

6/26/81

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
ILLINOIS POWER COMPANY, et al. )  
(Clinton Power Station, Units )  
1 and 2) )

Docket Nos. 50-461 OL  
50-462 OL



NRC STAFF INTERROGATORIES TO  
INTERVENOR PRAIRIE ALLIANCE

Pursuant to 10 C.F.R. §2.740(b), the NRC Staff serves the following interrogatories upon the Prairie Alliance, Intervenor, in accordance with the Atomic Safety and Licensing Board's Memorandum and Order of May 29, 1981, admitting the Prairie Alliance as an Intervenor in this proceeding, admitting certain of its proposed contentions, and ordering a public hearing.

Instructions and Definitions

1. Information sought in these interrogatories shall include information within the knowledge, possession, control or access of any agents, employees, independent contractors or consultants of intervenors as well as intervenors themselves.

2. As used herein, "documents" includes, but is not limited to, papers, photographs, criteria, recordings, memoranda, books, records, writings, letters, telegrams, or other forms of correspondence, records of meetings or of conversations or of phone calls either in writing or upon mechanical or electronic or electrical recording devices, notes,

exhibits, reports, studies, opinions, surveys, evaluations, formulas, designs, drawings, charts, and all drafts, revisions and differing versions (whether formal or informal) of any of the foregoing, and also all copies of any of the foregoing which differ in any manner (including handwritten notations or other written or printed matter of any nature) from the original.

3. Section 2.740(e) of the Commission's Rules of Practice states that a party is under a duty seasonably to supplement his response with respect to questions directly addressed to (1) the identity and location of persons having knowledge of discoverable matters and (2) the identity of each person expected to be called as an expert witness at the hearing, the subject matter on which he is expected to testify, and the substance of his testimony; and to seasonably amend a prior response if he obtains information that the response was incorrect when made, or he knows that the response, though correct when made, is no longer true and the circumstances are such that failure to amend the response is in substance a knowing concealment.

Interrogatory 1

With respect to each admitted contention set out in the Memorandum and Order of May 29, 1981,

(a) State the name, business, and residence address of each person expected to be called by Prairie Alliance as an expert witness at the evidentiary hearing;

(b) With respect to each person named in response to Interrogatory 1(a), state the subject matter on which that person is expected to testify; and

(c) With respect to each person named in response to Interrogatory 1(a), state (1) which contentions will be addressed, (2) the substance of that person's testimony, and (3) what do you expect the testimony to prove.

(d) With respect to each person named in response to Interrogatory 1(a), provide the educational background of the proposed expert after high school (include all courses taken in area of expertise), the work experience of the proposed expert in the area of expertise, and a bibliography of any publications of the proposed expert.

#### Interrogatory 2

Specifically, as to Contention 1(a)(2), state which "special facilities" present a concern to the Prairie Alliance with respect to emergency response actions. Identify each of such "special facilities" by name, location, and the nature of the facility. To the extent that the number or nature of persons, residing at or attending each such facility is significant to your concern, identify the population of such facility with maximum specificity.

#### Interrogatory 3

Specifically, as to Contention 2:

(a) State the basis for your assertion that Illinois Power Company's quality assurance and quality control program is consistently

deficient in its ability to assure a sufficient number of experienced personnel. Identify the areas where Illinois Power Company's personnel (or contractor personnel) are lacking in what you assert to be required experience, and provide your source of this information.

(b) State the basis for your assertion that Illinois Power Company's quality assurance and quality control program is consistently deficient in its ability to insure integrity of welding procedures, specifying the particular welding procedures to which you refer. Identify the source of your information.

(c) Identify such "numerous other quality assurance and quality control functions" in which Illinois Power Company's present quality assurance and quality control program is deficient. Identify the source of your information regarding such functions.

#### Interrogatory 4

Specifically, as to Contention 5:

(a) State the basis for your assertion that welds which were found to be defective during construction have not been adequately analyzed or repaired?

