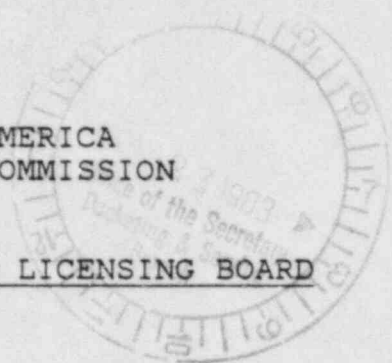


UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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 JOHN W. BAER  
ON REED CONTENTION 13  
(ORGANIZATIONS REQUIRING SOPs)

County of Dauphin )  
 ) ss.  
Commonwealth of Pennsylvania )

JOHN W. BAER, being duly sworn, deposes and says as follows:

1. I am an emergency planning specialist with the Emergency Planning Department of Energy Consultants, Inc., ("ECI"). ECI provides nuclear emergency response planning services to utilities, industry, state and local governments. My business address is 2101 North Front Street, Harrisburg, Pennsylvania 17110. A statement of my relevant experience and professional qualifications is attached as Exhibit "A". I have reviewed the offsite radiological emergency response plans, both state and local, for the Callaway Plant. In 1983, I have been assigned by Union Electric Company to assist in the revision of state

and local plans to meet the technical comments provided from the FEMA review to date. I have personal knowledge of the matters stated herein and believe them to be true and correct.

2. The purpose of this affidavit is to respond to Reed Contention 13 (Organizations Requiring SOP's), which asserts that the absence of standard operating procedures ("SOP's") for county, city and other specified local agencies establishes that each organization and suborganization (as defined in Appendix 5, NUREG-0654) having an operational role in the emergency response efforts have not specified their individual concept of operations and its relation to the total effort as required in NUREG-0654, Section II.A.1.b.

3. NUREG-0654 planning criterion A.1.b provides, "Each organization and suborganization having an operational role shall specify its concept of operations, and its relationship to the total effort."

4. The county offsite emergency response plans for each of the four counties in the Callaway Plant emergency planning zone ("EPZ") establish the concept of operations for local emergency response organizations. ANNEX A of each of the county plans defines the role of each participating organization, and assigns to the organization its respective responsibilities and tasks. These responsibilities are illustrated by the Primary and Support Responsibility Chart attached to ANNEX A. The chart is organized by individual emergency response ~~organization~~ and by emergency response function. ANNEX A thus

establishes the concept of operations for each response organization, and establishes the relationship of each organization to the total effort. The Primary and Support Responsibility Chart for Callaway County/Fulton is submitted with this affidavit as Exhibit "B".

5. ECI is working with local officials, private agencies and Union Electric Company in developing the implementing procedures for each of the county plans. These procedures are identified in Appendix 3 of each of the county plans. The implementing procedures will be employed during an emergency to guide individual emergency response actions. They are specific to the emergency functions that are identified in ANNEX A of the county plans. Appendix 3 of each of the four county plans is attached as Exhibit "C".

6. The functional approach to implementing procedures has decided advantages over development of implementing procedures for each individual organization having an assigned emergency role. Specifically, functional implementing procedures have the following advantages:

- a. Specific emergency actions that must be taken to implement the plans are explained succinctly without undue repetition and confusion.
- b. The procedures can be readily accessed by emergency response personnel who are responsible for a particular emergency function. The procedure will thereby serve as a practical field guide during actual emergency operations.

- c. The functional approach to procedures ensures that all identified emergency functions are covered by procedures.
- d. Fewer procedures are required. A single procedure will apply to several response agencies. For example, the Radiological Exposure Control procedure applies to all emergency response personnel who would be assigned to this function within an affected area. The functional procedure avoids the problem of fragmented repetition of emergency tasks for each individual organization and reduces the volume of paper that would have to be managed.
- e. Functional procedures will apply to local government agencies as well as to outside (public and private) organizations that have been assigned an emergency role. All organizations and personnel with a responsibility for a specific emergency function will be reading the same procedure, thereby ensuring uniformity of approach and avoidance of potential conflicts and confusion.
- f. Each procedure will clearly identify the response organizations that have a responsibility for the particular function. Consequently, response organizations will be aware of the other organizations and participants that share responsibility for a particular function. The relationship of each organization



to the total effort therefore will be further defined.

