PECO ENERGY

PECO Energy Company
Nuclear Group Headquarters
965 Chesterbrook Boulevard
Wayne, PA 19087-5691

March 3, 1995

Docket Nos. 50-277
50-278
License Nos. DPR-44
DPR-56

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Subject: Peach Bottom Atomic Power Station, Units 2 and 3
Supplement 1 to TSCR 93-16
Conversion to Improved Technical Specifications

References: (1) Letter from G. A. Hunger, Jr. (PECO Energy) to USNRC dated September 29, 1994

(2) Letter from J. W. Shea (USNRC) to G. A. Hunger, Jr. dated February 14, 1995

Dear Sir:

In Reference (1), PECO Energy Company submitted Technical Specifications Change Request (TSCR) 93-16, requesting changes to Appendix A of the Facility Operating Licenses for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. This TSCR proposed an overall conversion of the current PBAPS Technical Specifications (TS) to the Improved Technical Specifications (ITS), as contained in NUREG 1433, "Standard Technical Specifications, General Electric Plants, BWR/4."

In a meeting with the NRC on November 1, 1994, PECO Energy agreed to submit a matrix which identifies the items in current TS which will be relocated to other licensee controlled documents, as part of the overall conversion to ITS. This matrix is included as Enclosure 1 to this letter. Included for each item in this matrix is an identification of the control which will be in place to govern subsequent changes to the relocated item.

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Enclosure 2 to this letter provides PECO Energy's response to the NRC's request for additional information regarding ITS Section 3.3 Instrumentation. This request was transmitted by Reference (2). In the enclosure, each request is restated followed by our response.

If you have any questions, please contact us.

Very truly yours,

M. C. Kray for GAH

G. A. Hunger, Jr.,
Director - Licensing

Affidavit, Enclosures 1 and 2

cc: T. T. Martin, Administrator, Region I, USNRC
W. L. Schmidt, USNRC Senior Resident Inspector, PBAPS
R. R. Janati, Commonwealth of Pennsylvania

COMMONWEALTH OF PENNSYLVANIA :

: SS.

COUNTY OF CHESTER :

W. H. Smith, III, being first duly sworn, deposes and says:

That he is Vice President of PECO Energy Company; the applicant herein; that he has read the attached Technical Specifications Change Request (TSCR 93-16, Supplement 1) for changes to the Peach Bottom Facility Operating Licenses DPR-44 and DPR-56, and knows the contents thereof; and that the statements and matters set forth therein are true and correct to the best of his knowledge, information and belief.

Vice President

Subscribed and sworn to
before me this 3rd day
of March 1995.

Notary Public

Notarial Seal
Erica A. Santon, Notary Public
Tredyffrin Twp., Chester County
My Commission Expires July 10, 1995

ENCLOSURE 1

RELOCATED ITEMS MATRIX

ENCLOSURE 1: RELOCATED ITEMS MATRIX (page 1 of 15)

ITS	CTS	Description	Location	Change Controls
2.0-R$_1$	1.1.A	Details that establish when MCPR safety limit is violated.	Procedures	10CFR50.59
2.0-R$_2$	6.7.1.d	Requirement to notify the NRB within 24 hours of a SL violation and submit an LER to the NRB.	Procedures	10CFR50.59
3.1.1-R$_1$	4.3.A.1	Details of method used to verify the SDM with the highest worth control rod.	Procedures	10CFR50.59
3.1.2-R$_1$	4.3.D	Details of method used to perform and the purposes of the reactivity anomalies surveillance.	Bases	Bases Control Program (5.5.10)
3.1.3-R$_1$	3.3.A.2.b; 3.3.B.1	Details for disarming CRDs.	Bases	Bases Control Program (5.5.10)
3.1.3-R$_2$	3.3.B.2; 4.3.B.2	Requirement to have the control rod drive housing support in place for control rod operability.	Procedures	10CFR50.59
3.1.7-R$_1$	4.4.A.1	Requirement to verify the proper operation and setpoint of the SLC System relief valves.	Procedures	10CFR50.59
3.1.7-R$_2$	4.4.A.2; 4.4.A.3	Details of the method of performing and an explanation of the surveillance test to verify flow through the SLC System from the pump into the RPV.	Procedures	10CFR50.59
3.1.7-R$_3$	4.4.B.4	Requirement to verify enrichment calculation results after an addition to the SLC tank by analysis within 30 days of the addition.	Procedures	10CFR50.59
3.1.7-R$_4$	4.4.B.3	Details of testing the SLC pump loop (pumping solution to the test tank).	Procedures	10CFR50.59
3.1.8-R$_1$	4.7.D.2.b	Requirement for post maintenance testing of the SDV Vent and Drain Valve.	Procedures	10CFR50.59
3.1.8-R$_2$	4.7.D.2.a	Requirement to record daily the position of at least one other valve in each line having an inoperable SDV Vent and drain Valve.	Procedures	10CFR50.59
3.1.8-R$_3$	Table 3.7.1	Details relating to the design and operation of the SDV Vent and Drain Valves.	Bases	Bases Control Program (5.5.10)
3.2.1-R$_1$	3.5.I	Requirement regarding which limit to select from the COLR when limits are determined using hand calculation.	Procedures	10CFR50.59
3.2.2-R$_1$	4.5.K.2	Requirement for determining Tau (average scram time to the 20% insertion position) and the acceptance criteria.	Procedures	10CFR50.59

ITS	CTS	Description	Location	Change Controls
3.3.1.1-R$_1$	2.1.A.1; Table 3.1.1 Note 12	Terms (S; W; and delta W) and definitions for the setting of the APRM flow biased simulated thermal power equation.	UFSAR	10CFR50.59
3.3.1.1-R$_2$	Figure 1.1-1	APRM Flow Biased Scram Relationship to Normal Operating Conditions Figure.	Procedures	10CFR50.59
3.3.1.1-R$_3$	3.1.A; 4.1.A	Response time testing surveillance and the acceptance criteria.	Procedures	10CFR50.59
3.3.1.1-R$_4$	Table 4.1-1 Item 1	Details of the performance of the Channel Functional Test for the Mode Switch in Shutdown.	Procedures	10CFR50.59
3.3.1.1-R$_5$	Table 3.1.1 Note 11	Requirement that an APRM will be considered Operable if there are at least 2 LPRM inputs per level and at least 14 LPRM inputs of the normal complement.	Bases	Bases Control Program (5.5.10)
3.3.1.1-R$_6$	Table 3.1.1	Number of Instrument Channels Provided by Design Column.	Bases	Bases Control Program (5.5.10)
3.3.1.1-R$_7$	Table 3.1.1 Note 6	Details of the MSIV Closure Function design which permits closure of any two lines without a scram being initiated.	UFSAR	10CFR50.59
3.3.1.1-R$_8$	Table 3.1.1 Note 5 & 10	Details when the IRMs and APRM Downscale are automatically bypassed.	Procedures	10CFR50.59
3.3.1.1-R$_9$	Table4.1.1 Note 6	Discussions/specifics (e.g.; what's required to be tested for each Function; equipment required for the test; how to perform the test; etc.) concerning Surveillance Tests and the Group Column both tables.	UFSAR	10CFR50.59
3.3.1.1-R$_9$	Table 4.1.1 Notes 2, 4, & 5; Table 4.1.2 Notes 1, 2, 3, & 5	Discussions/specifics (e.g.; what's required to be tested for each Function; equipment required for the test; how to perform the test; etc.) concerning Surveillance Tests and the Group Column both tables.	Procedures	10CFR50.59
3.3.1.1-R$_{10}$	Table 4.1.1 Note 3	Requirement that functional tests shall be performed on part of the system that is not required to be operable or are tripped prior to returning the system to operable status.	Procedures	10CFR50.59
3.3.1.1-R$_{11}$	Table 4.1.1	RPS Channel Test Switch; Requirement that a functional test be performed after channel maintenance.	Procedures	10CFR50.59
3.3.1.1-R$_{12}$	Table 3.1.1	Trip Level Settings for the various Functions.	Procedures	10CFR50.59
3.3.1.1-R$_{13}$	3.1.A.1 Note 2	System operational details (when not to place in trip)	Bases	Bases Control Program (5.5.10)

