

**ATTACHMENT 82001.02**

**ERO PERFORMANCE DRILLS  
DOSE ASSESSMENT**

82001.02-01           INSPECTION OBJECTIVES

01.01       To verify that the extent of condition of performance problems in response to emergency conditions

01.02       To provide inspection information in support of the determination of whether the licensee EP program can meet the EP Cornerstone Performance Expectation and whether the program can operate in the licensee response band.

82001.02-02           INSPECTION REQUIREMENTS

02.01       Specify elements for the drill scenario and communicate them to the licensee. Determine an appropriate schedule for development. If appropriate, combine the drill scenarios developed under this Attachment with those developed under IP 82001, Attachment 1.

02.02       Determine the appropriate licensee participants for the drill and communicate the list to the licensee. Discuss schedule for the drill and availability of the identified participants.

02.03       Determine through evaluation of ERO performance in the drill whether ERO members can implement the Plan as appropriate for the scenario presented.

02.04       Determine through evaluation of an appropriate sample of licensee personnel whether the extent of condition identified by the licensee is correct. Determine whether additional ERO members must be evaluated to verify extent of condition.

02.05       Determine the effectiveness of licensee corrective actions in addressing ERO Performance issues.

02.06       Provide inspection information based on the results of drill evaluation to support the determination of whether ERO Performance supports the Cornerstone Performance Expectation.

02.07       Provide inspection information based on the results of drill evaluation to support the determination of whether the EP program can operate in the licensee response band.

82001.02-03           INSPECTION GUIDANCE

This section contains both general and specific guidance, and these are not numbered to correspond with inspection requirements in Section 02.

03.01 The scenarios developed should address previously identified weaknesses. It may be appropriate to ask the licensee to develop several dose assessment scenarios with the understanding that the inspector may use different ones with different participants. The licensee should be informed that the scenarios must be kept confidential. If confidentiality is not maintained, the inspection may be postponed until a later date when confidential scenarios are available for use.

03.02 Scenarios will be designed to address dose assessment and may be combined with the elements of IP 82001, Attachment 1. However, it should be recognized that the more functions and elements involved, the more resources necessary. At some point it is more efficient to pursue a remedial exercise (10 CFR 50 Appendix E IV F f,) or a voluntary full scope drill, to demonstrate licensee ability to implement the Plan. In general, a performance drill should be designed to take no more than two hours of participant time.

03.03 Items to consider for scenarios include:

- a. Various levels of fission product barrier degradation.
- b. Events escalating core damage (coolant only, to clad damage to core damage).
- c. Releases resulting in exceeding radiological emergency action levels, including the General Emergency.
- d. Events resulting in releases of radioactive material offsite.
- e. Diverse meteorological conditions.
- f. Unmonitored releases.
- g. Releases from monitored release points.
- h. Conflicting field monitoring team data.
- i. Effluent sample data.
- j. PASS sample data.

03.04 Review the ERO duty roster to determine the key dose assessment ERO members who will participate in the observed drills. The list of participants may include as many responsible shift and management personnel as can reasonably be scheduled. The list of participants should be discussed with the licensee to ensure availability during the inspection.

03.05 The inspector and the licensee should take reasonable steps to make the drills closely simulate the actual emergency response task(s). This is accomplished through the use of the emergency response facilities and computer equipment. Drills should be conducted so as not to interfere with plant operations and activities. The inspector should not interrupt drills, but await the end of performance to ask questions or to determine the causes of problems. Interruptions and numerous probing questions may create an atmosphere in which participants can not respond in a manner that simulates an emergency. Additionally, questioning mistakes may eliminate an opportunity for the responding team to self correct. The scope of each drill may include the unit of personnel expected to respond, e.g., the duty roster dose projection staff. Although individual response proficiency may be assessed through this procedure, the performance may not be representative of an actual emergency where a team response is expected.

03.06 To determine whether key dose assessment ERO members perform dose assessments, the inspector should evaluate drill performance. Performance standards for assessment include:

- a. Responsible personnel should be able to correctly perform the calculation in a timely manner (i.e., approximately 15 minutes from the time data is presented).
- b. The results of dose calculations should be incorporated into classification efforts. Crossing an emergency action level (EAL) threshold should be recognized by licensee personnel.
- c. The results of dose calculations should be incorporated into PAR decision making and, if in accordance with the site Plan, the PAR should be developed.
- d. There are persons on every shift perform dose assessment.
- e. Dose values should include total effective dose equivalent and thyroid committed dose equivalent.
- f. Doses should be calculated for the applicable distances where PAR considerations are made (e.g., site boundary, 2 miles radius, 5 mile radius and 10 mile radius.)
- g. The assumed release duration should be reasonable for the release pathway and projected plant conditions. When technically appropriate, release duration should be modified based on plant conditions.
- h. Dose assessment personnel should demonstrate ability to incorporate field team survey data in the refinement of dose assessments.

- i. Dose assessment personnel should demonstrate ability to recognize data that is outside the credible range of parameters.

03.07 Licensee prompting of drill participants is not a finding under the assessment process because it represents no risk significance in itself. However, prompting could negate the validity of the drill and may create the need for another drill evaluation for the involved ERO members.

03.08 Additional considerations are provided for review by the inspector:

- a. Scenarios should be constructed to stimulate and maximize performance opportunities. However, presenting a disjointed series of isolated tasks without full development of the event chronology may affect the validity of the drills.
- b. Multiple scenarios presented to the same ERO team will help to eliminate solitary bad data points and more accurately characterize a particular team's performance.
- c. The objective is to develop scenarios that are realistic and sufficiently complex to evaluate performance ability.

03.09 The inspector(s) should become familiar with the scenario(s) upon arrival on site to understand how to evaluate performance. Review any changes made to the scenarios and tour the location(s) to be used for the drills to become familiar with equipment, displays, procedures and supplies to be used to perform the evaluated tasks.

03.10 Performance in the following areas should be observed and may provide valuable inspection information:

- a. procedure usability
- b. familiarity with procedures
- c. familiarity with equipment, displays, indications and calculational tools

03.11 Based on early results from the inspection, determine if additional drills need to be conducted or if the scope of the remaining drills needs to be modified.

03.12 The evaluation of licensee performance should be used to determine whether the identified extent of condition is adequate and provide inspection information to support the determinations listed in the inspection objectives.

82001.02-04 RESOURCE ESTIMATE

It is estimated that conduct of this attachment will take 40 hours.

END