

RELATED CORRESPONDENCE

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October 29, 1982

SECRETARY SERVICE
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)	
)	
THE CLEVELAND ELECTRIC)	Docket Nos. 50-440
ILLUMINATING COMPANY, <u>ET AL.</u>)	50-441
)	
(Perry Nuclear Power Plant,)	
Units 1 and 2))	

APPLICANTS' ANSWERS TO SUNFLOWER
ALLIANCE, INC. THIRD SET OF
INTERROGATORIES TO APPLICANTS

Applicants for their answers to Sunflower Alliance, Inc. et al. ("Sunflower") Third Set of Interrogatories (With Production of Documents) to Applicants, dated September 30, 1982, state as follows:

All documents supplied to Sunflower for inspection will be produced at Perry Nuclear Power Plant ("PNPP"). Arrangements to examine the documents can be made by contacting Mr. Ronald Wiley of The Cleveland Electric Illuminating Company at (216) 259-3737. Applicants will provide copies of any of the produced documents, or portions thereof, which Sunflower requests, at Applicants' cost of duplication. Arrangements for obtaining copies can be made with Mr. Wiley.

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On October 29, 1982, Applicants' counsel conferred by telephone with Mr. Daniel Wilt, Sunflower's counsel, concerning Applicants' objections, as set forth herein. No agreement between Applicants' counsel and Mr. Wilt was reached as to the scope of Issue No. 3.

1. Provide a list of all contractors and subcontractors engaged by Applicants to perform any activities pertaining to the construction of the Perry Nuclear Power Plant, Units 1 and 2. ("Activities" includes QA documentation and audit work as well as physical construction.) Include contractors and subcontractors which were previously engaged by Applicants, as well as those presently so. For each contractor or subcontractor listed, briefly describe the area and type of work they are responsible for, give the date on which they became involved with the Perry project, and if their contract has been terminated, give the date of termination and indicate why.

Response:

A list of all companies with which Applicants have contracts to perform construction activities at Perry will be supplied for examination at PNPP. This list will include a description of the work performed for Applicants and the contract's starting date. The only two contractors terminated by Applicants are Newport News Industrial Corporation of Ohio, terminated on September 24, 1979, and Oliver B. Cannon Company, terminated on September 30, 1980. Both cases involved a termination for convenience.

2. Produce a list of all trade unions whose members are involved with the Perry project, and for each union listed, give the number and address of the local most directly involved.

Response:

Asbestos Workers Local No. 3 1617 East 30th Street Cleveland, Ohio 44114	Boilermakers Local No. 744 303-304 Marion Building 1276 West Third Street Cleveland, Ohio 44113
Carpenters' District Council 3615 Chester Avenue Cleveland, Ohio 44114	Carpenters' Local No. 404 7359 Maple Street Mentor, Ohio 44060
Carpenters' Local No. 1871 3615 Chester Avenue Cleveland, Ohio 44114	Electrical Workers Local No. 673 8356 Munson Road Mentor, Ohio 44060
Elevator Constructors Local No. 17 3250 Euclid Avenue Cleveland, Ohio 44115	Engineers (Hoisting) Local No. 18 3515 Prospect Avenue Cleveland, Ohio 44115
Excavating Drivers Local No. 436 2191 East 19th Street Cleveland, Ohio 44115	Glaziers Local No. 181 1280 West Third Street Cleveland, Ohio 44113
Construction General Laborers Local No. 496 Madison 5945 North Ridge Road Box 190 Madison, Ohio 44057	Iron Workers, Bridge & Structural Local No. 17 1544 East 23rd Street Cleveland, Ohio 44114
Painters District Council No. 6 1280 West Third Street Cleveland, Ohio 44113	Laborers, Heavy Construction Local No. 860 4420 Prospect Avenue Cleveland, Ohio 44103
Pipefitters Local No. 120 1435 East 14th Street Cleveland, Ohio 44114	Plumbers Local No. 55 1720 East 30th Street Cleveland, Ohio 44114
Roofers and Water Proofers Local No. 44 1651 East 24th Street Cleveland, Ohio 44114	Sheet Metal Workers Local No. 65 351. Prospect Avenue Cleveland, Ohio 44115

3. Provide a list of all persons who have been or are presently employed at the Perry site; for each person listed, give the name of the company employing the person, date on which the person began work at the Perry site, date such

employment was terminated, name of the union to which the person belongs, and current or last known address of the person.

Response:

Applicants object to this interrogatory on several grounds. First, the interrogatory fails to address the subject matter of Issue No. 3, which concerns the February 1978 stop work order and any related quality deficiencies. The contention states that Applicants have an inadequate quality assurance program that has caused or is continuing to cause unsafe construction. The names, addresses, and employment histories of every person who ever worked at Perry are no more relevant to Issue No. 3 than to any other issue in this proceeding. The interrogatory is irrelevant and beyond the scope of Issue No. 3. See 10 C.F.R. §2.740(b).

Applicants further object to the interrogatory on the ground that it is unduly burdensome. Applicants estimate that approximately 25,000 people have been employed at the Perry site. No single list of past and present Perry employees exists. In order to compile such a list, Applicants would have to attempt to contact every contractor who has worked on the Project, many of whom are no longer at the site. Much of the information may be unavailable. Applicants estimate that it would take on the order of four work-hours of research per individual, or a total of 100,000 work hours to assemble what information exists. Thus, the interrogatory is unduly burdensome and therefore objectionable.

