

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
DUKE POWER COMPANY ) Docket Nos. 50-369  
(William B. McGuire Nuclear ) 50-370  
Station, Units 1 and 2) )

TESTIMONY OF H. B. TUCKER REGARDING  
EMERGENCY PLANNING AT MCGUIRE NUCLEAR STATION

1. Q. Would you describe Duke Power Company's emergency plans in regard to actions that would be taken with respect to the four emergency classes listed in NUREG-0654?
- A. The four emergency classes listed in NUREG-0654 are:
- 1) Notification of Unusual Event,
  - 2) Alert,
  - 3) Site Area Emergency, and
  - 4) General Emergency

Duke Power Company's ("Duke") response to conditions which implement these levels are described in the McGuire Nuclear Station Emergency Plan and its implementing procedures as well as Duke's Crisis Management Plan.

Incidents in the "Notification of Unusual Event" category are those which indicate a potential for degradation of the level of the safety of the plant. However, no off-site monitoring or response is called for as no releases are expected unless further degradation of plant safety systems occurs. Duke's actions under this category would be to notify State and local authorities promptly. Also, the media would be made aware of the situation. Finally, Duke would augment on-shift resources as necessary, assess the situation and respond to it, and escalate or close out the incident as appropriate. The off-site authorities referred to herein are the County Emergency Preparedness Directors and the elected council members or, if the State's Emergency Response Team is in place and in control of the off-site situation, the Assistant Director for Public Safety of the State of North Carolina who heads up the State's team.

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In the Alert category, events involve an actual or potential substantial degradation of the level of safety of the plant. Duke's actions here would be to promptly notify State and local authorities, NRC and Westinghouse. The corporate response group would come to the site and man the Emergency Operations Facility ("EOF"). Information updates would be provided to the State and local authorities from the plant Technical Support Center ("TSC") until the Crisis Management Center ("CMC") (i.e., EOF) is activated. The situation would be assessed by these groups, monitoring teams would be dispatched, and any recommendations would be made to the appropriate off-site authorities. The State Emergency Response Team ("SERT") would be activated and would come to Charlotte from Raleigh to man their emergency facility at the Air National Guard Armory. This action on the part of the State would involve five to six hours of travel and set up time. During this period the five counties would be responsible for initiating protective actions involving the public. However, in the Alert category, any releases would be limited to small fractions of the EPA Protective Action Guideline exposure levels and thus protective action recommendations are not anticipated.

In the Site Area Emergency classification, events have occurred or are in the process of occurring which involve actual or likely major failures of plant functions needed for protection of the public. In an event which reaches this category, all of the groups and facilities listed above in the Alert category would become operational. Duke would send out radiological and environmental monitoring teams into the Emergency Planning Zone ("EPZ"). These groups would assist the station and corporate response organizations in assessing the situation and responding to it. Off-site authorities would be updated on plant status by a dedicated individual. Periodic briefings of the media would be held. Dose projections based on plant conditions and meteorological status would be provided to off-site authorities for their independent analysis. Any releases are not expected to exceed EPA Protective Action Guideline exposure levels except inside the site boundary. Duke recommendations to the appropriate off-site authority for any precautionary protective actions involving the public would come from the Recovery Manager.

In the General Emergency classification, events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Duke's actions in this emergency classification would be similar to those described in the Alert and Site Area Emergency classification discussions above. When an emergency reaches this classification, recommendations will be made by the Recovery Manager to the appropriate off-site authorities for protective actions involving the public. The public is updated via emergency broadcast system activation and by press briefings (held either jointly with off-site authority public spokesmen or separately). Alerting of the public to the need for some action on their part comes about in the following manner: When the situation at the station is assessed to require some protective action, the Recovery Manager notifies the head of the SERT team (or the county emergency manager if the county is in control) with Duke Power Company's recommendation. The off-site authority reviews the recommendation and determines what actions will be taken. Feedback on what will be done is provided to Duke. The off-site authorities activate the alerting system, set up traffic control points, open appropriate shelters, and provide for security in any evacuated areas. All of the responsibility for public sheltering and the items associated with this lie with the off-site authorities. Duke Power Company is charged with assessing the situation, monitoring the area, updating off-site authorities and the public, working with Federal agency response on-site, and for making recommendations to those off-site authorities. In a General Emergency or any other time when public protective actions are required, a coordinated effort is required on the part of the utility and the off-site authorities.

In the Site Area Emergency and General Emergency classification the State's radiological and environmental monitoring teams would be in the field taking samples and making analyses just as Duke Power Company would. Protection of the public is a joint effort. The State of North Carolina and Duke have worked and will continue to work to assure that our capabilities will be coordinated in the event of an emergency.

2. Q. Briefly describe the emergency plans that exist in regard to public protection?

A. Duke Power Company's Crisis Management Plan and its associated implementing plans address corporate response to all Duke Power Company Nuclear Station emergencies. The McGuire Nuclear Station Emergency Plan and its implementing procedures describe how the station personnel would respond to incidents. Off-site plans which address State and local capabilities in the ten and fifty mile radius area around McGuire Nuclear Station include the North and South Carolina State plans, and the county plans of Mecklenburg, Gaston, Lincoln, Iredell, and Catawba. The off-site plans describe their capabilities as regards public protection in the event of an incident at McGuire Nuclear Station.

The combined capabilities of Duke Power Company, the State of North Carolina, and the five counties around McGuire were tested on December 5th and 6th, 1980 during a full scale exercise which eventually involved public protective actions. The NRC and FEMA provided official observers who attended the critiques and provided their input to the process. At a media briefing following the critique, both regulatory bodies indicated that their preliminary assessment would be to approve the capability and planning efforts of both the on-site and off-site organizations.

3. Q. In your professional judgement, do these plans meet the applicable regulatory requirements?

A. Yes.

Professional Qualifications  
of  
H. B. TUCKER  
Manager, Nuclear Production Division  
Steam Production Department  
Duke Power Company

My name is H. B. Tucker. I am the Manager of the Nuclear Production Division, Steam Production Department, Duke Power Company. My business address is 442 South Church Street, Charlotte, North Carolina, 28242.

I graduated from Georgia Institute of Technology in 1949 with a Bachelor of Science Degree in Electrical Engineering. I also attended a course in Nuclear Reactor Engineering at the University of Michigan in 1968.

I have been employed by Duke Power Company in the Steam Production Department since July 1949 except for a period of active duty with the U. S. Army between June 1951 and January 1953. During my Army tour, I served in the communication field as Commanding Officer 838 Signal Radio Relay Company. My assignments with Duke Power Company have been Testman, Test Engineer, Plant Engineer, Superintendent of a steam station, System Production Engineer, Manager of Operation and Maintenance, and Manager of Nuclear Production Division. During these assignments, I have been involved in all facets of power generation in both Fossil and Nuclear plants. In my current position I am responsible for, among other things, the development and implementation of Duke Power Company's emergency plans for its nuclear facilities, including McGuire.