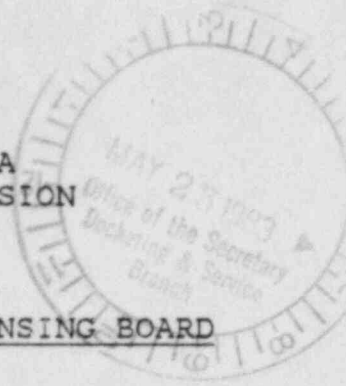


UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION



BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

AFFIDAVIT OF KENNETH V. MILLER  
ON REED CONTENTION 6  
(PROTECTIVE ACTIONS AGAINST RADIOIODINES)

County of Cole )  
 ) ss.  
State of Missouri )

KENNETH V. MILLER, being duly sworn, deposes and says as follows:

1. I am the Administrator of the Missouri Bureau of Radiological Health, which is part of the Division of Health within the Missouri Department of Social Services. My business address is P.O. Box 570, Jefferson City, Missouri 65102. In the event of an accident at the Callaway Plant, it would be the responsibility of the Bureau of Radiological Health to direct operations specifically related to nuclear radiation affecting the environment outside the Callaway Plant exclusion area.

This responsibility includes nuclear radiation monitoring, determining the need for implementing protective actions, advising other agencies regarding actions that should be taken, determining individual exposure levels, and determining the need for decontamination. One of the policy questions which the State of Missouri has had to resolve in connection with the occurrence of an accident at the Callaway Plant, and which falls within the area of expertise of the Bureau of Radiological Health, is the extent to which potassium iodide or "KI" will be distributed to Missouri residents in the event of an accident at the Callaway Plant.

2. This statement describes Missouri's policy on the distribution of KI. I make this affidavit in response to Reed Contentions 6 (Protective Actions Against Radioiodines). I have personal knowledge of the matters stated herein and believe them to be true and correct. A summary of my professional qualifications and experience is attached hereto as Exhibit "A".

3. The State of Missouri has decided not to administer KI to the general public in the event of an accident at the Callaway Plant. However, the state will make KI available to specified personnel, including emergency workers, considered to be at greater risk. This policy is based on available federal guidance and our understanding of the advantages and disadvantages of KI distribution.

4. The purpose of administering KI would be for use as a thyroid-blocking agent in a radiological emergency. When an individual takes KI, radioiodine which might be released from the power plant and inhaled or ingested by the individual is prevented from accumulating in the thyroid.

5. A number of federal agencies, including the Food and Drug Administration ("FDA"), the Federal Emergency Management Agency ("FEMA"), the Nuclear Regulatory Commission ("NRC") and the Environmental Protection Agency ("EPA") have an interest in the question whether, in the event of an accident at a nuclear power plant, KI should be administered to the general public or to specific members of the public located within the plant's ten mile plume exposure pathway emergency planning zone ("EPZ").

6. In June, 1982, FDA announced in the Federal Register the availability of its final recommendations concerning the administration of KI to the public in a radiation emergency. FDA concludes in its final KI recommendations that the risks from the short-term use of relatively low doses of KI for thyroid blocking in a radiation emergency are outweighed by the risks of radioiodine-induced thyroid nodules or cancer at a projected dose to the thyroid gland of 25 rem. FDA recommends that KI in doses of 130 milligrams ("mg") per day for adults and children above 1 year of age and 65 mg per day for children below 1 year of age be considered for thyroid blocking in radiation emergencies for those persons who are likely to

receive a projected radiation dose of 25 rem or greater to the thyroid gland from radioiodines released into the environment. See 47 Fed. Reg. 28158 (June 29, 1982).

7. FEMA has endorsed FDA's guidance on the administration of KI. See December 1, 1982 FEMA Interim Policy Guidance on Potassium Iodide.

8. Both the FEMA and NRC staffs have recommended that nuclear power plant licensees as well as state and local governments provide radioprotective drugs for thyroid protection in the event of a nuclear power plant accident for (i) emergency workers and other individuals remaining or arriving onsite during the emergency; (ii) emergency workers within the plume exposure EPZ; and (iii) institutionalized persons within the plume exposure EPZ whose immediate evacuation may be infeasible or very difficult. See Testimony of Brian K. Grimes, Director, Division of Emergency Preparedness, U.S. Nuclear Regulatory Commission, Before the Subcommittee on Oversight and Investigations, Committee on Interior and Insular Affairs, United States House of Representatives, dated March 5, 1982.

9. To date, neither the NRC nor FEMA has recommended the administration of KI to the general public located within the 10 mile plume exposure pathway EPZ.

10. EPA is primarily responsible for the establishment of Protective Action Guides ("PAGs") for radiological emergency response planning, in coordination with appropriate federal



agencies. EPA also prepares guidance for state and local governments on implementing PAGs, including recommendations on protective actions which can be taken to mitigate the potential radiation dose to the population. In its Manual for Protective Action Guides and Protective Actions for Nuclear Incidents, EPA-520/1-75-001, Sept., 1975 (Revised June 1980), at pages 1.41-1.42, EPA recommends the use of KI as a prophylaxis for emergency workers located in areas possibly involving radioiodine contamination, in accordance with state health laws and under the direction of state medical officials. With respect to the efficacy of administering KI to the general population, EPA notes that this option is still under consideration by government agencies but should not be construed to be the policy of EPA at this time.

11. Consistent with available federal guidance, the Missouri Division of Health will make KI available to state emergency workers and will store KI for distribution to the State Mental Hospital in Fulton, Missouri in the event that institution elects to use it. KI will also be distributed to the county courts, or emergency units designated by the courts, in those areas which might fall within the plume exposure pathway EPZ. In the event of an emergency the Division of Health will provide current information regarding projected exposures and will offer guidance on the use of KI. Decisions on whether to administer KI to local emergency workers or to staff and patients at the State Hospital will be made by local

authorities and hospital officials, respectively. They will also be responsible for administering the drug if the decision is made to use it. KI will not be distributed to the general public.

Kenneth V. Miller  
Kenneth V. Miller

Subscribed and sworn to before me  
this 11<sup>th</sup> day of May, 1983.

Danny A. Miller  
Notary Public

My Commission expires MARCH 24, 1985.

PROFESSIONAL QUALIFICATIONS STATEMENT

FOR

KENNETH V. MILLER

Education: B.S. Degree in Physics from Western Illinois University

One academic year of graduate study in radiological  
health, University of Michigan

Experience: Twenty-two years with Missouri's radiological health program.