### Form 6.4-2 Simulator Crew Evaluation Form

The examination team should use this evaluation form during the dynamic simulator component of the requalification examination. The rating scales on this form are for evaluating the crew as a whole, rather than the individual operators. Use the following instructions when rating team performance on the simulator examination:

1. Review the rating scales before the simulator examination so that you are familiar with each competency to be evaluated.

2. Use Form 3.3-2, “Required Operator Actions,” or an equivalent facility licensee form to make notes during the examination, as described in ES-3.5, “Administering Operating Tests.”

3. Complete this form immediately after the simulator examination. Evaluate the crew’s performance on each applicable rating factor by comparing the actions of the crew against the associated behavioral anchors and selecting the appropriate grade. The tasks planned and performed during the crew’s scenario set may not permit you to evaluate every rating factor for every crew. Annotate those rating factors that are not used in the evaluation.

The examination team should pay particular attention to the completion of tasks that they identified as critical to plant safety. The crew may compensate for actions that individual operators performed incorrectly as long as the critical task was completed satisfactorily. The rating factor evaluations should also account for other less significant deficiencies to provide information for crew remedial training during subsequent requalification training.

4. Justify all rating factor grades of “1” and document each justification in the space for “Comments” on the form. Rating factor grades of “1” must be linked to the performance of at least one critical task.

5. Complete the simulator examination summary sheet, recording for each scenario the scenario name (or identifier) and the critical tasks performed by the crew. Annotate whether the critical task was performed satisfactorily or unsatisfactorily. Complete the crew’s overall evaluation using the criteria listed in the next paragraph. Space is provided for additional comments about the crew’s performance.

6. The threshold for failing the simulator portion of the examination is to receive a (behavioral anchor) score of “1” in either of the following:

a. any two rating factors in any one competency

b. any one rating factor in any one competency if, in the judgment of the examination team, the crew’s performance deficiency jeopardizes the safety of the plant or has a significant safety impact on the public (U.S. Nuclear Regulatory Commission management will make the final decision concerning all crew failures resulting from a single rating factor evaluation of “1”)

#### **Form 6.4-2 Simulator Crew Evaluation Form (page 2)**

**Simulator Examination Summary Sheet**

Facility: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Examination Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Overall Dynamic Simulator Crew Evaluation: SAT or UNSAT**

|  |
| --- |
| Crew Members Docket No. Scenario #1 Scenario #2  Position Position  1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 55-\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_  2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 55-\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_  3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 55-\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_  4\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 55-\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_  5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 55-\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_  6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 55-\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |  |
| --- | --- | --- |
| Scenario #1: [Enter scenario descriptor] | | |
| **Crew Critical Tasks** | **SAT** | **UNSAT** |
| **1. [Enter critical task descriptor]** |  |  |
| **2.** |  |  |
| **3.** |  |  |
| **4.** |  |  |
| **5.** |  |  |

|  |  |  |
| --- | --- | --- |
| **Scenario #2:** | | |
| **Crew Critical Tasks** | **SAT** | **UNSAT** |
| **1.** |  |  |
| **2.** |  |  |
| **3.** |  |  |
| **4.** |  |  |
| **5.** |  |  |

Comments:

#### **Form 6.4-2 Simulator Crew Evaluation Form (page 3)**

**Diagnosis of Events and Conditions Based on Signals or Readings**

Did the crew—

(a) Recognize off‑normal trends and status?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  Recognized status and trends quickly and accurately. |  | 2  Recognized status and trends at the time of, but not before, exceeding established limits. |  | 1  Did not recognize adverse status and trends, even after alarms and annunciators sounded. |
|  |  |  |  |  |

(b) Use information and reference material (e.g., prints, books, charts, emergency plan implementation procedures) to aid in diagnosing and classifying events and conditions?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  Made accurate diagnosis by using information and reference material correctly and in a timely manner. |  | 2  Committed minor errors in using or interpreting information and reference material. |  | 1  Failed to use, misused, or misinterpreted information or reference material that resulted in improper diagnosis. |
|  |  |  |  |  |

