

May 20, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
UNION ELECTRIC COMPANY) Docket No. STN 50-483 OL
(Callaway Plant, Unit 1))

APPLICANT'S MOTION FOR SUMMARY
DISPOSITION OF REED CONTENTION 8
(RADIATION DETECTION EQUIPMENT)

Pursuant to 10 C.F.R. § 2.749, Union Electric Company ("Applicant") moves the Atomic Safety and Licensing Board for summary disposition of Contention 8 advanced by intervenor John G. Reed. As shown below, summary disposition is appropriate because there is no genuine issue of material fact to be heard with respect to Contention 8. Accordingly, Applicant is entitled to a decision in its favor on Contention 8 as a matter of law.

This motion is supported by Applicant's Statement of Material Facts on Reed Contention 8 As to Which There Is No Genuine Issue To Be Heard (Radiation Detection Equipment), Applicant's Memorandum of Law In Support of Motions for Summary

Disposition On Emergency Planning Issues ("Memorandum of Law"), the Missouri Nuclear Accident Plan - Callaway ("State Plan"), the Callaway Plant Radiological Emergency Response Plan ("RERP"), the Affidavit of Roger E. Linnemann, M.D. on Reed Contention 8 (Radiation Detection Equipment) ("Linnemann-8"), the Affidavit of Roger E. Linnemann, M.D. on Reed Contention 10 (Medical Treatment) ("Linnemann-10"), the Affidavit of Kenneth A. Miller on Reed Contention 17 (Radiological Monitoring) ("Miller-17"), the Affidavit of William K. Johnson on Reed Contention 17 (Radiological Monitoring) ("Johnson") and the Affidavit of Neal G. Slaten on Reed Contention 17 (Radiological Monitoring) ("Slaten-17"), all filed simultaneously herewith, as well as the pleadings and other papers filed by the parties in the proceeding.

I. Procedural Background

Mr. Reed's Contention 8 states:

Facilities for evaluation of personal exposures to radiation or biological uptake of radio-nuclides do not exist in the State of Missouri, except for Union Electric's on-site equipment (see footnote on page Fl.1 of the State RERP).

A. Use of Applicant's on-site equipment by State or local governments is not authorized by letter or agreement in such plans or SOPs; use of Cooper Station equipment is not authorized either.

B. During evacuation of the plume exposure EPZ, it appears counter-productive to transport contaminated individuals back through a contaminated zone from which they have been removed for safety's sake to obtain a bio-assay, etc.

C. Without a method to determine degree of exposure or radio-nuclide uptake, proper medical counter-measures to expedite bodily excretion of nuclides or render adequate treatment for cellular damage will not be reasonably effective.

Final Particularization of Reed's Amended Contentions 1, 2 and 3, filed October 1, 1982. Neither Applicant nor the NRC Staff posed an objection to Contention 8, which was admitted to the proceeding by Board Memorandum and Order dated December 7, 1982.

During his deposition, Mr. Reed reiterated and emphasized the basis for Contention 8 set forth in the first paragraph of the contention; namely, that the State Plan, Annex F at Attachment 1, stated that the State of Missouri would depend upon the Cooper or the Callaway facility to provide whole body counters and bioassay evaluation. Mr. Reed challenged the sufficiency of this approach. See Deposition Tr. 138-42 (Aug. 18, 1982). Mr. Reed has not proposed that any particular equipment or method of determining degree of exposure or biological uptake is required. Rather, it is his view that it is impractical for the State to rely on radiation detection equipment located at either Cooper Station or the Callaway Plant. Id.

II. Governing Legal Standards

The need to evaluate radiation exposures of members of the public and off-site emergency workers is not a specific regulatory requirement. However, 10 C.F.R. § 50.47(b)(12) does require that arrangements be made for medical services for contaminated injured individuals. One of the evaluation criteria of Planning Standard L of NUREG-0654/FEMA-REP-1 (Rev. 1) (Nov. 1980), "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" ("NUREG-0654"), which provide guidance on how to satisfy 10 C.F.R. § 50.47(b)(12),^{1/} include the recommendation that arrangements be made for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake. NUREG-0654, Section II.L.1.

