

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTIES

Illinois Power Company
Clinton Power Station
Clinton, IL

Docket No. 50-461
License No. NPF-62
EA Nos: 96-412, 97-001, 97-002,
and 97-060

During five NRC inspections conducted from July 30, 1996, to January 23, 1997, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the NRC proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalties are set forth below:

A. Reactor Recirculation Pump Seal Failure

Clinton Power Station (CPS) Technical Specification 5.4.1.a requires, in part, that written procedures shall be implemented covering the applicable procedures recommended in Regulatory Guide (RG) 1.33, Revision 2, Appendix A, February 1978.

Regulatory Guide 1.33, Revision 2, Appendix A, "Typical Procedures for Pressurized Water Reactors and Boiling Water Reactors," states, in part, that procedure adherence (Section 1.d) and recirculation system (Section 4.a) are typical safety-related activities which should be covered by written procedures.

CPS 1005.14 (Rev. 4), "Formatting of Procedures and Documents," a procedure required by Section 1.d of RG 1.33, at Step 8.1.11.4 states, in part, that if a specific order of performing the procedure is required, an asterisk (*) at the beginning of the section to annotate that the steps are to be performed in the sequence that they are written.

CPS 3302.01 (Rev. 18), "Reactor Recirculation," a procedure required by Section 4.a of RG 1.33, specified that Section 8.2.4 was required to be performed in sequence as indicated by the "*" next to the section heading.

Section 8.2.4 of CPS 3302.01 specified, in part, the sequence to isolate an idle reactor coolant loop as follows:

- Step 8.2.4.4: Cool the idle loop to < 250°F
- Step 8.2.4.5: Shut 1B33-F075B, "Pump B Seal Stage Shutoff Valve"
- Step 8.2.4.6: Shut 1C11-F026B, "CRD Supp Isol to RR Pump B"

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1. Contrary to the above, on September 5, 1996, the operators failed to perform the steps in the sequence specified in Section 8.2.4 as demonstrated by their failure to wait until the idle reactor coolant loop had cooled to < 250°F as specified in Step 8.2.4.4 before performing step 8.2.4.5 and shutting 1B33-F075B.
2. Contrary to the above, on September 5, 1996, the operators failed to perform the steps in the sequence specified in Section 8.2.4 as demonstrated by their failure to wait until the idle reactor coolant loop had cooled to < 250°F before performing Step 8.2.4.6 and shutting 1C11-F026B.

This is a Severity Level II problem (Supplement I). Civil Penalty - \$200,000.

B. Failure to Follow Procedures

1. Clinton Power Station (CPS) Technical Specification 5.4.1.a requires, in part, that written procedures shall be implemented covering the applicable procedures recommended in Regulatory Guide (RG) 1.33, Revision 2, Appendix A, February 1978.

Regulatory Guide 1.33, Revision 2, Appendix A, "Typical Procedures for Pressurized Water Reactors and Boiling Water Reactors," states, in part, that the following are typical safety-related activities that should be covered by written procedures: shift and relief turnover (Section 1.g); log entries (Section 1.h); changing loads (Section 2.f); fuel storage cooling system (Section 4.k); control room heating and ventilation system (Section 4.s); and loss of coolant (including leak-rate determination (Section 6.a)).

- a. CPS 3317.01 (Rev. 16), "Fuel Pool Cooling Cleanup," a procedure required by Section 4.k of RG 1.33, at Step 8.1.2.14, required that valve 1FC004A or 1FC004B on the idle spent fuel pool loop be closed.

Contrary to the above, between September 18 and 25, 1996, operators failed to close 1FC004A in the idle "A" train fuel pool cooling loop as required by CPS 3317.01.

- b. CPS 3402.01 (Rev. 14), "Control Room HVAC," a procedure required by Section 4.s of RG 1.33, at Step 8.1.1.1.1, required the final position of OVC043B, "Moisture Separator Drain Valve," be open and OVC096B, "Loop Seal Fill Valve," be closed upon completion of filling the makeup air filter moisture separator loop seal.

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Contrary to the above, on September 18, 1996, after filling the makeup air filter moisture separator loop seal, the licensee failed to open the moisture separator drain valve (OVC043B) and close the loop seal fill valve (OVC096B) as required by CPS 3402.10.

- c. CPS 4001.01 (Rev. 7), "Reactor Coolant System Leakage," a procedure required by Section 6.a of RG 1.33, at Step 4.4, required the control room to notify radiation protection (RP) and request area samples and or AR/PR trending information to assist in detecting the location/source of the leak.

