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YANKEE ATOMIC ELECTRIC COMPANY



20 Turnpike Road Westborough, Massachusetts 01581

IMS File #1.6.2

50-2

June 26, 1978

United States Nuclear Regulatory Commission Washington, D.C. 20555

Attention: Office of Nuclear Reactor Regulation Division of Operating Reactors Victor Stello, Jr., Director

References: a. License No. DPR-3 (Docket No. 50-29)

- b. USNRC Letter to R. H. Groce from K. R. Goller, dated November 25, 1977, Subject: Revised Technical Specifications for Fire Protection Systems.
- c. YAEC letter (WYR 77-126) to ONRR from D. E. Moody, dated December 14, 1977, Subject: Fire Protection.
- d. USNRC letter to R. H. Groce from Victor Stello, dated June 8, 1978, Subject: Manpower Requirements for Operating Nuclear Reactors.

Dear Sir:

Subject: Manpower Requirements for Operating Reactors - Fire Protection

Your letter dated June 8, 1978, included as an attachment a document entitled "Manpower Requirements for Operating Reactors". That guidance document in essence, reiterates a previous staff belief (Reference b. above) that a minimum fire brigade size of five persons needs to be established. As we expressed in our previous correspondence (Reference c. above), we have a serious concern for establishing a minimum brigade size of five men. Our previous letter and our discussions with your staff have provided our reasons for our concerns and we would like to reiterate our objections to your position in summary form.

In addition to our technical disagreements with your current position, of equal concern to us is the procedural manner which the staff is using to establish minimum regulatory requirements for all operating reactors. Based upon our review of the record on fire protection, the only documented reference we can locate as the apparent basis for recommending a five-man brigade, is an October 19, 1977, letter from Robert E. Hall of the Reactor Engineering Analysis Group of Brookhaven Laboratories to R. L. Ferguson which recommended such a position. In establishing the minimum

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fire brigade size of three persons at our facility, we considered the arguments presented in that memorandum and provided our basis for establishing a smaller brigade. Your letter reiterates the same bases for establishing a five-man fire brigade as did your earlier memorandum and there appears to have been little, if any, recognition of our previous comments.

At the outset, we wish to state that our position remains as before; that is, a three-man fire brigade led by the Shift Supervisor, will be able to cope with fires at our facility. It is our position that in response to a fire alarm, two members of the fire brigade would respond at the site immediately, with the third member of the brigade allowed to respond at a later time.

As we discussed in our prior submittals, the philosophy for protection against fires is that of defense in depth; that is, fire prevention, prompt detection and extinguishment of any hazard, and provisions to minimize the effects of the fire. In evaluating the consequences of fires at our facility, the NRC required that we prepare a fire hazards analysis report. This report, developed with the assistance of competent fire protection engineers and submitted to you on January 31, 1977, provided our evaluation of the possibility of and effect of fires in the various fire zones as established within our facility. As indicated in that analysis, conservative assumptions were made with regard to the fire loading. The results of that analysis indicated that the design features provided in our facility with some modifications, were adequate to cope with the consequences of a fire. Yankee Rowe is in the process of making many of those modifications.

It has been the staff's position that manually operated back-up fire extinguishing equipment (e.g., hose stations or fire hydrants) be provided for all fire zones having safety related systems. In operating these back-up fire extinguishing systems, operator intervention is, of course, required. It is our view that, at most, two persons plus a supervisor are needed to effectively operate systems as installed. As the NRC properly recognizes, the actions of the plant staff in this event are expected to be of short duration, that is, on the order of thirty minutes. Should a fire occur, the location of that fire should be identified by the fire detection system. In our view, the proper response of a fire brigade would be to have plant personnel enter the area identified and evaluate the situation. Should the fire be of such a nature to require actuation of the back-up fire protection system, the three man fire brigade will be employed in these fire fighting activities. These three individuals are provided sufficient equipment, including air supply, to permit them to actively support any fire fighting activities for the desired period of time (or longer). Plant procedures detail the activities which will assure that more support will arrive within 30 minutes.

It is generally acknowledged that the installed fire hoses inside a nuclear power plant (1-1/2 inch diameter) can be handled and manipulated

by two persons in protective equipment. Since all the equipment being utilized in the initial phases of fire fighting activity is strategically located, breathing apparatus is available, and we are required to have at least two spare tanks available, we are of the opinion that additional dedicated fire fighting personnel are not required.

With regards to the use of Security Personnel in fire fighting, we believe it may be advantageous to conder them available to render limited assistance in the event of a fire. They could be of some use in life safety situations, communications, and the movement of fire fighting equipment and supplies. However, to attempt to train them as required in the document Manpower Requirements for Operating Reactors, Conclusion, pages 4 and 5, "Of course, all personnel assigned to the fire brigade would have to fulfill all applicable training requirements", is unreasonable and unwarranted. We understand that the interpretation given this requirement by your staff has been that security personnel should be given training in plant operation as well as in fire fighting to enable them to serve on the fire brigade. Such training is not supplied nor will it be. Therefore, Yankee Rowe cannot commit to use of these security persons in fire fighting. If, however, security persons need not receive the level of training called for in the NRC's document, and if we had assurance that security manning requirements would not thereby be increased, Yankee Rowe would agree to train designated security personnel to provide assistance as needed to the fire brigade. These individuals would not receive the intensive training or the level of training required of fire brigade members. They would be trained to carry out their specific responsibilities so they could effectively assist the fire brigade if needed. These responsibilities could include, but not be limited to, life safety, communications, providing equipment needed by the fire brigade, and filling of air bottles if necessary. These duties, the procedures required, and the training required would be developed by Yankee Rowe.

As indicated above, Yankee Rowe continues to object to the NRC position on minimum fire brigade size. Our bases for this objection were sent to you in Reference c above. This letter adds to and amplifies those bases. We trust that these expanded bases are adequate to change the interim requirement to a permanent requirement for a three man fire brigade, and we will continue to operate our facility in that way.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

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D. E. Moody Manager of Operations

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FURNISHING COMMENTS AND OBJECTIONS TO NRC LTR DTD 06/08/78, INCLUDING DOCUMENT ENTITLED: "MANFOWER REQUIREMENTS FOR OPERATING REACTORS", RE THAT A MINIMUM FIRE BRIGADE SIZE OF FIVE PERSONS BE ESTABLISHED FOR SUBJECT

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