In its recent San Onofre decision on arrangements required to be made for medical services for contaminated, injured individuals pursuant to 10 C.F.R. § 50.47(b)(12), the Commission discussed the issue of arrangements necessary to evaluate and treat individuals who have been exposed to radiation. Southern California Edison Company, et al. (San

^{1/} See Metropolitan Edison Company (Three Mile Island Nuclear Station, Unit No. 1), LBP-81-59, 14 N.R.C. 1211, 1460 (1981) (NUREG-0654 contains guidance criteria), aff'd, ALAB-698, 16 N.R.C. _____, slip op. at 13-15 (Oct. 22, 1982).

Onofre Nuclear Generating Station, Units 2 and 3), CLI-83-10, 17 N.R.C. _____ (April 4, 1983). With respect to individuals who have been subjected to dangerous levels of radiation and who need medical treatment for that reason,

[t]he nature of radiation injury is such that, while medical treatment may be eventually required in cases of extreme exposure, the patients are unlikely to need emergency medical care. The non-immediacy of the treatment required for radiation-exposed individuals provides onsite and offsite authorities with an additional period of time to arrange for the required medical service.

Id., slip op. at 12.

III. Argument

The standards governing summary disposition motions in an NRC proceeding are set forth in Applicant's Memorandum of Law. In summary, where, as here, a properly supported motion for summary disposition is made, the party opposing the motion must come forward with substantial facts establishing that a genuine issue of fact remains to be heard. In the absence of such a showing, the motion must be granted. 10 C.F.R. § 2.749(b).

Applying the foregoing standard to Contention 8, it is clear that the concern about the availability of adequate radiation detection equipment raised by Mr. Read has been fully satisfied and, accordingly, there is no genuine issue of fact remaining to be heard by the Board.

The provision of the State Plan which troubled Mr. Reed has been changed. The State Plan now provides that in the event of a radiological accident at the Callaway Plant, internal exposures of members of the population (the public or emergency workers) will be accomplished primarily through whole body counting, utilizing the portable whole body counters available from Radiation Management Corporation ("RMC"). State Plan, Annex F, Attachment 1, appended hereto as Attachment 1; see also Linnemann-8, ¶ 4. Dr. Roger E. Linnemann, a medical doctor with extensive radiological health expertise, is the Vice Chairman of RMC. Dr. Linnemann explains in his affidavit the feasibility of this approach for which prior arrangements have been made. Because it is not necessary for whole body counting to be done immediately, ample time would be available to transport a portable whole body counter to the Callaway Plant area from Chicago, and from Pennsylvania and California, if necessary. Linnemann-8, ¶ 4. Dr. Linnemann discusses the medical basis for this fact in more detail in his affidavit on Reed Contention 10. See Linnemann-10, ¶¶ 3-8, 16-17. In summary, once the body has been irradiated, a predictable clinical course ensues which is directly correlated with exposure dose and dose rate. This clinical course cannot be interrupted and will evolve over a period of days and weeks. Linnemann-10, ¶ 4; see also San Onofre, supra, slip op. at 12.

Similarly, with respect to external exposure of the population, an excellent estimation of the exposure can be obtained by the Union Electric Company environmental monitoring system that is in place prior to the accident. These estimates will be verified by State field monitoring teams as well as Applicant teams. Linnemann-8, ¶ 3. The extensive radiological monitoring capability and resources of Applicant are described in detail in the affidavit on radiological monitoring by Mr. Neal G. Staten of Union Electric Company, which responds to Mr. Reed's Contention 17. See Staten-17, ¶¶ 6-27. The redundant capability of the State, which will serve as a means for verifying the findings of Applicant's field monitoring teams, is described in the affidavits of Kenneth V. Miller, the Administrator of the Bureau of Radiological Health of the Missouri Division of Health, and William K. Johnson, the State Radiological Defense Officer with the Missouri State Emergency Management Agency. See Miller-17 and Johnson affidavit. Using these estimates and the specific location of the individual, one can obtain a good estimate of external exposure. Linnemann-8, ¶ 3. Laboratory analyses of blood, which can be performed by any hospital laboratory, also can be used to determine external exposures. Id.

