

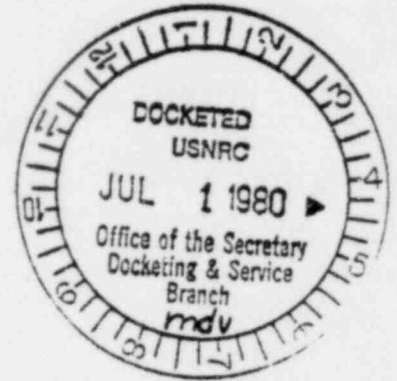
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PROPOSED RULE PR-50 (21)
(45 FR 36082)

June 27, 1980



Mr. Samuel J. Chilk
Secretary of the Commission
United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Docketing and Service Branch

Re: Fire Protection Program for Nuclear Power
Plants Operating Prior to January 1, 1979

Dear Mr. Chilk:

On May 29, 1980, the Nuclear Regulatory Commission proposed to amend its regulations to require certain minimum provisions for fire protection at operating nuclear power plants. 45 Fed. Reg. 36082 (May 29, 1980). The proposed requirements would be contained in new 10 CFR section 50.48 and new Appendix R to 10 CFR Part 50.

Rochester Gas and Electric Corporation ("RG&E" or "the Company") is licensed by the NRC to operate Ginna Nuclear Power Plant, a pressurized water reactor which commenced commercial operation in 1970. As noted in the supplementary information accompanying the proposed rule in the Federal Register, Ginna is one of eleven plants under review in the NRC's Systematic Evaluation Program ("SEP"). Because of the importance of Ginna to its system, RG&E is vitally interested in the outcome of this rulemaking and trusts that the Commission will consider the following comments with utmost care. In addition, the Company notes its general concurrence with the comments submitted by the Edison Electric Institute.

In summary, the Company finds the Commission's proposed rule to be a substantial and unjustified deviation from past NRC rulemaking practices. In addition, the specific requirements of Appendix R unreasonably expand upon prior NRC fire protection guidance and thereby effectively revoke Staff-approved alternative approaches on which licensees have been proceeding in good faith. Equally arbitrary are the implementation dates selected by the Commission. The Commission simply has no basis for concluding that the program it has established can be met on time and in proper fashion.

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Acknowledged by card.

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HISTORY OF RG&E/NRC CONSIDERATION OF GINNA FIRE PROTECTION MODIFICATIONS

In the supplementary information accompanying the proposed rule, the Commission suggests that the continued existence of 17 open generic issues in the fire protection programs of 32 nuclear plants was the motivating factor in its decision to give regulatory status to fire protection guidance heretofore addressed in a Regulatory Guide. The proposed rule, however, covers far more than the 17 open issues; it addresses a total fire protection program and establishes completely new requirements in areas where licensees and NRC Staff were in accord. The breadth of the proposed rule, together with the Commission's expression of concern in CLI-80-21 that fire protection modifications were "not being implemented smoothly . . . four and one-half years after the Browns Ferry fire" and the inordinate speed with which the Commission would have the proposed rule take effect, all imply that the Commission believes that licensees uniformly have reacted to the Staff's fire protection guidance in a dilatory and unreasonably intransigent manner.

If that is the Commission's belief, it is not well-founded. When viewed in proper historical perspective, there is no apparent need to lay blame on any party for the fact that not every plant in the nation has completely implemented a fire protection program. The development and implementation of fire protection guidance has been a demanding, time-consuming process involving complex issues which licensees and the NRC Staff have had to assess on a plant-specific basis. A brief recitation of the efforts of RG&E and NRC Staff in developing and implementing a fire protection program at Ginna provides an illuminating example of this time-consuming process:

		<u>Approx. Elapsed Time Between Milestones</u>
March 1975	- Browns Ferry fire occurred	
February 1976	- Special Review Group released recommendations (NUREG-0050)	11 mos.
May 1976	- NRR issued Branch Technical Position (BTP) 9.5-1	3 mos.
June 1976	- BTP 9.5-1 guidance published for public comment as Reg. Guide 1.120	1 mo.
August 1976	- Appendix A to BTP 9.5-1 published for use by plants docketed prior to 7/1/76	2 mos.

