


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 OL
	)	50-455 OL
(Byron Nuclear Power Station,	)	
Units 1 & 2)	)	

AFFIDAVIT OF DAVID TURNER

The attached statements, questions and answers, and exhibits constitute my testimony in the above-captioned proceeding. The testimony is true and accurate to the best of my knowledge, information, and belief.



\_\_\_\_\_  
David Turner

Subscribed and sworn to  
before me this 17<sup>th</sup> day  
of February, 1983.

\_\_\_\_\_  
Notary Public

TESTIMONY OF DAVID TURNER ON EMERGENCY PREPAREDNESS:

DAARE/SAFE CONTENTION 3 - ROCKFORD LWV CONTENTIONS 19 AND 108

Affiant states that he has read and is familiar with the documents attached hereto as Exhibits A, B, C, D, E, and F.

Q. Please state your name, present occupation and present position.

A. My name is David Turner. I am the Superintendent of Schools for the Mt. Morris Community Unit #261 ("Mt. Morris C. U.").

Q. Briefly state your educational and professional qualifications.

A. I have a Bachelor of Science degree in Elementary Education from Millikin University and a Master of Science degree in Educational Administration from Northern Illinois University in DeKalb, Illinois. I have 25 years total teaching and administrative experience. I was a principal for Polo Elementary School for six years before coming to the Mt. Morris School District. I have been the superintendent of the Mt. Morris C. U. since 1969.

Q. To which contention is this testimony addressed?

*Amended.* A. Emergency Preparedness: DeKalb Area Alliance for Responsible Energy/Sinnissippi Alliance for the Environment ("DAARE/SAFE") Contention 3, and Rockford League of Women Voters ("Rockford LWV") Contentions 19 and 108.

Q. Which Mt. Morris C. U. schools are located within the 10-mile plume exposure pathway Emergency Planning Zone ("EPZ") for the Byron Nuclear Generating Station ("Byron Station")?

- A. Mt. Morris Elementary, Mt. Morris Junior High School, and the Mt. Morris High School are all located 7 to 8 miles west-southwest of the Byron Station.
- Q. What preliminary or final emergency plans are you familiar with?
- A. The Illinois Emergency Services and Disaster Agency ("IESDA") sent to me an initial draft of the school superintendent's portions of the Illinois Plan for Radiological Accidents, Volume VI "Byron" ("IPRA-Byron, Draft"). These included an initial notification diagram; flow diagrams for command and coordination, protective actions, and parallel actions; responsibility matrices; and procedures for my role in the emergency plan. The IPRA-Byron, Draft, was dated December 1982 and accompanied by a cover letter dated November 29, 1982, from Mr. David L. Smith, IESDA Chief of Operations, Byron Emergency Plan. The school superintendent's portion of IPRA-Byron, Draft, and cover letter are attached to this affidavit as Exhibit A.

DAARE/SAFE and Rockford T.W.V provided me with the school superintendent's portions of the Illinois Plan for Radiological Accidents, Volume VI, "Byron," Preliminary Revision 0 ("IPRA-Byron, Revision 0"). The school superintendent's portions of IPRA-Byron, Revision 0, are also dated December 1982 and attached to this affidavit as Exhibit B.

I have also examined Commonwealth Edison's document titled "Evacuation Time Estimates Within the Plume Exposure Pathway Emergency Planning Zone for the Byron Nuclear Generating Station" (Evacuation Time Estimates-Byron), which is based on the feasibility and the official execution of these IPRA-Byron, Revision O, plans and procedures. Section 4.2 titled "Special Facilities Time Estimate Methodology and Assumptions" and Section 6.2 and Table 6.2 titled "Special Facilities Evacuation Times" are attached to this affidavit as Exhibits C and D, respectively.

Q. Did the IESDA solicit any information from you regarding the number of students to be evacuated and the resources available to you in conducting an evacuation?

A. Yes. In fact, that has been the extent of my contact with IESDA and Commonwealth Edison planners. I responded to a "request for information" from Assistant Ogle County Superintendent of Educational Services, Charles Hayes. A copy of Mr. Hayes' letter dated September 10, 1982, is attached to this affidavit as Exhibit E. Mr. Hayes had asked that I provide him with the number of students and staff at each Mt. Morris C. U. school, and the number of vehicles to which I have access. I also received a visit from two IESDA representatives on October 29. They asked essentially the same questions as Mr. Hayes. According to these gentlemen and to Mr. Hayes (Id.), these figures were to be used by IESDA and Commonwealth Edison in planning for an emergency at the Byron Station.

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Q. Did the IESDA solicit your opinions as to the adequacy of the IPRA-Byron, Draft?

A. Yes. In the cover letter from David L. Smith dated November 29, 1982, was a request for a "timely review" of the IPRA-Byron Draft (Exhibit A). I received the IPRA-Byron, Draft, midweek and was expected to critique the plan by the next week when two IESDA representatives were to visit. This was not a sufficient length of time for me to fully consider the draft plan. Nor did I have enough time or information to bring the draft plan before the Mt. Morris C. U. School Board. I told the IESDA officials on December 6 that Mt. Morris C. U. would not participate in the plan until the Board approves our role. I am of the opinion that neither my input nor my opinions were of any significant importance to IESDA planners.

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Q. What are your primary concerns regarding the emergency roles for which you are given responsibility in the IPRA-Byron, Revision 0?

A. Generally these concerns are: (a) procedures for and modes of carrying on emergency communications; (b) logistical difficulties of transportation plans (e.g. not enough buses, availability of drivers, communications with vehicles); (c) the liability of my school district and its employees for damages caused or injuries sustained by Ogle County citizens (including school district employees) while emergency workers are carrying out or failing to carry out responsibilities as outlined in IPRA-Byron, Revision 0;

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(d) complications involved with the relocation of evacuees, (e.g. where to go and how to reunite families); (e) the inadequacy of sheltering in place; and (f) the financial burden.

Q. With whom, according to the IPRA-Byron, Revision O, must you maintain communications during an emergency?

A. The Ogle County Superintendent of Educational Services, the Fire Protection District Chief, school administrators at Mt. Morris High School, Mt. Morris Junior High School, and Mt. Morris Elementary (Exhibit E).

Q. Are there any other communication capabilities which are assumed but not stated directly?

A. Yes, I must be in contact with all field personnel (bus drivers).

Q. What communications systems do you presently have available for such communications?

A. Communications with school administrators, the Ogle County Superintendent of Educational Services, and for the notification of school bus drivers will depend upon commercial telephone lines.

For field personnel we have two-way radios in our seven buses with a base station in my office. If I follow the IPRA-Byron, Revision O, however, I will abandon this base station and report to the Mt. Morris Police Station.

Q. Will these lines be sufficient in an emergency?



A. No. Should an overload of telephone lines occur, I would have limited means of receiving or disseminating information. I would not be notified of the progression of the emergency situation. For example, I may be left completely in the dark if an initial order for a protective action, e.g. for sheltering, is changed to an order for an evacuation.

With regard to the dissemination of information, efforts to keep school administrators abreast of the situation or to summon bus drivers by means of telephone will also depend on the integrity of the commercial phone lines.

Q. Do you have the capability to evacuate your entire student population in one trip?

A. No, I do not. I presently have access to seven buses with a total capacity of 470. The district's student population alone is 767. During an evacuation, almost the entire bus fleet would have to return for a second trip. Any transportation of the "general populace," as in IPRA-Byron, Revision 0, would require third and fourth trips.

Q. What other factors determine the availability of transportation?

A. Certainly the ability to mobilize drivers, which is dependent upon their willingness to serve as emergency workers and their availability. ~~Many bus drivers will be difficult to contact because they are part-time employees and work elsewhere during the day. And notification of drivers, as I pointed out earlier, is dependent upon the~~

~~telephone system which could be overloaded during an emergency.~~ Once contacted, drivers may, understandably, choose to evacuate with their own families. And it is clearly the case that the number of willing drivers will decline with each successive trip.

- Q. Approximately how much time would be required to mobilize personnel sufficient to man all available buses?
- A. At least thirty minutes would be required. This estimate assumes that everyone can be easily contacted which, for reasons stated above, is not the case. At night, on weekends, during holidays, or over summer recess, hours would be required.
- Q. What are your concerns about the liability of your school district and its employees for damages caused or injuries sustained during the execution of responsibilities assigned to you in IPRA-Byron, Revision O?
- A. The Mt. Morris C. U. is insured for the transportation it provides to the students of the Mt. Morris C. U. only. The transportation of students from other districts [IPRA-Byron, Revision O, (VI) (3), pp. 3-4, attached to this affidavit as Exhibit F] and the transportation of the general populace during an evacuation [(VI) (2), page 224, and (VI) (2f), page 19, Exhibit B] are activities for which we are not insured. I, personally, would place myself in legal jeopardy by ordering bus drivers or other staff to assist in emergency activities. Should any of the seventy Mt. Morris C. U.

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employees receive unacceptable internal or external doses of radiation while carrying out my instructions, who is liable? And who is liable for the families of emergency workers whose prompt evacuation would be hindered by the delay in availability of family vehicles?