ITS	CTS	Description	Location	Change Controls
3.3.1.2-R,	3.10.B.1.a	Requirement that SRMs be inserted to the normal operating level during core alterations.	Procedures	10CFR50.59
3.3.1.2-R,	3.10.B.1.b	Requirement that the SRM minimum count rate during Core alterations must be achieved with all rods fully inserted in the core.	Procedures	10CFR50.59
3.3.2.1-R,	2.1.B; 3.2.C; Table 3.2.C Notes 1-6, 8-10, & 15; Table 4.2.C Note 2	Safety Limits; LCOs; and SR Requirements for Rod Block functions associated with the APRMs; IRMs; SRMs and Scram discharge volume Level.	TRM	10CFR50.59
3.3.2.1-R,	Table 3.2.C	Number of Instrument Channels Provided by Design.	Bases	Bases Control Program (5.5.10)
3.3.2.1-R,	Table 4.2.C; Notes 4 & 6	Details regarding the performance of Rod Block Monitor Surveillance Tests.	Procedures	10CFR50.59
3.3.2.1-R,	4.3.B.3.b.1.a; 4.3.B.3.b.1.b; 4.3.B.3.b.1.c	Details related to the performance of the Rod Worth Minimizer Channel Functional Test.	Procedures	10CFR50.59
3.3.2.1-R,	Table 4.2.C Items 5 & 6	Requirement for an Instrument Check of the RBM once per day.	Procedures	10CFR50.59
3.3.3.1-R,	Table 3.2.F; Table 4.2.F	Requirements for the following PAM Instrumentation: Rx Water Level (NR) ; Drywell P; Drywell T; Suppression Chamber Water Level (NR) ; CR Position; Neutron Monitoring; SRV Position Indication; Main Stack High Range Rad Monitor; and Rx Bldg Roof Vent High Range Rad Monitor.	TRM	10CFR50.59
3.3.3.1-R,	Table 3.2.F	Details of System Operability requirements and description of the instruments.	UFSAR	10CFR50.59
3.3.3.1-R,	Table 4.2.F; Note ** & ***; 4.7.A.6.c	Details of the performance of surveillances.	Procedures	10CFR50.59
3.3.3.1-R,	4.7.A.6.c	Requirement that the atmospheric analyzing system be functionally tested one per operating cycle when the CAD system is tested.	Procedures	10CFR50.59
3.3.3.2-R,	3.11.C.1; 4.11.C.1	Requirement that the Emergency Shutdown Control Panels be secured at all times and that this status be verified once per week by visual inspection.	Procedures	10CFR50.59
3.3.4.1-R,	3.2.G; 4.2.G; Table 3.2.G; Table 4.2.G	Requirement for the ATWS alternate rod insertion function.	TRM	10CFR50.59

ITS	CTS	Description	Location	Change Controls
3.3.4.1-R$_2$	3.2.G; Table 4.2.G	Requirement that the ATWS Recirculation Pump Trip Function have manual actuation.	Procedures	10CFR50.59
3.3.4.1-R$_3$	3.2.G	Requirement that specifies the specific ATWS-RPT equipment that needs to be Operable in the Run Mode; specifically the phrase "The automatic actuation logic; and actuation devices of."	Bases	Bases Control Program (5.5.10)
3.3.4.1-R$_4$	Table 3.2.G	Number of Instrument Channels Provided by Design per Trip System.	Bases	Bases Control Program (5.5.10)
3.3.4.1-R$_4$	Table 4.2.G Note 1	Table 4.2.G, Note 1; Requirement that the ATWS-RPT instrument channels are the same ones used by the Core and Containment Cooling Systems.	UFSAR	10CFR50.59
3.3.4.1-R$_5$	Table 4.2.G Note 2	Requirement for a three month Logic System Functional Test on the ATWS-RPT Function and Table 4.2.G; Note 2; Requirement that the recirculation pumps need not be tripped during the Logic System Functional Test.	Procedures	10CFR50.59
3.3.4.1-R$_6$	3.2.G Note 2	System operational details (when not to place in trip).	Bases	Bases Control Program (5.5.10)
3.3.5.1-R$_1$	2.1.I; 2.1.J; Table 3.2.B Note 4	Table 3.2.B; "Indicated Level"; Table 4.2.b; Notes 3 & 4; details such as conversions; specific instructions; etc.	Procedures	10CFR50.59
3.3.5.1-R$_2$	Table 3.2.B	Trip Level Setting column.	Procedures	10CFR50.59
3.3.5.1-R$_3$	Table 3.2.B	Remarks Column; Details of specific information about the Functions (e.g.; other Functions required to initiate the system; the role of the Function in initiating the system; etc.)	Bases	Bases Control Program (5.5.10)
3.3.5.1-R$_4$	Table 4.2.B	SR for the ADS relief valves bellows pressure switches.	Procedures	10CFR50.59
3.3.5.1-R$_4$	Table 3.2.B; Table 4.2.B	Requirements for the trip system bus power monitors; the core spray sparger differential pressure monitor; the LPCI cross connect position indication.	TRM	10CFR50.59
3.3.5.1-R$_5$	Table 4.2.B; Note 7	Details about the instruments; specifically the requirement that channels consist of analog transmitters; indicators and electronic trip units.	UFSAR	10CFR50.59
3.3.5.1-R$_6$	Table 4.2.B	LSFT for the area cooling for safeguards systems.	TRM	10CFR50.59
3.3.5.1-R$_7$	Table 3.2.B	Requirement for a LPCI Containment High Pressure Function.	TRM	10CFR50.59

ITS	CTS	Description	Location	Change Controls
3.3.5.2-R,	2.1.J; Table 3.2.B	Details which are procedural in nature (e.g.; conversions; specific instructions; etc.).	UFSAR	10CFR50.59
3.3.5.2-R,	Table 4.2.B Notes 3 & 4	Details which are procedural in nature (e.g.; conversions; specific instructions; etc.).	Procedures	10CFR50.59
3.3.5.2-R,	Table 3.2.B	Trip Level Settings.	Procedures	10CFR50.59
3.3.5.2-R,	Table 3.2.B; Table 4.2.B Note 7	Details about instruments; specifically; requirements that channels consists of analog transmitters; indicators and electronic trip units.	UFSAR	10CFR50.59
3.3.5.2-R,	Table 3.2.B	Requirements for the RCIC Trip System bus power monitor.	TRM	10CFR50.59
3.3.6.1-R,	Table 3.2.B; Table 4.2.B Item 4	Requirement for a Reactor Low Pressure Function.	TRM	10CFR50.59
3.3.6.1-R,	Table 3.2.A; Table 3.2.B; Table 3.2.D	Requirement for Number of Instrument Channels Provided By Design.	Bases	Bases Control Program (5.5.10)
3.3.6.1-R,	Table 3.2.D	Details relating to the design; plant operations; and maintenance of the PCI Instrumentation.	TRM	10CFR50.59
3.3.6.1-R,	Table 4.1.2 Note 3; Tables 4.2.A, B, & D Notes 3, & 4	Details relating to the design; plant operations; and maintenance of the PCI Instrumentation.	Procedures	10CFR50.59
3.3.6.1-R,	Table 3.2.A Note 6; Table 3.2.B Notes 2 & 3	Details relating to the design; plant operations; and maintenance of the PCI Instrumentation.	Bases	Bases Control Program (5.5.10)
3.3.6.1-R,	2.1.C; 2.1.K; Table 3.2.A Notes 3, 4, & 8; Table 3.2.B Note 4; Tables 4.2.A, B, & D Note 7	Details relating to the design; plant operations; and maintenance of the PCI Instrumentation.	UFSAR	10CFR50.59
3.3.6.1-R,	Table 3.2.B	Setpoints for the HPCI and RCIC isolation on the steam line low pressure function.	Procedures	10CFR50.59
3.3.6.1-R,	Table 3.2.A; Table 3.2.B; Table 3.2.D	Trip Level Settings.	Procedures	10CFR50.59
3.3.6.1-R,	Table 3.2.A Note 9	Compensatory actions associated with recovery of a loss of ventilation in the MSL tunnel.	Bases	Bases Control Program (5.5.10)
3.3.6.1-R,	3.2.A.1 Note 2; 3.2.D.1.1 Note 2	System operational details (when not to plant in trip)	Bases	Bases Control Program (5.5.10)

ITS	CTS	Description	Location	Change Controls
3.3.6.1-R$_4$	3.2.A.2 Note 3; Table 3.2.A Item 11; Table 4.2.A Item 7	Requirements for Reactor Cleanup System High Temperature Function.	TRM	10CFR50.59
3.3.6.2-R$_1$	Table 3.2.D	Trip Level Settings.	Procedures	10CFR50.59
3.3.6.2-R$_2$	Table 3.2.D; Table 4.2.A Note 4; 4.2.D Note 4	Details relating to design and operation and items which are procedural in nature (e.g.; specific instructions; etc.).	Procedures	10CFR50.59
3.3.6.2-R$_3$	3.2.D.1 Note 2	System operational details (when not to place in trip)	Bases	Bases Control Program (5.5.10)
3.3.7.1-R$_1$	Table 3.D.2	Trip level settings.	Procedures	10CFR50.59
3.3.7.1-R$_2$	Table 3.2.D; 3.11.A.5; 3.11.A.5.b	Details about the instrument (number of channels provided by design; etc).	Bases	Bases Control Program (5.5.10)
3.3.7.1-R$_3$	Table 3.2.D; 3.11.A.5.a; 3.11.A.6; 4.11.A.4; 4.11.A.6	Requirements for trip functions of the MCREV initiation instrumentation not associated with Control room air intake radiation--high channels.	TRM	10CFR50.59
3.3.7.1-R$_4$	4.11.A.5	Items which are procedural in nature (e.g., conversions, specific instructions, etc.).	Procedures	10CFR50.59
3.3.8.1-R$_1$	Table 3.2.B	Details which are procedural in nature; specifically; instructions on where to test (voltage and time) the relays.	Procedures	10CFR50.59
3.3.8.1-R$_2$	Table 3.2.B	Trip Level Settings.	Procedures	10CFR50.59
3.3.8.1-R$_3$	Table 3.2.B; Table 4.2.B	Details on the instruments (e.g.; specific functions they perform; etc.).	UFSAR	10CFR50.59
3.3.8.1-R$_4$	Table 3.2.B	Trip Level Setting for the 4kV Emergency Bus Undervoltage Relay.	Procedures	10CFR50.59
3.3.8.2-R$_1$	3.1.D.1	Details of what constitutes a trip train (an electric power monitoring assembly).	Bases	Bases Control Program (5.5.10)
3.3.8.2-R$_2$	4.1.D.1; 4.1.D.2	Maximum setpoint for the undervoltage and underfrequency relays and minimum setpoint for the overvoltage and underfrequency time delay relays.	Procedures	10CFR50.59
CTS 3/4.15-R$_1$	3/4.15	Seismic Monitoring Instrumentation.	TRM	10CFR50.59