4. For any of the persons listed in response to Interrogatory 3, above, who is or was an inspector, indicate this, and list what areas of the plant the inspector was responsible for.

Response:

Applicants object to the interrogatory as unduly burdensome. Applicants estimate that there have been in excess of 2000 inspectors who have worked at the Perry Project. No list of all these inspectors exists. Applicants would have to contact all present and former contractors and subcontractors to assemble all the information requested in this interrogatory. Further, it is not likely that information has been retained describing all Perry Plant areas where inspectors have worked. Applicants estimate that on the order of four work-hours per inspector, or in excess of 8000 work-hours would be required to attempt to compile the information requested.

5. Who is responsible for training workers (laborers, craftsmen, inspectors, etc.) at the plant, CEI, Kaiser, the individual contractor/subcontractor, or the unions? What assurance is there that workers are properly trained and qualified before they are permitted to do work? List all recognized industrial standards (e.g., ANSI) for the training of workers which are applicable to PNPP and indicate how they are being met.

Response:

Each worker's employer is responsible for ensuring that the individual is properly trained and qualified to perform his assigned work. Prior to joining the Project, all craft personnel receive apprenticeship training for their discipline areas through union affiliations. Project training and

qualification is based on discipline areas and revolves around work procedures applicable to a given area. For most disciplines other than quality assurance and welding, there are no formal industry training and certification standards. Craft supervisors are responsible in the first instance for assuring that workers are properly trained and qualified in the procedures governing their work. In addition, the QA/QC program reviews and verifies the adequacy of worker performance through physical inspection of both work in progress and resulting installation. In the welding area, workers are qualified by employers in accordance with American Welding Society (AWS) Section D.1.1 or American Society of Mechanical Engineers (ASME) Section IX code requirements. QA/QC personnel are governed by the American National Standards Institute (ANSI) N45.2 standards and American Society of Nondestructive Testing (ASNT) SNT-TC-1A standards. ANSI N45.2.6 (1973) governs qualification, training and certification of quality control inspectors at Perry.

6. Discuss in detail the specific functions and involvement of Kaiser Engineering at Perry. Discuss how Kaiser's involvement has changed since the inception of construction.

Response:

Since the beginning of the Project, Raymond Kaiser Engineers ("Kaiser") has functioned in a construction management assistance capacity. As such, Kaiser has provided supplementary personnel to work within the various departments

of the Project Organization, including construction control, construction engineering, quality assurance/quality control, labor relations, purchasing and construction security. Kaiser has not provided craft labor and has not performed any Perry construction work. Their QA/QC responsibility has not included first line inspection responsibility. Kaiser has always worked within the overall integrated Project Organization. Individual functions and responsibilities and numbers of people have varied with the availability of personnel in the Project Organization and other consultant organizations.

7. Explain how Chapter 17 of the PSAR relates to the Perry "Corporate Nuclear Quality Assurance Program Manual"; do revisions of the QA manual also result in revisions of the PSAR? List all amendments (and date of same) to Chapter 17 of the PSAR.

Response:

The original version of Chapter 17 of the Perry PSAR, filed with the U.S. Nuclear Regulatory Commission in March 1973, described the Quality Assurance Program established by Applicants. Chapter 17 addressed each of the eighteen quality assurance criteria in 10 C.F.R. Part 50, Appendix B, for the design, procurement, manufacture, inspection, construction, erection and preoperational testing of the Perry Nuclear Power Plant. The following PSAR amendments subsequently amended Chapter 17: Amendment 5, November 30, 1973; Amendment 13, April 1, 1974; Amendment 15, May 16, 1974; Amendment 18, August 21, 1974; and Amendment 23, March 5, 1975. These amendments

were prepared and adopted in response to NRC staff questions or to describe QA program changes.

The Perry Corporate Nuclear Quality Assurance Program Manual was adopted in August 1978. The manual amplifies and updates the program description in Chapter 17 of the PSAR. There is no NRC requirement to formally update the original PSAR quality assurance program description that was approved by the NRC at the time the construction permit was granted. See 46 Fed. Reg. 34595 (July 2, 1981). However, Applicants have provided to the NRC staff copies of the QA manual and subsequent manual revisions.

8. Produce all Quarterly Performance Analysis Reports (refer to CNQAP Project Administration O204) from the inception of construction to the present.

Response:

Applicants will supply for examination at PNPP copies of all Quarterly Performance Analysis Reports.

9. Have there been any instances of harassment or intimidation of inspectors at PNPP? If so, list every such incident and provide all details.

Response:

Applicants are not aware of any instance of harassment or intimidation (i.e. willful interference or attempted interference with an inspector's QA/QC function).

10. List every act of vandalism directed at the PNPP structure or components thereof, giving the date, extent, and location of each incident, and explain how the vandalism was discovered.

Response:

There are no applicable NRC quality assurance requirements addressing acts of vandalism during nuclear power plant construction, and Applicants' QA program does not address vandalism. Vandalism is not considered to be a quality deficiency that can be prevented through a quality assurance program. Further, vandalism is not relevant to the types of QA problems identified in the February 1978 immediate action letter (or any other QA problems). Applicants therefore object to the interrogatory as irrelevant and beyond the scope of Issue No. 3. See 10 C.F.R. § 2.740(b)(1).