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February 1977	- RG&E submitted document in response to BTP 9.5-1	6 mos.
June 1978	- NRC Staff visited Ginna to evaluate fire protection program (a visit which had been rescheduled 10 times by Staff) <u>1/</u>	16 mos.
February 1979	- NRR issued Ginna Fire Protection Safety Evaluation Report (SER) which approved modification schedule providing for 6/81 completion of last items	8 mos.
April 1980	- NRC Staff responded to RG&E submittals made pursuant to SER during 4/79-12/79	15 mos.
May 1980	- NRC provided RG&E with a copy of proposed Appendix R	1 mo.
June 1980	- RG&E met with NRC Staff to discuss Staff response to RG&E submittals and Appendix R	1 mo.

The foregoing events, of course, represent only the major milestones in the development and implementation of the Ginna fire protection program. Numerous other written communications and oral discussions between the Company and the Staff transpired following RG&E's initial submittal in February 1977. The development and implementation of a fire protection program at Ginna, as at other existing plants, by necessity has been time-consuming and difficult because of the need to deal with the existing structures and systems within the plant. Satisfaction of the detailed design guidance reflected in Regulatory Guide 1.120 and BTP 9.5-1 obviously is far easier in the case of a plant still in the design stage.

1/ These ten changes in the site visit date occurred over a one year period. We understand that SEP plants purposely were visited toward the end of the Staff site visit program so that fire protection modifications could be put in the context of SEP modifications.

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THE ADOPTION OF APPENDIX R WOULD REPRESENT AN UNJUSTIFIED DEVIATION FROM NORMAL NRC RULEMAKING PRACTICE, FROM THE GUIDANCE OF BTP 9.5-1, AND FROM NRC STAFF-APPROVED ALTERNATIVE APPROACHES TO FIRE PROTECTION

Compared to other NRC regulations of comparable importance, proposed Appendix R is unjustifiably specific and inflexible in terms of the detailed design and implementing procedures which it mandates. The Commission essentially is proposing to transfer guidance directly from a Regulatory Guide, which by definition represents only one method of satisfying an NRC requirement and permits the approval of alternative methods, into a regulation which contains no provision for the acceptance of alternative approaches. This represents an undesirable deviation from the normal NRC practice of establishing objectives by regulation while leaving with the licensee the responsibility for designing and implementing a system which, in the opinion of NRC Staff, will satisfy the regulation's objectives. A prime example of how the approach reflected in Appendix R deviates from the norm is found in the detailed prescriptive requirements for fire brigade training. More general guidelines would be much more appropriate.

In attempting to justify limiting the comment period in this rulemaking proceeding to thirty days, the Commission erroneously states that the public had adequate opportunity to comment on proposed Appendix R when the BTP 9.5-1 guidance was subjected to public review as Regulatory Guide 1.120. The Commission's statement might have some semblance of validity if Appendix R and BTP 9.5-1 were identical, but they are not. Several significant requirements contained in Appendix R have never been presented in any earlier guidance from NRC. Examples of these include 1) the requirement that the equipment protecting the reactor coolant pump lubrication system (or the RCP lubrication system itself) be designed to withstand a Safe Shutdown Earthquake, 2) the requirement that all fire barrier penetration seals be tested with a pressure differential across the barrier when previous tests were required to be performed to ASTM E119, 3) the treatment given associated circuits, and 4) the establishment of a "10 feet horizontal and vertical clear air space" separation criterion as a condition for a waiver of the fixed suppression requirement, a criterion which is far more conservative than existing design standards or current practice would require. Such new requirements should be dropped from Appendix R.

In addition to creating new requirements which were never contained in any NRC fire protection guidance, the proposed rule, by requiring strict conformity to Appendix R, also effectively reverses NRC Staff-approved alternatives to the guidelines of BTP 9.5-1. Thus, for licensees which had assumed that such alternatives would remain acceptable, the Commission's proposal establishes new and unexpected requirements. At the very least, the Staff's prior acceptance of alternative approaches should not be disturbed by this rulemaking proceeding.

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Surprisingly, the Commission's supplementary information accompanying its proposal cavalierly ignores the consequences of these new requirements. There is no hint that the Commission was guided on this very important subject by any regulatory impact analysis or other cost/benefit appraisal. Such a cost/benefit calculation must be performed by NRC and subjected to public scrutiny before Appendix R can be adopted in final form. We doubt that this analysis would justify whatever incremental benefits might flow from the eleventh-hour promulgation of new requirements and the reversal of previously approved alternative methods of satisfying existing NRC guidance.

