

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

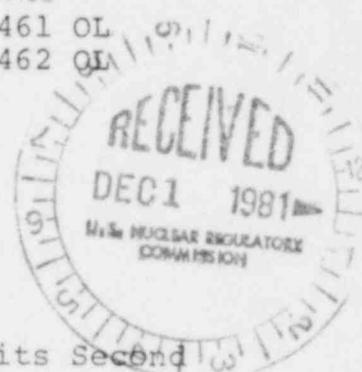
DOCKETED
USNRC

IN THE MATTER OF)
ILLINOIS POWER COMPANY,)
SOYLAND POWER COOPERATIVE, INC.)
and WESTERN ILLINOIS POWER)
COOPERATIVE, INC.)
(Operating Licenses for Clinton)
Power Station, Units 1 and 2))

'81 NOV 25 P3:09

OFFICE OF SECRETARY
DOCKETING & SERVICE

BRANCH
Docket Nos. 50-461 OL
50-462 OL



THE STATE OF ILLINOIS' SECOND
SET OF INTERROGATORIES TO APPLICANTS

The State of Illinois (Illinois) propounds its Second Set of Interrogatories to applicants, Illinois Power Company, Soyland Power Cooperative, Inc and Western Illinois Power Cooperative, Inc. (collectively, IP), pursuant to Section 2.470b of the Nuclear Regulatory Commission (NRC) Rules of Practice. Each interrogatory must be answered fully in writing, under oath or affirmation, and must include all relevant information known to IP. Each answer must clearly indicate the interrogatory to which it responds. Pursuant to Section 2.740(e) of the NRC Rules of Practice IP must supplement responses to interrogatories under certain circumstances when new or different information becomes available. If IP cannot answer one or more of the interrogatories in full, after exercising due diligence, state so and answer to the extent possible, specifying the inability to answer the unanswered portions. Answers to these interrogatories must be served upon Illinois by no later than December 15, 1981.

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I. Definitions and Instructions

1. "And" or "or" is construed conjunctively and disjunctively so as to allow for broad answers to each interrogatory.
2. "CPS-1" refers to the Clinton Power Station, Unit 1.
3. "Document" means the original and non-conforming copies of written, printed, typed or graphic material of any kind or character, including, but not limited to, correspondence, letters, telegrams, memoranda, notes, records, minutes, contracts, agreements, records, studies, pamphlets, books, articles, treatises, records or notations of personal conversations or conferences, inter-office communications, micro-film, bulletins, circulars, blue prints, plans, drawings, photographs, teletype messages, invoices, tape recordings, and work-sheets, together with all copies of said documents by whatever means made, in the custody, care, possession or control of any officer, director, employee, agent, consultant, attorney or representative of IP. Identification of copies of the original is necessary if there is material in the original or any copy that is not in other copies or the original.
4. "Identify", when used with respect to a document, means to state its date, author, addressee, type of document, present location and custodian, and brief description of its contents. If any such document was, but is no longer,

in IP's custody, control, or possession state what disposition was made of it.

5. "Identify", when used with respect to a person, means to state his or her full name, business or home address, and occupation or position.
6. "Person" means an individual, agent, partnership, firm, company, consultant, corporation, association, political sub-division, governmental agency, or any other legal entity, or its legal representative, agent or assign.
7. If IP refuses to answer any interrogatory, or any part of any interrogatory, because it claims an alleged privilege, IP shall identify, to the extent consistent with its claim, the information or document claimed to be privileged and state the reason for IP's claim.

II. Interrogatories

A. General

1. Identify all persons who have assisted in any way in the preparation of each answer to each interrogatory below and describe the substance of each person's assistance.
2. Identify all documents that were relied upon to provide an answer to each interrogatory below, and describe the substance of each document so used.

3. Identify all persons whom IP plans to call to testify as to each contention, and state the qualifications of each person so identified.
4. Describe for each interrogatory any additional research or work, if any, that IP plans to do that will affect the answer.