11. Produce all documents pertaining to the firing of a quality control electrical inspector for alleged falsified credentials (see PNO-III-82-33).

Response:

The incident in question involved an employee of one of Applicants' contractors, who worked at Perry between April 1981 through March 1982. The employee was terminated when the contractor determined that the employee had falsified employment information on his job application. All work records generated by the employee were reviewed, and the employee's supervisors were interviewed. No quality

deficiencies or construction defects were identified as a result of the review. Applicants object to making available any personnel files, since the subject matter of the interrogatory is unrelated to any quality deficiencies, unsafe construction, or any other issue of possible relevance to the February 1978 immediate action letter. The requested documents are thus irrelevant and beyond the scope of Issue No. 3. See 10 C.F.R. § 2.740(b)(1).

12. Produce any statements or agreements which Applicants or their contractors/subcontractors may require workers to sign or otherwise affirm which prohibit employees from talking to (or being involved with) the NRC, news media, intervenors, public interest groups, or any other person or entity concerning the construction of the Perry plant.

Response:

Applicants are not aware of any such statements or agreements. (It would, of course, be unethical and improper for intervenors to directly contact Applicants' workers without the prior consent of Applicants' counsel. See Disciplinary Rule DR 7-104, Model Code of Professional Responsibility.)

13. Produce all nonconformance reports, deviation analysis reports, action requests, corrective action requests, audit action requests, field variance authorizations, deficiency reports, field questions, stop work notifications, stop work releases, field disposition instructions, field deviation disposition requests, Perry construction work authorizations, conditional releases, and audit reports generated at PNPP from the inception of construction to the present.

Response:

Applicants estimate that there are on the order of 80,000 to 100,000 documents in the categories of documents identified. The majority of these reports are neither related to the February 1978 stop work order, nor do they involve serious quality deficiencies. Thus, the interrogatory extends beyond the limited scope of Issue No. 3. Nonetheless, in the interests of expediting discovery, Applicants will make available for inspection at PNPP those documents requested in Interrogatory 13.

14. Produce any trend analyses performed at PNPP.

Response:

Applicants will make available for examination at PNPP the requested trend analysis reports.

15. Produce the master deficiency list.

Response:

Applicants will supply for examination at PNPP a copy of the master deficiency list.

16. Have any engineering change notices been generated at PNPP due to the use of equipment that could not meet the original specifications? If so, produce same.

Response:

No.

17. Explain the process by which the documents listed in Interrogatories 13, 14, 15 and 16, above, are generated and closed out. Also explain how these documents are inter-related.

Response:

The procedures governing the documents listed in Interrogatories 13, 14, 15 and 16 above are discussed in the PNPP Quality Assurance Program Manual. The QA Program Manual and all associated procedures have already been made available to Sunflower. The Manual and procedures discuss the inter-relationships of the referenced documents.

18. Produce all reports filed pursuant to 10 CFR Part 21 and/or 10 CFR § 50.55(e) pertaining to construction or components of PNPP, from the inception of construction to the present.

Response:

Applicants will supply for examination at PNPP copies of the requested reports.

19. For each of the contractors/subcontractors identified in response to Interrogatory 1, above, list all other nuclear projects the company has worked on.

Response:

Applicants object to the interrogatory as irrelevant and beyond the scope of Issue No. 3, which concerns quality deficiencies related to those involved in the February 1978

stop work order. See 10 C.F.R. § 2.740(b)(1). Further, Applicants object to the interrogatory as unduly burdensome. The list being supplied pursuant to Interrogatory 1 will include over 80 contractors and subcontractors of Applicants. To obtain current information regarding all other nuclear projects on which each company has worked, Applicants would have to contact every company, some of which are no longer at the site. We estimate that over 600 work-hours would be required to compile the requested information. Thus, the interrogatory is both irrelevant and unduly burdensome.

20. List all vendors engaged by Applicants and/or their contractors/subcontractors, from the inception of construction to the present, to provide materials or equipment for use in the construction of PNPP. List what types of materials or equipment each vendor is responsible for.

Response:

Applicants will supply for examination at Perry a list of all former and current vendors on contract to Applicants, including a description of the material or equipment supplied for use at Perry. Applicants do not have a list of sub-vendors (those used by Applicants' contractors, subcontractors, or vendors) and object to doing the extensive work required to compile such a list. Such a request is irrelevant and beyond the scope of Issue No. 3. See response to Interrogatory 19, and 10 C.F.R. § 2.740(b)(1). Moreover, Applicants estimate that there are on the order of 3,000 - 5,000 sub-vendors which have provided materials and equipment to Applicants'

contractors, subcontractors and vendors. To attempt to provide the requested information from each of these sub-vendors would take many hours of research for each sub-vendor. The thousands of hours required to perform such research would be unduly burdensome to Applicants.

21. Have any vendors been rejected/replaced? If so, explain all details.

Response:

Only one vendor under contract to supply material or equipment for the Perry Project has been rejected or replaced by Applicants. This vendor was Okonite Co., who was under contract to supply Class 1E small power and control cables. The contract was signed May 14, 1981, subject to Applicants' review and acceptance of Okonite's quality assurance program. The contract was terminated February 2, 1982, because Okonite did not agree to provide Applicants' access to certain quality assurance information. No material or equipment was ever supplied by Okonite for use at the Perry Plant.