THE PROPOSED APPENDIX R IMPLEMENTATION DATE IS TOTALLY UNREASONABLE

The proposed rule would require licensees to complete all modifications mandated by Appendix R by November 1, 1980. How the Commission selected this date was not explained in the May 29th Federal Register notice, an omission which is not surprising in view of how arbitrary and unreasonable the Commission's choice actually is.^{2/} Only Commissioners Hendrie and Kennedy addressed the question of implementation date, and their separate (and dissenting) comments properly reflect many of the concerns which should have been factored into the Commission's decision as to the appropriate time for requiring compliance with Appendix R.

As noted earlier, contrary to the Commission's implication that the requirements reflected in Appendix R are not new and thus should come as no surprise to licensees, Appendix R in fact does contain new requirements which licensees had not been addressing in their ongoing fire protection modification programs. Moreover, the Commission would have Appendix R effectively overturn previously approved alternative fire protection approaches. Even if all a licensee had to accomplish by November 1 was to meet those requirements appearing for the first time in Appendix R and reformulate the approach to requirements for which alternatives had been approved, the Commission's expectation that the work could be accomplished on time and in a proper fashion would be unreasonable..

^{2/} Equally unreasonable is the requirement that licensees submit on August 1, 1980, all plans and schedules for meeting the November 1 implementation date. First, as Commissioners Hendrie and Kennedy observed, the Staff's plant-by-plant review will not be completed until July. Second, the Commission has held open the possibility that the Appendix R requirements may be changed as a result of public comments, while nonetheless requiring that the implementation of Appendix R by licensees include whatever changes are made in the final rule. Even if this rulemaking proceeding produced a final rule tomorrow, licensees would have no reasonable opportunity to prepare an adequate submittal by August 1.

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This expectation is made all the more unreasonable by the fact that many licensees, including RG&E, have already well-established schedules for the engineering and construction of the required fire protection modifications. RG&E, for example, has been proceeding in accord with the schedule set out in Table 3.1 of the Ginna Fire Protection SER. Because of the heavy Three Mile Island-related work load, there has been some slippage in milestone completion dates for several individual items addressed in the table, ^{3/} but the Company has every expectation of completing the total modification program by June 1981, the end date specified in SER Table 3.1. To that end, the Company has planned its own internal engineering schedule and has negotiated and contracted with architect-engineering firms for outside engineering work on the basis of the SER schedule.

Now the Commission would have licensees such as RG&E compress these well-established engineering and construction schedules into the four month period remaining before November 1. The magnitude of such an undertaking is enormous in terms of time and dollars. Under the SER schedule, the approximately 15,000 man-hours of engineering remaining would be spread over the next six months. To have any chance of meeting the Commission's proposed implementation date, however, this engineering would have to be accomplished in one or two months. Similarly, the approximately 50,000 man-hours of construction remaining would be accomplished, under the SER schedule, over the next twelve months; the Commission schedule would require that work to be finished in four months. The direct costs of compressing the schedule in this manner would be staggering. Moreover, because some of the remaining construction work must be done inside containment, an additional shutdown of the reactor would be required, thereby adding the cost of replacement power to the total price of compliance with the November 1 deadline.

There, of course, is no guarantee that the completion of the modifications on a schedule compressed in accord with the Commission deadline is even feasible. There exists a limited resource of people trained in the skills required for much of the remaining construction work. Similarly, there is a limited pool of supervisory and construction management personnel. These resources will be exhausted very quickly by the industry demand which would be created by Commission adherence to the November 1 deadline for all operating plants. In addition, the probability that many of the necessary materials (e.g., qualified isolation valves) can be procured on such an expedited schedule is small.

^{3/} The Company's initial plan was to do the required design work in-house, a plan which was upset by the diversion of engineering staff to other matters following the Three Mile Island-2 accident in March 1979. The NRC Staff was notified by letter of slippages; none was ever disapproved or questioned.

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Further complicating the ability of licensees to accomplish all remaining fire protection modifications by November 1 is the fact that many are currently working on other engineering and construction tasks mandated by the NRC. RG&E, for example, is involved currently in major efforts related to Three Mile Island accident-related safety requirements, the environmental qualification of electrical equipment, the seismic qualification of electrical equipment as part of SEP, and the preparation of responses to the numerous I&E Bulletins already issued this year, as well as the fire protection modifications. As the Commission well knows, these are not inconsequential projects; over \$40 million will be invested by RG&E through 1982 to accomplish these tasks. The Commission would be mistaken to assume that the timely and successful completion of these other programs will not be affected by the efforts required to attempt to meet an arbitrary fire protection modification schedule.

