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DOCKET NUMBER 50  
PROPOSED RULE (35 FR 41095)  
USNRC

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Senior Vice President  
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Alabama Power

OFFICE OF SECRETARY OF ENERGY  
DOCKETING & SERVICE the southern electric system

December 20, 1990

Docket Nos. 50-348  
50-364

Mr. Samuel J. Chilk  
Secretary of the Commission  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

ATTN: Docketing and Service Branch

Comments on Proposed Rule  
"Emergency Response Data System"  
(55 Federal Register 41095 of October 9, 1990)

Dear Mr. Chilk:

Alabama Power Company has reviewed the proposed rule, 10 CFR Part 50, "Emergency Response Data System," published in the Federal Register on October 9, 1990. In accordance with the request for comments, Alabama Power Company is in total agreement with the NUMARC comments which are to be provided to the NRC.

In addition to the NUMARC comments, Alabama Power Company also offers the following comment for consideration:

The proposed rule does not give adequate consideration to constraints associated with the remote monitoring of plant data. Operating a nuclear plant, particularly during emergency conditions, requires extensive experience and training. Prior to testing for an operator's license, an employee must successfully complete approximately a year of full time training, including about 8 weeks of training on a plant specific simulator. After receiving a license, licensee plant operations personnel participate in training and complete at least 6 weeks of full time training every year. Simulator training, during both the initial training and the ongoing training, includes hands-on experience in responding to simulated accident conditions. This training, combined with daily work experience, qualifies licensed personnel to respond to emergencies at the nuclear plants utilizing emergency operating procedures written especially for their plant and utilizing the full range of analog and digital instrumentation available in the control room. The accident response function is performed by an operating crew consisting of several licensed personnel in visual and verbal contact regarding plant conditions and operator actions.

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The proposed rule would provide remote, centralized monitoring of plant parameters. It is impractical for personnel located at a remote location trying to stay qualified to monitor data from any one of over a hundred non-standard operating plants with any one of four different nuclear steam supply vendor designs. Without the benefit of day-to-day operating experience at the affected plant, site-specific simulators, or a working knowledge of the site-specific emergency operating procedures and with only limited knowledge of ongoing operating events (e.g. changes in valve alignments, pump status, etc.), it will be virtually impossible to effectively monitor the licensee's activities during an event.

In the event of an emergency, trained licensed plant operating personnel utilize a wide range of installed plant instrumentation in the context of their knowledge of current plant status and of damage assessment to respond to the event and implement emergency operating procedures. In a post-accident environment, the accuracy of some instruments may degrade. Plant operators compensate for this by using redundant and diverse indications and by adjusting the ranges within which the parameters measured by the instruments are maintained. These adjusted ranges are reflected in symptom-based emergency operating procedures. ERDS monitors might well be expected to request explanations of instrument reading changes that cannot reasonably be given without shifting to an event-based accident analysis.

Region II of the NRC has previously stated, "... the current (voice-only transmission) system creates an excessive drain on the time of valuable experts at the NRC and at the facility. When errors occur, they frequently create false issues which, at best, divert experts from the real problems for seriously long periods of time. At worst, incorrect data may cause the NRC to respond to offsite officials with inaccurate or outdated advice that results in the implementation of inappropriate protective actions." (NRC to Alabama Power Company, March 11, 1986). Alabama Power Company agrees with the assessment of the current system and feels that the ERDS will have the same problems to a greater degree. The use of a limited data set without the redundant or diverse instrumentation and indication will force the NRC to request from the licensee the interpretation of data. The strong possibility exists that discussion of irrelevant data will consume resources by virtue of the NRC staff wanting to understand all data being transmitted even though some may have limited relevance to the emergency event. Verbal transmission of excessive details of accident response operational activities (e.g. valve actuations, pump starts and stops, etc.), of harsh environment effects on instruments and equipment status will be required to explain changes in data or data trends or abnormal parameter values. Discussion of

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operational activities and data relevance would have to be done in the context of the type of accident that has occurred and that is totally contrary to the symptom based approach in emergency procedures. An individual with the knowledge and experience level needed to track operational activities and equipment status and explain data values and trends is a scarce resource that could best be utilized as a direct participant in emergency response operational activities rather than as a telephone responder to asked questions. Attempting to respond to the NRC questions on data and operational activities will distract the operating staff from their primary accident response function of controlling the accident and placing the plant in a safe and stable configuration.

Should you have any questions, please advise.

Respectfully submitted,

*W. G. Hairston III*  
W. G. Hairston, III

WGH,III/JMG

cc: Mr. S. D. Ebner  
Mr. S. T. Hoffman  
Mr. G. F. Maxwell