

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)

COMMONWEALTH EDISON COMPANY)

(Byron Station, Units 1 and 2))

Docket Nos. 50-454
50-455

TESTIMONY OF GORDON WENGER ON LEAGUE
CONTENTIONS 19 AND 108 AND DAARE/SAFE CONTENTION 3

WENGER SUMMARY

This testimony addresses certain offsite emergency planning issues raised in DAARE/SAFE contention 3(c) and League contentions 19 and 108. It makes the following principal points .

1. The likelihood of an acute gasoline shortage coinciding with a serious accident at Byron is exceedingly remote. If any such event did occur, there are provisions in the state emergency plan to obtain alternative vehicular transportation and fuel from the Army National Guard.
2. Local and state authorities that are required to interface in the event of a nuclear plant emergency have or will have plans in place which meet the requirements of 10 CFR § 50.47 prior to plant operation in excess of 5% of rated power.
3. The state generic emergency plan has been favorably reviewed by FEMA in connection with the Dresden and LaSalle nuclear plant license applications.
4. A preliminary draft of a Byron site-specific emergency plan has been circulated to Ogle and Winnebago Counties, the responsible state agencies and Commonwealth Edison for review and comment. Following the comment period, the state will publish the Byron plan and provide copies to the FEMA Regional Assistance Committee for review. Following the review of the plans and evaluation of an emergency exercise, FEMA will provide interim findings to the NRC on the status of offsite emergency plans and preparedness at Byron.
5. In December 1980, FEMA published an interim Federal response plan. This was used as the basis for an exercise FEMA conducted with other Federal agencies in 1982. A full-scale exercise involving Federal agencies, state and local governments and nuclear plant licensees using the final version of the plan is scheduled for early 1984.
6. Non-evacuation protective measures in the state and preliminary site-specific plan, emergency plan include sheltering, access control, restrictions on consumable food, protection of emergency workers, and protection of confined persons.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
COMMONWEALTH EDISON COMPANY)	Docket Nos. 50-454
)	50-455
(Byron Station, Units 1 and 2))	

TESTIMONY OF GORDON L. WENGER
REGARDING DAARE/SAFE CONTENTION 3
AND LEAGUE CONTENTIONS 19 AND 108

- Q.1. Please state your name, your position, and employer.
- A. My name is Gordon L. Wenger. My employed position title is Community Planner. I am employed by the Federal Emergency Management Agency. My professional qualifications are attached.
- Q.2. What is the purpose of your testimony?
- A. The purpose of my testimony is to respond to DAARE/SAFE Contention 3(b), (c), and (d), and aspects of LEAGUE Contentions 19 and 108.
- Q.3. DAARE/SAFE Contention 3(b) states:
- " ... in the event of an acute gasoline shortage coinciding with the need for evacuation, contingency plans for evacuation of those otherwise able to transport themselves by means of gasoline-powered vehicles, including public transportation, would need to be transported by other means,"
- Do you have a position on this assertion?

A. Yes. The likelihood of an acute gasoline shortage coinciding with a serious accident at the Byron Nuclear Power Station is exceedingly remote. A gasoline shortage would have leadup effects which would stem from a crude oil shortfall, which could be over a protracted period of time. Therefore, a gasoline shortage would not be a spontaneous event, but could be anticipated.

Studies indicate that vehicles of private ownership have over 50 percent of capacity of gasoline or diesel fuel which, in heavy traffic, could move their passengers out of the affected area and greater than 20 miles.^{1/}

Public and commercial vehicles (city and school buses, taxis, city and county passenger vehicles and trucks) are serviced prior to the next day's assigned work. So, on an average, their tanks are adequately fueled for a full day's work and could move out of the 10-mile emergency planning zone (EPZ) with this normal fuel load.

If an acute gasoline shortage were to coincide with an accident, there are provisions in planning to remove the potential problem. The Illinois Plan for Radiological

^{1/} DOE/EIA 0319 Residential Energy Consumption Survey; Consumption Patterns of Household Vehicles, June 1979 to December 1980, April 1982.