ITS	CTS	Description	Location	Change Controls
3.4.1-R_1	3.6.F.1	Requirement that following one-pump operation; the discharge valve of the low speed pump may not be opened unless the speed of the faster pump is less than 50% of its rated speed.	Procedures	10CFR50.59
3.4.1-R_2	4.6.F.1	Requirement to obtain baseline APRM and LPRM neutron flux noise data.	Procedures	10CFR50.59
3.4.1-R_3	3.6.F.4; 3.6.F.5.b	Requirements to "immediately initiate action."	Bases	Bases Control Program (5.5.10)
3.4.1-R_4	3.6.F.5.b	Details regarding the determination of LPRM neutron flux noise levels (which LPRMs to use and their location).	Bases	Bases Control Program (5.5.10)
CTS 3.6.G-R_1	3/4.6.G	Requirement for Structural Integrity.	TRM	10CFR50.59
3.4.2-R_1	3.6.E.2; 3.6.E.3; 3.6.E.4	Details on the Jet Pumps related to systems (e.g. indicated core flow is the sum of the flow indication from each of the 20 jet pumps).	Procedures	10CFR50.59
3.4.2-R_2	4.6.E.3	Requirement to obtain baseline data required to evaluate jet pump Operability each operating cycle.	Procedures	10CFR50.59
3.4.3-R_1	4.6.D.2	Requirement to disassemble and inspect one SRV every 24 months.	Procedures	10CFR50.59
3.4.3-R_2	4.6.D.3	Requirements for the Relief Valve Bellows Instrumentation.	Procedures	10CFR50.59
3.4.3-R_3	4.6.D.4	Instructions on how to verify that the relief valve is manually opened.	Bases	Bases Control Program (5.5.10)
3.4.3-R_4	4.6.D.3	Requirement to perform an inspection for leakage of the accumulators and air piping for the SRVs once per operating cycle.	Procedures	10CFR50.59
3.4.5-R_1	4.6.C.1	Requirement that RCS leakage shall be determined by the primary containment drywell sump collection and flow monitoring system.	Procedures	10CFR50.59
3.4.5-R_2	4.6.C.2	Requirement that the Drywell atmosphere radioactivity levels be monitored and recorded at least once per day.	Procedures	10CFR50.59
3.4.6-R_1	3.6.B.1; 4.6.B.1; Table I	Requirements for reactor coolant and offgas system samples sampling during startup; following significant power level changes; and following significant changes in offgas radiation levels.	Procedures	10CFR50.59

ITS	CTS	Description	Location	Change Controls
3.4.9-R$_1$	3.6.A.1; 3.6.A.2; 3.6.A.3; 3.6.A.4; 3.6.A.5; Figures 3.6.1, 2, & 3	Requirements for reactor coolant system pressure and temperature.	PTLR	10CFR50.59 & PTLR Methodology (5.6.6.b)
3.4.9-R$_2$	4.6.A.1	Requirements for when the RCS temperature surveillance for heatup and cooldowns may be discontinued (until the difference between any 2 readings taken over a 45 minute period is less than 5 degrees F).	Procedures	10CFR50.59
3.4.9-R$_3$	4.6.A.1.a; 4.6.A.1.b	Specific RCS locations (bottom head drain and recirculation loops A and B) for monitoring temperature during heatup and cooldowns.	Procedures	10CFR50.59
3.4.9-R$_4$	4.6.A.1	Details of the Reactor vessel test specimen location and details regarding the sample program.	UFSAR	10CFR50.59
CTS 3.6.B.2-R$_1$	3/4.6.B.2	Requirement for controls for reactor water quality including: chloride concentration; conductivity; and pH.	TRM	10CFR50.59
3.5.1-R$_1$	3.5.A.1.a; 3.5.A.1.b; 3.5.A.3.a; 3.5.A.3.b; 3.5.A.6	Details of what constitutes a core spray and LPCI subsystem and their minimum requirements for an Operable flow path.	Bases	Bases Control Program (5.5.10)
3.5.1-R$_2$	4.5.A.1.e	Requirement for daily checks and quarterly calibration of the Core Spray header Delta P Instrumentation.	TRM	10CFR50.59
3.5.1-R$_3$	4.5.G.1	Details of the method to be employed to assure that the HPCI and RCIC discharge pump discharge lines are full of water.	Bases	Bases Control Program (5.5.10)
3.5.1-R$_4$	4.5.G.2	Requirement that the level switches that monitor the LPCI and CS lines to ensure these lines are filled with water are functionally tested every operating cycle.	Procedures	10CFR50.59
3.5.1-R$_5$	3.5.H; 4.5.H	Requirements for an Engineered Safeguards Compartments cooling and ventilation.	TRM	10CFR50.59
3.5.1-R$_6$	4.6.D.4	Requirement that each relief valve be operated manually once per operating cycle and the details of the performance of this surveillance.	Bases	Bases Control Program (5.5.10)
3.5.2-R$_1$	3.5.F.1.a; 3.5.F.1.b	Definition of what constitutes a subsystem and description of minimum requirements for an OPERABLE flow path.	Bases	Bases Control Program (5.5.10)
3.5.3-R$_1$	4.5.D Note *	Requirement to include automatic restart on low water level signal during a simulated automatic actuation test once per cycle.	Bases	Bases Control Program (5.5.10)

ITS	CTS	Description	Location	Change Controls
3.5.3-R$_2$	4.5.D.1.f	Requirement to verify automatic transfer from CST to suppression pool on low CST water level once per cycle.	Bases	Bases Control Program (5.5.10)
3.5.3-R$_3$	4.5.G.1	Requirement to ensure that the piping is full from the discharge valve to the injection valve by venting the RCIC from the high point.	Bases	Bases Control Program (5.5.10)
3.5.3-R$_4$	3.5.H; 4.5.H	Requirement for testing the compartment coolers.	TRM	10CFR50.59
3.6.1.1-R$_1$	4.7.A.2.b; 4.7.A.2.d; 4.7.A.2.f; 4.7.A.4.c	Procedural type details that are not addressed in 10 CFR 50 Appendix J and specific values for parameters (P_a; P_t; and L_a).	Procedures	10CFR50.59
3.6.1.1-R$_2$	4.7.A.2.f; Table 3.7.2; Table 3.7.3; Table 3.7.4; Table Notes 2, 3, & 9-22	List of containment penetrations.	UFSAR	10CFR50.59
3.6.1.1-R$_3$	4.7.A.2.g	Requirement for a Continuous Leak Rate Monitor.	Procedures	10CFR50.59
3.6.1.1-R$_4$	4.7.A.2.h; 4.7.A.4.c	Requirement to perform visual inspections of the suppression chamber interior and the drywell-to-suppression chamber vacuum breakers.	Procedures	10CFR50.59
3.6.1.2-R$_1$	4.7.A.2.f; Table 3.7.2 Note 8	The value of P_a.	Bases	Bases Control Program (5.5.10)
3.6.1.2-R$_2$	Table 3.7.2 Note 1	One hour minimum test duration for valves and penetrations.	Procedures	10CFR50.59
3.6.1.3-R$_1$	Table 3.7.1	List of PCIVs.	UFSAR	10CFR50.59
3.6.1.3-R$_2$	4.7.D.2.b	Requirement specifying the PCIVs be demonstrated Operable prior to being returned to service after maintenance on or replacement of the valve; actuator; control or power circuit by performance of a cycling test; and verification of isolation time.	Procedures	10CFR50.59
3.6.1.3-R$_3$	4.7.D.1.b.1	Details of surveillance specifying that all normally open power operated isolation valves (except for the MSIVs) shall be fully closed and reopened.	Procedures	10CFR50.59
3.6.1.3-R$_4$	4.7.D.1.b.2	Requirement for power to be < 75% to perform MSIV isolation time testing.	Procedures	10CFR50.59
3.6.1.3-R$_5$	4.7.d.1.c	Requirement to exercise the main steam line power-operated isolation valves by partial closure and subsequent opening.	Procedures	10CFR50.59

