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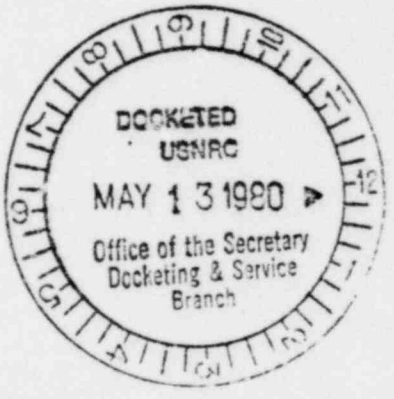

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Docketing and Service Branch

Subject: NUREG-0654/FEMA-REP-1
Criteria for Preparation and Evaluation
of Radiological Emergency Response Plans and
Preparedness in Support of Nuclear Power Plants

Dear Sir:

Attached are Duke Power Company's comments on the subject document.

Very truly yours,

William O. Parker, Jr.

RMK:rf

Encl.

Acknowledged by card. 5/19/80...mdv....

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DUKE POWER COMPANY

Comments on NUREG-0654

Item B-5 Table B-1 Minimum Staffing Requirements

(1) The requirement for additions to the plant staff within 30 minutes appears to be impossible to satisfy by any reasonable technique. The people who work at our nuclear stations and who are available to provide the supplementary shift support in a short period of time are free to live where ever they choose. Consequently these employees have chosen to live at distances from 2 to 30 miles from the station. An average distance is approximately 15 miles. Driving time to reach the station varies from 5 to 45 minutes with an average of approximately 25 minutes.

In an emergency, notification of appropriate employees and preparations to leave would take at least 5 minutes under optimum conditions. Ten minutes is probably realistic for all 26 employees. Many of the staff could get to the plant within an additional 25 minutes but some would take up to 45 minutes. Consequently a response time of 1 hour for supplementary shift support is considered reasonable and achievable. A 30 minute response time is not reasonable.

In addition, it is considered that with the minimum staffing identified "on shift" in Table B-1, the immediate emergency needs are met by those persons on shift. The emergency coordinator, the communicator, operators and HP/Rad Chem technicians have all been trained in their roles in an accident. Supplementary personnel support in the 30 minute to 1 hour time frame should be considered adequate.

(2) The requirement for a mechanical maintenance capable person on shift is of questionable value. There is very little repair and corrective action that one person can do. Most mechanical maintenance requires that the component to be worked on be isolated from a system. That isolation and the required component tagging to provide assurance of isolation takes time which could be used to bring several maintenance people from their homes to the plant to perform maintenance. We would support the addition of 2 or 3 maintenance people being available in 1 hour but we object to the provision of a mechanical maintenance trained person on shift.

Item H-8 and Appendix 2 Meterological Instrumentation and Procedures

As a philosophy, we believe that any emergency should be managed from the site and all the information necessary to manage the emergency must be available at the site. We also believe that sending "real time" information off-site is likely to be counter to that philosophy. If raw data is available in multiple locations away from the site we believe it is inevitable that directions based on the preceived plant status will be forthcoming from those data sources. Consequently, we object to the criteria which would require any real time information to be data linked off-site. We do agree with providing timely, validated information off-site to NRC and other organization needing data.

Section 1

Data requirements in Section 1c(1) should include only parameters that are meaningful in the prediction methods employed. For example, state-of-the-art methodology for the treatment of complex three-dimensional gravity flows may not account for wind direction or stability indicators in a fashion common to the more ideal, flat plate types of flow. In such cases confusion or misinterpretation would result.

Section 2

Redundant power sources should not be required for both the primary and backup systems. Two power supplies for the primary system plus a backup system should be adequate.

Section 3

The reference to a demonstrated system for making real-time estimates of transport and diffusion in Section 3 should not be taken to necessarily mean a model in the sense of a detailed mathematical expression representing atmospheric processes. For some physical settings it may not be possible to apply a rigorous tool, with the best prediction resulting from a more parameterized method. "Model" here, then, should mean best prediction method. In the context of the difficult diffusion situation, plume dimensions may have to be specified in terms other than concentration standard deviation. With respect to forecast input to prediction methods, it should be recognized that the forecast element will give rise to considerable uncertainty in estimates of model accuracy and conservatism. An alternative to forecast input to Model Class A is resort to a near worst case condition following one hour of presently observed conditions. Model Class A should serve as the guidance aid for evasive action in a real-time sense. Model Class B should be used only for assessment purposes, relative to past and future exposure, involving evasive action on a time scale of day(s) instead of hours. In other words, Model Class A would be used for immediate assessment by station personnel in applications with potentially short-term evacuation requirements. Model Class B would be used by post-accident assembled emergency teams in assessment of longer-term effects. Model Class B development will require a time frame of 6-12 months.

The words " real time" create the impression of an impossible task. In reality, the predictions of atmospheric effluent transport and diffusion would be done on a periodic basis using the lastest available information. It is considered practical to do a reevaluation of dose predictions on a frequency of every 30 minutes to 1 hour. This would remove that prediction from the realm of "real time" although the prediction would be done with latest information.

Section 4

We do not feel that real time capability is technically supportable or necessary to support the radiological aspects of emergency response. We realize that the NRC and other parties external to the site have a desire and need for data in the event of a radiological emergency; however, we feel that our best effort is in providing a means of rapid transfer of validated data in an emergency and not in the implementation of a real time data link. The transmittion of such limited data in real time without any attempt to validate the data at the source could result in incorrect decisions and release of information by personnel off-site based upon erroneous data. It is our position that an arrangement utilizing computer terminals which would have access to "current" but not "real-time" information would be the best alternative for all concerned.

Regarding a backup communications link, manual contact by telephone appears as an acceptable alternative and of sufficient reliability to serve as a backup measure for remote interrogation.

Item E-6 and Appendix 3 Notification and Prompt Instructions to the Public

Our position is as specified in Petition for Rulemaking and Statement in Support of Petition submitted to the Commission on March 12, 1980.