Q. Have you made any attempts to clear up this matter via IESDA officials? (13)

A. Yes. I explained to the two gentlemen who visited me during the week of December 6 that I had concerns which would be brought before the Mt. Morris School Board before the plans would be approved. (13)

Mr. Maloney, ~~the~~ Leaf River Superintendent, was designated as our contact with IESDA concerning the liability question. Mr. Maloney's ~~three~~ month effort has been unsuccessful.

Q. What information have you been given on relocation?

A. None. ~~What plans do exist seem to stop at the border of the ten-mile EPZ. I do not know where the children will be taken, or how they will be reunited with their families.~~

Q. What portions of Commonwealth Edison's Evacuation Time Estimates-Byron have you seen?

A. I am familiar with Section 4.2 "Special Facilities Time Estimate Methodology and Assumptions," pp. 4-6 and 4-7, and Section 6.2 "Special Facilities Evacuation Times," as well as Table 6-2 where these time estimates are found. (See Exhibits C and D, respectively.)

Q. Briefly, what is ~~the~~ methodology used?

- A. The total evacuation time for Mt. Morris C. U. is 50 minutes. The total evacuation time is divided into mobilization time and travel time. Mobilization time is assumed to be 45 minutes (15 to notify me, 30 minutes to mobilize drivers, drive to the schools, and prepare students for departure). The travel time out of the EPZ is then minimal: five minutes.
- Q. Are these accurate estimates?
- A. No, since 30 minutes is the absolute minimum amount of time necessary to mobilize drivers. Furthermore, since more than one trip will be required, the mobilization and travel times must reflect the time required to drive to the sheltering area, unload, return to the schools, and again travel out of the EPZ.
- Q. Did the document state the source of these mobilization and loading times for your schools?
- A. Yes, and I quote, "Mobilization and loading times for special facilities have been obtained by State of Illinois ESDA personnel through interviews with facility officials." [emphasis added] Commonwealth Edison "Evacuation Time Estimates" at 4-6. And further, "The thirty-minute average time for preparation to enter the roadway conforms to the estimates provided by school officials [emphasis added] through State of Illinois ESDA personnel." Id., pp. 4-7.
- Q. Are you the source of these time estimates?

A. I do not recall giving the IESDA representatives such an estimate. Thirty minutes would not be an average time and would only be attainable on a school day if phone lines are intact. "

(15)

Q. Sheltering is another possible protective measure which may be prescribed in the event of an accident at the Byron Station. Have IESDA officials given you any information on sheltering procedures in response to such as accident?

A. No, they have not.

Q. Are you aware of what is meant by "sheltering," pursuant to IPRA-Byron, Revision 0?

A. As I understand the matter, sheltering will be prescribed for those populations in the affected area who cannot evacuate in an acceptable time period. Sheltering involves staying inside, closing all windows and doors, and going to a basement area or a room where walls are made of cement. Ventilation is to be restricted in any way possible.

Q. Have they inquired as to the feasibility of sheltering students in your buildings after radiological release from the plant?

A. No, they have not.

Q. Do your buildings have suitable facilities (basement or windowless areas) for sheltering?

A. No, they do not.

Q. Do you see any further ~~problems~~ with using sheltering as a protective action?

*in subject to stipulation that witness is not an expert.*

- A. Yes. If sheltering is prescribed as a protective action and an evacuation is later advised, I would have only a commercial telephone to receive the message, summon bus drivers and notify other buildings. As I established earlier, telephone communications are of limited reliability, at best.
- Q. Have IESDA or Commonwealth Edison given you any indication that they will make any efforts to ease the financial burden of acquiring badly needed communications equipment, training or evacuation experience? (13)
- A. No. In August 1982 several other school superintendents and myself were told by Ray Appler, Ogle County Superintendent of Educational Services, that we would be given equipment by IESDA. Mr. Appler was later told by an IESDA official that he had misunderstood discussions with IESDA representatives on this matter. (13)
- Q. On the basis of your education and professional experience, your knowledge of the Mt. Morris C. U. and its resources and your limited contacts with IESDA, do you consider the IPRA-Byron, Revision 0, to be adequate or capable of implementation with regard to your role in the evacuation or sheltering of schoolchildren and the general populace? (13)
- A. No, I do not. School districts and their buses play a key role in the IPRA-Byron, Revision 0, and yet school superintendents have not been allowed to shape the plan or even have important questions answered. This being the case, (13)

the plan cannot be a workable one. School districts, unlike fire departments or ambulance services, have no standard operating procedures as a base for emergency operations and communications. Therefore, we require more guidance and a more active role in the planning process.

I am willing to cooperate with planners. They could potentially do my district a great service. At this point, however, neither the plan nor the planners have brought me closer to developing the capability to protect the health and safety of schoolchildren during a radiological emergency.

Affiant incorporates the material contained in Exhibits A, B, C, D, E, and F, attached hereto, as part of his testimony.