ITS	CTS	Description	Location	Change Controls
3.6.1.3-R8	4.7.E.2	Requirement specifying the LLRT for the large containment ventilation isolation valves be compared to the previously measured leak rate to detect excessive valve degradation.	Procedures	10CFR50.59
3.6.1.3-R9	3.7.E.2.b	Requirement specifying the accumulated time a purge or vent flow path exists be limited to 90 hours per calendar year.	Procedures	10CFR50.59
3.6.1.3-R10	3.7.E.2.c	Penetrations and flow path valves identified as being subject to the primary containment purge and exhaust valve specification.	Procedures	10CFR50.59
3.6.1.3-R11	1.0 Primary Containment Integrity Definition	Details that constitute primary containment integrity with respect to PCIVs.	Bases	Bases Control Program (5.5.10)
3.6.1.6-R1	3.7.A.4.b	Requirement to allow vacuum breakers to be considered closed even if the "not fully seated" indication is present if a leak test confirms the bypass area between the drywell and suppression pool is less than or equivalent to a one-inch diameter hole.	Bases	Bases Control Program (5.5.10)
3.6.2.1-R1	4.7.A.2	Requirement to monitor suppression pool temperature when there is indication of relief valve operation (except when the reactor is being shutdown and torus cooling is being established) or testing which adds heat to the suppression pool.	Procedures	10CFR50.59
3.6.2.3-R1	4.5.B.1.d	Torus cooling MOV testing requirements.	Procedures	10CFR50.59
3.6.2.3-R2	3.6.B.4.a	Details which defines what constitutes an RHR suppression pool cooling subsystem (loop) and description of the minimum requirements for an Operable flow path.	Bases	Bases Control Program (5.5.10)
3.6.2.4-R1	4.5.B.1.f; 3.5.B.5	Requirements for testing Torus Spray MOVs.	Procedures	10CFR50.59
3.6.2.4-R2	4.5.B.1.e; 4.5.B.1.g	Requirements for drywell spray.	TRM	10CFR50.59
3.6.2.4-R3	3.5.B.6.a	Requirements for what constitutes an RHR suppression pool spray subsystem (loop) and the description of the minimum requirements for an Operable flow path.	Bases	Bases Control Program (5.5.10)
3.6.3.1-R1	3.7.A.6.a	Requirement specifying the CAD System must be operable to supply nitrogen to either Unit 2 or Unit 3 containment for atmosphere dilution if required by post-LOCA conditions.	Bases	Bases Control Program (5.5.10)
3.6.3.1-R2	4.7.A.6.a	Requirement for a post-LOCA CAD System Functional Test once per Operating Cycle.	Procedures	10CFR50.59

ITS	CTS	Description	Location	Change Controls
3.6.3.1-R_3	3.7.A.6.d	Post Accident requirement that a 30 psig limit is the maximum containment repressurization allowable using the CAD System and venting via the SGT system to this stack must be initiated at 30 psig following the initial peak pressure at 49.1 psig.	Procedures	10CFR50.59
3.6.3.2-R_1	3.7.A.5	Requirement to inert with nitrogen gas.	Procedures	10CFR50.59
3.6.3.2-R_2	4.7.A.5	Requirement to record the containment oxygen concentration.	Procedures	10CFR50.59
3.6.4.1-R_1	4.7.C.1.c	Requirement to perform the secondary containment capability test with the SGT system subsystem prior to refueling.	Procedures	10CFR50.59
3.6.4.1-R_2	4.7.C.1.d	Requirement to operate the SGT System after a secondary containment violation is determined and has been isolated to check if it can maintain the proper vacuum.	Procedures	10CFR50.59
3.6.4.1-R_3	3.7.C.1.d	Requirement that secondary containment be maintained if the fuel cask is being moved in the reactor building.	Procedures	10CFR50.59
3.6.4.1-R_4	3.7.C.1.c	Details/requirements of the Design.	Bases	Bases Control Program (5.5.10)
3.6.4.2-R_1	3.7.C.1.d	Requirement that secondary containment be maintained if the fuel cask is being moved in the reactor building.	Procedures	10CFR50.59
3.6.4.3-R_1	3.7.B.1; 3.7.E.2.d; 3.7.E.2.e	Requirement that both SGT trains shall be Operable when venting or purging the primary containment and that only one of the two SGT trains shall be used at a time for primary containment purge/vent operations.	Procedures	10CFR50.59
3.6.4.3-R_2	3.7.B.1; 3.7.B.3	Details of what constitutes an Operable SGT subsystem.	Bases	Bases Control Program (5.5.10)
3.6.4.3-R_3	4.7.B.2.e	Requirement to maintain a dry gas purge through the SGT filters to maintain relative humidity below 70% during idle periods.	Procedures	10CFR50.59
3.7.1-R_1	4.5.B.1	Inservice testing requirements for the HPSW pumps.	Procedures	10CFR50.59
3.7.2-R_1	3.9.C.4; 4.9.C.2	Requirement that the ESW fans be Operable in order for the ESW pumps to be Operable.	TRM	10CFR50.59
3.7.2-R_2	4.9.C.1	Inservice Testing Requirement for the ESW System.	Procedures	10CFR50.59
3.7.2-R_3	4.9.C.4	Requirement to inspect and clean as necessary to remove excessive silt from the bottom of the "A" (for Unit 2) and "B" (for Unit 3) ESW Pump intake structure.	Procedures	10CFR50.59

ITS	CTS	Description	Location	Change Controls
3.7.3-R$_1$	4.11.B.2	Requirement to test the portable fire pump used to provide makeup to the emergency reservoir.	Procedures	10CFR50.59
3.7.3-R$_2$	4.11.B.3.a	Inservice Testing Requirement for the ECW pump and ESW Booster Pumps.	Procedures	10CFR50.59
3.7.4-R$_1$	4.11.A.2.d	Requirements that a dry gas purge provided to the MCREV filters to ensure the relative humidity in the filter system does not exceed 70% when the system is idle since moisture could reduce the efficiency of the charcoal filters.	Procedures	10CFR50.59
3.7.5-R$_1$	3.8.C.7.b; 4.8.C.7.b	Requirements governing the testing of the Steam Jet Air Ejector radiation monitors.	TRM	10CFR50.59
3.7.5-R$_2$	4.8.C.7.a	Details of the performance of the surveillance (radioactive release rate of the noble gases from the steam jet air ejector discharge).	Bases	Bases Control Program (5.5.10)
3.7.7-R$_1$	3.10.C.2	Requirement to suspend crane operation with loads in the spent fuel storage pool area after placing the fuel assemblies and crane load in a safe condition when level in the spent fuel pool is not within limit.	Procedures	10CFR50.59
3.7.7-R$_2$	3.10.D	Crane limits.	Procedures	10CFR50.59
CTS 3/4.8-R$_1$	3/4.8.G	Mechanical Vacuum Pump Specification.	TRM	10CFR50.59
CTS 3/4.11.D-R$_1$	3/4.11.D	Snubber inspection requirements.	TRM	10CFR50.59
CTS 3/4.12-R$_1$	3/4.12	Requirement for River Level.	TRM	10CFR50.59
CTS 3/4.13-R$_1$	3/4.13	Requirement for Miscellaneous Radioactive Materials Sources.	TRM	10CFR50.59
3.8.1-R$_1$	4.9.A.1.2	Details relating to the operation and testing of the DG.	Procedures	10CFR50.59
3.8.1-R$_2$	Table 3.2.B	Details related to the design of the 480 V load center timers and the 4 kV bus sequential loading relays.	UFSAR	10CFR50.59
3.8.1-R$_3$	Table 3.2.B	Details related to the trip settings of the 480 V load center timers and the 4 kV bus sequential loading relays.	Procedures	10CFR50.59
3.8.1-R$_3$	4.9.A.1.2.f	Requirement to inspect the DG in accordance with procedures prepared in accordance with manufacturers recommendations.	Procedures	10CFR50.59
3.8.1-R$_4$	3.9.B.8; 4.9.B.8	Requirement for the Conowingo Tie-Line Operability (notification to the NRC and periodic verification) associated with Station Blackout requirements.	TRM	10CFR50.59

