

March 1, 2011

Dr. Said Abdel-Khalik, Chairman
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: DRAFT FINAL RULE, "ENHANCEMENTS TO EMERGENCY
PREPAREDNESS," AND RELATED REGULATORY GUIDANCE
DOCUMENTS

Dear Dr. Abdel-Khalik:

On behalf of the U.S. Nuclear Regulatory Commission (NRC) staff, I am responding to your January 24, 2011, letter summarizing the views of the Advisory Committee on Reactor Safeguards (ACRS or the Committee) on the draft final rule on emergency preparedness (EP) and related regulatory guidance documents. The draft final rule and guidance documents were discussed during the Plant Operations and Fire Protection Subcommittee meeting on November 1, 2010, and also, during the ACRS Full Committee meeting on January 14, 2011. The staff and I appreciate your continued interest and comments on the development of this draft final rule and guidance.

Your January 24, 2011, letter includes the following recommendations, for which the staff has provided associated responses:

ACRS Recommendation No. 1

The draft final Emergency Preparedness (EP) rule and the associated Regulatory Guide 1.219 should not be issued until the NRC staff resolves the issues associated with the location and sharing of an Emergency Operations Facility (EOF) by several nuclear power plants.

NRC Response

During development of the draft EP final rule and guidance, the staff reviewed the EOF capabilities that the Commission required when remotely located single-site and combined EOFs were approved over the past 30 years. The draft final rule incorporates all of these requirements. As noted in the Statements of Consideration (SOC) for the draft final rule, existing NRC-approved EOFs located more than 25 miles from a site have functioned as effective emergency response facilities during exercises and actual events, and have demonstrated that a near-site EOF is not necessary to ensure adequate protection of public health and safety.

With regards to the concern expressed by the Committee that "State and local agencies which may come to the EOF to direct state and local efforts and coordinate with licensee EOF personnel, may find it more difficult if the EOF is located in a state different from that of the nuclear facility involved," the SOC in the draft final rule informs licensees and applicants that are considering a remotely located EOF as follows:

...[t]he NRC believes it is important for licensees or applicants to consult with offsite agencies that send representatives to the EOF prior to relocating or consolidating such facilities. This consultation is particularly important when a licensee or applicant intends to use an EOF located more than 25 miles from a site to ensure that response times to the facility would be acceptable to offsite responders, adequate communications with offsite responders at other locations would be available, and there would be no jurisdictional concerns with the EOF location (e.g., when the EOF is located in a different State than a nuclear power plant).

The staff believes that the language contained in the rule and the associated SOC and interim staff guidance document is adequate.

ACRS Recommendation No. 2

In future revisions of the rule and associated guidance documents, the NRC staff should consider: (a) expanding NUREG/CR-7002 to include evacuation time estimates during conditions of external environmental duress such as seismic events, extreme weather conditions, or terrorist activity external to the site, and (b) developing an approach to risk-inform emergency classifications and emergency action recommendations using site-specific probabilistic risk assessment (PRA) and insights from other severe accident studies.

NRC Response

The staff agrees that future revisions of the EP regulations and associated guidance documents should consider a risk-informed approach to certain aspects of emergency planning using site-specific PRA and insights from other severe accident studies. The staff is currently conducting research in several areas to determine the feasibility of risk-informing EP, including emergency action levels.

Evacuation Time Estimates (ETEs) are used for two purposes: (1) to develop and improve evacuation plans in advance of an accident; and, (2) as a tool to decide whether sheltering or evacuation is the more protective response during an accident. Evacuation is preferred if a dose in excess of protective action guides is probable, but is not always more effective in reducing public exposure.

The staff has been advised by experts in ETE development and has determined that the scenarios described in NUREG/CR-7002, "Criteria for Development of Evacuation Time Estimate Studies," issued May 2010, provide an adequate basis to develop a comprehensive set of ETEs to licensee personnel in providing appropriate protective action recommendations to offsite officials or to offsite emergency planners in developing evacuation and other protective action strategies. Specifically, the three scenarios identified by the Committee, seismic events, extreme weather conditions, and terrorist activity external to the site, are addressed in the following paragraphs.

With regard to seismic events impacting a plant site and causing a severe accident, consideration of the estimated time to evacuate the area would require assessment of the overall condition of dwellings, buildings, roadways, and other critical infrastructure at the time of the event. Additionally, in situations in which dwellings and other buildings are compromised

and can no longer provide effective sheltering, evacuation would be conducted regardless of the time needed. If sheltering is not an option, ETE values are not relevant to decision making.

With regard to extreme weather conditions, such as hurricanes, evacuation involves an area much larger than a nuclear power plant site and begins days in advance of landfall. Therefore, the evacuation of the population in the plant vicinity would likely be completed well before the hurricane affects that area.

The staff has considered the impact of terrorist activity on offsite response and protective actions. The evacuation of affected areas may not be practical. However, the existing plans provide a broad framework within which sound decisions related to protective actions would be made.

The NRC appreciates the comments and recommendations provided by ACRS.

Sincerely,

/RA by Martin J. Virgilio for/

R. W. Borchardt
Executive Director
for Operations

cc: Chairman Jaczko
Commissioner Svinicki
Commissioner Apostolakis
Commissioner Magwood
Commissioner Ostendorff
SECY

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