Accidents (IPRA), State General Plan, Volume I, Chapter 6, Operational Response, pages 56-57, provides the resources of the Army National Guard. Specifically, motor vehicles and fuel can be made available by the Illinois Governor or, in his absence, the Director of the Illinois Emergency Services and Disaster Agency (ESDA). For example, the National Guard Transportation Battalion has 2-1/2-ton trucks stationed at armories in the State, with a capacity of 20 passengers each. If the need arose, these vehicles could be used to transport evacuees. There are 1-1/4-ton ambulances in the State, the majority are in the Chicago area. These could be used to transport the infirmed. The National Guard has 1,200-gallon tanker trucks, and 1,200-gallon fuel pods mounted on 2-1/2-ton trucks, as well as 600-gallon fuel pods mounted on trailers. Also available are several 5,000-gallon semitrailer tankers. All have the capability to refuel vehicles directly, and provisions are made to service those that use unleaded gasoline.

The ESDA State Director serves on the State Resources Board and has assured that when fuel is in short supply he has authority to gain access to stockpiled reserves held by the State.

Q.4. DAARE/SAFE Contention 3(c) states:

"...in the event of an accident (at the Byron Nuclear Power Station) requiring evacuation, there is no assurance that local and State and National authorities that are required to interface will in fact themselves have plans in-place which adequately protect the affected public, both within and without (outside) the LPZ (EPZ)."

League Contention 108(c) expresses a comparable concern over the opportunity to test the offsite plans for verification of public responses. Do you have a position on these assertions?

- A. Yes. Local and State authorities that are required to interface in the event of a nuclear plant emergency have or will have plans in-place which comply with the requirements of 10 CFR § 50.47 prior to plant operation above 5% rated power.

Q.5 Is there an Illinois generic plan?

- A. Yes. The generic plan is identified as the Illinois Plan for Radiological Accidents, Volume 1, and is commonly referred to as the IPRA.

Q..6 What are the principal agencies involved in Illinois radiological emergency planning?

- A. The principal State agencies involved in radiological emergency preparedness planning are the Illinois Emergency Services and Disaster Agency and the Illinois Department of Nuclear Safety. Several State agencies and departments are involved in the planning process and have an active role in responding to radiological accidents. Because of the significant number of operating and potential operational nuclear power plants in the State, Illinois has devised an organized approach to the

development of plant-specific radiological emergency plans which is: 5 months prior to the approval date for a joint onsite/offsite exercise, the State assigns a team of Illinois Emergency Services and Disaster Agency and Illinois Department of Nuclear Safety radiological emergency planners to temporary duty within the 10-mile EPZ to develop, in coordination with local government officials and the licensee's nuclear power station, radiological emergency plans for offsite response.

In the State of Illinois, the State Emergency Services and Disaster Agency works closely with the licensee to assure that the State plan and that of the licensee and local government(s) are well coordinated into a combined effort to respond to radiological accidents. This approach by Illinois has worked well in the past for offsite nuclear power station emergency planning and is most successful.

Q.7 How many sites does the general state plan now cover?

A. The IPRA is a multi-volume work and is divided into two major parts. The State Volume, or Volume I, presents a general overview of the plan. The second major part consists of site-specific volumes in which each volume addresses the particular concerns associated with an individual fixed nuclear power facility. Volume VI is the site-specific plan for Byron Nuclear Power Plant and is in preliminary form. Volumes II, III, IV, and V, for Dresden, LaSalle, Quad Cities,

and Zion, respectively, as well as the State Volume, are in final form. Volumes for Braidwood and Clinton are in the conceptual stage.

Q.8 Has this general state plan been reviewed by FEMA?

A. Yes.

Q.9 What were the results of this review?

A. The Illinois Plan for Radiological Accidents originally had the State portion in Volumes I and II. These volumes were received May 14, 1980, by FEMA Region V. The plan was subsequently reviewed by the Regional Assistance Committee (RAC) and, as of October 21, 1980, found to be adequate.

The current IPRA includes the State General plan in Volume I and was received by FEMA Region V in April 1982. In the document, reference is made to provisions for the site-specific plan for the Byron Nuclear Power Station (see IPRA, Volume I, Chapter I, page 7). FEMA has issued favorable findings relative to the state plan in connection with the Dresden and LaSalle nuclear license applications.

Q.10 To what extent will the Illinois State General plan apply to the offsite preparedness around the Byron plant?

A. The State Volume of the IPRA discusses the concept of operations, chain of command, communications network, and the coordinated response of all participants during a nuclear incident. The concept of operations represents the framework within which the activities of Federal, State, local and private agencies can be coordinated into one unified response. The accident classification scheme, described in NUREG 0654/FEMA REP-1, is established as the system applicable to all governmental levels. Basic functions of response made to a power plant incident are described and grouped into three categories. The first of these categories, Command and Coordination, is the direction of all agencies which are working toward the common goal. The second category is Technical Functions, which includes Radiological Accident Assessment. The last category of Operational Response includes the series of protective actions taken to safeguard people and property within the Emergency Planning Zone. Each of these categories is addressed in detail, in separate chapters, to describe actions to be taken by the various State agencies and requested from Federal agencies in support of the local government. The State of Illinois, under direction of the Governor, will require State agencies to provide all resources and personnel necessary to support the local governments in their implementation of the recommended

protective actions. The Governor also has the power to declare a state of emergency and can seek Federal and private assistance during and after the incident. Through their involvement in the IPRA, local governments have accepted the extension of the Governor's authority to include themselves. The IPRA describes the organizational structure from the State level to the local level and provides for the command function and communications networks to be centralized in Emergency Operations Centers at each level.

Q.11 What is the status of the Byron site-specific local plan?

A. The Illinois ESDA began development of the site-specific plan for the Byron Nuclear Power Station (Ogle and Winnebago Counties) in September 1982. A preliminary plan for comment has been printed and been sent to the two counties, the responsible State agencies and Commonwealth Edison. Following the comment period, the State will publish the planning document and provide several copies to FEMA for distribution to the Regional Assistance Committee for review and comment. Following this review process and an evaluation of an emergency exercise presently scheduled for August 1983 to test the implementation of the written plans, FEMA will provide findings to the NRC on the status of offsite emergency plans and preparedness for Byron. Assuming an August exercise, these findings should be issued in late September or October, 1983.

Q.12. What is the status of Federal emergency planning?

A. The National Federal Emergency Management Agency (FEMA) has published an interim plan in the Federal Register, Vol. 45, No. 248; pages 84910-84917; December 23, 1980, titled, "National Radiological Emergency Preparedness/Response Plan for Commercial Nuclear Power Plant Accidents--Master Plan." It is to be superseded by an expanded Federal Radiological Emergency Response Plan (FRERP) scheduled for publication the latter part of 1983.

The draft guidance of the FRERP was used as a basis for an exercise that FEMA conducted with other Federal agencies in Washington in October 1982. A full-scale exercise involving Federal agencies, State and local governments, and a nuclear power plant licensee, using the final version of the FRERP, is scheduled for early 1984.

During the period that the FRERP is being developed, the Master Plan would be used in the event there is an accident at a commercial nuclear power plant requiring a Federal response. This Master Plan establishes Federal agency responsibilities, provides an overview of how the Federal response would be managed and gives guidance to the agencies involved on the preparation of their supporting plans. The plan emphasizes, throughout, the requirement for close cooperation with the State in any Federal response activities.

At the Regional level, FEMA Region V has developed Annex A to the Regional Emergency Response Plan. The annex, "Nuclear Power Plant Accidents," provides concise information, guidance, and procedures to be implemented by the FEMA Regional Director when a radiological incident occurs.

Q.13. DAARE/SAFE Contention 3(d) states:

"...in the event of an accident requiring evacuation, Applicant and others have plans in place to take emergency measures other than evacuation because evacuation is or may be impractical in many affected areas."

Do you have a position on this assertion?