22. Do Applicants consider PNPP to be subject to State and local fire and building codes? Explain any provision thereof which Applicants feel does not apply to Perry.

Response:

Yes.

23. If any State or local building and/or fire inspectors have visited the Perry site, list all such visits, by date, giving the name of the inspectors and any findings they made.

Response:

The findings of state and local fire and building inspectors have no relevance to the February 1978 immediate action letter or to related quality deficiencies. Applicants therefore object to the interrogatory as irrelevant and beyond the scope of Issue No. 3. See 10 C.F.R. § 2.740(b)(1).

24. List all local, State, and/or federal agencies (NRC, OSHA) or organizations (ASME, ANSI) having any authority or jurisdiction over the construction activities at Perry. Do such agencies or organizations (other than NRC) send inspectors to the site? If so, outline all such inspections, giving the date, agency/organization, name of inspector, areas inspected, and any findings made.

Response:

A partial listing of governmental agencies having direct jurisdiction over construction activities at Perry is contained in Chapter 12 of the Perry Environmental Report - Operating License Stage. Other agencies not listed in the Environmental Report which exercise authority or jurisdiction over Perry construction activities include the U.S. Occupational Safety and Health Administration, the Ohio Department of Industrial Relations, and the Lake County Building Inspector. The American Society of Mechanical Engineers (ASME) and the American National Standards Institute (ANSI) do not exercise "authority or jurisdiction over the construction activities at Perry". ASME and ANSI are national standards organizations and

as such prepare industry standards applicable to the work of certain contractors at Perry.

Applicants object to detailing all inspections and findings of any agency or organization which sends inspectors to the site. Such a request, without further specificity, is irrelevant and beyond the scope of Issue No. 3, which is limited to quality deficiencies, relevant to the February 1978 stop work order, which have caused or are causing unsafe construction. See 10 C.F.R. § 2.740(b)(1).

25. Have any procedures been changed (either Applicants' or contractors') because workers could not comply with the original procedures? If so, produce these.

Response:

As part of Applicants' quality program there are continual reviews and improvements in project procedures from the standpoint of clarity, constructability, and overall effectiveness. However, Applicants know of no procedures that have been improperly changed because workers could not comply with the original procedures.

26. What QA procedures and standards do Applicants and their contractors have for non-safety related structures and components? Briefly describe the QA program for non-safety related work.

Response:

A large number of industry standards are included as installation requirements for non-safety related structures and

equipment. These include standards of the American Concrete Institute (ACI), American Institute of Steel Construction (AISC), American Welding Society (AWS), Concrete Reinforcing Steel Institute (CRSI), National Fire Protection Association (NFPA), and American National Standards Institute (ANSI) B31.1 procedure applicable to construction. In addition, for Perry, an inspection program (PAP 0210) has been implemented for non-safety related installation and equipment. The inspections are performed and documented by personnel within the Construction Quality Section of the Nuclear Quality Assurance Department. These cover documentation of deficiencies, dispositions by Engineering and repairs/reworks as directed by Engineering.

27. Define "safety related" as it relates to PNPP. What criteria are used for classifying structures, equipment, or components as safety related or non-safety related? Who is responsible for this classification?

Response:

"Safety Related" as it applies to Perry refers to those structures, systems or components designed to remain functional for the Safe Shutdown Earthquake and necessary to assure required safety functions, i.e., (1) the integrity of the reactor coolant pressure boundary, (2) the capability to shut down the reactor and maintain it in a safe shutdown condition; or (3) the capability to prevent or mitigate the consequences of accidents which could result in potential off-site exposures

comparable to the guideline exposures of 10 C.F.R., Part 100, Appendix A. All systems, equipment and components meeting the criteria within this definition are classified as safety-related. Applicants' design agents, Gilbert Associates, Inc. and the General Electric Co., are responsible for safety-related classification.

28. One of the criticisms made by the Technical Staff Analysis Report on Quality Assurance to the President's Commission on the Accident at Three Mile Island is that the "safety related" classification is too narrow and that quality control for non-safety related equipment is inadequate. Do Applicants agree? If not, why not?

Response:

Applicants do not believe that the safety-related classification at Perry is too narrow or that quality control for non-safety related equipment is inadequate. The Technical Staff Analysis Report on Quality Assurance to the President's Commission on the Accident at Three Mile Island did not consider Perry's safety-related classifications. Perry's safety-related classifications are broader than those utilized with earlier plants such as Three Mile Island.

29. If Applicants object to the consideration of non-safety related items in this proceeding, state why, giving every applicable reference in the Atomic Energy Act, Energy Reorganization Act, NRC regulations, case law and court decisions.

Response:

Applicants object to consideration in the context of Issue No. 3 of any items which are not related to safety consequences of quality deficiencies relevant to Issue No. 3. See LBP-81-24, 14 N.R.C. 175, 209-212 (1981); LBP-81-35, 14 N.R.C. 682, 687 (1981); and LBP-82-15, 15 N.R.C. 555, 564 (1982).

30. Have Applicants verified that Class 1E cables pulled by L. K. Comstock prior to the November 1981 stop work order have met specified requirements (as required by the confirmation of action letter, November 18, 1981, from J. Keppler to D. Davidson)? Define the "specified requirements." Were all such cables checked, or only a sampling? Detail any deficiencies discovered and how they were corrected.

