

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 20
(AUTHORIZATION OF EXCESS RADIOLOGICAL EXPOSURES
TO WORKERS & SPECIFICATION OF DECONTAMINATION
ACTION LEVELS)

Pursuant to 10 C.F.R. § 2.749, Union Electric Company ("Applicant") moves the Atomic Safety and Licensing Board for summary disposition of Contention 20 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 20. Accordingly, Applicant is entitled to a decision in its favor on Contention 20 as a matter of law.

This Motion is supported by Applicant's Statement of Material Facts On Reed Contention 20 As To Which There Is No Genuine Issue To Be Heard (Authorization of Excess Radiological

Exposures to Workers & Specification of Decontamination Action Levels), Applicant's Memorandum of Law In Support Of Motion for Summary Disposition On Emergency Planning Issues ("Memorandum of Law"), the Callaway County/Fulton Radiological Emergency Response Plan ("Callaway/Fulton Plan"), the Montgomery County Radiological Emergency Response Plan ("Montgomery Plan"), the Osage County Radiological Emergency Response Plan ("Osage Plan"), the Gasconade County Radiological Emergency Response Plan ("Gasconade Plan"), the Affidavit of John W. Baer on Reed Contention 20 (Authorization of Excess Radiological Exposures To Workers & Specification of Decontamination Action Levels) ("Baer-20"), and the Affidavit of Walter M. Clark on Reed Contention 20 (Authorization of Excess Radiological Exposures to Workers & Specification of Decontamination Action Levels) ("Clark-20") all filed simultaneously herewith, as well as the pleadings and other papers filed by the parties in the proceeding.

I. Procedural Background

Reed Contention 20 states:

Each State and local organization shall establish the decision chain for authorizing emergency workers to incur exposures in excess of the EPA General Public Protective Action Guides including lifesaving activities (NUREG 0654, II, K.4) and shall specify action levels for determining the need for decontamination (NUREG 0654, II, K.5.a). No such decision chain for authorizing exposures in excess of EPA PAGs or specification of action levels for the determination to decontaminate are included in the proposed Offsite Plan or the SOPs. Without formal procedures indicating how excess exposures of emergency workers will be authorized, haphazard decisions regarding excess exposures

may be made by personnel who have no knowledge of the effects such exposures may have on the emergency workers.

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 20, which was admitted to the proceeding by Board Memorandum and Order dated February 25, 1983.

At the time Contention 20 was formulated, one local offsite plan existed for the four counties in the Callaway Plant emergency planning zone ("EPZ"). Since that time, in response to comments received from the Federal Emergency Management Agency ("FEMA"), parallel plans have been developed for each of the four EPZ counties.

II. Governing Legal Standards

The need for a decision chain for authorizing emergency workers to incur exposures in excess of the Environmental Protection Agency ("EPA") Protective Action Guides ("PAG's") is not specifically delineated as an NRC emergency planning regulatory requirement. However, 10 C.F.R. § 50.47(b)(11) specifies the following emergency planning standard:

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

The need for a decision chain to authorize excess exposures is contained in NUREG-0654/FEMA-REP-1 (Rev. 1), "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" ("NUREG-0654"). Specifically, Section II.K.4 of NUREG-0654, which is intended to implement the requirement stated in 10 C.F.R. § 50.47(b)(11), provides: "Each State and local organization shall establish the decision chain for authorizing emergency workers to incur exposures in excess of the EPA General Public Protective Action Guides (i.e., EPA PAGs for emergency workers and lifesaving activities)." 1/

Similarly, with respect to the need for decontamination action levels, another of the NUREG-0654 evaluation criteria which flows from 10 C.F.R. § 50.47(b)(11) states "Each organization as appropriate shall specify action levels for determining the need for decontamination." NUREG-0654, Section II.K.5.a. Mr. Reed cites both of these NUREG-0654 criteria in Contention 20.

III. Argument

The standards governing summary disposition motions in an NRC proceeding are set forth in Applicant's Memorandum of Law.

1/ NUREG-0654 is a regulatory guidance document; it is not binding on the Commission. Metropolitan Edison Company (Three Mile Island Nuclear Station, Unit No. 1), LBP-81-59, 14 N.R.C. 1211, 1460 (1981), aff'd, ALAB-698, 16 N.R.C. _____, slip op. at 13-15 (Oct. 22, 1982).

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 movant is entitled to a decision in its favor on that contention as a matter of law.

