IPEC Technical review comments on initial draft of written exam

Question 1: Change "Reactor Trip Breakers are "SHUT' to are "CLOSED"
NRC response- Accepted. Change made.

Question 5: Change power to <10% since an AUTO Rx trip will have occurred and AOP-Turb-1 will not be implemented
NRC response- After discussion with IPEC determined that question change not required since goal of question was to have power less then P-8. Change not made.

Question 6: Change Pressurizer level is falling to level is "lowering"
NRC response- Accepted. Change made.

Question 8: Add "Supervisory Panel" before SGF
NRC response- Accepted. Change made.

Question 10: Should add to the stem "based on at least 1 SI pump running and inadequate subcooling"
NRC response- Additional info. is not required and per discussions with IPEC no change made.

Question 11: "NCO" should be "ATC" and put in "D" for last distracter
NRC response- Accepted. Change made.

Question 14: Subcooling value is too low. For CET temp of 535°F should be ~80°F. IP2 subcooling monitors automatically subtract some degrees due to possible instrument error. At 27°F subcooling an auto SI should have occurred. Also need to add to "which of the following actions is required?" to is required "to verify/establish natural circulation?" since earlier in ES-0.1 they stop steaming if Tave is <547. and at this temperature and pressure turning on pressurizer heaters would be correct.
NRC response- Accepted recommended changes to subcooling and minor editorial items. Also reworded stem to clarify condition and required EOP response.

Question 15: Change "Fan Coil" to "Fan Cooler"
Change "Reactor Trip/Safety Injection" to "Reactor Trip and Safety Injection"
Need to add "operating FCU's to the answer and distracters since ALL FCU's not isolated will receive service water flow even if they are not operating.
NRC response- Accepted. Change made.

Question 20: Change Unit 1 to Unit 2
Distracter analysis B. 175 + 160 = 335
NRC response- Accepted. Change made.

Question 24: Distracter analysis B & C are reversed

Question 58: Change Unit 1 to Unit 2
Containment temperature is an 8 hour LCO. Our operators have been trained to memorize 1 hour or less LCO. For an RO that no longer has Tech Specs contained in 10CFR55.41 memorizing this number may not be proper. Suggest increasing the temperature in "D" to a much higher value.
NRC response- Accepted Change made to reword stem and distracters.

Question 61: Change "RWSP" to "River Water Pump"
NRC response- Accepted. Change made.

Question 67: Add "All controls are in Automatic" to the given information
NRC response- Not required since "normal" conditions would have rods in auto. No change made.

Question 75: Change "SI Tanks" to "SI Accumulators"
NRC response- Accepted. Change made.

Question 79: PCV-135 fails OPEN on zero signal from controller which would cause pressure to decrease. On a controller failure it would be correct to enter 2-AOP-INST-1, Instrument/Controller Failure and attempt to take manual control therefore C would also be correct.

IP2 uses normal spray and heaters until pressurizer level is >98% then swaps to PCV-135 for pressure control

Distracter Analysis: POP-3.3 Step 4.4.18 not 4.5.18

NRC response- Accepted. Change(s) made.

Question 82: R-44 should be μci/cc not /sec
NRC response- Accepted. Change(s) made.

Question 93: spell out CW pumps as Circulating Water Pumps
The Low Vac 1st Out alarm comes in at 25" Hg but the turbine does not trip until 18"-22" by surveillance test and is listed as 18" Hg in most text. I&C sets the trip for 18". Recommed giving a lower value for vacuum i.e., 17".
Answer D, change 2-E-0.1 to 2-E-0
NRC response- Accepted. Change(s) made except for vacuum which was left at initial value since goal was to have a "first out" alarm in but not be at an auto trip setpoint.

Question 94: Change Auxiliary building to Primary Auxiliary Building
NRC response- Accepted. Change(s) made.

NRC response- Accepted. Change made.

Question 25: Change Unit 1 to Unit 2 in two places
NRC response- Accepted. Change made.

Question 27: Change "A reactor" to "The reactor
Need to increase value of N35. 7E-11 is extremely close to reset value of 5E-11 and cannot be seen by the operators
NRC response- Accepted. Change made.

Question 28: Answer "D" Letdown should have isolated at 18% therefore letdown should be 0
NRC response- Accepted. Change made.

Question 40: RWST level should be 2' or greater since all pumps taking suction from RWST are stopped by 2'
IP2 systems do not work as split systems. Both recirc pumps combine into 1 header and can flow through either or both RHR heat exchangers. 1 RHR heat exchanger is isolated and the spray valve from the other heat exchanger is throttled open to provide spray. Simplified flow diagram is attached.
NRC response- Accepted. Change made.

Question 44:Change "(DFT CH III IV)" to "(Defeat 3-4)"
NRC response- Accepted. Change made.

Question 46: Change "CIA" to "Phase A" and "CIB" to "Phase B"
NRC response- Accepted. Change made.

Question 47: Change "Fan Coil" to "Fan Cooler" and "CFCU's" to "FCU's"
Put tab spacing after roman numerals for ease of reading.
NRC response- Accepted. Change made.

Question 48: BOLD and underline "NOT"
NRC response- Accepted. Change made.

Question 55: 2nd paragraph 2nd line, remove "a" in front of both
NRC response- Accepted. Change made.

Question 56: Reword B. to "When the SI signal occurs the EDG's are started and both valves fully open."
Reword D same as B with 1200 gpm
NRC response- Accepted. Change made.

Question 95: IP2 has not stood 8 hour watches since 1987. Recommend changing to the 12 hour watch requirements of 5 per quarter
NRC response- Accepted. Change(s) made.

Question 96: Change given info from "the 22 RCP" to "for 22 RCP"
Spell out OSRC, On-Site Safety Review Committee
NRC response- Accepted. Change(s) made.

Question 100: BOLD and underline NOT
NRC response- Accepted. Change(s) made.

IPEC comments after validation of Written Exam rev.1 on 9/27/07

3. Replace "and' with "or" between "natural circulation" and "reflux cooling"
   NRC-Change made as requested.

9. Question appears ok as is
   NRC-No change made as requested.

13. Add to the given after first bullet "138KV and 13.8KV power sources are not available"
    NRC-Change made as requested.

19. Answer appears to be correct but not specially spelled out in the procedure for circling in red. Must look at two areas of the procedure for answer.
    NRC-No change made as requested.

25. Question is OK
    NRC-No change made as requested.

29. Question is OK
    NRC-No change made as requested.

31. Change 80" to 80'
    NRC-Change made as requested.

44. I could not figure out what question had on this one. Maybe your notes will help
    NRC- Underline and bold "no" was suggested and for consistency the NO was underlined.

55. Remove "from" in first line of stem
    NRC-Change made as requested.

57. Remove "with the following indications and" replace with "when"
    NRC-Change made as requested.

62. Question correct as written. Main steam Isolation signal will still close the valves but 86 need power to cause a turbine trip
    NRC-No change made as requested.

65. Change "C." from "Load Reject" to "Turbine Not Tripped"
    NRC-Change made as requested.

69. Make all N2 or Nitrogen
    NRC-Change made as requested. N2's changed to Nitrogen. Also underlined NO in stem.

75. Change "decalibration" to "adverse affects on calibration"

79. Change given info from "RH" to "RHR" letdown
NRC-Change made as requested.

91. Question OK since you said IAW 2-AOP-ROD-1. B and D would require a manual trip since the operators are required to manually trip the reactor, when possible, prior to reaching an auto trip setpoint.
NRC-No change made as requested.

Operating exam comments:
No formal comments were submitted on the operating exam. Changes to the drafts are expected to specify more exactly the initial conditions and malfunction/bat. file designations. These items will be revised and refined during the validation process.