Response:

Applicants have verified that Class 1E cables pulled by L. K. Comstock prior to the November 1981 stop-work order were in conformance with specified requirements (defined as the nonconformance procedural requirements of Applicants and L.K. Comstock) by reviewing all nonconformance reports associated with the cables. That review indicated that there were no procedural irregularities apparent in these nonconformance reports, that all nonconformances were properly dispositioned, and that there were no unaddressed deviations from specified requirements. Applicants concluded, with concurrence by the NRC staff, that there was no indication that a physical review of the cable was required.

31. Why does Amendment 8 (dated August 25, 1982) to FSAR Page 3.8-95 change the value for density of the bioshield concrete from 190 pcf to 140 pcf and totally delete any reference to the compressive strength of the concrete? Is this a result of the voids and lightweight concrete discovered in the bioshields?

Response:

The Amendment 8 revision, specifying the 140 pcf value and deleting the compressive strength reference, was adopted to reflect Applicants' findings as a result of Applicants' 10 C.F.R. § 50.55(e) notification, dated July 15, 1981, concerning low density heavy-weight concrete in the biological shield walls of the Perry reactor buildings. The revision is unrelated to voids in the bioshield concrete. Applicants' final § 50.55(e) report on the low density issue, dated June 7, 1982, discusses the change in density values. A copy of the report will be made available for examination at PNPP. Applicants deleted the compressive strength FSAR reference because compressive strength is not relevant to the safety functions of the bioshield, which is to limit radiation damage to drywell equipment during operation and to permit personnel to work in the drywell during reactor shutdown.

32. What repair procedures will Applicants use to correct the problems with the bioshield concrete? Will these methods result in the same density and compressive strength for the concrete as was originally designed? If not, why not?

Response:

Repair procedures relating to the low density condition in the bioshield concrete are discussed in the June 7, 1982 final

report, referenced in Applicants' reponse to Interrogatory 31. Repair procedures relating to voids in the bioshield are described in a separate § 50.55(e) final report by Applicants, dated June 14, 1982. A copy of the June 14, 1982 final report will be made available for inspection at PNPP. The June 7, 1982 and June 14, 1982 final reports indicate, based on repair procedure tests, that density values resulting from repair procedures will be in the range of 200-210 pcf, which is well in excess of the minimum acceptable design criterion. Compressive strength is not relevant to the safety function of the bioshield and is not evaluated in the final reports.

33. Discuss the safety implications of the bioshield concrete deficiencies. I.e., would this problem accelerate neutron activation of containment equipment, result in higher radiation exposures for workers, or aggravate the course of any accident?

Response:

The final § 50.55(e) reports, dated June 7, 1982 and June 14, 1982, referenced in Applicants' responses to Interrogatories 31 and 32, discuss the safety implications of Applicants' reevaluation and repair of the bioshield concrete, and demonstrate that the safety functions of the bioshield concrete will be assured.

34. Has the cause of the bioshield concrete deficiencies been determined? If so, explain in full.

Response:

No. Applicants are continuing to evaluate the possible cause of the bioshield concrete deficiencies.

35. Do any other structures at PNPP use the same type of heavyweight concrete as is used in the bioshields? If so, have they been inspected for deficiencies? With what results?

Response:

The reactor building shield wall doors are the only other structures at Perry which contain the same type of concrete as that used in the bioshield. Applicants inspected the shield wall doors after identifying the bioshield condition. No deficiencies were found.

36. Were the bioshields subject of any inspections before the deficiencies were identified? If so, produce all records pertaining to any such inspection.

Response:

Copies of the inspection records for the bioshields will be made available for inspection at PNPP.

37. In the August 16, 1982 letter from D. Davidson to A. Schwencer it is stated that is now necessary for Applicants to take credit for the strength the annulus concrete supplies to the containment shell because of "increased loads, methods of applying load calculation, and construction problems." Explain in detail exactly what types of construction problems are involved and how the annulus concrete will alleviate their effects on containment strength.

Response:

The "construction problems" referred to at p. 1 of the

August 16, 1982 letter from D. Davidson to A. Schwencer relate to micro-fissuring of the suppression pool stainless steel clad plate. The problem is detailed in a June 16, 1982 report by Applicants to the State of Ohio, Department of Industrial Relations, Board of Building Standards. A copy of the relevant portions of the June 16, 1982 report will be made available for inspection at PNPP.

38. Is [sic] this annulus concrete been placed yet in Unit 1? In Unit 2? If not, when is it expected to be placed? If the concrete has been placed, provide documentation that it meets all applicable criteria.

Response:

The annulus concrete has not been placed in either Unit 1 or Unit 2. The current construction schedule calls for placement of the annulus concrete in Unit 1 in the first quarter of 1983, and in Unit 2 in the first quarter of 1984.

39. Has the re-examination of the containment weld radiographs (see letter from D. Davidson to J. Keppler, May 3, 1982) been completed? Describe in detail all results of this re-examination.

Response:

The reexamination has not yet been completed. The latest interim findings of the re-examination are described in a September 30, 1982 letter from D. Davidson to J. Keppler, a copy of which will be made available for examination at PNPP.