- g. The timing of specific emergency actions within a functional area will be made clear. The actions to be taken by each organization will be arranged sequentially in the procedure by emergency classification level.
- h. Resource listings will be consolidated. A list of all resources that are available to support a particular emergency function will be appended to the procedure. This will avoid fragmentation of resource listings organization by organization, and will facilitate mobilization of required resources at the proper time during an emergency.
- i. Functional procedures will provide a sound basis for emergency worker training. Procedures that are specific to individual organizations are not conducive to a comprehensive training program. Functional procedures, on the other hand, will provide the means to structure a training program that will address all elements of the emergency organization and will stress organizational relationships.

7. The functional procedures identified in Appendix 3 will contain instructions for emergency response personnel about how an emergency function is to be carried out, by whom

it is to be done, when it is to be done, and with what resources. For example, the Radiological Exposure Control procedure will contain the following elements:

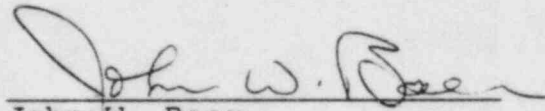
- a. How dosimetry will be acquired by emergency workers.
- b. Which emergency personnel will be issued specific types of dosimetry.
- c. Who will be responsible for distribution.
- d. How dosimetry will be calibrated.
- e. How and when dosimeters will be read and recorded.
- f. How and to whom readings will be reported.
- g. How and by whom control measures will be implemented to prevent excess exposures.
- h. List of resources showing the location, number, and types of radiological equipment that will be available to support this function.

8. If procedures were to be developed for individual organizations rather than by function, instructions, such as those specified for Radiological Exposure Control, would have to be repeated throughout numerous organization procedures. A single procedure could conceivably contain a multiplicity of emergency action instructions. This would lead to certain confusion and delay in implementation of emergency functions. With functional procedures, an individual organization would need only to refer to those procedures for which it has been assigned an operational role.

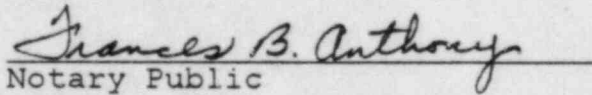
9. Mr. Reed refers in Contention 13(B) to cities in need of SOP's. However, none of these cities have functional responsibilities in the event of an emergency at the Callaway Plant. In Contention 13(C), Mr. Reed refers to SOP's for hospitals, ambulance districts, volunteer fire departments, bus companies, trucking companies and school districts. Hospital and ambulance procedures will be prepared by Radiation Management Corporation. Members of the volunteer fire departments will utilize functional procedures applicable to the function to which they are assigned, e.g., access and traffic control. School plans are currently in preparation, and will include functional procedures, as necessary, for school and bus personnel. Finally, to the extent trucking companies are called upon and need to know information not otherwise known to them as a part of their normal activity, they will be governed by the Impediment Removal procedure. See Exhibit "C" (Appendix 3).

10. In my judgment, the functional procedures identified in Appendix 3 will provide adequate instructions to organizations that have been assigned an emergency response role. The procedures relate directly to the emergency functions for which responsibilities have been assigned to individual organizations in the county plans. The procedures will define emergency actions to be taken, will identify the organizations that may be called upon to perform this function, and will establish the timing for particular emergency actions. Consolidated resource

lists appended to the procedures will facilitate mobilization of resources when they are needed. The identification of the procedures listed in Appendix 3, taken together with the concept of operations established in the county plans, meet planning criterion A.1.b of NUREG-0654.

  
John W. Baer

Subscribed and sworn to before me this 13<sup>th</sup> day of May, 1983.

  
Notary Public

NOTARY PUBLIC  
My Commission Expires September 25, 1983  
Dauphin County



## John W. Baer

## Education

- 1970 Graduate Level Study  
American University  
Washington, D.C.
- 1966 Bachelor of Science - Political Science  
Western Maryland College  
Westminster, Maryland