ITS	CTS	Description	Location	Change Controls
3.8.1-R$_5$	3.9.A.1	Details of what constitutes two qualified offsite circuits (physically independent).	Bases	Bases Control Program (5.5.10)
3.8.1-R$_6$	Table 3.2.B Note 7	Requirements dictating which Technical Specification applies when a 480 V load center timer is inoperable.	Procedures	10CFR50.59
3.8.1-R$_7$	Table 4.2.B	Requirement that an instrument functional test of the 4 kV Emergency Power system Voltage Relays.	Procedures	10CFR50.59
3.8.1-R$_8$	4.9.A.1.2.l	Emergency Diesel Generator accelerated testing requirements.	Maint Prog Procedures	10CFR50.59
3.8.1-R$_9$	4.9.A.1.2.g.1	The detail of what constitutes the largest single load (RHR pump motor) for the diesel generator single load rejection test.	Bases	Bases Control Program (5.5.10)
3.8.3-R$_1$	4.9.A.1.2.g.6; 3.9.B.6.d	Details relating to the design; operation; and maintenance of the fuel transfer system; lube oil system; and starting air system.	Procedures	10CFR50.59
3.8.3-R$_2$	4.9.A.1.2.j	The requirement to drain; remove sediment; and clean each fuel oil tank.	Procedures	10CFR50.59
3.8.3-R$_3$	3.9.B.6.c	Requirement that fuel oil in the other three storage tanks be sampled within 24 hours following the determination that fuel oil sampled from any tank failed to meet requirements.	Procedures	10CFR50.59
3.8.3-R$_4$	4.9.A.1.2.k	Requirements to inspect; at least once every two months; the cathodic protection rectifiers and to perform a test every 12 months to determine if the protection is adequate.	Procedures	10CFR50.59
3.8.4-R$_1$	4.9.A.2.a; 4.9.A.2.c; 3.9.B.5	Requirements that are procedural in nature; specifically the requirement that repair work on the batteries are initiated in the most expeditious manner to return the failed component to an operable state.	Procedures	10CFR50.59
3.8.4-R$_2$	3.9.B.5	Requirements which ties the Actions of the Batteries with the ECCS and the DG System.	Procedures	10CFR50.59
3.8.4-R$_3$	4.9.A.2.c; 3.9.A.4	The number of batteries and chargers required and interpretation of what each 60 months means as it relates to the performance of a discharge test.	Bases	Bases Control Program (5.5.10)
3.8.6-R$_1$	4.9.A.2.a; 4.9.A.2.b	Requirements that are procedural in nature; specifically the tolerance of the instrument.	Procedures	10CFR50.59
3.8.7-R$_1$	3.9.A.3	Details relating to system design and what Operable means (e.g.; energized) and the AC buses listed.	Bases	Bases Control Program (5.5.10)

ITS	CTS	Description	Location	Change Controls
3.9.1-R$_1$	4.10.A.1	Requirement that any time the Operability of a system or component has been affected by repair; maintenance or replacement of a component; post maintenance testing is required to demonstrate Operability of the system or component.	Procedures	10CFR50.59
3.9.1-R$_2$	3.10.A.3; 3.10.A.4	Hoist load setpoints	Procedures	10CFR50.59
3.9.2-R$_1$	4.10.A.1	Requirements that governs the surveillance testing of the refueling interlocks following repair work on the interlocks.	Procedures	10CFR50.59
4.0-R$_1$	5.1; 5.3; 5.4; 5.6; 1.0 Site Boundary Definition	Design requirements for the of the Reactor Vessel; Containment; and Seismic Design and the description of the Site Features.	UFSAR	10CFR50.59
4.0-R$_2$	5.5.C	Requirement that the spent fuel be stored in spent fuel pool only in a vertical orientation in approved storage racks.	Procedures	10CFR50.59
5.0-R$_1$	6.2.2.a; Table 6.2.1	Minimum Shift Crew composition Table.	Procedures	10CFR50.59
5.0-R$_2$	6.2.2.e	Requirement for an SRO to be present during fuel handling and to supervise all core alterations.	Procedures	10CFR50.59
5.0-R$_3$	6.1.2	Requirement for management directive stating who has control room command function responsibility.	Procedures	10CFR50.59
5.0-R$_4$	6.2.3	ISEG Requirements	QA Program	10CFR50.54(a)
5.0-R$_4$	6.5.1; 6.5.2; 6.6.1.b; 6.8.1.c; 6.12	Review and Audit Requirements (PORC & Nuclear Review Board); Requirement for procedures that meet the requirements of ANSI N18.7-1972; and Requirements that procedures covering QA for environmental monitoring use the guidance in R.G. 4.1.	UFSAR	10CFR50.59
5.0-R$_5$	6.4.1	Requirements that a retraining and replacement training program for the facility staff shall be maintained under the direction of the Superintendent Training and shall meet the requirements of ANSI N18.1 1971 and 10 CFR 55; Appendix A.	UFSAR	10CFR50.59
5.0-R$_6$	6.9.2.a; 6.9.2.b; 6.9.2.c; 6.9.2.d; 6.9.2.f	Requirement for Loss of SDM Report; RV Inservice Inspection Report; Seismic Monit Inst Inop Report; Primary Cont Leak Rate Testing Report; and Sealed Source Leakage Report.	Procedures	10CFR50.59
5.0-R$_6$	6.19; 6.20	Bases for Post Accident Sampling Requirements and for site staff working hrs.	UFSAR	10CFR50.59
5.0-R$_7$	6.6.1.a	Requirements for Reportable Event Action.	Procedures	10CFR50.59

ITS	CTS	Description	Location	Change Controls
5.0-R$_8$	6.9.1.e.4	Requirement which states where to send NRC Reports; Program Revisions.	Procedures	10CFR50.59
5.0-R$_9$	6.9.2.h.2	Requirements for Solid Waste reporting.	Procedures	10CFR50.59
5.0-R$_{10}$	6.11; 6.15	Requirements for the Radiation Protection Program and the Iodine Monitoring Program; respectively.	Procedures	10CFR50.59
5.0-R$_{11}$	6.5.3; 6.8.2; 6.8.3	Requirement for Procedure Review and Approval and for Temporary Procedure Changes.	UFSAR	10CFR50.59
5.0-R$_{12}$	6.9.1.a	Requirement to submit a Startup Report.	Procedures	10CFR50.59
5.0-R$_{13}$	6.9.2.e; 6.9.2.g; 6.9.2.h.1; 6.9.2.h.2; 6.9.2.h.3; 6.18	Requirements for major changes to the Rad Waste Treatment Sys; the Rad Dose Asses Report; and specific details for the Rad Env Op Report and the Rad Effluent Rel Report; as well as the submittal requirements for these reports and programs.	ODCM	ODCM (5.5.1.c)
5.0-R$_{14}$	6.10	Requirements for record retention.	QA Program	10CFR50.54(a)
5.0-R$_{15}$	4.9.A.1.2.d; 4.9.A.1.2.e	Requirements for testing new and stored diesel fuel oil (descriptions of test performance and acceptance criteria for the required fuel oil tests that are contained in the ASTM standards).	Bases	Bases Control Program (5.5.10) & Diesel Fuel Oil Test Program (5.5.9)
5.0-R$_{16}$	3.8.C.6; 4.8.C.6	Requirements for monitoring explosive gas downstream of the Off-Gas Recombiners.	TRM	10CFR50.59
5.0-R$_{17}$	6.9.1.c	Requirements for reporting challenges to safety and relief valves.	Procedures	10CFR50.59
3/4.8-L$_1$	3/4.8.A; 3/4.8.B; 3/4.8.C.1; 3/4.8.C.2; 3/4.8.C.3; 3/4.8.C.4; 3/4.8.C.5; 3/4.8.C.8; 3/4.8.D; 3/4.8.E	Radioactive Material Controls; Liquid Effluents; Gaseous Effluents; Containment Purging; 40 CFR 190; Radiological Environmental Monitoring	ODCM	ODCM (5.5.1.c)
3/4.8-L$_1$	3/4.8.F	Solid Radioactive Waste	Procedures	10CFR50.59

ENCLOSURE 2

PECO ENERGY RESPONSE TO

NRC QUESTIONS REGARDING ITS SECTION 3.3

ENCLOSURE 2

Restated below are the NRC questions regarding ITS Section 3.3 followed by the PECO Energy response.

NRC Question A-1:

The following clarification is requested in the support of documentation for RELOCATED requirements (replaces former question General-1).

NRC Question A-1.a. $3.3.1.1.R_1$

The Discussion of Change (DOC) indicates, "These definitions will be relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which these definitions will be relocated (e.g., UFSAR, plant procedures, QA Plan). In addition, please discuss the reasons why relocation of these definitions is justified.

PECO Energy Response to NRC Question A-1.a. $3.3.1.1.R_1$

The Allowable Value for the APRM Flow Biased High Scram contains the term "W". Consistent with NUREG-1433, this term has not been defined in the Technical Specifications and the Owner Controlled Document that defines 'W' is not identified in the Technical Specifications. The term "W", which is the loop recirculation flow in percent of design, will be defined in the UFSAR. In addition, the instrumentation setting in the plant is actually expressed in terms of Volts DC. The Technical Specifications Allowable Value is expressed in terms used by the analyst. As a result, the definition of the term used in the equation for the APRM Flow Biased High Scram Function Allowable Value is not necessary to include in the Technical Specifications.

NRC Question A-1.b. $3.3.1.1.R_2$

The DOC indicates, "This change proposes to relocate the APRM Flow Biased Scram Relationship to Normal Operating Conditions Figure to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan). In addition, please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.b. $3.3.1.1.R_2$

The APRM Flow Biased Scram Relationship to Normal Operating Conditions Figure relocation is justified since the Figure is not referenced in the current Technical Specifications (CTS) or Bases. As a result, it is not necessary for assuring the OPERABILITY of the APRM Flow Biased High Scram. The type of document where this requirement will be relocated is identified in Enclosure 1.