Applying the foregoing standards to this case, it is clear that Applicant's motion for summary disposition on Reed Contention 20 should be granted. Applicant does not contest the need for either a decision chain for authorizing excess radiological exposures to workers, or action levels for determining the need for decontamination, which are the two subjects of Reed Contention 20. However, it is clear from the radiological emergency response plans for the four counties in the Callaway Plant plume exposure EPZ, the State Plan, and the affidavits of Walter M. Clark and John W. Baer on these two subjects that provisions have been made in the four county plans and in the State Plan which fully satisfy the guidance provided in NUREG-0654, Sections II.K.4 and II.K.5.a. Accordingly, there are no materials issues in controversy between Mr. Reed and Applicant with respect to the issues raised by Mr. Reed in Contention 20.

A. Authorizing Excess Exposures

Mr. John W. Baer is an emergency planning specialist with the Emergency Planning Department of Energy Consultants, Inc. ("ECI"), a nuclear emergency response planning consultant. Baer-20, ¶ 1. According to Mr. Baer, it is generally accepted by radiological emergency planners that Section II.K.4 of NUREG-0654 means that the off-site plans identify by title who has the exclusive responsibility to authorize excess exposures for emergency workers, and that the plans specify criteria by which such an authorization will be made. Id., ¶ 3. Mr. Baer is fully satisfied that the county plans, augmented by provisions in the State Plan, fully satisfy this planning criterion. Id., ¶ 13. Mr. Baer's view is shared by Mr. Walter M. Clark. Mr. Clark is the Emergency Management Director ("EMD") for Callaway County and the City of Fulton. Mr. Clark has had some 25 years of emergency management experience. Clark-20, ¶¶ 1, 5 and Exhibit "A". Authorizing excess exposures to county personnel is a county function. Id. at ¶ 6. Mr. Clark is the EMD in the dominant county within the Callaway Plant EPZ.

As explained by Messrs. Baer and Clark in their affidavits, the decision chain for authorizing excess exposures to local emergency workers is expressly stated in Annex J to each of the four county plans. See attached Exhibits "B", "C", "D" and "E" to Baer-20; Baer-20 at ¶¶ 4 and 5; Clark-20 at ¶¶ 6-10. In summary, the most senior local government representative

charged with direction and control of emergency response activities in each of the counties (or the City of Fulton) will make the decision regarding authorization to exceed EPA PAG limits. The precautionary exposure level for emergency workers is 5 rem whole body dose and 25 rem projected thyroid dose. Once this level is reached, all appropriate radiological exposure control measures will be implemented in order to keep exposures as low as reasonably achievable. The maximum exposure level for emergency workers, except in life-saving situations, is 25 rem projected whole body dose and 125 rem projected thyroid dose. When this level is reached, the emergency worker must leave the risk area unless a lifesaving activity calls for exceeding this limit. Supervisors of emergency workers are expressly required to prohibit participation in the emergency when PAG limits are reached, except as specifically authorized for lifesaving activities. The PAG levels in the county plans are the same as the State PAG levels contained in Annex B to the State Plan.

In determining whether to authorize exposures beyond the PAG limits, the Presiding Judge/Mayor/County Court (depending on the jurisdiction) will consult with qualified technical personnel from the State Bureau of Radiological Health ("BRH"). See, e.g., Callaway/Fulton Plan, Annex J at Sections I.C.1 and III.E.3 (Baer-20, Exhibit B). During a serious emergency, BRH will be located at the Emergency Operations Facility ("EOF") and, as well, may be situated at the State Emergency Operations

Center ("EOC"). At a minimum, local governments will have access to BRH through their respective representatives at the EOF. Also, of course, there will be phone links between each of the counties and the State EOC. See State Plan, Annex A at BRH Sections C.3.b and B.8; Callaway/Fulton Plan and other three county plans at Annex E, Section V.

Finally, as stated in Annex J, Section E.3 of each of the four county plans, the following criteria apply in the event excess exposures for emergency workers are determined to be necessary for life-saving situations:

- a. Emergency workers will be restricted to lifesaving missions and will be required to seek specific authorization to exceed this limit.
- b. The maximum radiological exposure control measures available will be afforded to the emergency workers.
- c. Emergency workers selected for the mission are volunteers and are fully advised of the potential risk.
- d. Exposure of emergency workers will not be considered beyond 75 rem projected whole body dose. No specific upper limit is established for thyroid exposure. In case of a lifesaving mission, the possible loss of a thyroid may be an acceptable risk in saving a life.

