified in the safety evaluation accompanying Amendment No. 62 to this license. The special circumstances regarding the exemption identified in Item (e) above are identified in the safety evaluation accompanying Amendment No. 83 to this license.

These exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. The exemptions in items (b) and (c) above are granted pursuant to 10 CFR 50.12. With these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

3. This license amendment is effective as of its date of issuance, to be implemented during the fourth refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment:
1. License pages 5 and 6
2. Changes to the Technical Specifications

Date of Issuance: September 8, 1993

(8) Post-Fuel Loading Initial Test Program (Section 14, SER, SSER 5 and SSER 6)

Any changes to the initial test program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(9) Emergency Response Capabilities (Generic Letter 82-33, Supplement 1 to NUREG-0737, Section 7.5.3.1, SSER 5 and SSER 8, and Section 18, SER, SSER 5 and Safety Evaluation Dated April 17, 1987)

a. IP in accordance with the commitment contained in a letter dated December 11, 1986, shall install and have operational separate power sources for each of the fuel zone level channels as provided for in Regulatory Guide 1.97 prior to startup following the first refueling outage.

b. IP shall submit a detailed control room design final supplemental summary report within 90 days of issuance of the full power license that completes all the remaining items identified in Section 18.3 of the Safety Evaluation dated April 17, 1987.

D. The facility requires exemptions from certain requirements of 10 CFR Part 50 and 10 CFR Part 70. These include: (a) an exemption from the requirements of 10 CFR 70.24 for the criticality alarm monitors around the fuel storage area; (b) an exemption from the requirement of paragraph III.D.2(b)(ii) of Appendix J, substituting the seal leakage test at Pa of paragraph III.D.2(b)(iii) for the entire airlock test at Pa of paragraph III.D.2(b)(ii) of Appendix J when no maintenance has been performed in the airlock that could affect its sealing capability (Section 6.2.6 of SSER 6); (c) an exemption from the requirement of paragraph III.C.3 of Appendix J, exempting the measured leakage rates from the main steam isolation valves from inclusion in the combined leak rate for the local leak rate tests (Section 6.2.6 of SSER 6); (d) an exemption from the requirements of paragraph III.B.3 of Appendix J, exempting leakage from the valve packing and the body-to-bonnet seal of valve 1E51-F374 associated with containment penetration 1MC-44 from inclusion in the combined leakage rate for penetrations and valves subject to Type B and C tests; and (e) an exemption from the requirement of paragraph III.D.1.(a) to conduct the third Type A test of each 10-year service period when the plant is shut down for the 10-year plant inservice inspections. The special circumstances regarding each exemption, except for Items (a) and (d) above, are identified in the referenced section of the safety evaluation report and the supplements thereto.

An exemption was previously granted pursuant to 10 CFR 70.24. The exemption was granted with NRC materials license No. SNM-1886, issued November 27, 1985, and relieved IP from the requirement of having a criticality alarm system. IP is hereby exempted from the criticality alarm system provision of 10 CFR 70.24 so far as this section applies to the storage of fuel assemblies held under this license.

The special circumstances regarding the exemption identified in Item (d) above are identified in the safety evaluation accompanying Amendment No. 62 to this license. The special circumstances regarding the exemption identified in Item (e) above are identified in the safety evaluation accompanying Amendment No. 83 to this license.

These exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. The exemptions in items (b) and (c) above are granted pursuant to 10 CFR 50.12. With these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

E. The licensees shall fully implement and maintain in effect all provisions of the Commission-approved physical security plan, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Clinton Power Station Physical Security Plan," with revisions submitted through May 27, 1993; "Clinton Power Station Training and Qualification Plan," with revisions submitted through May 27, 1993; and "Clinton Power Station Safeguards Contingency Plan," with revisions submitted through May 27, 1993. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

F. IP shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report as amended, for the Clinton Power Station, Unit No. 1, and as approved in the Safety Evaluation Report (NUREG-0853) dated February 1982 and Supplement Nos. 1 thru 8 thereto subject to the following provision:

> IP may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

G. Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, IP shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within 24 hours to the NRC Operations Center via the Emergency Notification System with written followup within thirty days in accordance with the procedures described in 10 CFR 50.73(b), (c), and (e).

ATTACHMENT TO LICENSE AMENDMENT NO. 83

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 asterisk, are provided to maintain document completeness.