(c) Correctly diagnose plant conditions based on control room indications?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  Performed timely and accurate diagnosis. |  | 2  Committed minor errors or had minor difficulties in making diagnosis. |  | 1  Made incorrect diagnosis, which resulted in incorrect manipulation of any safety control. |

Grade for diagnosis of events and conditions based on signals and readings: SAT or UNSAT

Comments:

#### **Form 6.4-2 Simulator Crew Evaluation Form (page 4)**

**Understanding of Plant and System Responses**

Did the crew—

(a) Locate and interpret control room indications correctly and efficiently to ascertain and verify the status and operation of plant systems?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  Each crew member located and interpreted instruments or displays accurately and efficiently. |  | 2  Some crew members committed minor errors in locating or interpreting instruments or displays. Some crew members required assistance. |  | 1  The crew members made serious omissions, delays, or errors in interpreting safety‑related parameters. |
|  |  |  |  |  |

(b) Demonstrate an understanding of the manner in which the plant, systems, and components operate, including setpoints, interlocks, and automatic actions?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  Crew members demonstrated thorough understanding of how systems and components operate. |  | 2  The crew committed minor errors because of incomplete knowledge of the operation of the system or component. Some crew members required assistance. |  | 1  Inadequate knowledge of safety system or component operation resulted in serious mistakes or plant degradation. |
|  |  |  |  |  |

(c) Demonstrate an understanding of how the crew’s actions (or inaction) affected systems and plant conditions?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  All members understood the effect that actions or directives had on the plant and systems. |  | 2  Actions or directives indicated minor inaccuracies in individuals’ understanding, but the crew corrected the actions. |  | 1  The crew appeared to act without knowledge of, or with disregard for, the effects on plant safety. |
|  |  |  |  |  |

Grade on understanding of the response of plant and systems: SAT or UNSAT

Comments:

#### **Form 6.4-2 Simulator Crew Evaluation Form (page 5)**

**Adherence to and Use of Procedures**

Did the crew—

(a) Refer to and/or verify the appropriate procedures in a timely manner?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  The crew used procedures as required and knew what conditions were covered by procedures and where to find them. |  | 2  The crew committed minor failures to refer to and/or verify procedures without prompting, which affected the plant’s status. |  | 1  The crew failed to correctly refer to and/or verify procedure(s) when required, resulting in faulty safety system operation. |
|  |  |  |  |  |

(b) Correctly implement procedures, including following procedural steps in correct sequence, abiding by cautions and limitations, selecting correct paths on decision blocks, and transitioning between procedures when required?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  The crew followed the procedural steps accurately and in a timely manner, demonstrating a thorough understanding of the procedural purposes and bases. |  | 2  The crew misapplied procedures in minor instances but made corrections in sufficient time to avoid adverse effects. |  | 1  The crew failed to follow procedures correctly, which impeded recovery from events or caused unnecessary degradation in the safety of the plant. |
|  |  |  |  |  |

(c) Recognize abnormal operating procedure (AOP) and emergency operating procedure (EOP) entry conditions and perform appropriate actions without the aid of references or other forms of assistance?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  The crew recognized plant conditions and implemented AOPs and EOPs consistently, accurately, and in a timely manner. |  | 2  The crew had minor lapses or errors. Individual crew members needed assistance from others to implement procedures. |  | 1  The crew failed to accurately recognize a degraded plant condition(s) or execute an efficient mitigating action(s), even with the use of aids. |
|  |  |  |  |  |

Grade on adherence to and use of procedures: SAT or UNSAT

Comments:

#### **Form 6.4-2 Simulator Crew Evaluation Form (page 6)**

**Operate Plant Component Controls**

Did the crew—

(a) Locate controls efficiently and accurately?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  Individual operators located controls and indications without hesitation. |  | 2  One or more operators hesitated or had difficulty in locating controls. |  | 1  The crew failed to locate a control(s), which jeopardized a system(s) important to safety. |
|  |  |  |  |  |