Contrary to the above, on September 5, 1996, RP was not notified of the need to assist in identifying the unidentified leakage.

- d. CPS 3005.01 (Rev. 18), "Unit Power Changes," a procedure required by Section 2.f of RG 1.33, at Step 6.1.b, required the control room to notify the chemistry department, after a thermal power change of greater than 15% in one hour, to perform the applicable sections of CPS 9940.01, "Weekly Chemistry Surveillance Log". In this case, the applicable sections required a gaseous sample.

Contrary to the above, on September 6, 1996, thermal power was changed from 55% to 38%, an amount greater than 15%, within a one-hour period, and the control room failed to notify the chemistry department so it could take a gaseous sample.

- e. CPS 1401.01 (Rev. 20) "Conduct of Operations," is a procedure required by sections 1.g and 1.h of RG 1.33.

(1) Section 8.4.3.13 of CPS 1401.01 required the Line Assistant Shift Supervisor (LASS) to inform the relief operator of, at a minimum, current plant status, operations in progress and work to be performed in the immediate future.

Contrary to the above, on September 17, 1996, the LASS failed to inform the relief operator of work to be performed in the immediate future which was going to affect fuel building differential pressure. Specifically, the relief operator was not informed that the work activity would result in a high differential pressure fuel building annunciator alarm

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in the control room. Consequently, an operator was unnecessarily dispatched to investigate the cause of the expected alarm.

- (2) Section 8.3.3.1 of CPS 1401.01 required the shift supervisor to remain in a monitoring role during off normal operation unless he determines that the LASS is not able to deal with the situation.

Contrary to the above, on September 6, 1996, the shift supervisor failed to remain in a monitoring role and directed activities to place the unit in single loop operation without determining that the LASS was not able to deal with the situation.

- (3) Section 8.4.4.10. e) and f) of CPS 1401.01 required that significant plant operating data, such as abnormal plant conditions and plant transients, be entered in the shift supervisor and main control room journals.

Contrary to the above, on September 6, 1996, no entry was made in the shift supervisor's journal for an abnormal condition, when suppression pool level exceeded the technical specification limit requiring entry into a limiting condition for an operation action statement.

- (4) Section 8.1.6.2.1 of CPS 1401.01 required the Shift Technical Assistant (STA) to assist the shift supervisor in evaluating conditions for possible entry into an emergency classification condition.

Contrary to the above, on September 5, 1996, the STA failed to assist the shift supervisor in evaluating conditions for possible entry into an emergency classification condition.

2. CPS Technical Specification 5.2.2e, "Unit Staff," requires, in part, that administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions. Controls shall be included in the procedures such that individuals shall be reviewed monthly by the plant manager, or his designee, to ensure that excessive hours have not been assigned.

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CPS 1001.10 (Rev. 6), "Control of Working Hours." Step 8.7, which implements the overtime control and review requirements of Technical Specification Section 5.2.2e, requires that individual overtime records shall be reviewed at least monthly by department management to ensure that excessive hours have not been assigned, and to ensure that overtime limits have not been exceeded without prior authorization.

Contrary to the above, during the period from April 1996 through August 1996, the required reviews of overtime usage by the Operations Department personnel were not performed.

3. 10 CFR 50.54(m)(2)(iii) states that when a nuclear power unit is in an operational mode other than cold shutdown or refueling, as defined by the unit's technical specifications, such licensees shall have a person holding a senior operator license of the nuclear power unit in the control room at all times. In addition to this senior operator, for each fueled nuclear power unit, a licensed operator or senior operator shall be present at the controls at all times.

CPS 1001.05 (Rev. 8) "Authorities and Responsibilities of Reactor Operators for Safe Operation and Shutdown," which implements the requirements of 10 CFR 50.54(m)(2)(iii) at Section 2.1.2, defines the "A" reactor operator (RO) as the licensed RO present "at the controls" of a fueled nuclear power unit.

Contrary to the above, on September 18, 1996, with the reactor fueled, the "A" RO left the "at the controls" area for approximately 3 minutes without obtaining an appropriate relief.

4. Clinton Power Station Technical Specification 5.4.1.a requires that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide (RG) 1.33, Revision 2, Appendix A, February 1978.
 - a. Section 7(e)(1) of Appendix A to RG 1.33, requires a radiation protection (RP) procedure for access control to radiation areas including a Radiation Work Permit system.

Station Procedure No. 1905.10 (Rev. 17), "Radiation Work Permit," implemented the requirement of Section 7(e)(1) of Appendix A to RG 1.33 and stated at step 6.2 that deviations from a Radiological Safety Work Plan (RSWP) are not permitted without the approval of the Supervisor-Radiological Operations.

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RSWP 96-01 (Rev. 1), states:

- If an extended time window (12 hours minimum) exists in which no irradiated core components or fuel movements are to occur, the requirements of this RSWP may be relaxed (Section C(2));
- If the RSWP is temporarily suspended, the restricted area posting on the drywell 790' elevation and the notification posting restricting access to the drywell 767' elevation shall be removed and the dropped fuel bundle warning system shall be placed in standby (Section II(a)).

Contrary to the above, on November 14, 1996, workers were allowed to enter the 796' elevation of the drywell under the following deviations from RSWP 96-01 that had not been approved by the Supervisor-Radiological Operations:

- i. Fuel movement was suspended for a maximum 8 hour period and not for the minimum 12 hour period specified in section C(2) of RSWP 96-01 prior to the entry.
 - ii. The restricted area posting on the drywell 790' elevation and the notification posting restricting access to the drywell 767' elevation were not removed, and the dropped fuel bundle warning system was not placed in standby prior to suspension of RSWP 96-01 as specified in section II(a) of RSWP 96-01.
- b. Section 7(e)(7) of Appendix A to RG 1.33 requires a radiation protection (RP) procedure for Personnel Monitoring.

Station Procedure No. 1032.02 (Rev. 23), "Security Access Control," implemented Section 7(e)(7) of Appendix A to RG 1.33 and required at Step 8.8.2 that an individual remain in the immediate area and contact RP personnel if the individual alarms a radiation portal monitor twice.

Contrary to the above, on December 28, 1996, and on January 7, 1997, a records supervisor and auxiliary operator, respectively, exited the plant after twice alarming the gatehouse radiation portal monitor and without contacting RP personnel as specified at Step 8.8.2 of Station Procedure No. 1032.02.

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- c. Section 7(e)(1) of Appendix A to RG 1.33 requires a radiation protection (RP) procedure for access control to radiation areas.

Station Procedure 1024.02 (Rev. 4) "Radiological Work Control," implemented Section 7(e)(7) of Appendix A to RG 1.33 and required at Step 6.1.1 that workers adhere to established RP control requirements unless issued written or verbal guidance from RP personnel.

RP control requirements contained specific prohibitions against eating, drinking and smoking in the Radiological Controlled Area (RCA) were posted at various locations in the plant, communicated during Nuclear General Employee Training (NGET) and were listed on page 15 of the refueling outage (RF-6) handbook distributed to all personnel. Also, during NGET workers were instructed on the proper radiological controls which shall be used during ingress/egress to/from a contaminated area including removing protective clothing when exiting contaminated areas.

- i. Contrary to the above, on November 22, 1996, the licensee identified that an unapproved sleeping/smoking area had been set up inside the Radiological Controlled Area (730' elevation of the radiological waste building), comprising of three sleeping places and used (freshly smoked) cigarette butts.
- ii. Contrary to the above, on January 7, 1997, a worker exited a posted contaminated area prior to removing his protective clothing.
- d. Section 7(b)(1) of Appendix A to RG 1.33 requires procedures for limiting the release of solid radioactive waste material such as spent resin and filter sludge to the environment.

Procedure STD-P-03-028 (Rev 1) , "Waste Sluicing Procedure" was written to implement Section 7(b)(1) of Appendix A to RG 1.33.

Contrary to the above, on January 7, 1997, procedure STD-P-03-028 was found to be inadequate because it did not describe the vent path for the waste evaporator tank used during the sludge sluicing and did not describe the actual sluicing wand used during the job. The result of following this inadequate procedure, was the spread of radioactive material and the contamination of several workers when they disconnected a pressurized sludge hose.

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- e. 10 CFR 20.1501 requires, in part, that each licensee make or cause to be made surveys that may be necessary for the licensee to comply with the regulations in Part 20 and that are reasonable under the circumstances to evaluate the extent of radiation levels, concentrations or quantities of radioactive materials, and the potential radiological hazards that could be present.

10 CFR 20.1701 requires, in part, that the licensee shall use, to the extent practical, process or other engineering controls to control the concentrations of radioactive material in air.

Pursuant to 10 CFR 20.1003, *survey* means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation.

- i. Contrary to the above, on January 7, 1997, the licensee's evaluation failed to adequately evaluate the radiological conditions and potential radiological hazards present, or use appropriate engineering controls to control the concentrations of radioactive material in air, prior to disconnecting a hose which had become clogged during the transfer of radioactive material.
- ii. Contrary to the above, on January 3, 1997, the licensee's evaluation failed to adequately evaluate the radiological conditions and potential radiological hazards present, or use appropriate engineering controls, during the removal of mirror insulation from reactor water cleanup system piping.

This is a Severity Level III problem (Supplements I and IV). Civil Penalty - \$100,000.

C. Inoperable Emergency Diesel Generator

1. Technical Specification Limiting Condition for Operation (LCO) 3.8.1 requires that three diesel generators be operable. The LCO is applicable during Modes 1, 2, and 3 of operation.

Technical Specification Surveillance Requirement (SR) 3.8.1.11.c.1 requires that once every eighteen months it be verified that on an actual or simulated loss of offsite power signal each emergency diesel generator energizes permanently connected loads in < 12 seconds. Licensee Procedure CPS 9080.23, "Diesel Generator 1C Integrated," was intended to satisfy this SR.

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SR 3.0.1 states, in part, that "failure to meet a SR, whether such failure is experienced during performance of the SR or between performances of the SR, shall be failure to meet the LCO."

Contrary to the above, from September 26, 1995, until November 5, 1996, Diesel Generator 1C was inoperable in that SR 3.8.1.11.c.1 could not be satisfied. On September 26, 1995, the licensee miscalibrated relay K54X. The miscalibration directly caused, on November 2, 1996, the inability of Diesel Generator 1C to satisfy SR 3.8.11.c.1 in that it could not be demonstrated that permanently connected loads were energized in less than 12 seconds. As demonstrated through the performance of Procedure CPS 9080.23, loads were not energized until 20 seconds after receipt of the actuation signal.

2. 10 CFR Part 50, Appendix B, Criterion III, "Design Control," states, in part, that measures shall be established to assure that applicable regulatory requirements and the design basis as specified in the license application, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions.

10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions" states, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.

Contrary to the above, on August 1, 1995, the licensee failed to correctly translate the design basis for the closing time of Diesel Generator 1C output breaker when the preventative maintenance task evaluation request sheet PEMDGM025 to calibrate relay K54X, "Permissive Signal for Closure of the Division III EDG Output Breaker" was issued. Specifically, the licensee incorporated the wrong delay time in PEMDGM025 which directly caused the closure time of Diesel Generator 1C output breaker to be in noncompliance with Technical Specifications. On September 26, 1995, the licensee failed to identify and correct a condition adverse to quality when workers found a substantial discrepancy between the as-found set point of .55 seconds and as-left set point (specified in PEMDGM025) of 11.28 seconds for the K54X relay. The licensee's failure to properly translate design requirements into working instructions (PEMDGM025), and the failure to both identify as a nonconformance and take corrective actions for the substantial difference between the as found and as left setpoints for the K54X relay contributed to Diesel Generator 1C being inoperable from September 26, 1995, to November 5, 1996, as described in violation C.1.

This is a Severity Level III problem (Supplement I). Civil Penalty - \$50,000.

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D. Failure to Perform Safety Evaluations

1. 10 CFR 50.59(a)(1), "Changes, Tests and Experiments," states, in part, that the holder of a license authorizing operation of a utilization facility may make changes to the facility as described in the safety analysis report and conduct tests or experiments not described in the safety analysis report, without prior Commission approval, unless the proposed change, test or experiment involves a change in the technical specifications incorporated in the license or an unreviewed safety question.

10 CFR 50.59(b)(1) requires, in part, that the licensee shall maintain records of changes in the facility made pursuant to this section, to the extent that these changes constitute changes in the facility as described in the safety analysis report. The licensee shall also maintain records of tests carried out pursuant to paragraph (a) of 10 CFR 50.59. These records must include a written safety evaluation which provides the bases for the determination that the test does not involve an unreviewed safety question.

The applicable sections of the Updated Safety Analysis Report (USAR) include Figure 9.1-4, which shows the piping configuration for the spent fuel pool cooling system and provided the system configuration for an idle spent pool cooling loop; Section 5.4.7, which describes the design and functional basis of the Residual Heat Removal System (RHR); and Section 3.9.4, which describes the control rod drive system.

- a. Contrary to the above, from 1989 until October 1996, the licensee had operated the fuel pool cooling and cleanup system, as prescribed in CPS 3317.01 (Rev. 16) at step 8.1.1.6 with a valve line up different from that shown on USAR Figure 9.1-4 and a written safety evaluation had not been performed to determine that the change to the system configuration specified in the USAR did not involve an unreviewed safety question. Specifically, the procedure required fuel pool cooling pump valve 1FC011A or B, for the idle loop, to be open, not closed as prescribed in Figure 9.1-4.

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- b. Contrary to the above, on August 1, 1996, the licensee performed a test that was not described in the safety analysis report, to verify that there was no negative impact on RHR system (Section 5.4.7 of the USAR) when cycled condensate to the containment was isolated. The test was performed without performing a written safety evaluation to determine that the test did not involve an unreviewed safety question.
 - c. Contrary to the above, on August 1, 1996, the licensee performed a test that was not described in the safety analysis report, to verify functionality of RHR (Section 5.4.7 of the USAR) water leg pump check valve 1E12F085A. The test was performed without performing a written safety evaluation to determine that the test did not involve an unreviewed safety question.
 - d. Contrary to the above, between August 2 and September 18, 1996, the licensee performed a weekly test that was not described in the safety analysis report, to verify the operability of RHR (Section 5.4.7 of the USAR) check valve 1E12F085A. The test was performed without performing a written safety evaluation to determine that the test did not involve an unreviewed safety question.
 - e. Contrary to the above, on May 3, 1995, with the reactor at power, the licensee performed a test that was not described in the safety analysis report, to determine if the control rod drive (CRD) pump's (Section 3.9.4 of the USAR) drop in CRD pressure was due to leaking valves or CRD pump degradation. The test was completed without performing a written safety evaluation to determine that the test did not involve an unreviewed safety question.
2. 10 CFR 50.59, "Changes, Tests and Experiments," permits the licensee, in part, to make changes to the facility as described in the safety analysis report without prior Commission approval provided the change does not involve an unreviewed safety question. The licensee shall maintain records of changes in the facility and these records must include a written safety evaluation which provides the bases for the determination that the change does not involve an unreviewed safety question.
- 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," states, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected.

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10 CFR 50.71(e), "Maintenance of Records, Making of Reports" requires, in part, that the licensee update the safety analysis report originally submitted as part of the application for the operating license to assure that the information included in the safety analysis report contains the latest material developed. The updated safety analysis report shall be revised to include the effects of, in part, all safety evaluations performed by the licensee in support of conclusions that changes did not involve an unreviewed safety question.

10 CFR 50.9(a), "Completeness and Accuracy of Information," requires, in part, that information provided to the NRC by a licensee or information required by regulation to be maintained by a licensee shall be complete and accurate in all material respects.

The applicable sections of the Updated Safety Analysis Report (USAR) are Section 9.4.5.2, which describes the cathodic protection and table 8.3-13 which describes the delay time for equipment to sequence on the emergency diesel generators.

- a. Contrary to the above, the description of the facility in the USAR was not accurate in all material respects in that the USAR did not match the facility, required safety evaluations were not performed, corrective action was not implemented when conditions adverse to quality were identified, and the USAR was not properly updated. Specifically, in August 1995, the licensee had identified a condition adverse to quality, in that the cathodic protection system was not adequate to protect buried piping as stated in the USAR Section 9.4.5.2. As of October 1996, the licensee had neither taken prompt corrective action nor performed a written safety evaluation to determine if an unreviewed safety question existed for the degraded cathodic protection system.
- b. Contrary to the above, the description of the facility in the USAR was not accurate in all material respects in that the USAR did not match the facility, required safety evaluations were not performed, corrective action was not implemented when conditions adverse to quality were identified, and the USAR was not properly updated. Specifically, in 1993 the licensee had identified a condition adverse to quality, in that a discrepancy existed between the as-built condition of the control room chillers and the system as described in USAR table 8.3-13. The licensee had identified that the chillers may auto-start in about 2.5 minutes after an event while the USAR documented that they would start 20 minutes after an event. As of

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October 1996, the licensee had neither taken prompt corrective action nor performed a written safety evaluation to determine if an unreviewed safety question exists for the auto-restart of the control room chillers after loss of power.

This is a Severity Level III problem (Supplement I). Civil Penalty - \$50,000.

E. Ineffective Corrective Actions to Resolve Inoperable Containment Penetrations

1. Clinton Power Station (CPS) Technical Specification 3.6.1.a requires that feedwater primary containment isolation valves be operable.

Technical Specification 3.6.1.3.8, the surveillance requirement for Technical Specification 3.6.1, requires verification that the combined leakage rate for all secondary containment bypass leakage paths is $\leq .08L_a$ when pressurized to $\geq P_a$.

10 CFR Part 50 Appendix J Section III.C.2.(a) requires, in part, that valves be pressurized with air at a pressure of P_a .

CPS surveillance procedure 9861.02 (Rev. 26), "Local Leak Rate Testing Requirement and Type C (Air) Local Leak Rate Testing," which implemented Technical Specification 3.6.1.3.8 and 10 CFR Part 50, Appendix J, requires at step 5.16.1 that both sides of the valve seat shall be drained below the valve seating surfaces prior to performing air leak testing of containment isolation valves.

Contrary to the above, on April 2 and 10, 1995, the licensee did not drain water from the outboard feedwater primary containment isolation valves (1B21F032 B & A, respectively) to below the valves' seating surfaces prior to leak testing the valves. This resulted in the failure to ensure that the primary containment isolation valves were operable during operating cycle 6.

2. 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action" requires, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, and defective material and equipment, are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective actions taken to preclude repetition.

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Contrary to the above, during refueling outages 1, 2, 3, 4, 5, and 6 that were performed between January 1991 and October 1996, the licensee failed to establish corrective actions to preclude repeated failures of the outboard feedwater containment isolation check valves to pass the as-found local leak rate air test performed during each refueling outage, thus resulting in a significant condition adverse to quality.

This is a Severity Level III problem (Supplement I). Civil Penalty - \$50,000.

Pursuant to the provisions of 10 CFR 2.201, Illinois Power Company is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalties (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, and if denied, the reasons why, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalties by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or the cumulative amount of the civil penalties if more than one civil penalty is proposed, or may protest imposition of the civil penalties in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalties will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalties, in whole or in part, such answers should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice, in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answers may request remission or mitigation of the penalties.

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In requesting mitigation of the proposed penalties, the factors addressed in Section VI.B.2 of the Enforcement Policy should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing civil penalties.

Upon failure to pay any civil penalties due which subsequently have been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalties, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The response noted above (Reply to Notice of Violation, letter with payment of civil penalties, and Answer to a Notice of Violation) should be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III and a copy to the NRC Resident Inspector station at the Clinton facility.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.790(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

Dated at Lisle, Illinois
this 9th day of June 1997

CIVIL PENALTY ASSESSMENT

A. Reactor Recirculation Pump Seal Failure

Section A of the Notice contains two violations. These violations pertain to the operating crew's deliberate actions which resulted in failing to comply with the specific procedure step sequence when isolating the idle reactor coolant loop. Specifically, the crew failed to allow the idle loop to cool to the specified temperature before completing the isolation procedure. Failing to allow the loop to cool directly contributed to further degradation of the seal, drywell leakage exceeding the technical specification limits, and the seal's ultimate failure.

These violations demonstrated that the administrative system for procedure compliance, which was designed to prevent or mitigate a serious safety event, did not perform its intended function. The evolution demonstrated that Illinois Power Company inappropriately emphasized attaining a single loop configuration to allow continued power operation over the conservative decision to shut down the unit. During the predecisional enforcement conference, the CPS managers acknowledged that the management team had defined procedure compliance as "meeting the intent of procedures" and not complying with the written procedure. In addition, CPS managers acknowledged that the crew was "set up." Their acknowledgement was based on the established definition of procedure compliance; the material condition of the plant; the number of operator work arounds; the lack of simulator training on the event; the fact that a reactor operator, the shift supervisor and the line assistant shift supervisor were not part of the regular crew, and the crew was thrown into a situation that was very complicated and different from something that they had performed before. These actions demonstrated a careless disregard by CPS for procedural requirements. Therefore, in accordance with NUREG-1600, the two violations are of very significant regulatory concern and have been categorized in the aggregate as a Severity Level II problem.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$80,000 is normally considered for a Severity Level II violation. As noted above, particularly poor performance was demonstrated by CPS before, during, and after the event. Specifically, the event and NRC follow-up activities revealed fundamental weaknesses in the CPS operations and engineering departments in the areas of safety focus, procedure quality and adherence, conservative decision making, and engineering support to operations. Substantial NRC involvement was needed to assure that CPS conducted a comprehensive assessment of the issues and implement subsequent corrective actions. The corrective actions proposed by CPS focused on conservative decision-making, appropriate safety focus, procedure compliance, procedure adequacy, and appropriate 10 CFR 50.59 appreciation and implementation. The NRC would expect these corrective actions to be effective at improving

performance. However, at the March 20, 1997, enforcement conference held to discuss the radiological control violations --discussed in paragraph B, "Failure to Follow Procedures" below-- the licensee's corrective actions were focused narrowly on each violation, and did not address the fundamental root causes of procedure quality and adherence problems. In addition, several of the violations discussed in paragraph B, occurred significantly after the September 5, 1996, event. This demonstrated that the initial procedure compliance corrective actions were not fully effective.

In view of the circumstances of these very significant violations, NRC is exercising discretion in accordance with Section VII.A of NUREG-1600 and assessing a civil penalty in the maximum amount of \$100,000 for each violation for a total of \$200,000. This represents the maximum daily civil penalty allowed each violation.

B. Failure to Follow Procedures

Section B of the Notice contains ten violations associated with operations and seven violations associated with radiation protection. These violations address a breakdown in the control of activities involving adherence to procedures and collectively represent a potentially significant program breakdown. The ten operational violations pertained to fundamental procedure adherence problems pervasive in the operations and engineering departments. They included failure to control valve status (spent fuel pool cooling and control room heating and ventilation); failure to notify other departments (chemistry and health physics) after power level changes; and lack of rigor in conduct of operations (individual turnovers, SRO monitoring plant conditions). These violations demonstrated that site management accepted an environment that permitted and accepted that procedures were treated as guidance and did not have to be followed as written.

The seven radiation protection violations pertained to CPS's failure to implement its radiation protection program and were indications of a programmatic breakdown. The root causes for these violations are similar to the operational violations. The procedural adherence and procedural adequacy problems were clearly demonstrated by the unauthorized entry of workers into the upper levels of the drywell, the unnecessary spread of contamination when workers disconnected a pressurized sludge sluicing line without properly evaluating the potential radiological hazards, the failure to appropriately respond to alarming personnel portal monitors, the failure to properly exit a posted contaminated area, and the failure to adequately evaluate radiological conditions prior to permitting workers to remove insulation.

Therefore, in accordance with NUREG-1600, these seventeen violations have been categorized in the aggregate as a Severity Level III problem.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$50,000 is normally considered for a Severity Level III problem. Accordingly, the corrective action deficiencies, and need for NRC intervention as discussed in paragraph A are also applicable to this item. It was noted that during the inspection, individuals rationalized that it was acceptable to not follow existing procedures in order to accomplish work activities. Moreover, during the May 20, 1997, predecisional enforcement conference, CPS failed to discuss the radiation protection issues from a broad perspective and as they related to the procedural adherence problems discussed at the previous enforcement conferences. This indicated to the NRC that CPS was not taking this opportunity to look collectively at all of its programs and implement effective long-term corrective actions. In addition, the radiation protection violations occurred sufficiently after the September 5, 1996 event, to demonstrate that CPS was having difficulty implementing effective corrective actions for procedure compliance problems. Therefore, corrective action credit is not warranted. In view of the circumstances of this significant problem, NRC has decided to exercise discretion in accordance with section VII.A of NUREG-1600 and collectively assess a civil penalty in the amount of \$100,000 (twice the base) for this Severity Level III problem.

C. Inoperable Division III Emergency Diesel Generator (EDG)

Section C of the Notice contains two violations. These violations relate to the Division III EDG being inoperable for approximately a year. The inoperability was caused by an inadequate calibration procedure for a relay associated with the Division III EDG output breaker. The procedure had been changed without sufficient engineering reviews to ensure that the proper setting had been incorporated. In addition, this error should have been identified during the calibration, if the CPS staff had questioned the large discrepancy between the as-found and as-left settings or documented this discrepancy on an upper-tier corrective action document for subsequent review and resolution. This violation demonstrates a significant failure during the development of the calibration procedure, a failure to resolve a discrepancy between the as-found and as-left sequencer relay, and a failure to capture the discrepancy on an upper tier corrective action document. These failures resulted in the Division III EDG rendered inoperable for approximately a year. Therefore, in accordance with NUREG-1600 the two violations have been categorized in the aggregate as a Severity Level III problem.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$50,000 is normally considered for a Severity Level III problem absent prompt and comprehensive corrective action. The corrective actions described at the predecisional enforcement conference included the replacement and calibration of the relay, verifying correct operation of the relay through an integrated surveillance test, clarifying the related drawing, verifying correct relay setpoints on the other EDGs, and lowering the threshold for documenting out-of-tolerance