The authorization of excess exposures to State emergency workers follows the same pattern as specified for county workers, except that the decision is made by the Administrator of BRH. Baer-20, ¶¶ 7-8 and attached Exhibit F (applicable sections of State Plan).

In summary, the four county plans and the State Plan identify the authority responsible for permitting an emergency worker to receive an excess exposure, establish the criteria on which the decision would be based, and provide for advice and consultation in the decision-making process from qualified personnel. The plans specify the maximum permissible PAG limits for emergency workers. Supervisors of emergency workers will monitor the projected dose rates of the workers operating under their direction, and will assure that these rates do not exceed authorized exposure limits, absent appropriate authorization. Baer-20, ¶ 6; Clark-20, ¶ 11.

B. Decontamination Action Levels

In their affidavits, Messrs. Baer and Clark explain how the State and county radiological emergency response plans for the Callaway Plant comply with criterion K.5.a of NUREG-0654, which states that "[e]ach organization, as appropriate, shall specify action levels for determining the need for decontamination."

There is no federal guidance available to State and local governments on specific action levels for decontamination. Off-site emergency organizations therefore must establish justifiable action levels of their own in order to comply with the NUREG-0654 planning standard. Baer-20, ¶ 10. In Mr. Baer's experience, a justifiable decontamination action level would be one that is readily detectable above normal background

radiation levels yet also is sufficiently conservative to assure that radiological contamination is maintained at levels as low as practicable, consistent with the guidance provided in EPA-520/1-75-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," Sept. 1975 (revised June 1980). Id.

BRH has sole responsibility for off-site radiological assessment and control activities. As a part of this function, BRH is responsible for establishing decontamination action levels for both State and local organizations. These action levels are specified in the State Plan and in the four county plans. See Baer-20, ¶ 11; Clark-20, ¶ 12; State Plan, Annex D, Section A.4, Attachment 6 (attached to Baer-20 as Exhibit "G"); Callaway County/Fulton Plan, Annex J, Section III.D.1 (attached to Baer-20 as Exhibit "B"). The specified action level for personal decontamination of both emergency workers and affected persons in the general public is 0.5 mr/hr above normal background radiation levels. The specified action level for vehicles, equipment and supplies is 3.0 mr/hr above normal background.

The State Plan also provides that decontamination surveys of emergency workers and evacuees will be conducted at specified monitoring points using CD-V-700 survey meters. A reading at or above the established action levels in the course of monitoring persons, vehicles, equipment or supplies will result in immediate implementation of decontamination measures.

Decontamination monitoring and implementation of decontamination procedures will be conducted under the direction of BRH. State Plan, Annex D, Attachment 6 (attached to Baer-20 as Exhibit "G"); Baer-20 at ¶ 11.

In summary, BRH has established action levels for decontamination for both State and local emergency organizations. These action levels apply to personnel and vehicles, equipment and supplies. Decontamination surveys will be conducted by State emergency workers, and provision is made in the plans for implementation of decontamination procedures when an applicable action level is reached or exceeded. Decontamination procedures will be implemented under the direction of BRH. Baer-20, ¶ 12.

Mr. Baer is satisfied that the action levels for decontamination specified in the State and county plans meet accepted radiological emergency planning standards. "The action levels are readily detectable conservative thresholds that will assure that radiocontamination is maintained at levels as low as practicable." Id. at ¶ 13. Mr. Clark also is satisfied that decontamination action levels have been adequately specified in the off-site plans. Clark-20 at ¶ 12.

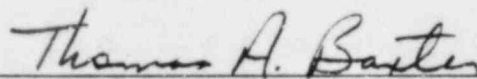
IV. Conclusion

Mr. Reed's Contention 20 has been fully satisfied because a decision chain for authorizing excess exposures to workers and decontamination action levels exist in the radiological

emergency off-site plans. Because there is no genuine issue of material fact in dispute among the parties, Applicant's Motion for Summary Disposition of Reed Contention 20 (Authorization of Excess Radiological Exposures to Workers & Specification of Decontamination Action Levels) should be granted.

Respectfully submitted,

SHAW, PITTMAN, POTTS & TROWBRIDGE



Thomas A. Baxter, P.C.
Deborah B. Bauser

Counsel for Applicant

1800 M Street, N.W.
Washington, D.C. 20036

(202) 822-1000

May 20, 1983