(b) Manipulate controls in an accurate and timely manner?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  The crew manipulated plant controls smoothly and maintained parameters within specified bounds. |  | 2  The crew demonstrated minor shortcomings in manipulating controls, but recovered from errors without causing problems. |  | 1  The crew made mistakes manipulating a control(s) that caused safety system transients and related problems. |
|  |  |  |  |  |

(c) Take manual control of automatic functions, when appropriate?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  All operators took control and smoothly operated automatic systems manually without assistance, thereby averting adverse events. |  | 2  Some operators delayed or required prompting before overriding or operating automatic functions but avoided plant transients where possible. |  | 1  The crew failed to manually control automatic systems important to safety, even when ample time and indications existed. |

Grade on operation of plant component controls: SAT or UNSAT

Comments:

#### **Form 6.4-2 Simulator Crew Evaluation Form (page 7)**

**Crew Operations**

Did the crew members—

(a) Maintain a command role?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  The crew took early remedial action when necessary. |  | 2  In minor instances, the crew failed to take action within a reasonable period of time. |  | 1  The crew failed to take timely action, which resulted in the deterioration of plant conditions. |

(b) Provide timely, well planned directions to each other that facilitated their performance and demonstrated appropriate concern for the safety of the plant, staff, and public?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  The supervisor’s directives allowed for safe and integrated performance by all crew members. |  | 2  In minor instances, the supervisors gave orders that were incorrect, trivial, or difficult to implement. |  | 1  The supervisor’s directive(s) inhibited safe crew performance. Crew members had to explain why an order(s) could not or should not be followed. |

(c) Maintain control during the scenario with an appropriate amount of direction and guidance from the crew’s supervisors?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  Crew members stayed involved without creating a distraction, the crew members anticipated each other’s needs, and the supervisors provided guidance when necessary. |  | 2  Crew members had to solicit assistance from supervisors or each other, interfering with their ability to carry out critical action(s). |  | 1  Crew members had to repeatedly request guidance. The crew failed to verify successful accomplishment of orders. |

*Crew Operations Continued on Next Page*

#### **Form 6.4-2 Simulator Crew Evaluation Form (page 8)**

**Crew Operations (Continued)**

Did the crew members—

(d) Use a team approach to problem‑solving and decisionmaking by soliciting and incorporating relevant information from all crew members?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  Crew members were involved in the problem‑solving and decisionmaking processes for effective team decisionmaking. |  | 2  At times, crew members failed to get involved in the decisionmaking process when they should have, detracting from the team‑oriented approach. |  | 1  The crew was not involved in making a decision(s). The crew was divided over the scenario’s progress, and this behavior was counterproductive. |

Grade on crew operations: SAT or UNSAT

Comments:

#### **Form 6.4-2 Simulator Crew Evaluation Form (page 9)**

**Communications**

Did the crew—

(a) Exchange complete and relevant information in a clear, accurate, and attentive manner?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  Crew members provided relevant and accurate information to each other. |  | 2  Crew communications were generally complete and accurate, but the crew sometimes needed prompting or failed to acknowledge the completion of evolutions or to respond to information from others. |  | 1  Crew members did not inform each other of an abnormal indication(s) or action(s). Crew members were inattentive when important information was requested. |
|  |  |  |  |  |

(b) Keep key personnel outside the control room informed of plant status?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  Crew members provided key personnel outside the control room with accurate, relevant information throughout the scenarios. |  | 2  In minor instances, the crew needed to be prompted for information and/or provided some incomplete or inaccurate information. |  | 1  The crew failed to provide needed information. |
|  |  |  |  |  |

(c) Ensure receipt of clear, easily understood communications from the crew and others?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3  The crew requested information or clarification when necessary and understood communications from others. |  | 2  In minor instances, the crew failed to request or acknowledge information from others. |  | 1  The crew failed to request needed information or was inattentive when information was provided; serious misunderstandings occurred among crew members. |

Grade on communications: SAT or UNSAT

Comments: