

RELATED CORRESPONDENCE
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))	

JOHN REED'S INTERROGATORIES AND REQUESTS
FOR PRODUCTION OF DOCUMENTS (SET NO. 1)
TO CALLAWAY COUNTY COURT ADMINISTRATIVE JUDGES
AND CALLAWAY COUNTY EMERGENCY MANAGEMENT COORDINATOR

Pursuant to 10 CFR, Section 2.740b and 2.741, Mr. Reed requests that the County Court Administrative Judges and the Emergency Management Coordinator (EMA Director) answer separately and fully in writing, and under oath or affirmation, each of the following interrogatories, and produce and permit inspection and copying of the original or best copy of all documents identified in the response to interrogatories below. Interrogatory responses are due no later than 14 days after service of said interrogatories.

Mr. Reed requests that the name and address of the person or persons who provide information used in answering each interrogatory be identified, and that the source of information be disclosed where an answer is based in whole or in part on information other than the personal knowledge of the person or persons answering.

These interrogatories are intended to be continuing in nature, and the answers should promptly be supplemented or amended as appropriate, should the County Court Administrative Judges and/or the County EMA Director (hereinafter identified in consolidation as "the County Court") or any individual acting on their behalf obtain any new or differing

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information responsive to these interrogatories.

Where identification of a document is requested, briefly describe the document (e.g., book, letter, memorandum, transcript, report, hand written notes, test data) and provide the following information as applicable: document name, title, number, author, date of publication and publisher, addressee, date written or approved, and the name and address of the person or persons having possession of the document. Also, state the portion or portions of the document (whether section(s), chapter(s), or page(s)) upon which you rely.

For the purposes of these interrogatories, the term "documents" shall mean all records of every type in the possession, control or custody of the County Court, the County's attorney(s), or any municipality with whom the County has joined in an emergency preparedness partnership or joint operations agreement, including, but not limited to memoranda, reports, surveys, correspondence, charts, tabulations, books, photographs, maps, bulletins, pamphlets, minutes, notes, transcripts, voice recordings, and all other writings, to include copies of documents even though the originals, thereof, are not in the possession, custody, or control of the County Court.

For the further purposes of these interrogatories, a document shall be deemed to be within the control of the County Court, the County attorney(s) if they have ownership, possession or custody of the document or copy thereof, or such document is in the ownership, possession or custody of any municipality with whom the County has joined in an emergency preparedness partnership or joint operations agreement, or the County Court has the right to secure said document or copy thereof from any person or

public or private entity having physical possession thereof.

STATEMENT OF PURPOSE

These interrogatories relate to emergency planning contentions and are submitted for the purpose of discovering information and evidence for use in public hearings in the above captioned matter.

INTERROGATORIES

1. Produce any and all documents, correspondence, or memoranda between Union Electric Company and the NRC, FEMA, local or state governments or any other entity relating to formal acceptance of a radiological emergency response roll in the proposed local radiological emergency response plans which have been prepared by the NUS Corporation of Rockville, Maryland.
2. Answer the following questions as relate to radiological protection for emergency workers and the general population within and without the plume exposure pathway EPZ:
 - a. What respiratory protection will be provided, if any, for emergency workers who are required to perform duties in a radioactive environment or potential radioactive environment?
 - b. What thyroid protection will be provided to emergency workers and the general population in the event they are exposed to radioactive iodines emitted from Callaway 1 during an accident?
 - c. What respiratory protection will be provided for citizens who are exposed to radioactive nuclides emitted during an accident?
 - d. What protection will be provided to ambulance and hospital employees during transport and treatment of radioactively

contaminated injured persons?

- e. Will high efficiency particulate air (HEPA) filters be installed in ambulance treatment areas or the radiation emergency area of the Callaway Memorial Hospital or its successor?
- f. If installed, to what levels will the HEPA filters reduce particulate levels outside the radiation emergency area?
- g. How are levels determined inside and outside of the radiation emergency area? Where will the sensors be located in and outside of said radiation emergency area?
- h. Will these levels be monitored from a remote area? if so, where, exactly, will this area be located?
- i. Will there be a decontamination room adjacent to the radiation emergency area? If so, where? If not, why not?
- j. How will radioactive water and waste be disposed of once the decontamination of an individual or equipment is completed?
- k. Where will ambulances and other vehicles be decontaminated?
- l. How will radio-contaminated water be collected? How and where disposed?
- m. If contaminated water and waste is to be transported to Callaway 1 for disposal or elsewhere, describe how the material (liquid and solid) will be transported and what safeguards will be taken to ensure safe transport of such material?
- n. What special provisions will be taken to assure that ambulance and hospital employees and others have not been exposed to biologically dangerous levels of radiation or have ingested biologically dangerous levels of radioactive nuclides?

- o. How will such exposures be validated, recorded, and such records be stored for future reference by said individuals?
 - p. How and where will such ambulance/hospital employees be treated to mitigate the effects of such radiological exposure?
 - q. Who will pay for all costs involved in all of the activities relating to each of the above interrogatories?
- 3. Will special provisions or consideration be made for area evacuees who have pets, e.g., kennel facilities, special mass care centers, pet food supplies, etc? Will people be permitted to take pets with them when they evacuate? If not, what is to be done with the animals?
- 4. What provisions or considerations will be made for live-stock which area evacuees must leave behind? How will non-radioactively contaminated feed and water be supplied to such live-stock during the evacuation period? Where is such feed located until needed? How delivered to stock feeding areas? Who pays for such feed and water and the actual service of delivering such feed to said live-stock?
- 5. How do live-stock owners determine whether or not genetic damage has been done to said livestock? Who is responsible for liability for biological or genetic damage? How are damages for such injury collected?
- 6. Explain how the plume exposure pathway EPZ depicted in Callaway Offsite Emergency Response Plan, Revision 3, April 1982, figure 9-1, page 9-7 (or future revised versions) was derived. Explain precisely how each and every one of the following factors was considered in the determination of the extent of the plume exposure pathway EPZ: demography, including permanent and seasonal residents and transients; topography, land use characteristics; access routes; meteorology; local jurisdictional boundaries; release time and energy characteristics;

release height; radionuclide content of releases considered, including release fractions; plume dispersions, including plume rise; deposition velocity; breathing rates; sheltering and shielding, dose-effects; radiation treatment and time of year of release.

7. Does the County Court agree with this (PE) area? If so, why? If not, why not?
8. In the County Court's opinion, is it possible to safely evacuate the total permanent, seasonal, and transient populations within each of the following areas at any time of day or any time of year? Describe in detail any assumptions made and indicate how your response would differ if that assumption were changed. Disclose any assumptions made with respect to an acceptable level of risk to the evacuating population:
 - a. The area designated as the plume exposure pathway (PEP) in the Callaway Offsite Emergency Response Plan.
 - b. The area which the County Court believes should constitute the plume exposure pathway (PEP) (PEP), if such differs from "a", above.
 - c. The circular zone surrounding Callaway 1 having a 20 mile radius.
 - d. The entire City of Fulton.
9. In the County Court's opinion, will there ever be a need to order protective actions in any area outside of the PEP (PEP) outlined in the Callaway Offsite Emergency Response Plan (Callaway OREP) referenced above? If so, describe the circumstances necessary for such order, the areas so affected, and the nature of any such protective actions.
10. In the County Court's opinion, are there adequate facilities available

to shelter the total permanent and peak seasonal and transient populations in each of the areas indicated in question 8, above, if evacuation is deemed impossible or impractical? If the Court's answer is in the affirmative, indicate the numbers of each type of shelter available, the shielding factors of each type, the nature and location of shelters to be used by transients, and disclose any assumptions made as to acceptable levels of risk to the public.

11. In the County Court's opinion, what constitutes an acceptable level of risk to the public in the event of an accident involving offsite radiological releases. Specifically, what is the uppermost number of each of the following health effects which is acceptable: early fatalities, delayed fatalities, early biological injury (thyroid damage or loss, etc.), delayed injuries, abnormal infant developmental defects or genetic birth defects? If an answer depends on a specific type of accident, specify that type of accident in the response.
12. In the County Court's opinion, what percentage of the permanent population within the proposed PEP EPZ will be working at locations outside said EPZ if an accident occurs during working hours on a weekday? How many family members will be left without immediate transportation (privately owned automobiles, trucks, etc.)?
13. In the radiological emergency response plan for Callaway 1, the utility proposes to provide potassium iodide to emergency workers. In the EPA manual EPA-520/1-75-001 (manual for protective action guidelines) the administration of radioprotective drugs is included. The Federal Food and Drug Administration has found that potassium iodide is safe and effective as a thyroid blocking agent to prevent absorption of radioactive iodine by the thyroid gland. The State

of Missouri has refused to provide potassium iodide for use by emergency workers or the general public; suggesting that evacuation is a more effective protective measure. What is the County Court's opinion in this matter? If the Court agrees with the State of Missouri that potassium iodide (KI) is not needed, explain in detail how effective prevention of inhalation/ingestion of radio-iodines will be affected by emergency workers and the general populations in the event they are located in a fallout area in which radio-iodines are present? Identify all documents or other sources upon which the Court relies to support its decisions. If the Court disagrees with the State of Missouri, to what distance from the plant site will dissemination of KI be necessary? What quantity of KI will be needed? How will it be disseminated to those who are to make use of this drug? Will such dissemination be prior to or after an actual release of radionuclides at the plant site? What is the shelf-life of this drug? Will it be replaced at repositories on a timely basis? If not, why not? Who will pay for this protective measure, if it is to be approved?

14. Explain in detail how each of the following difficulties was accounted for and overcome in the preparation of evacuation time estimates for Callaway 1:

- a. Vehicle breakdown during evacuation (out of gas, abandoned, wrecked, etc.)
- b. Notification of deaf persons within the PEP EPZ.
- c. Attempted or actual ingress into the evacuation area by family members who are attempting to rescue their families.
- d. Road blocks created by wrecks involving evacuating vehicles.

- e. Communications with school bus drivers intransit to or from schools with students aboard.
 - f. Identification of invalid or injured residents within the PEP EPZ who require special transportation to evacuate.
 - g. Verification that all residents within the evacuation zone have actually departed the area.
 - h. Verification that adequate vehicles are available to effect actual evacuation of areas specified in the Callaway RERP, 9.0B Evacuation Areas, on page 9-1.
 - i. Verification that drivers are available to drive initial and follow-up trips into a radiological fallout area or potential fallout area. List names of drivers who have volunteered to drive ambulances, buses, trucks, wreckers, etc. Indicate the number of trips estimated necessary for these drivers to assure complete evacuation of the areas identified in "h", above.
15. What provisions have been made to ensure the cooperation of the public during a radiation emergency? Specifically, what authority do State and local governments have to force people to evacuate their residences, to prevent spontaneous evacuation in areas outside the evacuation zone (and in areas in the immediate vicinity of reception and care centers), to control panic or uncooperative behavior in evacuees, or to compel emergency workers to endanger their health or safety in evacuation operations or other necessary tasks to be performed in actual or potential radiation areas?
16. Is there a system for precedence in evacuation? E.g., who will

be evacuated first, school children, pre-school children, pregnant women, or the elderly or infirm?

17. Are any non-English speaking persons residing inside the PEP EPZ? If so, what provisions have been made to provide them instructions or notification of protective actions to be taken in the event of a radiological accident at Callaway 1?

18. Answer the following questions relating to school evacuations.

- a. What provisions have been or will be made to evacuate nursery schools, pre-schools, day care centers, and other similar facilities, both private and public?
- b. What provisions have been or will be made to evacuate private schools, public schools (including colleges and the Missouri School for the Deaf) within the PEP EPZ? Include in your answer the notification procedures and an a count of buses (indicating total seating capacity) and a count of students, teachers and school employees who may be required to use buses in an evacuation.
- c. What disposition will be made of students who attend school outside the PEP EPZ, but reside within said EPZ?
- d. What disposition is made of students who are enroute to school when an accident occurs requiring evacuation? Be specific as to how instructions are relayed to the drivers and what becomes of students in the fallout area awaiting pick-up.
- e. Are schools suitable for sheltering students? For what length of time (indicate each school by name and include sheltering factors for the buildings, availability of food,

medical supplies, bedding, etc.)?

