

Sinnissippi Alliance for the Environment

326 North Avon Street
Rockford, Illinois 61103

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

DOCKETED
January 21, 1982

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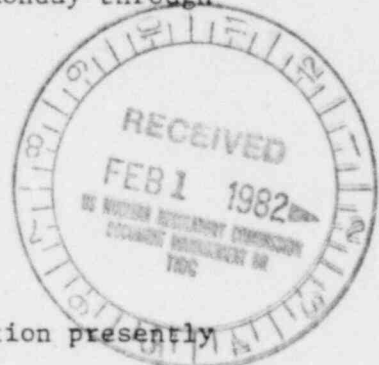
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In the Matter of)	
)	Docket Nos. 50-454
COMMONWEALTH EDISON COMPANY)	50-455
)	
(Byron Station, Units 1 and 2))	

DAARE/SAFE'S RESPONSE TO COMMONWEALTH
EDISON'S FIRST ROUND OF INTERROGATORIES

DAARE/SAFE submits the following Response to Applicant's Interrogatories. All documents identified, unless otherwise indicated, are available for inspection and copying by Commonwealth Edison and NRC Staff. Specific appointments for inspection may be arranged, with at least one week's notice by phoning DAARE/SAFE member Mr. Stanley Campbell, Monday through Friday, 9am-10am, at (815) 962-7373.

ANSWERS TO INTERROGATORIES



The answers provided below contain all of the information presently available to DAARE/SAFE and is an update to information already provided by it's response to NRC Staff Interrogatories. Additional information responsive to these Interrogatories will be immediately disclosed to Applicant and NRC Staff as it becomes available. For all questions not answered DAARE/SAFE has no responsive information.

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DAARE/SAFE provides the following information with respect to each of its Contentions:

- Part 1. A preliminary statement of the facts which DAARE/SAFE has determined it will use to support the Contention, with references to the documents which have been or will be relied upon to establish the facts.

Documents previously cited for NRC Staff Interrogatories which pertain specifically to particular facts are listed immediately following each fact by page and document number. For reference purposes a copy of the DAARE/SAFE Response is attached to this Response.

Beneath each fact citations for documents not previously referenced by DAARE/SAFE are provided lastly.

- Part 2. The identity of each witness DAARE/SAFE is requesting to testify in support of each Contention; the person's qualifications to testify on the subject matter; the Contention or facts which each will address, and the substance of the witnesses testimony, if applicable.

Where "not determined" is provided in response to questions of identity, DAARE/SAFE intends that to indicate that at present we do not plan to call any witnesses.

Limited financial resources have caused DAARE/SAFE difficulty in obtaining firm commitments from potential witnesses. Those witnesses for which full listings are provided represent persons with firm commitments. Incomplete listings represent persons yet to indicate to DAARE/SAFE their availability or the structure of their testimony.

The above information lacking for each individual will be made available to Applicant and NRC Staff immediately upon receipt.

- Part 3. A listing of persons involved in the preparation of this Response.

The following citations for documents indicate sources other than DAARE/SAFE from which those documents may be obtained or inspected:

(RPL) --- Rockford Public Library, 215 N. Wyman Street, Rockford, Il.

(ICC) --- Illinois Commerce Commission, 527 East Capitol Avenue, Springfield, Il.

Contention 1

Part 1. DAARE/SAFE will rely upon the following facts and evidence listed below to support this contention:

1. Commonwealth Edison has been cited repeatedly by NRC Commission officials for continuing management inadequacies and operating problems in its facilities which resulted in increased NRC inspection efforts, and imposition of fines for violations in excess of the severity and number imposed upon other utilities.

DAARE/SAFE Response to NRC Staff-page 2, documents 1-5.

2. Commonwealth Edison has reported to the NRC "abnormal occurrences" at its stations at a rate proportionately in excess to that reported by other utilities.

DAARE/SAFE Response to NRC Staff-page 2, documents 5, 6.

3. The propriety of Edison's plant management at Cordova was so disputed as to be the subject of a Federal Grand Jury investigation in January, 1978, and criminal indictment.

29. United States of America v. Commonwealth Edison Company, court file, Criminal Case Docket No. 80-40002, United States District Court, Central District, Rock Island Division, Rock Island, Illinois.

4. Applicant's record of laxity in the packaging and hauling of low level waste caused it to be banned from South Carolina's low level waste disposal site, and initiated a Washington state ban against all importation of low level waste.

This information is to be extracted by DAARE/SAFE from the information Commonwealth Edison has made available to DAARE/SAFE in response to Interrogatory 13 of DAARE/SAFE's Interrogatories to the Applicant.

5. The history of all Edison's plants failures to observe on a continuing and adequate basis the applicable quality control and quality assurance criteria and plans.

DAARE/SAFE Response to NRC Staff-page 3, documents 14-25, page 4, document 25. Additional information is to be compiled from the information Commonwealth Edison has made available to DAARE/SAFE in response to Interrogatory 11 of DAARE/SAFE's Interrogatories to the Applicant.

6. Commonwealth Edison's difficult financial position, its low credit ratings, and the depletion of its financial resources due to its

nuclear construction program has led it to depend upon non-traditional revenue sources and indicates it's inability to safely complete and prudently manage the Byron plant.

DAARE/SAFE Response to NRC Staff-page 2, document 7, page 3, documents 8-13,

Part 2. Not determined. David Stahr of the Illinois Public Action Council has informed DAARE/SAFE that his schedule will not permit him to testify in support of Contention 1.

Contention 2

Part 1. DAARE/SAFE will rely upon the following facts and evidence listed below to support this Contention:

1. Routine and accidental releases of hazardous radioactivity will occur during the operation of the Byron plant, as in that of any other nuclear plant, in excess of amounts authorized by NRC regulations; 10 C.F.R. Part 20, and 10 C.F.R. Part 50, Appendix 1, and EPA regulations, 40 C.F.R. 190.

DAARE/SAFE Response to NRC Staff-page 4, documents 1-5, and 9; page 5, documents 10-13, 15-19, and 21.

29. AEC Memo, labeled enclosure 4, from Karl V. Seyfrit, Chief Technical Assistance Branch, Directorate of Regulatory Operations, to G. Lainas, Chief, Containment Systems Branch, L; entitled, "PWR Purging and Venting Experience," dated September 3, 1974
 30. NRC Regulatory Guide-1.112, "Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents from LW Cooled Power Reactors". April, 1976, and May, 1977. (RPL)
 31. Bronson, "Nuclear Accident Seen Adding to Row Over Dangers of Low Radiation Doses, Wall Street Journal, April 2, 1979, page 3, col. 1. (RPL)
2. Research upon the health effects of low-level radiation from reactors demonstrates that there is no threshold level for safe radiation.

DAARE/SAFE Response to NRC Staff-page 4, documents 1-4, and 7, 8; page 5, documents 10, 14, 15, 17, 18, 20, 21.

22. Drey, Kay, Report-"The Release of Radioactivity from the

Routine Operation of Nuclear Power Plants", April 10, 1980.

23. WASH-1258, Proposed Rule-Making Action: Numerical Guides for Design Objectives and Limiting Conditions for Operations to Meet the Criterion "As Low as Practicable" for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents. Vol. 2, July 1973, B-13. AEC. (RPL)
 24. "Report of Committee II on Permissible Dose for Internal Radiation", International Commission on Radiological Protection, 1959. (RPL)
 25. "Comments on NUREG-0332", by Dr. William A. Lochstet, November 1977.
 26. Radiation Research, Vol. 58, pages 91-100, 1971, "Tritium Toxicity: Effect of Low-Level HOH Exposure on Developing Female Germ Cells in the Mouse", R. Lowry Dobson and Mary F. Cooper.
 27. Honiker vs. Hendrie: A Lawsuit to End Atomic Power. The Farm: 1978.
 3. Commonwealth Edison's planned nuclear generation in Northern Ill. will entail cumulative radiation exposures to worker and public populations in excess of levels sanctified by NRC regulations and medical recommendations.
- DAARE/SAFE Response to NRC Staff-page 4, document 6, plus, all the documents cited for the previous statement of fact.
28. Letter, dated February 11, 1980, from Karl Z. Morgan, Georgia Institute of Technology, School of Engineering, Atlanta, GA, addressed to Dr. Bruce Von Zellen, Department of Biological Sciences, Northern Illinois University.
- Part 2. Remains unchanged with DAARE/SAFE's Response to NRC Staff.

Contention 3

Part 1. DAARE/SAFE will rely upon the following facts and evidence listed below to support this Contention:

1. The components of Edison's emergency evacuation planning process pertaining to Byron; the Byron FSAR, Edison's GEPSO, and the Zion Evacuation Plan and exercise of October 1981, have failed to include factors set forth in DAARE/SAFE Contention 3, and cannot comply with NRC regulations meaningfully in the event of a serious or multi-plant site accident.

DAARE/SAFE will rely upon all documents cited for Contention 3 in it's Response to NRC Staff to support this statement.

NUREG CP-0011, "Proceedings of Workshops on Proposed Rulemaking on Emergency Planning for Nuclear Power Plants Held at New York City, San Francisco, Chicago, and Atlanta," January 1980 (RPL)

Part 2. Not determined. DAARE/SAFE is in contact with Mrs. Marilyn Shine-flug, Antioch, Il., but has not recieved any committment.

Contention 4

Part 1. DAARE/SAFE will rely upon the following facts and evidence listed below to support this Contention:

1. Class 9 reactor accidents have occurred since the submittal of the Byron PSAR.

DAARE/SAFE Response to NRC Staff-pages 7-8, documents 1-6, 11, 12, 20, and 21.

2. The Byron FSAR does not analyze public risks of potential accidents resulting from multiple, mutually independent failures.

Appendix D, 10 C.F.R. Part 50., and Byron FSAR.

3. The Byron FSAR does not consider the implications of the revision and withdrawal of Appendix D. of 10 C.F.R., Part 50 and the Reactor Safety Study (WASH 1400)

DAARE/SAFE references above documents.

4. Complex reactor accident theories, such as diffusion theory, are presently incapable of computer verification.

DAARE/SAFE Response to NRC Staff-page 7, documents 1, 4-6, and 9.

24. NUREG-CR 0603, October 1979, "Uncertainty Analysis for a PWR LOCA: I. Blowdown N Phase Employing the RELAP 4/MOD 6 Computer code". (RPL)

5. Computer models used to test simple reactor accident theories have produced results not predicted by the theories.

DAARE/SAFE Response to NRC Staff-page 7, documents 1, 4-6, 9, page 8, documents 14, and 15.

25. NUREG-0460, "Anticipated Transients Without Scram", Vol. 4, March 1980. (RPL)

26. NUREG-0724, "Problems in Modelling of Small Break LOCA", Oct-

ober 1980. (RPL)

Document 24 for the previous statement of fact is also cited for this statement.

6. The cost of a reactor safety system retrofit is underestimated; the difficulty of retrofit during mid-life decontamination has not been realistically assessed.

DAARE/SAFE Response to NRC Staff-page 7, documents 4, and 6; page 8, documents 20, and 23.

27. NUREG 0691, "Investigation and Evaluation of Cracking Incidents in Piping in PWRs", September 1980. (RPL)

Part 2. DAARE/SAFE Response to NRC Staff remains essentially the same. However Dr. Webb has indicated to DAARE/SAFE that he will rely upon the reports by him which DAARE/SAFE has cited throughout this Contention, to base his testimony on; as well as the Byron FSAR, EIS, DES, FSAR, and 10 C.F.R. Part 50. In addition Dr. Webb grants DAARE/SAFE permission to make available for Applicant as well as NRC Staff the document described in DAARE/SAFE Response to NRC Staff in category 1, page 1.

Contention 6

Part 1. The strength of zirconium cladding has been overestimated.

DAARE/SAFE Response to NRC Staff-page 9, documents 1-3, 5, 6, page 7, documents 5, 6, 9, and page 8, document 23.

8. NUREG-0557, Section A-12. (RPL)
9. NUREG-0557, Appendix, "Core Damage Assessment". (RPL)
10. Safety Study: Fuel Behavior", Nuclear News, August 1970, Pages 67 and 68. (RPL)
11. NUREG-0630, "Cladding Swelling and Rupture Models for LOCA Analysis", April 1980. (RPL)
2. Power excursion tests on zirconium cladding demonstrate cladding failure at power levels substantially lower than for design basis accidents.

DAARE/SAFE Response to NRC Staff-page 9, documents 1-3, 5, 6; page 7, document 6.

DAARE/SAFE also cites 11, from the previous fact, for this Contention.

12. "Testimony to be Presented at the New York City Council Hearings on the Indian Point Nuclear Plant", Daniel M. Pisello, Ph.D., June 8, 1979.

3. The TMI fuel cladding failure rate was 40%, far in excess of NRC postulated 1% failure rate for design basis accidents.

DAARE/SAFE cites 8, and 9, from fact 1 of this Contention, and 12 from fact 2.

Part 2. This information remains unchanged from DAARE/SAFE Response to NRC Staff Interrogatories.

Contention 7

Part 1.