ENCLOSURE 2

NRC Question A-1.c. 3.3.1.1.R_3

The DOC indicates, "This change proposes to relocate the response time testing surveillance along with the acceptance criteria to plant procedures." CTS 3.1.A states the RPS response times shall not exceed 50 milliseconds. CTS 4.1.A requires demonstration of the response time once per operating cycle. Describe the basis for the present requirements. Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.c. 3.3.1.1.R_3

The RPS response time requirements in the CTS is only a test of designed response time from opening of sensor contact up to and including the opening of trip actuator contacts. The basis of this requirement from UFSAR Section 7.2.3.9 is to confirm the system electrical characteristics regarding response time are maintained consistent with the original design. The NUREG-1433 definition of RPS RESPONSE TIME and associated testing requirements require a test to be performed from the point of exceeding the trip setpoint at the channel sensor until de-energization of the scram pilot valve solenoids. As a result, the RPS response time testing requirements of the ITS are more comprehensive than the CTS requirements. Relocation of the existing PBAPS RPS response time requirement is justified since it verifies design requirements, not analysis assumptions, and the current licensing basis in the CTS does not require full testing of the response time of the RPS channels.

NRC Question A-1.d. 3.3.1.1.R_5

The DOC indicates, "This change relocates the requirement that an APRM will be considered Operable if there are at least 2 LPRM inputs per level and at least 14 LPRM inputs of the normal complement." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.d. 3.3.1.1.R_5

The LPRM inputs for OPERABILITY of the APRM have been relocated to the Bases consistent with NUREG-1433. As stated in NEDC-31681,"BWR Owners' Group Improved BWR Technical Specifications," dated April 1989, these details are not necessary in the Instrumentation Tables. The definition of OPERABILITY suffices. NEDC-31681 was the BWR Owners' Group Topical Report from which NUREG-1433 was developed.

NRC Question A-1.e. 3.3.1.1.R_6

The DOC Indicates, "This change proposes to relocate the number of instrument channels provided by design column for each Function." Please

discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.e. 3.3.1.1.R_6

The number of instrument channels provided by design is a design detail that is not necessary to ensure the OPERABILITY of the RPS Functions since OPERABILITY requirements are adequately addressed in Table 3.3.1.1-1.

NRC Question A-1.f. 3.3.1.1.R_7

The DOC indicates, "This change proposes to relocate the statement regarding the functions design which permits closure of any two lines without a scram being initiated." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.f. 3.3.1.1.R_7

The statement regarding the Function's design which permits closure of any two lines without a scram being initiated is a description of the design which is not necessary to assure the OPERABILITY of the RPS-Main Steam Isolation Valve Function.

NRC Question A-1.g. 3.3.1.1.R_8

The DOC indicates, "This change proposes to relocate Note 5, "IRM's are bypassed when APRM's are onscale and the reactor mode switch is in the run position," which is associated with the IRM High Flux and IRM Inoperative Functions and Note 10, 'the APRM downscale trip is automatically bypassed when the IRM instrumentation is operable and not high,' which is associated with the APRM Downscale Function." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.g. 3.3.1.1.R_8

The statement in Note 5 (IRM's are bypassed when APRMs are onscale and the reactor mode switch is in the run position) and Note 10 (the APRM downscale trip is automatically bypassed when the IRM instrumentation is Operable and not high) are descriptions of the design which are not necessary to assure OPERABILITY of the IRM High Flux and IRM Inop Functions (for Note 5) and APRM Downscale Function (for Note 10).

NRC Question A-1.h. 3.3.1.1.R_{12}

The DOC indicates, "Trip setpoints are an operational detail that is not directly related to the Operability of the instrumentation and will be relocated to a

licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.h. 3.3.1.1.R_{12}
The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.i. 3.3.1.2.R_1
The DOC indicates, "This existing requirement is being relocated to plant procedures to provide assurance it will be maintained." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.i. 3.3.1.2.R_1
The requirement that SRMs be inserted at normal operating level during core alterations is a procedural detail not necessary for assuring SRM OPERABILITY. The ITS Surveillance Requirements (SRs) provide adequate assurance the SRMs are OPERABLE. The SRMs will be inserted at the levels necessary for meeting the SRs.

NRC Question A-1.j. 3.3.1.2.R_2
The DOC indicates, "This existing requirement is being relocated to plant procedures to provide assurance it will be maintained." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.j. 3.3.1.2.R_2
The requirement that the SRM minimum count rate during core alterations must be achieved with all rods fully inserted in the core is a procedural detail that is not necessary for assuring SRM OPERABILITY. The SRs provide adequate assurance the SRMs are OPERABLE.

NRC Question A-1.k. 3.3.2.1.R_2
The DOC indicates, "This information will be relocated to the Applicable Safety Analyses section of the proposed Bases for Specifications 3.3.2.1." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.k. 3.3.2.1.R_2
The number of instrument channels provided by design is a design detail that is not necessary to ensure the OPERABILITY of the Control Rod Block Functions

since OPERABILITY requirements are adequately addressed in Table 3.3.2.1-1.

NRC Question A-1.l. 3.3.2.1.R_5

The DOC indicates, "NUREG-1433 has no equivalent check for the RBM so performance of the daily "Instrument Check" of the Rod Block Monitor will be relocated to plant procedures..." Please discuss the reasons why relocation of this item is justified (see PECO Energy response to NRC Question 3.3.2.I.Q1, dated January 30, 1995).

PECO Energy Response to NRC Question A-1.l. 3.3.2.1.R_5

The rationale for not including an Instrument Check in the PBAPS ITS was that there was no equivalent requirement in the STS. The RBM design at PBAPS is the same as that utilized in the STS. RBM Channel Checks were not included in the STS since each time a rod is selected the system renulls itself making the Channel Check meaningless. In addition, signals are only fed to the RBM channels upon selection of a rod for withdrawal or insertion. Upon selection of a rod, the appropriate LPRM signals are routed to the RBM. The RBM is then filtered to reduce signal noise. Once the filtered signal nears equilibrium, a gain is applied to null the RBM to a reference source signal. Therefore, a meaningful test would require a rod to be selected which initiates the nulling sequence. However, a Channel Check is the qualitative assessment, by observation, of channel behavior and does not require a rod to be selected.

NRC Question A-1.m. 3.3.3.1.R_1

The DOC indicates, "The instruments not meeting this criteria, and their associated Technical Specification requirements have been relocated to plant controlled documents." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan)

PECO Energy Response to NRC Question A-1.m. 3.3.3.1.R_1

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.n. 3.3.3.1.R_2

The DOC indicates, "Details of the system Operability requirements and description of the instruments are relocated to the Bases, procedures, and the UFSAR. Placing this information in these documents provides assurance it will be maintained." Please discuss the reasons why relocation of this item is

justified.

PECO Energy Response to NRC Question A-1.n. 3.3.3.1.R_2

The details of Post Accident Monitoring (PAM) instrumentation (instrument numbers, type of instrument indication, and range) in the CTS are related to design and are not necessary for assuring the OPERABILITY of the PAM instrumentation.

NRC Question A-1.o. 3.3.3.1.R_3

The DOC indicates, "Details of the performance of surveillance have been relocated to plant procedures. Placing these details in procedures provides assurance they will be maintained..." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.o. 3.3.3.1.R_3

The procedural details of the performance of a Channel Calibration are not necessary to assure PAM instrumentation OPERABILITY. The SRs and the definition of CHANNEL CALIBRATION provide adequate assurance the PAM instruments are OPERABLE.

NRC Question A-1.p. 3.3.3.1.R_4

The CTS 4.7.A.6.c functional test of the atmospheric analyzing system (once per operating cycle) is relocated to plant procedures. The DOC states that the test is performed every time the CAD System is tested per CTS 4.7.A.6.a. The ITS 3.6.3.1 SRs do not include a functional test. Per Bases B 3.6.3.1, the surveillances support containment isolation and CAD system vent operation and must support the feed and bleed approach to maintaining hydrogen and oxygen concentration below combustible levels. How does ITS SR 3.6.3.1.5 show a valid functional test of the CAD and atmospheric analyzing system?

PECO Energy Response to NRC Question A-1.p. 3.3.3.1.R_4

The requirement to functionally test the primary containment atmospheric analyzing system once per operating cycle in conjunction with existing CTS 4.7.A.6.a was relocated since the functional test of the CAD System was relocated. The requirement to functionally test the primary containment analyzing system once per operating cycle is not necessary to assure system OPERABILITY since a CHANNEL CALIBRATION of this system is required by SR 3.3.3.1.2 once per 92 days. The ITS definition of CHANNEL CALIBRATION includes the requirement to perform a CHANNEL FUNCTIONAL TEST. As described in the Bases B 3.3.3.1 for the Drywell and Suppression Chamber

Hydrogen and Oxygen Analyzers (primary containment atmospheric analyzing system), each gas analyzer must be capable of sampling either the drywell or the suppression chamber. Since this defines a channel with respect to these Functions, the CHANNEL FUNCTIONAL TEST requirement of the CHANNEL CALIBRATION includes verifying the capability to sample and analyze the drywell and suppression chamber atmosphere once per 92 days. As a result, the relocated requirement is not necessary to assure the OPERABILITY of the Drywell and Suppression Chamber Hydrogen and Oxygen Analyzers.

NRC Question A-1.q. $3.3.4.1.R_1$

The DOC indicates, "...ARI function requirements are being relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.q. $3.3.4.1.R_1$

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.r. $3.3.4.1.R_2$

The DOC indicates, "...ATWS-RPT manual actuation function requirements are being relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.r. $3.3.4.1.R_2$

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.s. $3.3.4.1.R_3$

The DOC indicates, "This type of information will be relocated to the Bases in the section entitled Applicable Safety Analyses, LCO, and Applicability and will be controlled in accordance with 10 CFR 50.59." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.s. $3.3.4.1.R_3$

The phrase "automatic actuation of logic and actuation devices" when describing features of the ATWS-RPT function that are required to be OPERABLE for the ATWS-RPT Function to be OPERABLE is a detail that

describes what constitutes the system. This detail is not necessary to be specified in the ITS to assure OPERABILITY.

NRC Question A-1.t. 3.3.4.1.R_4

The DOC indicates, "This type of information will be relocated to the plant procedure and design documents and will be controlled in accordance with 10 CFR 50.59." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.t. 3.3.4.1.R_4

The number of the ATWS-RPT instrument channels provided by design and the statement that the ATWS-RPT instruments are the same instruments used by the Core and Cooling Systems are design details. These details are not necessary to assure the OPERABILITY of the ATWS-RPT instruments. In addition, the detail regarding the number of channels provided by design is not necessary to be specified since the OPERABILITY requirements are adequately addressed in LCO 3.3.4.1.

NRC Question A-1.u. 3.3.4.1.R_5

The DOC indicates, "Performance every 3 months of a Logic System Functional Test of the ATWS-RPT function without tripping the recirculation pump breaker provides additional assurance of proper operation of the trip units and logic systems but is not required by NUREG-1433. Since this additional requirement for testing can be adequately controlled by administrative procedures, this testing requirement will be relocated to plant procedures and controlled in accordance with 10 CFR 50.59." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.u. 3.3.4.1.R_5

The 92 day ATWS-RPT Logic System Functional Test (which excluded recirculation pump trip) was added to the CTS to address an issue in the NRC Safety Evaluation Report dated 12/21/88 regarding PBAPS Units 2 and 3 compliance with the ATWS rule for the ARI and RPT Systems. The NRC concern was that, for the trip units and logic, a once per operating cycle functional test frequency had not been accepted.

Foxboro electronic trip units from the reactor level compensation instrumentation are used in the ARI/RPT System. Foxboro electronic trip units from the reactor level compensation instrumentation are also used by ECCS Instrumentation, RCIC Instrumentation, PAM Instrumentation, and Remote Shutdown Instrumentation. No requirements regarding 92 day Logic System

Functional Tests of trip units and logic for instrumentation, other ATWS-RPT Instrumentation, were imposed to assure OPERABILITY of instrumentation. As a result, the proposed relocated requirement is not considered necessary to assure OPERABILITY of the ATWS-RPT Instrumentation.

NRC Question A-1.v. 3.3.5.1.R_1

The DOC indicates, "This change will relocate items which are procedural in nature (e.g., conversions, specific instructions, etc.) to procedures." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.v. 3.3.5.1.R_1

The details proposed to be relocated by this Discussion of Change are design details describing the components the functions initiate, setpoint conversions, and details of how to perform a Channel Functional Test. These details are not necessary to assure the OPERABILITY of the ECCS Instrumentation Functions. In addition, the details of how to perform a Channel Functional Test are adequately addressed by the definition of CHANNEL FUNCTIONAL TEST.

NRC Question A-1.w. 3.3.5.1.R_2

The DOC indicates, "Trip setpoints are an operational detail that is not directly related to the Operability of the instrumentation and will be relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.w. 3.3.5.1.R_2

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.x. 3.3.5.1.R_3

The DOC indicates, "This change proposes to relocate specific information about the Functions..." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.x. 3.3.5.1.R_3

The details proposed to be relocated by this Discussion of Change are design details describing the components the functions initiate and are not necessary to assure the OPERABILITY of the ECCS Instrumentation Functions.

ENCLOSURE 2

NRC Question A-1.y. 3.3.5.1.R_4

The DOC indicates, "This change relocates the requirements for the Trip system bus power monitors, the core spray sparger differential pressure monitor, the LPCI Cross Connect Position Indication, and the Surveillance requirements for the ADS Relief Valves Bellows pressure switches to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.y. 3.3.5.1.R_4

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.z. 3.3.5.1.R_5

The DOC indicates, "This change proposes to relocate specifics about the instruments (what they consist of, etc.) to the procedures/bases." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.z. 3.3.5.1.R_5

The details proposed to be relocated by this Discussion of Change are design details describing the types of components that make up the channels (analog transmitters, indicators, and electronic trip units) and are not necessary to assure the OPERABILITY of the ECCS Instrumentation Functions.

NRC Question A-1.aa. 3.3.5.1.R_7

The DOC indicates, "This instrument Function is being relocated to plant specific controls." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.aa. 3.3.5.1.R_7

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.bb. 3.3.5.2.R_1

The DOC indicates, "This change will relocate items which are procedural in nature (e.g., conversions, specific instructions, etc.) to procedures." Please discuss the reasons why relocation of this item is justified.

ENCLOSURE 2

PECO Energy Response to NRC Question A-1.bb. 3.3.5.2.R_1

The details proposed to be relocated by this Discussion of Change are design details related to setpoint conversions, details of how to perform a Logic System Functional Test and details of how to perform a Channel Functional Test. These details are not necessary to assure the OPERABILITY of the RCIC Instrumentation. In addition, the details of how to perform a Logic System Functional Test and a Channel Functional Test are adequately addressed by the definitions of LOGIC SYSTEM FUNCTIONAL TEST and CHANNEL FUNCTIONAL TEST, respectively.

NRC Question A-1.cc. 3.3.5.2.R_2

The DOC indicates, "Trip setpoints are an operational detail that is not directly related to the Operability of the instrumentation and will be relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.cc. 3.3.5.2.R_2

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.dd. 3.3.5.2.R_3

The DOC indicates, "This change proposes to relocate specifics about the instruments (what they consist of, etc.) to the procedures/Bases." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.dd. 3.3.5.2.R_3

The details proposed to be relocated by this Discussion of Change are design details describing the components the functions initiate and the types of components that make up the channels (analog transmitters, indicators, and electronic trip units). These design details are not necessary to assure the OPERABILITY of the RCIC Instrumentation Functions.

NRC Question A-1.ee. 3.3.5.2.R_4

The DOC indicates, "This change relocates the requirements for the Trip System bus power monitor to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

ENCLOSURE 2

PECO Energy Response to NRC Question A-1.ee. 3.3.5.2.R_4

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.ff. 3.3.6.R_2

The DOC indicates, "This change proposes to relocate the number of instrument channels provided by design column for each Function." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.ff. 3.3.6.R_2

The number of instrument channels provided by design is a design detail that is not necessary to assure the OPERABILITY of the Primary Containment Isolation Functions since OPERABILITY requirements are adequately addressed by Table 3.3.6.1-1.

NRC Question A-1.gg. 3.3.6.1.R_5

The DOC indicates, "Trip setpoints are an operational detail that is not directly related to the Operability of the instrumentation and will be relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.gg. 3.3.6.1.R_5

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.hh. 3.3.6.2.R_1

The DOC indicates, "Trip setpoints are an operational detail that is not directly related to the Operability of the instrumentation and will be relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.hh. 3.3.6.2.R_1

The type of document where this requirement will be relocated is identified in Enclosure 1

NRC Question A-1.ii. 3.3.7.1.R_1

The DOC indicates, "Trip setpoints are an operational detail that is not directly related to the Operability of the instrumentation and will be relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.ii. $3.3.7.1.R_1$

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.jj. $3.3.7.1.R_2$

The DOC indicates, "This change proposes to relocate specific details about the instrument (number of channels provided by design, etc.) to the Bases. Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.jj. $3.3.7.1.R_2$

The details proposed to be relocated by this Discussion of Change are details related to the number of channels provided by design, the description of the parameter monitored by the trip system, and the description of what constitutes maintaining trip capability. These design details are not necessary to assure the OPERABILITY of the Main Control Room Emergency Ventilation (MCREV) System Instrumentation. In addition, OPERABILITY requirements with regard to the number of channels provided by design are adequately addressed by LCO 3.3.7.1.

