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# **Objectives**

- Reduce burden and improve efficiency
  - Question Modification Techniques
- Adhere to regulations
- Clarify and Simplify

ES-401-D-2

- Select and Develop Questions
- Use a combination of Existing (Bank), Modified, and New Questions

These questions must match the K/A's

 Ensure Tier 3 questions maintain their focus on *Plant Wide Generic Knowledge* (Not Plant Systems)

 When writing a question for K/As that test coupled knowledges or abilities try to test both parts

If that is not possible test the (b) portion, or substitute another randomly selected K/A

• 010 Pressurizer Pressure Control System

A2 Ability to (a) predict the impacts of the following malfunctions or operations on the PZR PCS; and...

 (b) based on those predictions, use appropriate procedures to correct, control, or mitigate the consequenses of those malfunctions or operations

- Appendix B Written Exam Guidlines
- Use this Appendix to help in question development

- Appendix B gives some good examples
- Basically instructs on how to write a mulitple choice question

ES-401.D.2.f

What does it take to <u>Modify</u> a Question?

Changing at least one pertinent condition in the stem and at least one distractor

Change the conditions in the stem such that one of the three distractors in the original question becomes the correct answer

What changes to questions would be considered insignificant / minor modifications?

Adding or deleting irrelevant information, or making minor changes, such as:

Unit Number (Unless there is a difference between units)

 Component Train (Unless one train operated differently than the other)

A change in power level that makes no actual difference in the correct answer

# Modified Questions Examples

- -The unit is at 5% Reactor Power
- -A PZR Spray Valve fails open

Which ONE of the following would be the first to trip the reactor?

- A. OT<sup>a</sup> T
- B. PRZR high water level reactor trip
- C. PRZR pressure low reactor trip
- D. PRZR pressure low safety injection

answer: D.

- -The unit is at 15% Reactor Power
- -A PZR Spray Valve fails open

Which ONE of the following would be the first to trip the reactor?

- A. OT<sup>a</sup> T
- B. PRZR high water level reactor trip
- C. PRZR pressure low reactor trip
- D. PRZR pressure low safety injection

answer: C.

- -Unit is in Mode 3
- -Both Startup transformers are inadvertently de-energized

Which ONE of the following correctly describes the air compressors that can be aligned to a power source?

- A. 1C only
- B. 1B, 1D
- C. 1A only
- D. 1A, 1C
- answer: D.

- -Unit is in Mode 3
- -The "A"Startup transformer is inadvertently de-energized

Which ONE of the following correctly describes the air compressors that will be aligned to a power source without any operator action?

- A. 1D only
- B. 1B, 1D
- C. 1B only
- D. 1A, 1C

answer: B.

Items the NRC needs to complete a question package.

Copy of the bank question, or other question that you are modifying

Plants learning objective (if available)

References (lesson plan, procedure page, background document page, Tech Spec etc.)

Any drawings or prints that support the question

If all of these items are included, we can then review the question faster, and this will save you money

# Questions?