(b) State the basis for your belief that there is not sufficient redundancy in the present system design to accommodate an ATWS event.

(c) State the basis for your belief that an ATWS analysis for systems interaction is a necessary safety prerequisite to licensing the Clinton Power Station. Identify other nuclear facilities at which such an ATWS analysis for systems interaction has been performed.

Interrogatory 5

Specifically, as to Contention 6:

(a) Identify the NUREG-0660 actions (1) which Illinois Power Company has not implemented, (2) you believe should be implemented, and (3) are not included in NUREG-0737. As to each of these state your basis for identifying them as regulatory requirements, and provide your definition for the phrase "regulatory requirements."

(b) State your basis for believing that the present instrumentation at CPS inadequately displays and records the reactor pressure vessel water level.

(c) State your basis for believing that the present instrumentation at Clinton Power Station is not adequate to detect inadequate core cooling in case of an abnormal occurrence. Further, define the term "abnormal occurrence" as you have used it in Contention 6(b).

(d) Provide the basis for your belief that direct indication of safety relief valve position is necessary, as opposed to reliable indirect indication. Describe in detail the mechanism(s) by which such direct indication might be provided.

(e) As to Contention 6(e), define the accidents which you are referring to, and state the standards you consider adequate for the monitoring of accidents. Further, identify these standards with reference to their source in NRC regulations.

(f) As to Contention 6(h), specify those surveillance and monitoring actions (instruments and/or controls?) which are located in back row panels and which you feel should be completely unobstructed and

accessible on a continuous basis. Explain why such accessibility is necessary for each item so identified.

(g) As to Contention 6(i) and (j), define the phrase "new criteria".

Interrogatory 6

As to Contention 7:

(a) Explain your reason for believing that the seismic response spectrum used for Clinton Power Station does not envelope the two seismic events of September 29, 1891 and September 27, 1909 set forth in your cited references.

(b) Do you believe that there exists within the site region a known worst case seismic activity other than the two cited earthquakes (if so, identify such worst case seismic activity). Further, define the phrase "seismic activity" as you have used it herein.

(c) At the second special prehearing conference in this proceeding held on April 14, 1981, a representative of Prairie Alliance identified the phrase "the site region", as used in Contention 7(a), as "a 50 mile radius around the site." (Transcript 155). Does the Prairie Alliance still identify the "site region" as constituting a 50 mile radius from the plant? If so, please relate that site region to the two cited earthquakes.

(d) Provide the NRC Staff with the documents on which the Prairie Alliance is relying with respect to Contention 7(a).

(e) As to Contention 7(b), identify those federal vector pathways which you believe require hardening the containment, provide a

detailed description of their proximity to Clinton Power Station, and the type and volume of civilian air traffic upon such vector pathways.

(f) State the basis for your belief that air traffic in this area is increasing.

(g) What does Prairie Alliance believe to be the probability of aircraft impacting the Clinton Power Station per year of operation? Identify the type of aircraft which you identify as the basis for such probability and provide the calculations by which such probability has been computed. Set forth in detail all relevant assumptions and conclusions supporting this assumed probability of impact.

#### Interrogatory 7

As to Contention 8:

(a) Define the term "sump flow monitoring calculations".

(b) State the basis for your belief that seismic qualification of sump flow monitoring indication devices is required by General Design Criteria 13.

(c) State the basis for your belief that this instrumentation is needed in the aftermath of a seismic event to achieve a cold shutdown condition.

(d) Explain your theories for believing that accessibility of the transmitters of sump flow monitoring instruments is required by General Design Criteria 14.

(e) State the basis for your belief that accessibility of the transmitters of sump flow monitoring instruments is necessary for operability of these instruments.

(f) Explain why you believe these instruments are not readily accessible for periodic calibration. If it is your belief that periodic calibration during plant shutdowns is insufficient, state the basis for such belief.

Interrogatory 8

As to Contention 9:

(a) Explain why the FSAR consideration of occupational radiation exposure to be expected from either normal or abnormal operation of Clinton Power Station, Units 1 and 2 is inadequate.

