



# UNITED STATES NUCLEAR REGULATORY COMMISSION

---

## OFFICE OF NUCLEAR REACTOR REGULATION EMERGENCY PREPAREDNESS AND RADIATION PROTECTION BRANCH

### SUBJECT: EMERGENCY PREPAREDNESS POSITION (EPPOS) ON TIMELINESS OF CLASSIFICATION OF EMERGENCY CONDITIONS

#### Purpose

To provide guidance to NRC staff for evaluating the amount of time taken by a licensee to classify an event and declare an emergency once indications are available to control room operators that an emergency action level (EAL) has been reached or exceeded. Actual events which have occurred in the past several years as well as exercises have indicated a need for guidance for NRC staff in evaluating licensee performance in the area of timely classification.

#### Introduction

Subsection 50.47(b)(4) and Appendix E of 10 CFR Part 50 require licensees to develop an emergency classification scheme whose purpose is to initiate a minimum set of onsite and offsite emergency response actions commensurate with existing plant conditions and the trend of those conditions. The entire spectrum of emergency conditions that warrant alerting or activating progressively larger segments of the emergency response organization must be described in the licensee's classification scheme. EALs that accurately and objectively define those conditions are required to be developed. These EALs should be based primarily upon inplant parameters that would indicate a potential emergency as well as onsite and offsite radiation monitoring information.

Subsection 50.54(q) of 10 CFR Part 50 requires licensees to follow and maintain their emergency plans which meet the standards in 50.47(b) and the requirements of Appendix E. Thus, licensees are required to classify emergencies in accordance with their approved emergency classification schemes.

#### Discussion

The Commission's regulations require licensees to have the capability to notify offsite authorities within 15 minutes of the declaration of an emergency (10 CFR 50, Appendix E, Section IV.D). The regulations also require that the licensee notify the NRC immediately after notification of the appropriate State or local agencies and not later than one hour after the time the licensee declares one of the emergency classes (10 CFR 50.72). The 15 minute and the one-hour periods are measured from the time of declaration of an emergency class. However, the regulations do not specify any time requirement for the classification process itself. Although the regulations do not provide an explicit time limit for classifying emergencies, they do imply that classification should be made without delay. The intent of the regulations governing emergency classification is to ensure that actual or potential

radiological emergencies are rapidly identified and response actions to those emergencies, including notification of offsite authorities, are timely and appropriate. The ultimate goal of the classification scheme is to ensure that emergency response personnel and equipment are already in place if it becomes necessary to implement actions to protect the public health and safety. Therefore, if classification is not made promptly, following the availability of indications that an emergency condition exists, the goal of the classification scheme is undermined and the intent of the regulations would not be met.

In determining a reasonable period of time for operators to assess and classify an emergency condition, several factors governing the classification process have been considered. These are (1) the inherent need to rapidly communicate emergency conditions to offsite authorities, (2) the obligation of licensees to have adequate personnel available at all times for assisting the Shift Supervisor/Emergency Director in classification of emergencies, and (3) the use of objective and unambiguous criteria for classification.

First, an emergency, by definition, instills a sense of urgency and dictates the necessity for prompt action. This is fundamental to all aspects of a licensee's emergency preparedness program; however, nowhere is it more important than in detection, classification, and communication of emergency conditions. The NRC regulations recognize this urgency by requiring prompt public notification (within 15 minutes) and immediate notification of the NRC (within one hour) following declaration of the emergency.

Second, licensees are expected to have adequate personnel available at all times to assist the Shift Supervisor/Emergency Director in implementing the licensee's emergency plan. Information Notice 85-80, "Timely Declaration of an Emergency Class, Implementation of an Emergency Plan, and Emergency Notifications," states that "it is the licensee's responsibility to ensure that adequate personnel, knowledgeable about plant conditions and emergency plan implementing procedures, are available on shift to assist the shift supervisor to classify an emergency and activate the emergency plan, including making appropriate notifications, without interfering with plant operation." Thus, it is expected that staff resources are readily available to focus on the evaluation of conditions against the plant's EALs. Furthermore, during periods when the Emergency Operations Facility and/or Technical Support Center are activated, the additional personnel available in these facilities allows flexibility for the designation of one or more individuals to support emergency classification.

Third, in consideration of the human factors involved in the classification process, licensees' classification schemes attempt to minimize the necessity for subjective evaluation of emergency conditions by utilizing objective, unambiguous EALs. That is, EALs are developed with clearly defined thresholds that can be readily identified by operators. Thus, when those thresholds are reached or exceeded, operators are expected to immediately classify and declare the emergency.

## **Conclusion**

Taking these factors into account, and with the understanding that EALs are designed to determine when and what type of protective measures should be considered within and outside the site boundary to protect health and safety, classification is expected to be made promptly following indications that conditions have reached an emergency threshold in accordance with the licensee's EAL scheme. The staff position is that a 15-minute goal is a reasonable period of time for assessing and classifying an emergency once indications are available to control room operators that an EAL has been exceeded. Moreover, a delay in classifying an emergency for up to 15 minutes will have minimal impact upon the overall

emergency response to protect the public health and safety. However, this 15 minutes should not be interpreted as providing a grace period in which a licensee may attempt to restore plant conditions and avoid classifying the emergency.

The 15-minute goal may be used as one of the guidelines for triggering further, more detailed staff evaluation of a licensee's performance in responding to an actual event. It should be emphasized that the 15-minute guideline is not a regulatory requirement, but rather may be used by the staff in its followup evaluation in conjunction with the 15 minute notification of offsite agencies and the one hour notification of the NRC and with other relevant information to determine the adequacy of a licensee's response actions. Other factors that may be considered are classification level, safety significance of the event, historical performance of the licensee in event classification, and root cause(s) for the delay.