40. If any welds in the containment have to be repaired, explain how this will be done. Are all such welds still accessible? Approximately how many welds will need repair?

Response:

For any portions of accessible containment welds determined to require repair, rejectable portions of deposited weld metal will be completely removed, and new welds will be made in accordance with Project welding procedures and applicable sections of the American Society of Mechanical Engineers (ASME) Code. Applicants will perform an engineering review of any inaccessible welds determined to have rejectable indications. If the results of the engineering review indicate the need for repairs, the welds will be made accessible and will be repaired as described above. Applicants have not yet determined how many welds will require repair.

41. Explain how the containment weld radiographs became a point of concern in 1982 when the welds were done in 1978? Why the delay?

Response:

The May 3, 1982 letter from D. Davidson to J. Keppler, cited by Sunflower in Interrogatory 39, explains the circumstances surrounding Applicants' 1982 review of the containment weld radiographs.

42. Discuss the safety significance of these rejectable welds if they had not been identified and repaired. Would they weaken the containment?

Response:

The safety significance of the radiograph interpretation issue is under evaluation. At this time, Applicants do not have enough information to respond to the interrogatory.

43. Has an evaluation of the causes of the welding deficiencies in the Unit 1 suppression pool floor plates (see April 23, 1982 letter from D. Davidson to J. Keppler) been completed? Describe any such findings. What repairs and/or corrections will be made to the existing welds? What changes to welding procedures will be made to avoid similar problems in the future?

Response:

The evaluation discussed in the April 23, 1982 letter from D. Davidson to J. Keppler has not been completed. As indicated in the April 23, 1982 letter, Applicants expect to complete the evaluation by January 14, 1983.

44. Discuss the safety implications of such deficiencies in the suppression pool welds.

Response:

The safety implications will be discussed in the final report to be filed in January 1983. See response to Interrogatory 43.

45. The April 23, 1982 letter states that "all floor plate welds in this area contain one or more of the above noted defects to some degree." What "area" is referred to? How many welds are involved.

Response:

The April 23, 1982 letter states, "At this time it appears that all floor plate welds in this area contain one or more of the above noted defects to some degree" (emphasis added). The letter emphasizes at page 2 that "[t]he evaluation to determine the extent of the problem is also still underway." The area referred to is the Unit 1 suppression pool. Applicants have not yet determined how many nonconforming welds are involved.

46. Has an investigation been completed concerning the problem with the identification and traceability of safety related valves (see March 25, 1982 letter from D Davidson to J. Keppler)? Describe the results of the investigation; i.e., what caused the problem, have all valves been identified/traced, can the problem be prevented in the future? Generally, in what plant systems are the valves used?

Response:

Applicants' findings related to the valve traceability issue are contained in Applicants' final § 50.55(e) report, dated October 29, 1982. A copy of the final report will be made available for examination at PNPP.

47. Has repair of the suppression pool clad floor plate weld which was concealed (see March 31, 1982 letter from D. Davidson to J. Keppler) been completed? Exactly how large was this weld defect? If the attempted concealment had not been reported, would regular inspections have discovered it? Explain why or why not.

Response:

Yes, the repairs have been completed. Once it was determined that certain welds had been improperly covered up

prior to the required review by inspectors, all areas containing questionable weld metal was removed and new welds were performed. Measurements were never made to determine the number, extent or size of weld defects masked. It is possible that subsequent nondestructive examinations by quality control personnel would have identified rejectible conditions that may have existed in the underlying welds. Furthermore, the quality assurance program for welding does not provide 100% in-process inspection of all welding. Part of the quality program for welding depends on adequate training, qualification, certification, and supervision of welders in accordance with approved and qualified procedures incorporating applicable code requirements. In the case in question, contractor's management identified the fact that a welding foreman was not following the contractor's weld procedures. Had the information concerning this failure not come to the attention of the contractor's management when it did, it is likely that the contractor's management would have discovered the problem at a later date in the course of continued management review of the activities and personnel involved.

48. Have there been any instances of drug and/or alcohol use or abuse by workers at the Perry Site? If so, provide all details.

Response:

Applicants are not aware of any documented instances of drug and/or alcohol use or abuse which have been linked to

quality deficiencies at Perry. To the extent this interrogatory is asking about drug and/or alcohol use or abuse not related to quality deficiencies on the Project, Applicants object to the question as irrelevant and beyond the scope of Issue No. 3. See 10 C.F.R. § 2.740(b)(1).

49. Have any workers been fired by Applicants and/or their contractors/subcontractors because of allegations of poor construction or QA practices at Perry they made to the NRC, news media, or any other person or entity? If so, provide all details.

Response:

Applicants know of no individuals who were fired because they made allegations of poor construction or QA practices at Perry made to the NRC, news media, or any other person or entity.

50. Explain fully any problems or deficiencies concerning Dikkers safety relief valves and how they were corrected.

Response:

The Dikker's safety relief valve issue is discussed in NRC I&E Inspection Report No. 50-440/80-05; 50-441/80-05, dated April 26, 1980, and in NRC I&E Inspection Report No. 50-440/82-03; 50-441/82-03, dated April 6, 1982. Copies of the applicable portions of these two reports will be made available for inspection at PNPP. The reports indicate that there were no noncompliances or deviations from NRC requirements associated with the Dikkers safety relief valves at Perry.