## Experience

- 1981 to Present Energy Consultants, Inc.  
Harrisburg, Pennsylvania
- Planning/Training Specialist. Develop On-Site Radiological Emergency Response Plan for Arizona Public Service Company, Phoenix, Arizona. Assist with development of Off-Site Radiological Emergency Response Plans for State and local governments. Developed and sought agreements for Louisiana State Agency emergency procedures in support of the Louisiana Power and Light Company's Waterford 3 Nuclear Power Station. Development of lesson plans for training of State, county and local personnel in support of Radiological Emergency Response Plans. Assisted with development of lesson plans for offsite emergency response training for Rochester Gas and Electric and Louisiana Power and Light. Conduct training of State, county and local emergency response personnel in support of Radiological Emergency Response Plans.
- 1978 to 1980 Southcentral Regional Planning Council  
Harrisburg, Pennsylvania
- Director. Directed an eight county planning and evaluation program for the Commonwealth of Pennsylvania. Assisted local communities and governments in planning and development of communications systems and automated information systems for use in criminal justice system and in support of emergency response organizations. Developed and revised training courses in Data Analysis for use by Planning and Operational

personnel at the State and local government level. Assisted with delivery of six thirty-five hour training sessions for Criminal Justice personnel from a ten State region. Developed and conducted practical group exercises for course participants.

1973 to 1978

Southcentral Regional Planning Council  
Harrisburg, Pennsylvania

Planner. Assisted local communities and governments in planning and development of a range of Criminal Justice Programs and of Criminal Justice System Communications and Automated Information Systems.

1971 to 1973

Lord Fairfax Planning District Commission  
Front Royal, Virginia

Planner. Performed general planning tasks, including Criminal Justice and Emergency Response Planning for a five county region of Northern Virginia.

1966 to 1968

U.S. Department of Defense  
Fort Meade, Maryland

Security Specialist.

ATTACHMENT 2  
ANNEX A  
PRIMARY AND SUPPORT RESPONSIBILITY CHART

P = Primary Responsibility  
S = Support Responsibility

FUNCTION	AGENCY	County Court/Mayor Emergency Management Director	County Sheriff/Police Chief	City Health Officer	City Director of Health	City Director of Welfare	County Assessor	County Road Attorneys	County Ambulance and County Treasure District	County/City Schools	American Red Cross	State	Utility
Direction and Control		P	S	S	S	S	S	S	S	S	S	S	
Emergency Operations Facility		S											
Notification		S											
Public Alert		P	S										
Public Information		S	P										
Communications		P	S										
Protective Action Decisions		P	S										
Transportation		S											
Law Enforcement		P											
Traffic Control/Access Contr.		P	S										
Fire/Rescue		S	P										
Public Health/Sanitation		P	S										
Reentry/Recovery		P	S	S	S	S	S	S	S	S	S	S	S
Training		S	P										
Exercises and Drills		S	P										
Exposure Control		S	P										
Radiological Monitoring		S	S										
Accident Assessment		S											
Social Services													
Emergency Medical Services			S										
Requesting State/Fed. Assis.		P	S										

APPENDIX 3LIST OF IMPLEMENTING PROCEDURES

NUMBER	TITLE	SECTION OF PLAN TO BE IMPLEMENTED BY THE PROCEDURE
1	Access and Traffic Control	Annex I - Tab 2
2	Radiological Exposure Control	Annex J
3	Emergency Notification	Annex A, Annex D
4	Transportation	Annex I - Tab 1 Annex K
5	Impediment Removal	Annex I - Tab 2
6	Public Alert/Protective Action Instructions	Annex D, Annex L
7	Protective Action Decision Making	Annex I, Annex J Annex L
8	Jail Evacuation	Annex I - Tab 3
9	Security	Annex G, Annex I - Tab 3
10	Public Information	Annex F
11	Communications and Message Control	Annex E
12	EOF Liaison	Annex B
13	Plan Maintenance	Basic Plan VI
14	Emergency Equipment Control	Annex E, Annex G
15	Radioprotective Drugs Administration	Annex J
16	EOC Operations	Annex A, Annex G, Basic Plan V
17	Exercises and Drills Implementation and Assessment	Annex M



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1	Access and Traffic Control	Annex I - Tab 2
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4	Transportation	Annex I - Tab 1 Annex K
5	Impediment Removal	Annex I - Tab 2
6	Public Alert/Protective Action Instructions	Annex D, Annex L
7	Protective Action Decision Making	Annex I, Annex J Annex L
8	Security	Annex G, Annex I - Tab 3
9	Public Information	Annex F
10	Communications and Message Control	Annex E
11	EOF Liaison	Annex B
12	Plan Maintenance	Basic Plan VI
13	Emergency Equipment Control	Annex E, Annex G
14	Radioprotective Drug Adminis- tration	Annex J
15	EOC Operations	Annex A, Annex G Basic Plan V
16	Exercises and Drills: Implementation and Assessment	Annex M