B. Contention 2

5. Identify the persons who were, but are no longer, employed on the inspection staff of Baldwin Associates' (BA) Department of Quality Control (QC). For each person so identified state:
 - a) his qualifications for the position;
 - b) his performance in the position;
 - c) the time period of his employment in the position;
 - d) the substance of any complaints made by him to IP, BA, or NRC about QA/QC program; and
 - e) the reason for termination of employment.
6. State how many persons are now employed on the QC inspection staff.
 - a) State how many of that number are undergoing training to meet the requirements for the position. Describe what training they are receiving.
7. State how many persons are now employed in the BA QC Department.

- a) State how many of that number are undergoing training to meet the requirements for the position. Describe the positions for which they are receiving training and the type of training involved.
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8. Identify those persons who were, but are no longer, employed on the inspection staff of BA's piping department. For each person so identified state:
 - a) his qualifications for the position;
 - b) his performance in the position;
 - c) the time period of his employment in the position;
 - d) the substance of any complaints he made to IP, BA, or NRC about the QA/QC program; and
 - e) the reason for termination of employment.
 9. Identify those persons who are now employed on the inspection staff of BA's Piping Department. For each person so identified state:
 - a) his duties and responsibilities;
 - b) his qualifications for the position; and
 - c) the substance of any complaints he has made to IP, BA, or NRC about the QA/QC program.
 10. Identify each person who is now employed in the BA small bore design group. For each person so identified state:
 - a) his duties and responsibilities;
 - b) his qualifications for the position; and
 - c) the substance of any complaints he has made to IP, BA or NRC about the QA/QC program.

11. Describe the current QA system for the documentation of procurement and specification requirements.
 - a) Describe the changes if any, that IP has made in this system since the issuance of IE Inspection Report 50-461/81-05.
 - b) Identify all those persons who are responsible for the changes, if any, that IP has made in this system.
 - c) Identify all those persons who are responsible for the management, operation and implementation of this system.

12. Describe the current system of using travelers to detail installation and inspection requirements.
 - a) Describe the changes, if any, that IP has made in this system since the issuance of IE Inspection Report 50-461/81-05.
 - b) Identify all those persons who are responsible for the changes, if any, that IP has made in this system.
 - c) Identify all those persons who are responsible for the management, operation and implementation of this system.

13. State the basis for IP's conclusion that the requirement that vendors acquire written authorization from IP, prior to shipment, to substitute a certificate of compliance for missing documentation is unrealistic.

14. Describe the QA system of document accountability and control that IP believes assures compliance with requirements for issuance of materials and equipment for installation or use at CPS-1.

15. State what IP believes is the purpose of Procedures BA 2.20 and BA 2.3, and describe what procedures IP uses to meet this purpose.
16. Describe the system IP is using to inspect safety-related pipe hangers.
- a) Describe the changes, if any, that IP has made in this system since the issuance of IE Inspection 50-461/81-05.
 - b) State the average maximum time span between hangar installation and QC inspection.
 - c) State whether this system requires documentation of who installed the hangar components and when installation was completed.
 - d) Identify all those persons who were responsible for the changes, if any, that IP has made in this system.
 - e) Identify all those persons who are responsible for the management, operation and implementation of this system.
17. Describe IP's system to ensure that welders are familiar with welding procedures and parameters.
- a) Describe the changes, if any, that IP has made in this system since the issuance of IE Inspection Report 50-461/81-05.
 - b) Identify all those persons who were responsible for the changes, if any, that IP made in this system.
 - c) Identify all those persons who are responsible for the management, operation and implementation of this system.

18. Describe the record and document control system that IP uses to correlate IP audit findings to the necessary corrective actions.
 - a) Describe the changes, if any, that IP has made in this system since the issuance of IE Inspection Report 50-461/81-05.
 - b) Identify all those persons who are responsible for the changes, if any, that IP has made in this system.
 - c) Identify all those persons who are responsible for the management, operation and implementation of this system.

19. Describe the system that IP uses to control the time taken between the completion and QA/QC inspection of work.
 - a) Describe the changes, if any, that IP has made in this system since the issuance of IE Inspection Report 50-461/81-05.
 - b) Identify all those persons who are responsible for the changes, if any, that IP has made in this system.
 - c) Identify all those persons who are responsible for the management, operation and implementation of this system.

