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2013 NRC Initial License Written Examination

Written Examination Outline Methodology

The written examination outline was developed using a proprietary electronic random outline generator developed by Western Technical Services, Inc.

The software was designed to provide a written examination outline in accordance with the criteria contained in NUREG 1021, Revision 9, Supplement 1.

The application was developed using Visual Basic Code, relying on a true random function based on the PC system clock. The random generator selects topics in a Microsoft Access Database containing Revision 2, Supplement 1 of the BWR K&A catalogue. The selected data is then written to a separate data table. The process for selection of topics is similar to the guidance in ES-401, Attachment 1.

The attached outline report and plant specific suppression profile report is written directly from the data tables created by the software. Electronic copies of the data tables are on file.

The process used to develop the outlines is as follows:

- For Tier 1 and Tier 2 generic items, only the items required to be included in accordance with ES-401, Section D.1.b are included in the generation process.
- Outline is generated for all topics with KA importance of ≥ 2.5
- 25 SRO topics are randomly selected from Tier 1 AA2 and required generic items, Tier 2 A2 and required generic items (including all system 034 topics), and Tier 3 generic items (All with ties to 10CFR55.43). 75 RO topics are randomly selected to complete the outline, 100 topics total.
- The exam report generated lists the topic (Question) number in the far right column. RO topics are numbered 1-75, and SRO topics are numbered 76-100. The SRO topics are written in red ink for ease of identification.
- Items that are rejected after the initial generation process are placed on the rejected items page. Replacement topics are either randomly generated or are inserted upon direction of the Chief Examiner.
- Disposition of any item randomly selected but not included in the outline is documented and included.
- A report of items suppressed is included with the outline submittal documentation.