

## Outline Development for 10/2001 Fort Calhoun RO Written Exam

This exam outline was developed in accordance with NUREG-1021, Rev 8, supplement 1. In addition, the NRC Region IV "Good Practices" document, and the "Additional Guidance on K/A Suppression" were used as references.

### Written Exam Outline

Fort Calhoun has developed a methodology to ensure that the selection of K/A items for the written exam is random and unbiased. The written exam outline was developed using a Microsoft Access database. All K/A items from NUREG-1022, Rev 2 are contained in a table within the database. Items which clearly are not applicable to Fort Calhoun are assigned a flag to prevent them from being sampled. Flagged items were chosen in concurrence with the "Additional Guidance on K/A Suppression" document and include only the Ice Condenser System K/A's, Non-Combustion Engineering vender specific EPE/APE K/A's, and K/A's associated with multi-unit plants.

The sample plan is developed as follows:

- A module is run that assigns a random number to each item in the K/A catalog. This module uses a "randomize" routine to ensure that the pattern of random numbers is unique.
- A query is run that presents K/A items belonging to the RO tier and group being sampled, with RO importance factors of 2.5 or greater, ordered by their associated random number. Items are entered in the sample plan as ordered, unless the item is not applicable to Fort Calhoun, not appropriate for a written exam or the system/event or category has been fully sampled. This process is repeated until the tier/group has the required number of items. This process is repeated for each tier/group combination. (The number of items it takes to fully sample a system/event or category is determined by dividing the number of questions needed in a group by the number of system/events or categories for the group, rounding the result to the nearest integer and then adding one.)

This draft written exam was prepared in accordance with the outline.

Questions for the Audit exam, that was given in May, were selected prior to beginning development of the Outline.

A total of 100 questions, along with supporting references, are contained in this submittal. When there is a Fort Calhoun learning objective that is closely related to the sampled K/A item for a question, it is included in the review form.

The Statistics for the RO exam are:

	Required	RO Exam
Bank Questions	75 or less	51
New Questions		40
Modified Questions		9
Higher Order Questions	50-60	57
New, Higher Order Questions	At least 10	23

Please withhold these materials from public disclosure until after the examination is complete.