The additional expenditure which will be required to meet the November deadline is not the only factor needing to be considered by the Commission as it re-evaluates the reasonableness of its current proposal. As Commissioners Hendrie and Kennedy suggested in their separate comments, the accelerated schedule for Appendix R implementation will make it impossible for licensees to complete the remaining modifications "in a carefully considered and thorough fashion." Without question, the design control process will suffer because there simply will not be sufficient time to complete engineering and perform technical design reviews to assure that no safety-related system will be degraded by the large volume of modifications to be performed. And any "last minute" design changes required to satisfy requirements appearing for the first time in Appendix R are likely to result in a lower quality installation and level of fire protection than if adequate time was provided for the task as outlined in the various plants' SER's.

Not only has the Commission ignored the significant cost, operational, and design review implications of requiring licensees to meet the November 1 implementation date, but it has provided no basis for its apparent view that the remaining improvements are so important as to require, in the words of Commissioners Hendrie and Kennedy, "either shutting down of plant because of inability to complete these requirements on the short schedule proposed or to make those improvements in a hasty fashion." With respect to Ginna, at least, the NRC Staff concluded in February 1979 that

the operation of the facility, pending resolution of the incomplete items and the implementation of all facility modifications, does not present an undue risk to the health and safety of the public based on our concurrence with the Browns Ferry Special Review Group's conclusions identified above, as well as the significant improvements in fire protection already made at the facility since

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the Browns Ferry fire. These include establishment of administrative controls over combustible materials and use of ignition sources, training and staffing of a fire brigade, and issuance of technical specifications to provide limiting conditions for operation and surveillance requirements on fire protection systems.

GINNA Fire Protection SER, p. 8-2 (February 14, 1979) (emphasis added). As of today, twenty-seven of the forty-nine required modifications to the plant or Company procedures have been accomplished.

With respect to RG&E, therefore, there can be no assertion that the protection of the public health and safety requires the extraordinary action which the Commission's deadline represents. Consequently, we urge the Commission to reverse its decision on the Appendix R implementation date and instead provide for completion of modifications on a schedule approved by the Staff (such as contained in an SER).

THE PROPOSED ALTERNATE/DEDICATED SHUTDOWN CAPABILITY DATES ARE TOTALLY UNREASONABLE

The Commission has proposed that SEP plants choosing to provide alternate shutdown capability must do so by December 1, 1981. Those SEP plants choosing to provide dedicated shutdown capability would be required to do so by October 1, 1982. Plans and schedules to meet these deadlines would be required by November 1, 1980.

For many of the same reasons, we believe these deadlines to be no more reasonable than the dates proposed for Appendix R submittals and implementation. In addition, the shutdown capability path under consideration for fire protection purposes may bear a close relationship to what is being contemplated for SEP purposes. Clearly, the two programs cannot be considered separately. Therefore, allowing the Staff and an SEP licensee to work out an implementation schedule that takes the fire protection-SEP relationship into account would be a much more reasonable approach than imposing arbitrary deadlines of nationwide applicability.

OTHER ASPECTS OF APPENDIX R REQUIRE CAREFUL RECONSIDERATION BY THE COMMISSION

In addition to the defects in the proposed rule and the arbitrary implementation dates mentioned above, other aspects of Appendix R are seriously defective and require the Commission's careful attention. In fact, proposed Appendix R and the explanatory material accompanying it have all the earmarks of a rule written and proposed in haste. Various sections of the Appendix are completely inconsistent with other sections. Some portions are so unclear as to be completely confusing. For example, Table 1 accompanying paragraph G suggests that automatic suppression

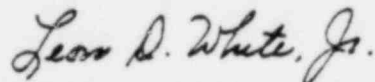
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systems are required even if alternative shutdown capability exists. This position is at odds with the text of paragraph G which suggests that alternative shutdown capability can be established in lieu of automatic suppression. Moreover, the text and placement of Table 1's note 1 does not serve to clarify the situation. In short, Appendix R needs further review and polishing by the Commission before it can be promulgated.

In conclusion, we urge the Commission to give its most thoughtful attention to the serious ramifications which would attend the hasty implementation of Appendix R and hope that the Company's comments will aid in those deliberations.

Very truly yours,



Leon D. White, Jr.

LDW:lj

cc: Commissioner Ahearne
Commissioner Bradford
Commissioner Gilinsky
Commissioner Hendrie
Commissioner Kennedy