While specialized tests, such as chromosome analyses, can be performed in the event of high external exposures, like the internal exposure tests, these tests need not be done

immediately. Id. Through arrangements that have been made by RMC as a part of its national emergency medical assistance program, special laboratories such as those of Northwestern University in Chicago and the University of Pennsylvania in Philadelphia are available to perform these evaluations. Linnemann-10, ¶¶ 18, 21; RERP § 6.8.4 and Appendix C (letter of agreement, appended hereto as Attachment 2).

Based on the foregoing facts, Dr. Linnemann concludes that the State of Missouri and local governments have available to them the necessary equipment, laboratory facilities and expertise to evaluate in a timely manner both external and internal radiation exposures to the population. Linnemann-8, ¶ 5. In Dr. Linnemann's opinion, there is therefore no need for any additional radiation detection equipment to perform these assessments. Id. Dr. Linnemann's view is consistent with the standard established by the Commission in its San Onofre decision.

IV. Conclusion

No issues of material fact remain to be heard with respect to Reed Contention 8. The basis for Contention 8 no longer exists. A provision now exists in the State Plan to ensure that radiation detection equipment will be available in a

timely manner to evaluate radiation exposure. Accordingly,
Applicant's motion for summary disposition should be granted.

Respectfully submitted,

SEAW, PITTMAN, POTTS & TROWBRIDGE

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May 20, 1983

NUCLEAR ACCIDENT PLAN
ATTACHMENT 1 TO ANNEX F
MEDICAL CARE FACILITIES

Following are medical care facilities which have the capabilities to receive radiation injured or potentially radioactive contaminated patients.

CALLAWAY PLANT AREA

Callaway Memorial Hospital
828 Jefferson
Fulton, MO

Administrator: Sharon Heinlen
314/642-3376

Memorial Community Hospital
1432 Southwest Blvd.
Jefferson City, MO

Administrator: Gordon Butler
314/635-6811

Boone County Hospital
1600 E. Broadway
Columbia, MO

Administrator: Warren Rutherford
314/875-4545

Univ. of Missouri Medical Center
Stadium Drive
Columbia, MO

Director: Robert Smith
314/882-4141

St. Mary's Health Center
Jefferson City, MO

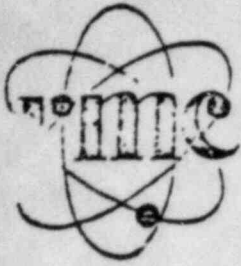
Administrator: Gary Stremel
314/635-8141

Charles E. Still Hospital
Jefferson City, MO

Administrator: James Cox
314/635-7141

NOTE: There are no hospitals in Missouri with whole body counters and only limited bioassay evaluation exists. Therefore, Missouri will depend upon the following resources for these services:

Radiation Management Corporation retained by Union Electric (if Callaway has an accident). RMC will provide mobile whole body counter on request from Union Electric.



August 29, 1979

Mr. D. F. Schnell
Manager, Nuclear Engineering Dept.
Union Electric Company
P.O.Box 149
St. Louis, MO 63166

Dear Mr. Schnell;

This letter confirms our support of the Union Electric Radiological Emergency Response Plan (RERP) at the Callaway Plant. We will cooperate in the implementation of the RERP by providing medical and health physics support as delineated in our Emergency Medical Assistance Plan. This support includes training of hospital and ambulance personnel, consultation to supporting hospitals concerning emergency medical treatment of contaminated patients, and provision for a radiation medical facility at Northwestern Memorial Hospital, in Chicago, or the Hospital of the University of Pennsylvania, Philadelphia.

Signed

Title

VICE-PRESIDENT - MW DIV.

radiation
management
corporation

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