1. The hydrogen recombiners and the vented filtering system which relieve hydrogen gas pressure are inadequate to prevent a hydrogen explosion from rupturing the containment should an accident similar to TMI occur at Byron. The FSAR does not analyze nor mention effective safeguards.

All documents cited for Contention 7 in DAARE/SAFE Response to NRC Staff Response will be used to support this fact, as well as 12 from the previous Contention; fact 2.

4. Letter from Marilyn Shineflug, Chairperson, ISEA, to Mr. Roger Harrison, City Environmental Officer, Waukegan, Il., dated May 15, 1980.

Part 2. This information remains unchanged the DAARE/SAFE Response to NRC Staff Interrogatories.

Contention 8

Part 1.

1. Chemical decontamination of the Byron plant will occur for mid-life cleaning several times, and for plant closing.

DAARE/SAFE cites for this fact all documents listed for Contention 8 in DAARE/SAFE Response to NRC Staff Interrogatories.

9. Letter from Catherine Quigg, Chairperson, PEP, to Bruce Von Zellen, School of Biological Sciences, Northern Illinois University, Dekalb, Il., dated August 22, 1979
10. Letter from Karl R. Goller, Assistant Director of Operating Reactors, Division of Reactor Licensing, NRC, to R. L. Bolger, Assistant Vice President, Commonwealth Edison, dated December 9, 1975.

2. The Byron FSAR and DES exclude analysis or discussion of the environmental and biological consequences of accidental release of chemical contaminants.

DAARE/SAFE Response to NRC Staff-page 10, documents 3,4,6, and 8.

11. The Progressive Magazine, August 1979, Pages 41-42, "One woman's crusade against nuclear crud", by Jan Allen.

3. Specific decontamination agents pose serious environmental questions not yet resolved. Commonwealth Edison has not planned enough for the decontamination process to indicate which agents it will use and what risks they pose.

DAARE/SAFE Response to NRC Staff-page 10, documents 3, 4, 5, 6, and 8. Also, document 11 from the previous fact is cited for this fact.

12. Letter from Marilyn Shineflug, Chairperson, ISEA, to Professor David Crerar, Geology Department, Princeton University, dated August 9, 1979.

Part 2. This remains unchanged from DAARE/SAFE Response to NRC Interrogatories.

Contention 9

Part 1.

1. DAARE/SAFE Contention 9, is a list of unresolved safety problems applicable to Byron which are not adequately discussed in the FSAR. DAARE/SAFE will rely upon portion a-e of the list as facts to support this contention. Documents cited specifically below pertain to each:

1. (Portion a): DAARE/SAFE Response to NRC Staff-page 11, documents 7, 11, and 12; page 7, document 5; page 8, document 12.

2. (Portion b): DAARE/SAFE Response to NRC Staff-page 11, documents 7, 11, and 12; page 7, document 5.

21. NUREG-0609, "Assymetric Blowdown Loads on PWR Primary Systems", (RPL)

3. (Portion c): DAARE/SAFE Response to NRC Staff-page 10, documents 1, 2; page 11, documents 7,8, and 9, 11, 12; page 7, document 5.

22. NUREG-0571, "Summary of Tube Integrity Operating Experience With Once-Through Steam Generators", March 1980. (RPL)

23. NUREG-0651, "Evaluation of Steam Generator Tube Rupture Events", March 1980. (RPL)

24. Press Release, North Anna Environmental Coalition, "Defective Steam Generators Found at North Anna Reactor, Unit 1", January 7, 1980.

4. (Portion d): DAARE/SAFE Response to NRC Staff Interrogatories-
page 11, documents 7, 11, and 12; page 7, document 5; page 8,
document 12.

5. (Portion e): DAARE/SAFE Response to NRC Staff-page 11, docu-
ments 11, 12; page 7, document 5; page 10, documents 1, 2, 5, 7.

Part 2. This remains unchanged from DAARE/SAFE's Respense to NRC Staff In-
terrogatories.

Part 3. The following persons participated in the preparation of this Re-
sponse:

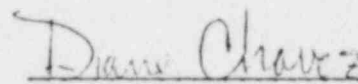
Richard Bunch-DAARE/SAFE

Diane Chavez-DAARE/SAFE

Stanley Campbell-DAARE/SAFE

Kenneth Kirkpatrick-DAARE/SAFE

The undersigned, a member of DAARE/SAFE certifies that on this date
she served a copy of this "Response" on each member of the service list by
United States Mail, postage prepaid, or by other means as appropriate.


Diane Chavez

Date: January 21, 1982
cc/service list