Remove Pages	Insert Pages
*3/4 6-1	*3/4 6-1
3/4 6-2	3/4 6-2
3/4 6-3	3/4 6-3
3/4 6-4	3/4 6-4
B 3/4 6-1	B 3/4 6-1
*B 3/4 6-2	*B 3/4 6-2

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

PRIMARY CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2*, and 3.

ACTION:

Without PRIMARY CONTAINMENT INTEGRITY, restore PRIMARY CONTAINMENT INTEGRITY within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be demonstrated:

a. After each closing of each penetration subject to Type B testing, except the primary containment air locks, if opened following Type A or B test, by leak rate testing the seals with gas at Pa, 9.0 psig, and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Surveillance Requirement 4.6.1.2.d for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.60 La.

b. At least once per 31 days by verifying that all primary containment penetrations** not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in position, except as provided in Specification 3.6.4.

c. By verifying each primary containment air lock is in compliance with the requirements of Specification 3.6.1.3.

d. By verifying the suppression pool is in compliance with the requirements of Specification 3.6.3.1.

*See Special Test Exception 3.10.1

**Except valves 1HG016 and 1HG017 and valves, blind flanges, and deactivated automatic valves which are located inside the primary containment, steam tunnel, or drywell, and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except such verification need not be performed more often than once per 92 days.

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Primary containment leakage rates shall be limited to:

a. An overall integrated leakage rate of less than or equal to La, 0.65% by weight of the containment air per 24 hours at Pa, 9.0 psig.

b. A combined leakage rate of less than or equal to 0.60 La, for all penetrations and all valves subject to Type B and C tests when pressurized to Pa, 9.0 psig.

c.* Less than or equal to 28 scf per hour for any one main steam line through the isolation valves when tested at Pa, 9.0 psig.

d. A combined leakage rate of less than or equal to 0.08 La, for all penetrations that are secondary containment bypass leakage paths when pressurized to Pa 9.0 psig.

e. A combined leakage rate of less than or equal to 1 gpm times the total number of containment isolation valves in hydrostatically tested lines which penetrate the primary containment, when tested at 1.10 Pa, 9.9 psig.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2**, and 3.

ACTION:

With:

a. The measured overall integrated primary containment leakage rate exceeding 0.75 La, or

b. The measured combined leakage rate for all penetrations and all valves subject to Type B and C tests exceeding 0.60 La, or

c. The measured leakage rate exceeding 28 scf per hour for any one main steam line through the isolation valves, or

d. The combined leakage rate for all penetrations which are secondary containment bypass leakage paths exceeding 0.08 La; or

e. The measured combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment exceeding 1 gpm times the total number of such valves,

restore:

*Exemption to Appendix J of 10 CFR 50.
**See Special Test Exception 3.10.1.

LIMITING CONDITION FOR OPERATION (Continued)

3.6.1.2 ACTION (Continued):

a. The overall integrated leakage rate(s) to less than or equal to 0.75 La, and

b. The combined leakage rate for all penetrations and all valves subject to Type B and C tests to less than or equal to 0.60 La, and

c. The leakage rate to less than 28 scf per hour for any one main steam line through the isolation valves, and

d. The combined leakage rate for all penetrations which are secondary containment bypass leakage paths to less than or equal to 0.08 La, and

e. The combined leakage rate for all containment isolation valves in hydrostatically tested lines which penetrate the primary containment to less than or equal to 1 gpm times the total number of such valves

prior to increasing reactor coolant system temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4-1972 and BN-TOP-1 and verifying the result by the Mass Point Methodology described in ANSI/ANS N56.8-1981.

a. Three Type A Overall Integrated Containment Leakage Rate tests shall be conducted at 40 ± 10 month intervals during shutdown at Pa, 9.0 psig during each 10-year service period.

b. If any periodic Type A test fails to meet 0.75 La the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet 0.75 La a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet 0.75 La at which time the above test schedule may be resumed.

c. The accuracy of each Type A test shall be verified by a supplemental test which:

   1. Confirms the accuracy of the test by verifying that the difference between the supplemental data and the Type A test data is within 0.25 La. The formula to be used is : $[Lo + Lam - 0.25\ La] \leq Lc \leq [Lo + Lam + 0.25\ La]$ where Lc = supplemental test result, Lo = superimposed leakage and Lam = measured Type A leakage.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.1.2 (Continued)

2. Has duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.

3. Requires the quantity of gas injected into the primary containment or bled from the primary containment during the supplemental test to be between 0.75 La and 1.25 La.

d. Type B and C tests shall be conducted***,# with gas at Pa, 9.0 psig, at intervals no greater than 24 months except for tests involving:

1. Air locks,

2. Main steam line isolation valves,

3. Penetrations using continuous leakage monitoring systems,

4. All containment isolation valves in hydrostatically tested lines which penetrate the primary containment, and

5. Purge supply and exhaust isolation valves with resilient material seals.

e. Air locks shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.3.

f. Main steam line isolation valves shall be leak tested with gas at Pa, 9.0 psig, at least once per 18 months.

g. Type B tests for penetrations employing a continuous leakage monitoring system shall be conducted at Pa, 9.0 psig, at every other reactor shutdown for refueling, but in no case at intervals greater than 3 years.

h. All containment isolation valves in hydrostatically tested lines which penetrate the primary containment shall be leak tested at 1.10 Pa, 9.9 psig, at least once per 18 months.

i. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.8.3.

j. The provisions of Specification 4.0.2 are not applicable to Specifications 4.6.1.2.a, 4.6.1.2.b, 4.6.1.2.d, and 4.6.1.2.g.

***Except as provided in NRC-approved exemption to Appendix J to 10 CFR 50 for containment penetration 1MC-44.

#The leakage rate for containment penetration 1MC-44 is not required to be determined until startup from the fifth refueling outage in accordance with an approved exemption to Appendix J of 10 CFR 50.

3.4.6 CONTAINMENT SYSTEMS

BASES

3/4.6.1 PRIMARY CONTAINMENT

3/4.6.1.1 PRIMARY CONTAINMENT INTEGRITY

PRIMARY CONTAINMENT INTEGRITY ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the accident analyses. This restriction, in conjunction with the leakage rate limitation, will limit the site boundary radiation doses to within the limits of 10 CFR Part 100 during accident conditions.

3/4.6.1.2 PRIMARY CONTAINMENT LEAKAGE

The limitations on containment leakage rates ensure that the total containment leakage volume will not exceed the value assumed in the accident analyses at the peak accident pressure of 9.0 psig, Pa. As an added conservatism, the measured overall integrated leakage rate is further limited to less than or equal to 0.75 La during performance of the periodic tests to account for possible degradation of the containment leakage barriers between leakage tests.

Operating experience with the main steam line isolation valves has indicated that degradation has occasionally occurred in the leak tightness of the valves; therefore the special requirement for testing these valves.

The surveillance testing for measuring leakage rates is consistent with the requirements of Appendix J to 10 CFR 50 (with the exception of exemption(s) granted by the NRC). In addition to exemptions related to testing of individual components, the following exemption has been granted from the requirements of Appendix J of 10 CFR 50:

> Section III.D.1.(a) - an exemption that removes the requirement that the third Type A test for each 10-year service period be conducted when the plant is shut down for the 10-year plant inservice inspection. (Reference NRC letter dated September 7, 1993.)

3/4.6.1.3 PRIMARY CONTAINMENT AIR LOCKS

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on PRIMARY CONTAINMENT INTEGRITY and the containment leakage rate given in Specifications 3.6.1.1 and 3.6.1.2. The specification makes allowances for the fact that there may be long periods of time when the air locks will be in a closed and secured position during reactor operation. Only one closed door in each air lock is required to maintain the integrity of the containment.

The surveillance testing for measuring leak rate for the containment air locks is consistent with the requirements of Appendix J to 10 CFR 50 with the exception of exemption(s) granted for the containment air lock leak testing.

3/4.6.1.4 MSIV LEAKAGE CONTROL SYSTEM

Calculated doses resulting from the maximum leakage allowance for the main steam line isolation valves in the postulated LOCA situations would be a small fraction of the 10 CFR 100 guidelines, provided the main steam line system from the isolation valves up to and including the MSIV-LCS motor operated boundary valve remains intact. Operating experience has indicated that degradation has occasionally occurred in the leaktightness of the MSIV's such that the specified leakage requirements have not always been maintained continuously. The requirement for the leakage control system will reduce the untreated leakage from the MSIV's when isolation of the primary system and containment is required.

3/4.6.1.5 CONTAINMENT STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment will be maintained comparable to the original design standards for the life of the unit. Structural integrity is required to ensure that the containment will withstand the maximum pressure of 15 psig in the event of a steam line break accident. A visual inspection in conjunction with Type A leakage tests is sufficient to demonstrate this capability.

3/4.6.1.6 CONTAINMENT INTERNAL PRESSURE

The limitations on containment to secondary containment differential pressure ensure that the containment peak calculated pressure of 9.0 psig does not exceed the design pressure of 15.0 psig during design basis steam line break conditions or that the external pressure differential does not exceed the design maximum external pressure differential of 3.0 psid. The limit of -0.25 to +0.25 psid for initial containment to secondary containment pressure will limit the containment pressure to 9.0 psid which is less than the design pressure and is consistent with the safety analysis for containment design pressure.

3/4.6.1.7 PRIMARY CONTAINMENT AVERAGE AIR TEMPERATURE

The limitation on containment average air temperature ensures that the containment peak air temperature does not exceed the design temperature of 185°F during steam line break conditions and is consistent with the safety analysis.

Bases Change

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 83 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

By letters dated February 17 and April 16, 1993, the Illinois Power Company (IP, the licensee), requested an amendment to Facility Operating License No. NPF-62 for the Clinton Power Station (CPS). The proposed amendment would make changes to the CPS Operating License and Technical Specification (TS) 3/4.6.1.2, "Primary Containment Leakage," and its associated Bases to reflect the partial exemptions to the requirements of 10 CFR Part 50, Appendix J, Sections III.D.1.(a), III.B.1.(b), III.B.3, and III.D.2 that were granted by the NRC on September 7, 1993. Additionally, CPS TS 3/4.6.1.2 would be revised to delete references to a previously approved and unrelated one-time exemption that is no longer applicable.

The licensee's requests for partial exemptions from the requirements of 10 CFR Part 50, Appendix J, Sections III.A.1.(a) and III.A.5.(b) have been deferred by the staff. These exemptions would have: (1) removed the requirement to stop a Type A test if potentially excessive leakage is identified; and (2) allowed an "as found" Type A test acceptance criterion of L_a and an "as left" acceptance criterion of 0.75 L_a. The staff has deferred actions on these items pending resolution of current rule-making activities associated with Appendix J. Therefore, these exemption requests will not be addressed in this safety evaluation.

2.0 EVALUATION

Paragraph 2.D of Operating License NPF-62 for the CPS lists the exemptions from the requirements of 10 CFR Part 50 and 10 CFR Part 70 that the NRC has authorized the facility to operate with. In their letter dated February 17, 1993, the licensee proposed the following two changes to paragraph 2.D of their Operating License:

1. Add a new item - "(e) an exemption from the requirement of paragraph III.D.1.(a) to conduct the third Type A test of each 10-year service period when the plant is shut down for the 10-year plant inservice inspections," to reflect NRC approval of this exemption.

Section III.D.1.(a) of Appendix J to 10 CFR Part 50 requires, in part, that "...a set of three Type A tests shall be performed at approximately equal intervals during each 10-year service period. The third test of each set shall be conducted when the plant is shutdown for the 10-year plant inservice inspection."

In their exemption request, the licensee proposed to perform the three Type A tests at approximately equal intervals within each 10-year period, with the third test of each set conducted as close as practical to the end of the 10-year period. However, there would be no required connection between the Appendix J 10-year interval and the inservice inspection 10-year interval.

The 10-year plant inservice inspection (ISI) is the series of inspections performed every 10-years in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. The licensee performs the ISI volumetric, surface, and visual examinations of components and system pressure tests in accordance with 10 CFR 50.55a(g)(4) throughout the 10-year inspection interval. The major portion of this effort is presently being performed every 18 months during the refueling outages. As a result, there is no extended outage in which the 10-year ISI examinations are performed.

There is no benefit to be gained by the coupling requirement cited above in that elements of the CPS ISI program are conducted throughout each 10-year cycle rather than during a refueling outage at the end of the 10-year cycle. Consequently, the subject coupling requirement offers no benefit either to safety or to the economical operation of the facility.

Moreover, each of these two surveillance tests (i.e., the Type A tests and the 10-year ISI program) is independent of the other and provides assurances of different plant characteristics. The Type A test assures the required leak-tightness to demonstrate compliance with the guidelines of 10 CFR Part 100. The 10-year ISI program provides assurance of the integrity of the structures, systems, and components as well as verifying operational readiness of pumps and valves in compliance with 10 CFR 50.55a. There is no safety-related concern necessitating their coupling in the same refueling outage. Accordingly, the staff finds that the subject exemption request meets the underlying purpose of the rule.

On this basis, the staff found that the uncoupling of the Type A tests from the 10-year ISI program would not present an undue risk to the public health and safety. Accordingly, the NRC approved the issuance of the subject exemption on September 7, 1993.

Based on the above, and because the licensee's proposed change to the Operating License is consistent with the exemption approved by the NRC, the staff finds this change acceptable.