51. Explain fully any problems or deficiencies concerning the Unit 2 polar crane welds and how they were corrected.

Response:

The Unit 2 polar crane weld issue is discussed in a February 26, 1982 final report to the NRC filed by Applicants pursuant to 10 C.F.R. § 50.55(e). A copy of the report, together with a brief amendment to the report dated April 23, 1982, will be made available for examination at PNPP.

52. NRC Chairman Palladino has stated that quality must be built into a plant and cannot be inspected in. Do Applicants agree? If not, why not? Explain how Applicants' QA program ensures that quality is built in.

Response:

Our understanding of Chairman Palladino's position is that a quality assurance program alone cannot ensure that quality is built into a plant. Applicants agree. Nonetheless, the QA process at Perry is an essential part of Applicants' program to provide that quality requirements are designed and built into the Perry Nuclear Power Plant. The entirety of Applicants' QA program and procedures provides assurance that Perry engineering and construction personnel are building quality into the Perry Plant.

53. Define specifically the influence of costs and scheduling considerations on the Perry QA program. E.G., are decisions to write non-conformance reports to use defective components or materials "as-is" influenced in any way by cost and scheduling factors?

Response:

Perry's QA program is structured in accordance with the applicable requirements of 10 C.F.R. 50, Appendix B, § I, which require that persons and organizations performing quality assurance functions have sufficient organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations, to identify quality problems. Decisions concerning whether to write nonconformance reports are not influenced in any way by cost and scheduling factors. Procedures governing disposition of nonconformances assure that safety considerations are not influenced by cost and scheduling factors.

54. Document each and every instance in which equipment and/or materials not meeting specifications were used "as is." For each case, name all personnel responsible for this decision to "use as is" and their qualifications, list any instance in which an engineering judgement was used in reaching that decision and the basis of that judgement.

Response:

Applicants object to the interrogatory as irrelevant and beyond the scope of Issue No. 3. See 10 C.F.R. § 2.740(b)(1). By definition, use-as-is resolutions do not involve quality deficiencies at Perry. See Perry Corporate Nuclear Quality Assurance Program Manual, Appendix III, p. 4. ("Use-As-Is" defined as "A disposition which may be imposed for a nonconformance when it can be established that the discrepancy will result in no adverse conditions and that the item under

consideration will continue to meet all engineering functional requirements including performance, maintainability and fit.") The interrogatory is also unduly burdensome and therefore objectionable. Applicants estimate there have been in excess of 5600 nonconformance reports dispositioned "use-as-is" since the beginning of construction. Applicants would have to spend a significant amount of time (on the order of five hours per report, or 28,000 work-hours) reviewing each individual nonconformance report and interviewing available personnel to attempt to obtain the information requested in the interrogatory.

55. Provide all documentation concerning corrective actions taken regarding the improper alignment of the Unit 1 RPV (see Unresolved Item 440/78-12-05). The following questions relate to the closure of the above unresolved item in the NRC inspection report and related correspondence dated November 21, 1979.

- (a) On what previous experience was the "use as is" decision made by GE safety/reliability personnel based?
- (b) Was this decision based on any engineering judgment? If so, provide the basis of that judgement.
- (c) Give the names of the GE personnel responsible for that decision, and list their professional qualifications.

Response:

The NRC inspection report referenced in this interrogatory closed out the inspection item in question after NRC review of the design agent's engineering use-as-is disposition of the nonconformance. No quality deficiency or unsafe construction was found. Applicants therefore object to the interrogatory as

irrelevant and beyond the scope of Issue No. 3. See Applicants response to Interrogatory 54, and 10 C.F.R. § 2.740(b)(1).

56. Describe in detail the "fabrication deficiencies" which caused rejection of service water intake structures, as documented in NRC Inspection Report 50-440/80-09, p. 4.

(a) Were any design changes made as a result of this problem?

(b) Provide the names of all personnel involved in this decision and give their qualifications.

(c) Was this decision based on any engineering judgement? If so, give the basis of that judgement.

Response:

The service water intake structure issue, closed out by the NRC in the referenced NRC Inspection Report, is discussed in Applicants' final report to the NRC on the issue, filed pursuant to 10 C.F.R. § 50.55(e). A copy of the final report, dated December 7, 1979, will be made available for inspection at PNPP. No design changes were made as a result of Applicants' review of this issue. Engineering judgment was utilized as a part of the decision. The basis of the judgment was that the structures did not meet specification requirements and could not be brought into conformance with those requirements through rework or repair. The names and qualifications of the individuals involved in the decision are being gathered and will be made available for inspection at PNPP.

57. Have Applicants determined whether any piping subassemblies from either Associated Piping and Engineering or ITT Grinnell Industrial Piping are used at Perry? (IE Bulletin 82-01 describes practices by these firms involving the

alteration of radiographs.) If such components are being used at Perry, what corrective actions are being taken?

Response:

Applicants have determined that Perry does not have Associated Piping and Engineering subassembly welds of the type discussed in the referenced I&E Bulletin. Perry does have sixteen ITT Grinnell welds of the type discussed in Bulletin 82-01. All of these welds have been reviewed by Applicants and have been found to be acceptable. Thus, no corrective actions are required.

58. Have Applicants determined whether main control panels at Perry have any weld defects (see IE Information Notice 82-34)? What actions are being taken to assess, and if necessary, to correct this problem?