20. State to what extent, if any, construction cost overruns or project delays at CPS-1 have been the result of:
 - a) NRC regulatory changes;
 - b) NRC policy changes in the field;
 - c) BA design errors, miscalculations, oversights, underestimations, or delays;
 - d) Sargent and Lundy (S & L) design errors, miscalculations, oversights, underestimations, or delays;

- e) General Electric (GE) design errors, miscalculations, oversights, underestimations and/or delays; and
 - f) IP design errors, miscalculations, oversights, underestimations and/or delays.
21. Identify all NRC documents, known to IP, specifically calling into question the judgment, experience, capability or commitment to quality of IP regarding the construction or proposed operation of CPS-1.
 22. Identify all S & L, BA, or GE documents, known to IP, specifically calling into question the judgment, experience, capability or commitment to quality of IP regarding the construction or proposed operation of CPS-1.
 23. State whether IP has any knowledge of any IP, BA or S&L employee resigning his position or otherwise being terminated on account of disagreement or dissatisfaction with the quality of construction or engineering work, or management decisions or policies relating to the construction or proposed operation of CPS-1 and, if so, identify documents or otherwise provide details pertaining to any such occurrences.
 24. State whether IP has any knowledge of any IP, BA or S&L employee lodging a complaint with IP concerning disagreement or dissatisfaction with the quality of construction or engineering work, or decisions or policies

relating to the construction or proposed operation of CPS-1, which complaint did not result in the resignation or termination of that employee, and, if so, identify documents or otherwise provide details pertaining to any such occurrences.

C. Contention 3

25. State whether IP has done an independent study of the tasks and costs involved in decommissioning CPS-1, and if not, whether IP plans to do so, and when.
26. Why is immediate dismantlement the "assumed method" for decommissioning CPS-1?
27. State whether IP has studied or commissioned any studies of alternatives to the immediate dismantlement method of decommissioning CPS-1 and, if so, summarize the results of those studies in terms of the tasks and costs involved.
28. State what plans, if any, IP has for use of CPS-1 site after decommissioning.
29. State whether IP has made plans or provisions for funding the costs involved in decommissioning CPS-1, and, if so, specify those plans or provisions.
30. To what extent, if any, have the costs of decommissioning CPS-1 been included in any of IP's rate requests to the Illinois Commerce Commission to date?

31. Specify what plans or provisions IP has made, if any, to finance any further construction cost increases, not already accounted for, that may occur at CPS-1.
32. Specify what plans or provisions IP has made, if any, to finance the decommissioning of CPS-1, once in operation, in the event of a major (TMI-2) accident.
33. Specify what plans or provisions IP has made, if any, to finance repairs and/or decommissioning of CPS-1 once in operation, in the event of an accident or malfunction causing the shutdown of CPS-1 for six months or more, or permanently.
34. State the assumed capacity factors for each of the first ten (10) years of operation of CPS-1.

D. Contention 10

35. Describe in detail how IP plans to test the pressure differential of the low pressure core spray (LPCS) of the ECCS during operation of CPS-1.
36. Describe in detail how IP plans to test the flow rate of the LPCS of the ECCS during operation of CPS-1.
37. Describe in detail how IP plans to test the pressure differential of the high-pressure core spray (HPCS) of the ECCS during operation of CPS-1.

38. Describe in detail how IP plans to test the flow rate of the HPCS of the ECCS during operation of CPS-1.
39. Has IP or its suppliers tested or measured the core spray sparger of the ECCS to determine the nozzle angles and individual bundle flows? If so, describe the method of testing or measurement used and the results. If not, state whether any test or measurement will be performed, when it will be performed, and what method of test or measurement will be used.
40. Explain the basis for IP's conclusion that the worst single failure/break type combination is the HPCS line break of approximately 0.02 feet² and the failure of the LPCS diesel generator that powers one LPCS pump and one low-pressure coolant injection (LPCI) pump.
41. Explain the basis for IP's conclusion that the worst single failure/break type combination, referred to above in Interrogatory 40, will yield the highest peak cladding temperature of approximately 2085° F of all cases affected by LPCI diversion at 10 minutes.
42. Does a change in the reduction factors for averaging cladding strain affect this conclusion? Explain what affect a change in this factor will have.
43. Does a change in the reduction factor of 2.8 for fuel bundle interior rods affect this conclusion? Explain what affect a change in this factor will have.