conditions in the corrective action systems. Although the NRC acknowledges these corrective actions, it was concluded that credit for corrective action credit was not warranted, because CPS had ample opportunity to identify this problem from the time that an engineering clerk discussed the setpoint with a design engineer because the setpoint range specified on the electrical drawing was not clear. The Engineering department failed to refer to other documentation to verify the correct setpoint and there was no engineering review of the preventive maintenance package for revising the setpoints. In addition, maintenance personnel did not initiate a condition report when they discovered the new setpoint was much greater than the as-found setting on the relay. Finally, two 1996 condition reports had been written regarding failures to trend instrumentation preventive maintenance failures which should have alerted CPS to this issue. A proper response on any of these occasions could have prevented the diesel generator from being inoperable for an extended period. For this reason, corrective action credit is not warranted. In view of the circumstances of this significant problem, the NRC, in accordance with Section VI.B.2 of NUREG-1600, is assessing a civil penalty in the amount of \$50,000 for this Severity Level III problem.

D. Failure to Perform Safety Evaluation

Section D of the Notice contains seven violations where safety evaluations required by 10 CFR 50.59 were not performed. These included examples where tests affecting safety-significant operable systems (residual heat removal) were performed without safety evaluations or approved procedures; procedures were changed without safety evaluations; and systems identified as different from the plant's Updated Safety Analysis Report were not evaluated to ensure unreviewed safety questions did not exist. The seven violations are collectively considered a Severity Level III problem. These violations demonstrate a significant failure to meet the requirements of 10 CFR 50.59 in that, these evaluations failed to ensure unreviewed safety issues were not introduced by the tests, procedure changes, or design changes. Therefore, in accordance with NUREG-1600, the seven violations have been categorized as a Severity Level III problem.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$50,000 is normally considered for a Severity Level III problem in the absence of prompt and comprehensive corrective action. Corrective actions included the establishment of trained reviewers to review all 10 CFR 50.59 evaluations and the implementation of a new screening process. Corrective action credit was not warranted because the licensee's initial corrective actions were to correct deficiencies with regard to the specific examples identified by the NRC; NRC intervention was required for the licensee to address the programmatic weaknesses in the 10 CFR 50.59 process. In view of the circumstances of this significant problem, NRC in accordance with Section VI.B.2 of NUREG-1600 is assessing a civil penalty in the amount of \$50,000 for this Severity Level III problem.

E. Ineffective Corrective Actions to Resolve Inoperable Containment Penetrations

Section E of the Notice contains two violations which address CPS's failure to implement effective corrective actions and resolve inoperable feedwater containment penetrations. These penetrations have routinely failed their as-found refueling frequency surveillance tests since the first refueling outage to the current (sixth) refueling outage. Additionally, CPS changed the test method during the fifth refueling outage, resulting in a containment penetration test configuration different than the system configuration that the containment penetration would see subsequent to a design basis accident. As a result of this change, the license was not able to demonstrate that repairs performed to the penetration during the fifth refueling outage were successful. Therefore, in accordance with NUREG-1600 the two violations have been categorized in the aggregate as a Severity Level III problem.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$50,000 is normally considered for a Severity Level III problem absent prompt and comprehensive corrective action. The licensee's corrective actions included revising the applicable surveillance procedures, implementing a continuing review of other surveillance procedures to identify and correct other testing deficiencies, and implementing an extensive modification to the penetrations to address the root cause of the failures. Although the NRC acknowledges these corrective actions, it concluded that credit for Corrective Action was not warranted, based on the fact that the licensee had ample opportunities to collectively address the test failures during previous outages and implement effective corrective action. It was not until the NRC intervened during the current refueling outage that the licensee attempted to address and resolve the repeated failures of the penetrations. For this reason, Corrective Action credit is not warranted. In view of the circumstances of this significant problem, the NRC, in accordance with section VI.B.2 of NUREG-1600, is assessing a civil penalty in the amount of \$50,000 for this Severity Level III problem.