



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JAN 15 1985

MEMORANDUM FOR: See Attached List

FROM: D. F. Ross, Deputy Director
Office of Nuclear Regulatory Research

SUBJECT: EMERGENCY PREPAREDNESS RULE

We are preparing an Emergency Preparedness Rule for nuclear power plants based on a graded response philosophy and reflecting the results of the Accident Source Term Program. This work is contingent on a reasonably favorable evaluation from the APS study group, and will continue only if warranted by their report. The proposed rule will be sent to the Commission at an appropriate time.

The rule is being prepared by the Regulatory Analysis and Materials Risk Branch, RES. The project manager for the rule is Mike Jamgochian. The IE Office has assigned Frank Pagano as liaison for this effort. The schedule for continuation of the staffs' development for the rule is proposed as follows, contingent upon completion of the APS review in February:

Complete Division Review	12/83
Request Office Review & Concurrence	3/85
Complete Office Review & Concurrence	4/85
Complete ACRS Review	5/85
Complete CRGR Review	6/85
Rule to EDO	7/85
Rule to the Commission	8/85

The technical bases for the graded response approach used in the rule will be contained in NUREG-1082 "Technical Bases For A Graded Response In Emergency Planning and Preparedness". This document is being prepared by Len Soffer, AAB, NRR and will be subjected to a detailed technical review and evaluation by the Reactor Risk Branch, RES under the direction of Gary Burdick. The schedule for completing NUREG-1082 and providing technical support for the rulemaking is as follows:

Summary of Preliminary NUREG-1082 Conclusions	3/15/85
Draft NUREG-1082 for Technical Review	3/15/85
Final Draft NUREG-1082	4/1/85

Principal changes expected in the proposed rule and some potential problems associated with the use of new source term information as a basis for the rule are listed in Table 1.

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Robert B. Menozie

for D. F. Ross, Deputy Director
Office of Nuclear Regulatory Research

Attachment:
As stated

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TABLE 1

The proposed rule is expected to contain the following major changes:

1. Emphasis on a graded response strategy, i.e., emergency planning and protective actions to be taken should be graded or phased within the emergency planning zone (EPZ) with respect to both time and distance based on the significant differences in risk that individuals in different locations of the plume exposure pathway face from postulated accidents.
2. Exercises limited to graded response areas.
3. Graded response capabilities and areas determined using new source term information.

Using new source term information as the basis for determining graded response capability requirements and areas in which graded response would be expected raises the following potential problems:

1. The new source terms will be plant and sequence specific and there are strong indications that there may be significant differences in source terms depending principally on containment type. This could lead to a rule which specifies different requirements for different reactor types or which sets out general criteria and requires each utility to establish emergency preparedness and response procedures based on a plant specific analysis. Preliminary indications are that the new requirements would not exceed the existing requirements for any plant type.
2. The available source term information on which the proposed rule would be based will lack a risk perspective. Source terms and offsite consequence information will not be available for a sufficient number of plants and

sequences to obtain such a perspective. This will probably lead to requirements based on accident sequences producing the most serious off-site consequence without regard to the probabilities associated with these sequences. It is expected that information needed to obtain a risk perspective will be available in late summer 1985. However, uncertainties associated with the information could be large enough to force us to use the most conservative sequences anyway.

3. Even with the new source term information, we will not have source terms for externally initiated events. This could open new rulemaking which provides a substantial relief to the criticism that it is based on incomplete information.