44. Does a change in the reduction factor of 4.1 for fuel bundle peripheral rods affect this conclusion? Explain what affect a change in this factor will have.
45. State the basis for IP's conclusion that the GE model is conservative in comparison to the models described in NUREG 0620 within the range applicable to BWRs.
- a) Describe specifically what range is applicable to BWRs.
 - b) Identify all documents of communication between IP and NRC regarding the GE model.
 - c) Identify all documents of communication between IP and GE regarding the GE model.
46. Describe the additional sensitivity studies GE has agreed with NRC to perform.
- a) State whether these studies were completed by the end of July 1981, and if not, when they are scheduled for completion.
 - b) Describe what action IP plans to take in response to the results of these studies.
47. State whether IP or its suppliers inspected or examined the core spray spargers prior to installation at CPS-1 for the purpose of identifying any cracking. If so, describe the methods and results of this examination or inspection.
48. State whether IP intends to inspect or examine the core spray spargers during operation of COS-1 for the purpose of identifying any cracking. If so, describe this method of inspection or examination.

49. Describe in detail how the operation of the ECCS has been verified for worst-case, design-basis accident conditions.
- a) State whether this verification has been achieved by actual, operational tests, and if not, why not.
 - b) Identify all documents used in support of IP's answer.
50. Describe in detail how the operation of the ECCS has been verified for worst-case, anticipated transient without scram conditions.
- a) State whether this verification has been achieved by actual, operational tests, and, if not, why not.
 - b) Identify all documents used in support of IP's answer.
51. Describe the classification of the automatic depressurization system (ADS). In addition, state whether:
- a) The ADS is safety-grade;
 - b) The ADS is classified as important to safety; and
 - c) The relief valves and their controls and instruments, which are used in conjunction with ADS, are classified as safety-grade.

E. Contention 12

52. Describe the assumptions IP made and the calculations IP performed to conclude that the dose rate exposure at the operator location due to the movement of a fuel assemblies is a few millirem per hour (mrem/hr).

- a) What specific value (in mrem/hr) does IP mean when it states that dose rate exposure is a few mrem/hr?
 - b) What total dose does IP expect during a worst-case transfer?
 - c) Identify all documents IP used to answer this interrogatory.
53. Describe the assumptions IP made and the calculations IP performed to determine that the dose rates in the accessible areas of the drywell, in the vicinity of the refueling pool bellows, will not exceed 16 mrem/hr.
- a) Identify all documents IP used to answer this interrogatory.
54. Describe the assumptions IP made and the calculations IP performed to conclude that the contact dose rate on the shielding surrounding the fuel transfer tube is a few mrem/hr.
- a) What specific value (in mrem/hr) does IP mean when it states that dose rate exposure is a few mrem/hr?
 - b) What total dose does IP expect during a worst-case transfer?
 - c) Identify all documents IP used to answer this interrogatory.
55. Describe the administrative controls IP will provide to restrict access to the spent fuel transfer system.
- a) Identify all documents that describe these administrative controls.

56. Explain how the interlocking mechanisms of the spent fuel transfer system works when either one of the hatches is opened during the transfer of a spent fuel load in the carriage from the containment building to the spent fuel storage tank.
57. What action does IP plan to take in the event that a spent fuel load becomes stuck in the tube during transfer?
- a) What maximum dose rate and total exposure to personnel has IP calculated will occur during such an event?
58. What action does IP plan to take in the event of an equipment malfunction during transfer of a spent fuel load in the tube?
- a) What maximum dose rate and total exposure to personnel has IP calculated will occur during such an event?
59. What other measures does IP plan to take, besides the posting of signs and the use of interlocking mechanisms, to limit access to the spent fuel transfer system during operation?

Respectfully submitted,

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