(b) Identify the location you are referring to in Contention 9(a) when using the phrase "airborne radioactivity" and "emissions".

(c) State the basis for your belief that the present number of airborne radioactivity monitors is inadequate. Specify what you feel would be an adequate number of airborne radioactivity monitors, and state the basis for your belief that such additional monitors are required. Identify such requirement in Nuclear Regulatory Commission regulations.

(d) State what you believe to be an acceptable time response for detection of airborne emissions, and your basis for such belief.

(e) State the basis for your belief that accuracy within 20% for area radiation monitoring equipment is inadequate. Identify the degree of accuracy which you believe is adequate and the basis for such belief. Can you identify a supplier of such equipment which would provide greater accuracy than the existing instrumentation? If so, identify the supplier, the equipment, and provide specifications therefor.



Interrogatory 9

As to Contention 10(a):

(a) In view of the test data that has been provided on the docket for a number of boiling water reactors, state the basis for your assertion that the Clinton Power Station's ECCS core spray distribution is of unproven operating capability.

(b) Identify the inaccuracies in models used to predict ECCS performance of the Clinton Power Station which have not been proven accurate or for which operational restrictions could not provide a suitable allowance.

Interrogatory 10

As to Contention 11(b):

(a) Demonstrate the basis for your assertion that the source terms for releases which were used by Illinois Power Company were inadequate by reason of lacking conservatism.

(b) Identify the conservatisms which you would incorporate into the calculations of atmospheric effluents of routine release and state your basis for asserting that such conservatisms must be used by Illinois Power Company.

Interrogatory 11

As to Contention 12:

(a) Indicate the type of preoperational testing program which you believe necessary to establish adequacy of design and functional capability of the Clinton Power Station's spent fuel transfer system, and state the basis for such belief.

(b) State the basis for your belief that the spent fuel transfer system will result in occupational exposure above ALARA level, and the mechanism by which such exposure(s) will occur.

Document Production Request

Please provide the NRC Staff with all documents identified and the answers to Interrogatories 1 through 11 above.

Respectfully submitted,



Richard J. Goddard  
Counsel for NRC Staff

Dated at Bethesda, Maryland  
this 26th day of June, 1981.

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CERTIFICATE OF SERVICE

I hereby certify that copies of NRC STAFF INTERROGATORIES TO INTERVENOR PRAIRIE ALLIANCE in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class or, as indicated by an asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system, this 26th day of June, 1981.

Hugh K. Clark, Esq., Chairman  
P. O. Box 127A  
Kennedyville, Maryland 21645

Dr. George A. Ferguson  
School of Engineering  
Howard University  
2300 Sixth Street, N.W.  
Washington, D.C. 20059

Dr. Oscar H. Paris  
Atomic Safety and Licensing Board  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Peter V. Fazio, Jr., Esq.  
Schiff Hardin & Waite  
7200 Sears Tower  
213 South Wacker Drive  
Chicago, Illinois 60606

Prairie Alliance  
P. O. Box 2424  
Station A  
Champaign, Illinois 61820

Atomic Safety and Licensing  
Board Panel  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Atomic Safety and Licensing  
Appeal Board Panel  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Docketing and Service Section  
Office of the Secretary  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555


Philip L. Willman, Esq.  
Assistant Attorney General  
Environmental Control Division  
188 West Randolph Street, Suite 2315  
Chicago, Illinois 60601

Jeff Urish, Vice President  
Bloomington-Normal Prairie Alliance  
730 Wilkins  
Normal, Illinois 61761

Reed Neuman, Esq.  
Assistant Attorney General  
500 South Second Street  
Springfield, Illinois 62701

Gary N. Wright  
Illinois Department of Nuclear Safety  
1035 Outer Park Drive, 5th Floor  
Springfield, Illinois 62704

Mr. Herbert H. Livermore  
RR 1  
Box 229A  
Clinton, Illinois 61727



Richard J. Goddard  
Counsel for NRC Staff