2. Add a new sentence - "The special circumstances regarding the exemption identified in Item (e) above are identified in the safety evaluation accompanying Amendment No. 83 to this license" to identify the safety evaluation describing the referenced exemption.

This change merely identifies where the special circumstances regarding the exemption described in item (e) of paragraph 2.D of the Operating License are referenced. Since this change does not result in any technical changes to plant operation requirements, the staff finds this change acceptable.

The licensee is proposing the following changes to the CPS TS:

TS 3.6.1.2

The licensee's proposal makes editorial changes to TS 3.6.1.2 Limiting Condition For Operation (LCO) item "a." The LCO is currently formatted to allow subitems. However, only one subitem is included and as a result the current format can create confusion. The proposed change merely deletes the colon and the "1." Since this change is editorial in nature, clarifies the LCO, and does not change the technical requirements of the LCO, the staff finds this change acceptable.

The licensee's proposal also makes editorial changes to TS 3.6.1.2 LCO items "b" and "d" by deleting the "#" and "##" footnotes which are no longer applicable. The footnotes document a one-time exemption to Appendix J which permitted excluding the leakage rates for valves 1B21-F032A and B from the Type B and C combined leakage rate total. This exemption was approved for the period ending with the startup from the third refueling outage. Startup from the third refueling outage occurred in May 1992. Since the exemption is no longer applicable, this change is being made to prevent any confusion, and this change does not result in any change to the technical requirements of the LCO, the staff finds this change acceptable.

TS 4.6.1.2.a

Surveillance Requirement (SR) 4.6.1.2.a currently requires that "Three Type A Overall Integrated Containment Leakage Rate tests shall be conducted at 40 $\pm$ 10 month intervals during shutdown at Pa, 9.0 psig during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection."

In order to be consistent with the partial exemption to the requirements of 10 CFR Part 50, Appendix J, Section III.D.1.(a) discussed previously, the licensee's proposal removes the requirement that the third Type A test of each 10-year interval be performed when the plant is shut down for the 10-year plant inservice inspection by deleting the last sentence of SR 4.6.1.2.a.

As noted previously, there is no benefit in coupling the requirements of the 10-year ISI program with those for performing Type A leakage rate tests. Each of these two surveillance tests (i.e., the Type A tests and the 10-year ISI

program) is independent of the other and provides assurances of different plant characteristics. The Type A tests assure the required leak-tightness for the reactor primary containment to demonstrate compliance with the guidelines of 10 CFR Part 100. The 10-year ISI program provides assurance of the integrity of the plant's structures, systems, and components as well as verifying operational readiness of pumps and valves in compliance with 10 CFR 50.55a. There is no safety-related concern necessitating their coupling in the same refueling outage.

Based on the above, and because the proposed TS change is consistent with an NRC approved exemption, the staff finds this change acceptable.

TS 4.6.1.2.d

The proposed change to SR 4.6.1.2.d adds a footnote "#" to document the NRC approval of a one-time partial exemption from Appendix J leak testing of the inclined fuel transfer system (IFTS) containment penetration 1MC-4 until the fifth refueling outage.

As part of their letter dated April 16, 1993, the licensee requested a one-time partial exemption from the requirements of 10 CFR Part 50, Appendix J, Sections III.B.1.(b), III.B.3 and III.D.2.(a) for the Type B testing of the inclined fuel transfer system (IFTS) penetration 1MC-4. The leakage rate for this penetration is required to be measured according to the method prescribed in 10 CFR Part 50, Appendix J, Section III.B.1.(b). The Type B test(s) shall be performed at least once every 24 months in accordance with Section III.D.2.(a), and the results shall be added to the combined leakage rate for all penetrations and valves subject to Type B and C tests to verify that the total combined leakage rate is less than the acceptance criteria identified in Section III.B.3. The licensee's proposal was for a one-time partial exemption, for CPS operating cycle 5, from the Type B testing requirements for the IFTS containment penetration as a result of the potential inability to perform a valid Type B local leak rate test (LLRT) on the penetration two-ply bellows assembly.