Response:

Perry will utilize safety-related welds supplied by one of the vendors listed in the referenced I&E Information Notice. At the time Applicants received the Information Notice, none of the panels containing the vendor welds in question had been delivered to the Site. In response to the Information Notice, a complete inspection of all welds to be supplied to Perry was performed at the vendor's facility. No deficiencies were identified. Thus, no corrective action was required.

59. Produce all responses to and notes, memoranda, or other documents pertaining to NRC IE Bulletins, Circulars, and Information Notices.

Response:

Applicants object to this interrogatory as irrelevant and beyond the scope of Issue No. 3. See 10 C.F.R. § 2.740(b)(1). NRC I&E Bulletins, Circulars, and Information Notices are generic documents discussing potential generic design or operations issues, and are not specifically addressed to the Perry Plant or to Perry's construction quality assurance program. Applicants further object to the interrogatory as unduly burdensome. It would take hundreds of work-hours to search through Applicants' employee files to locate notes, memoranda and other documents that might pertain to NRC IE Bulletins, Circulars, and Information Notices.

60. Have Applicants determined whether any electrical penetration assemblies supplied by the Bunker Ramo Corporation have been used at Perry (see IE Information Notice 82-40)? What actions are being taken to assess, and if necessary, to correct this problem?

Response:

Applicants have determined that NRC I&E Information Notice 82-40 does not apply to the Perry design. Perry is not utilizing electrical penetrations manufactured by Bunker Ramo Corporation.

61. Describe in detail Applicants' procedures for evaluating the significances of and responding to NRC IE Bulletins, Circulars, and Information Notices.

Response:

A copy of the Project Procedure PA 1601, Applicants' procedure for evaluation of NRC I&E documents, will be made available for examination at FNPP.

62. Define specifically the role of engineering judgement in the Perry QA program. E.G., are decisions to write nonconformance reports or to use "as is" defective components or materials based on engineering judgement? Upon what are such judgements based?

Response:

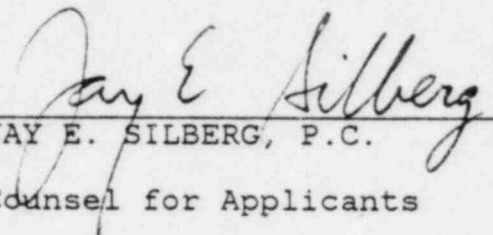
Decisions to write nonconformances are not based on engineering judgement. Applicants' QA procedures provide for the use of nonconformance reports to identify safety-related/augmented quality materials, parts, components, structures, and systems which are not in compliance with the requirements of specifications, codes, drawings, and detailed installation or manufacturing program requirements. Applicants' definition of "use-as-is" is set forth in Applicants' Response to Interrogatory 54. The exercise of engineering judgement in a "use-as-is" resolution of nonconformances is based on the consideration of the nonconforming condition in light of all applicable specifications, codes, drawings, and other design standards and requirements. The engineer's evaluation focuses on the safety significance of the condition, and the ability of the structure or component to

meet all engineering functional requirements including performance, maintainability and fit.

Respectfully submitted,

SHAW, PITTMAN, POTTS & TROWBRIDGE

BY:


JAY E. SILBERG, P.C.

Counsel for Applicants

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(202) 822-1063

DATED: October 29, 1982

CLEVELAND ELECTRIC ILLUMINATING COMPANY
CLEVELAND, OHIO

Ronald L. Farrell, being duly sworn according to law, deposes that he is Manager, Nuclear Quality Assurance Department of The Cleveland Electric Illuminating Company and that the facts set forth in the foregoing Applicants' Answers to Sunflower Alliance's Third Set of Interrogatories on Issue #3, Nos. 1 through 62 dated September 30, 1982, are true and correct to the best of his knowledge, information and belief.

Ronald L. Farrell

Sworn to and subscribed before
me this 29th day of October, 1982

Jeanne Robinson

JEANNE ROBINSON, Notary Public
State of Ohio - Lake County
My comm. exp. Nov. 12, 1983

DOCKETED
USNRC

October 29, 1982

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

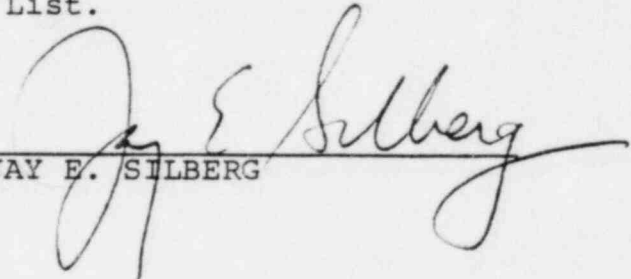
OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

Before the Atomic Safety and Licensing Board

In the Matter of)
)
THE CLEVELAND ELECTRIC) Docket Nos. 50-440
ILLUMINATING COMPANY) 50-441
)
(Perry Nuclear Power Plant,)
Units 1 and 2))

CERTIFICATE OF SERVICE

This is to certify that copies of the foregoing "Applicants' Answers to Sunflower Alliance, Inc. Third Set of Interrogatories to Applicants" were served by deposit in the United States Mail, First Class, postage prepaid, this 29th day of October, 1982, to all those on the attached Service List.


JAY E. SILBERG

DATED: October 29, 1982

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

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