- f. How will bus drivers be notified to report to work in a nuclear emergency? What notification system exists for those who may be away from their homes? If they are outside the PEP EPZ, how will they get to their bus if it is inside the EPZ and roadblocks have been established to prevent entry into the PEP EPZ?
- g. Indicate what effective methods of respiratory and thyroid protection will be provided to students while in school buses or in shelter in schools awaiting evacuation during an accident at Callaway 1 involving a significant release of radionuclides. Identify the basis for such determination and indicate where in 10 CFR, Part 20, NRC Regulatory Guide 8.15 or other Federal guidance that the protective methods or devices are considered "effective" (list document, chapter, section, paragraph and page number of such references).

- 19. Describe in detail any independent monitoring for radiation that will be made within the PEP EPZ? (Independent monitoring means radiological survey and monitoring by a governmental or private entity other than an agent of the Applicant, Union Electric.) Indicate types of monitoring equipment to be used, mobile or fixed, type of emissions detected (gamma, beta, alpha, or iodine/other nuclides), manner and frequency of readings, the availability of instantaneous data, type of data link with the responsible agent or entity, type meteorological monitors, and means of calculating projected doses of radiation/nuclides measured or detected.

20. If no systems, as indicated in 19 above, exist or are planned; indicate how verification of radiological releases are made and how local government/public can verify that rumored releases did or did not occur.
21. Provide a copy of all agreements between Union Electric Company and Callaway County involving radiological emergency planning, response activities, financial agreements or contracts concerning any and all aspects of the provision of equipment, personnel, or funding relating to radiological emergency plans or response (to include ambulance agreements, offers and letters relating to same, as well as hospital agreements which have been approved by the hospital board, offers and letters relating to these matters).
22. Provide a list of protective equipment to be used by each individual in the County Sheriff's Department if and when they are to respond to an incident or accident at the Callaway Plant No. 1. If no equipment is provided by the County Court, explain how the equipment is to be obtained, what, if any special funds are made available for these missions, and what alternate means are available to provide personal and radiological protective equipment for this department.
23. What radiological emergency response plans exist for the Village of Mokane? If none, what agreement exists between the Village of Mokane and the County Court that permits the County Court to plan for radiological emergencies that may affect that populace? What authority exists in law for such planning in lieu of such agreement? Who is or will pay for such planning, drills, exercises and implementation of such plan by the Village of Mokane? What County monies or other funds and how much has been allocated for the activities cited above?

and how much has been allocated for the activities cited above?

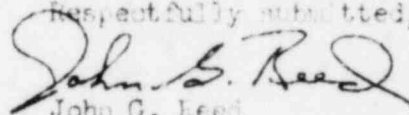
24. Mokere is located within approximately 2 miles of the Callaway Plant No. 1. What respiratory and thyroid protection is planned for in the event sheltering is ordered instead of evacuation for the following residents:

- a. Citizens of the Village of Mokere
- b. Residents of the River-view Nursing Home
- c. South Callaway R-II elementary and high schools

What respiratory/thyroid protection is provided for citizens in the areas of Portland, Steadman, Readsville, Harmony Hill Youth Camp, Yucatan, Leisure Lake, Glover Springs Lake, Lost Canyon Lake, and other similar population concentrations?

End of Contentions

Respectfully submitted,



John G. Reed
Citizen of the United States
of America

Dated this 14th day
of June 1982, at
Kingdom City, MO.

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Kingdom City, Missouri 65262
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
UNION ELECTRIC COMPANY) Docket Nos STN 50-483
(Callaway Plant, Unit 1))
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "John Reed's Interrogatories and Requests for Production of Documents (Set No. 1)" were served this 16th Day of June 1982 by deposit in the U.S. Mail, first class postage prepaid, upon the following:

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