After completing a review of the facts provided in Information Notice 92-20, "Inadequate Local Leak Rate Testing", issued on March 3, 1992, the licensee determined that there was only one bellows assembly at CPS used in a similar application, IFTS containment penetration 1MC-4. Due to the design and configuration of this containment penetration bellows assembly, the current method for performing Type B testing on the bellows assembly may have been inadequate. The possibility existed that separation of the two plies of the bellows may not have been sufficient to allow air flow to any crack locations such that the current method of performing the Type B test (pressurization between the two plies of the bellows) may not have challenged 100% of the area of the two-ply bellows constituting the containment barrier(s). The licensee stated that they were evaluating a number of options to provide a valid, reliable Type B test on the subject penetration. These options included replacing the bellows assembly with one that could be tested in accordance

with 10 CFR Part 50, Appendix J, and developing an alternative means of testing the penetration which meets the requirements of Appendix J.

The licensee has investigated the option of replacing the bellows assembly with one that can be tested in accordance with Appendix J. The best design is one which can be installed without disassembling the IFTS tube and removing the upper pool shutoff valve (located just upstream of the blind flange to which the bellows assembly is attached). A bellows assembly design has been identified which does not require any piping disassembly; however, the bellows would require an ASME "N" stamp and the lead time for procurement and fabrication is expected to be about one year. Based on this lead time, it would not be possible to replace the bellows assembly during the next refueling outage; currently scheduled to begin in September 1993.

The licensee is also evaluating the use of a special test box which can be installed over the IFTS containment penetration bellows assembly to permit performance of an acceptable local leak rate test (minimum pathway) of the assembly. A vendor has been identified who can design and fabricate a test fixture for the testing of 1MC-4. The box would be made in two or more pieces of stainless steel and would be temporarily attached for the test and then removed upon completion. However, the box is very large (46 inches inside diameter and 27.5 inches in height) and the probability of safely securing and making the box leak tight at the test pressure could prove to be difficult. The licensee further stated that the work scope for the upcoming refueling outage had already been established and fixed. The impact to the outage schedule and the cost resulting from attempting to utilize a test box in testing the bellows assembly would be significant. Additional time would have to be scheduled for installation and removal of the test box. The potential radiation exposure associated with the test box installation and removal was also a consideration. In addition, based on the uncertainties associated with the capabilities of the proposed test box, it was not clear that use of the test box would provide the most accurate or useful results.

The licensee has decided that it would not be prudent to quickly implement either of the options described until an in-depth design review of the options can be completed. This review would consider all aspects of the problem, including an evaluation of the cost of replacement vice the risks of a temporary fix. The proposed exemption would, therefore, provide the licensee with the time needed to complete a thorough review. Although the requested exemption would permit the licensee to not complete a valid Type B test of the IFTS penetration until the fifth refueling outage (RF-5), the licensee is confident that significant leakage from the bellows assembly can still be identified as discussed below.

Until review of Information Notice 92-20, the licensee believed the design of the bellows assembly permitted Type B testing to be performed on the penetration in compliance with the requirements of Appendix J. Notwithstanding, the licensee believes the bellows assembly has shown to be acceptably leak tight and that significant degradation can continue to be detected by testing and inspection. A recent visual examination of the bellows assembly outer surface

was performed and no signs of degradation were found. The last LLRT performed on containment penetration 1MC-4 indicated a leakage of 21.36 sccm. While the licensee recognizes that these test results may be questionable, they believe they reflect the relative leakage rate of the penetration. ILRT test results to date have all been well within the acceptance criteria (except for a technical problem experienced during RF-3). During the next refueling outage, the licensee will continue to test the bellows assembly as previously tested, will maintain an acceptance criteria of less than 100 sccm per assembly and will perform a thorough examination of the outer bellows surface. In addition, as a final assurance, the integrity of the bellows will be confirmed as part of the ILRT to be performed during the outage.

The staff determined that the currently scheduled testing (both LLRT and ILRT), as well as the planned visual examination of the bellows assembly during the next refueling outage and the historically low associated test leakage, provided sufficient justification to support a one-time partial exemption from the Type B testing requirements for containment penetration 1MC-4 until the fifth refueling outage. Accordingly, the subject exemption was issued on September 7, 1993.

Based on the above, and because the proposed TS change is consistent with an NRC approved exemption, the staff finds this change acceptable.

Bases for TS 3/4.6.1.2

The licensee proposed changes to the Bases for TS 3/4.6.1.2 to reflect that CPS has been granted the partial exemptions from the requirements of 10 CFR Part 50, Appendix J, discussed above. Since these proposed Bases changes are consistent with the NRC approved exemptions and the proposed changes to TS 3/4.6.1.2 described above, the staff finds them acceptable.

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

This amendment 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 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 involves no significant hazards consideration and there has been no public comment on such finding (58 FR 16864 and 58 FR 30197). Accordingly, the 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 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.

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Date: September 8, 1993