A. Yes. Both the State general plan and preliminary Byron site-specific plan provide for public protective actions in addition to evacuation. Actual evacuation of a given area may be necessary only as a final protective measure.

In any given situation, the best protective measure may well be to remain in place, in a living or working structure.

State, local, and utility emergency responders are trained and provided emergency instructions on protective actions to implement as an incident escalates into a higher degree of risk to the public.

If the need to evacuate arises, it would be for those residents within the potentially affected area which is generally down-

wind from the nuclear power station. Other protective actions, in addition to evacuation and sheltering in-place, are:

Access Control. Limiting the normal use of transportation facilities and establishing barriers to control the movement of people in the affected area.

Consumable Food Stuffs. Sampling and testing of consumable foods which enter the food chain and the placing of restrictions on consumables until safe, allowable levels have been reached.

Protection of Emergency Workers. Providing protective breathing apparatuses and clothing and decontamination of exposed work items and the possible administration of oral protective drugs for thyroid protection.

Protection of Confined Persons. Those who cannot be moved, or those who, if moved, would be at greater risk due to being moved, could be given oral protective drugs for thyroid protections in addition to confined sheltering.

I have personally visited the area of the Emergency Planning Zone. It is sparsely populated and generally a rural agricultural area with two or three small villages. The roads are paved and accommodate two-way traffic. Based on my study of the plan and my visit to the area, in my

opinion, the people can be evacuated safely from within the Emergency Planning Zone.

Professional Qualifications

Gordon L. Wenger

Formal Education

Bachelor's Degree
Western Michigan University
Kalamazoo, Michigan

Major

Minor

Graduate studies
Western Michigan University
Kalamazoo, Michigan

University of California
Los Angeles
Westwood, California

California State University
Fullerton

California State University
Los Angeles

Education

Geography - Geology

Environmental science

Industrial Management
Supervision

Experience and Background

Nuclear Preparedness School

U.S. Navy
Guantanamo Bay, Cuba, 1955

Radiological Defense Training

RD I	1974	}	Staff College, Battle Creek, Michigan
RDT II	1974		
RDT III	1974		

The three phases of Radiological Defense Training involved the study of radiological effects from nuclear weapons and peacetime application of radiological sources. Phase I dealt with historical background studies and experiments and historical research. Phase II placed the participant in a position of planner-assessor for radiological response to weapons effects. Phase III was a hands-on experience using a radiological source. Participants became familiar with the use of detection equipment and its application to actual radiological material detection.

Civil Preparedness

Phase I	1973)	
Phase II	1973)	
Phase III	1974)	Staff College, Battle Creek, Michigan
Phase IV	1975)	

Each phase of Civil Preparedness graduates through the levels of organization of emergency response at all government levels and planning for emergency response to all natural and man-made disasters. A great deal of role-playing provides the participant with experience as near to realistic as simulation allows.

My direct involvement in disaster response is the following:

Mississippi River Flood - 1973	Disaster Assistance Center Manager
Quincy, Illinois	
Lake Erie Flooding - 1974	Disaster Assistance Center Manager
Port Clinton, Ohio	
Xenia Tornado - 1974	Disaster Assistance Center Manager
Xenia, Ohio	
Blizzard of Ohio - 1976	Federal-Regional State Liaison

Employed by U.S. Government

- ° Defense Civil Preparedness Agency as Regional Field Specialist, 1972-1979
- ° Federal Emergency Management Agency as Regional Field Specialist, 1979-1982
- ° Federal Emergency Management Agency as Community Planner, 1982
- ° During the ten-year period, as stated above, I served as Federal-State Liaison Officer for Federal programs in the States of Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin
- ° In the time period of January 1980-February 1981, I was detailed to serve as Executive Secretary of the FEMA Region V Regional Advisory Committee
- ° In February 1981, I was appointed to the position of Chairman, Regional Advisory Committee
- ° I have directed the activities relevant to the Radiological Emergency Preparedness (REP) Program in FEMA Region V. I have coordinated the counsel and advice of the Regional Advisory Committee to the State and local jurisdictions in the Region.