NRC Question A-1.kk. $3.3.7.1.R_3$

The DOC indicates, "The requirements for trip functions for the MCREV initiation instrumentation not associated with the Control Room Air Intake Radiation--High channels have been relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.kk. $3.3.7.1.R_3$

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.ll. $3.3.7.1.R_4$

The DOC indicates, "This change will relocate items which are procedural in nature (e.g., conversions, specific instructions, etc.) to procedures." Please

discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.ll. 3.3.7.1.R_4

The details proposed to be relocated by this Discussion of Change are procedural details related to the performance of the Channel Calibration of the MCREV System Instrumentation Radiation Monitor and are not necessary to assure the OPERABILITY of the MCREV System Instrumentation. In addition, the details of how to perform a Channel Calibration are adequately addressed by the definition of CHANNEL CALIBRATION.

NRC Question A-1.mm. 3.3.8.1.R_1

The DOC indicates, "This change will relocate items which are procedural in nature (e.g., conversions, specific instructions, etc.) to procedures." Please discuss the reasons why relocation of this item is justified.

PECO Energy Response to NRC Question A-1.mm. 3.3.8.1.R_1

The details proposed to be relocated by this Discussion of Change are design details related to the setpoint conversion (percent of rated voltage to volts) and the procedural details related to the test conditions used for the time delay relays. These details are not necessary to assure the OPERABILITY of the Loss of Power (LOP) Instrumentation.

NRC Question A-1.nn. 3.3.8.1.R_2

The DOC indicates, "Trip setpoints are an operational detail that is not directly related to the Operability of the instrumentation and will be relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.nn. 3.3.8.1.R_2

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.oo. 3.3.8.1.R_3

The DOC indicates, "This change proposes to relocate specifics about the instruments (the specific functions(s) they perform, etc.) to the UFSAR/Bases." Please discuss the reasons why relocation of this item is justified.

ENCLOSURE 2

PECO Energy Response to NRC Question A-1.oo. 3.3.8.1.R_3

The details proposed to be relocated by this Discussion of Change are design details describing the components the functions initiate, the relay type, and nomenclature. These design details are not necessary to assure the OPERABILITY of the LOP Instrumentation Functions.

NRC Question A-1.pp. 3.3.8.1.R_4

The DOC indicates, "Trip setpoints are an optional detail that is not directly related to the Operability of the instrumentation and will be relocated to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.pp. 3.3.8.1.R_4

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-1.qq. 3.3.8.2.R_1

The DOC indicates, "This proposed change will relocate CTS 3/4.15, "Seismic Monitoring Instrumentation," and associated Bases to a licensee controlled document." Please identify the type of document, in as much specificity as possible, to which this item will be relocated (e.g., UFSAR, plant procedures, QA Plan).

PECO Energy Response to NRC Question A-1.qq. 3.3.8.2.R_1

The type of document where this requirement will be relocated is identified in Enclosure 1.

NRC Question A-2

The response to question 3.3.5.1.Q2 states Table 3.3.5.1-1 Action E is applied to Functions 1.d, 2.g, and 3.f. Required Action E.1, Note 1 states "only applicable in MODES 1, 2, and 3" and Note 2 states the action is "only applicable to Functions 1.d and 2.g." Per Table 3.3.5.1-1, Function 1.d is applicable in Modes 1, 2, 3, $4^{(a)}$, and $5^{(a)}$, Function 2.g is applicable in Modes 1, 2, 3, $4^{(a)}$, $5^{(a)}$, and Function 3.f is applicable in Modes 1, $2^{(d)}$, and $3^{(d)}$, where (a) = when associated subsystem(s) are required to be OPERABLE and (d) = with reactor pressure > 150 psig.

ENCLOSURE 2

Resolve the following:

Table 3.3.5.1-1, Function 1.d, is not applicable in Modes 4[(a)] and 5[(a)] per Note 1

Table 3.3.5.1-1, Function 2.g, is not applicable in Modes 4[(a)] and 5[(a)] per Note 1

Table 3.3.5.1-1, Function 3.f, is not Applicable per Note 2

We note the logical AND between Required Actions E.1 and E.2, implying that Required Action E.1 is applicable to Function 3.f despite Note 2. Resolve these discrepancies.

PECO Energy Response to NRC Question A-2

The resolution of the apparent discrepancy between Required Actions E.1 and E.2 of Specification 3.3.5.1 and the associated Functions is addressed in the following discussion from Bases B 3.3.5.1.

"Required Action E.1 is intended to ensure that appropriate actions are taken if multiple, inoperable channels within the Core Spray and Low Pressure Coolant Injection Pump, Discharge Flow - Low (Bypass) Functions result in redundant automatic initiation capability being lost for the feature(s)..."

"In this situation (loss of redundant automatic initiation capability), the 7 day allowance of Required Action E.2 is not appropriate and the subsystem associated with each inoperable channel must be declared inoperable within 1 hour. As noted (Note 1 to Required Action E.1), Required Action E.1 is only applicable in MODES 1, 2, and 3. In MODES 4 and 5, the specific initiation time of the ECCS is not assumed and the probability of a LOCA is lower. Thus, a total loss of initiation capability for 7 days (as allowed by Required Action E.2) is allowed during MODES 4 and 5. A Note is also provided (Note 2 to Required Action E.1) to delineate that Required Action E.1 is only applicable to low pressure ECCS Functions. Required Action E.1 is not applicable to HPCI Function 3.f since the loss of one channel results in a loss of function (one-out-of-one logic). This loss was considered during the development of Reference 5 and considered acceptable for the 7 days allowed by Required Action E.2."

Reference 5 of B 3.3.5.1 is NEDC-30936-P-A, "BWR Owners' Group Technical Specification Improvement Analyses for ECCS Actuation Instrumentation, Part 2," December 1988.

ENCLOSURE 2

NRC Question A-3

In response to question 3.3.8.1Q4, the justification for the 30-day allowed outage time (AOT) for Required Action A.2 when one channel per source of the 4-kVac Emergency Bus Undervoltage (Degraded Voltage High Setting) and the 4-Kvac Emergency Bus Undervoltage (Degraded Voltage non-LOCA) Functions are inoperable for up to two buses is based on the multiple number of relays per source times the total of eight buses for both units, the diversity of the other Functions, and the capability to manually transfer to the alternate source. This "ensures that the operator will have the indication of a degraded voltage condition from at least 2 of the 4kV emergency buses during the proposed outage time." The response to 3.3.8.1.Q5 states that three of the four diesel generators are required to start. If the bus undervoltage relay is inoperable, the associated source breaker will not automatically trip. Therefore, if the 4-Kvac Emergency Bus Undervoltage relays for two buses are inoperable (for up to 30 days), the associated diesel generators will not automatically start as designed for a degraded voltage condition. On what basis is the ability of only two of the four diesel generators to start acceptable for 30 days?

PECO Energy Response to NRC Question A-3

Condition B of Specification 3.3.8.1 only applies to the 4kV Emergency Bus Undervoltage (Degraded Voltage High Setting) and the 4kV Emergency Bus Undervoltage (Degraded Voltage non-LOCA) Functions. The 30 day allowed outage time (AOT) when one channel per source of the 4kv Emergency Bus Undervoltage (Degraded Voltage High Setting) and the 4kv Emergency Bus Undervoltage (Degraded Voltage non-LOCA) Functions are inoperable for one or two buses takes into consideration the diversity of the degraded voltage functions, the fact that the Degraded Voltage High Setting and the Degraded Voltage non-LOCA Functions provide only a marginal increase in the protection provided by the voltage monitoring scheme, the low probability of the grid operating in the voltage band protected by these Functions for any length of time without actuating any of the other degraded voltage relays, and the ability of the operators to perform the functions manually. In the event of loss of the Degraded Voltage High Setting and the Degraded Voltage non-LOCA Functions on one or two of the four 4kV buses on a unit, degraded voltage protection (transfer to the alternate source and diesel generator start if the transfer to the alternate source does not result in adequate bus power) would be provided as follows:

1) Automatically by the 4kV Emergency Bus Undervoltage (Degraded Voltage Low Setting) Function; or

2) Automatically by the 4kV Emergency Bus Undervoltage (Degraded Voltage

LOCA) Function in the event of a LOCA; or

3) Manually by operator action in response to a degraded voltage relay actuation on the remaining buses with Operable 4kV Emergency Bus Undervoltage (Degraded Voltage High Setting) and the 4kV Emergency Bus Undervoltage (Degraded Voltage non-LOCA) Functions.

NRC Question A-4

LCO 3.3.8.1, Surveillance Requirements, Note 2, discusses the acceptability of delaying entry into the associated Conditions and Required Actions for up to 2 hours when a channel is rendered inoperable solely for the performance of a required surveillance. Discuss the basis for the acceptability of this change for Functions 2, 3, 4, and 5 (see PECO Energy Response to NRC Question 3.3.8.IQ5 dated January 30, 1995).

Note: "Initiation capability for 3 DGs" and "undervoltage transfer capability for three 4 kV emergency buses" is the terminology used. It appears that the logic capability may be available but not the end device (DG or alternate source).

What controls are there to prevent rendering a channel inoperable when a non-associated DG or alternate source is inoperable for some other cause?

PECO Energy Response to NRC Question A-4

The acceptability of allowing a 2 hour delay in entering the associated Conditions and Required Actions for an inoperable channel that was made inoperable solely for performance of required surveillances for Specification 3.3.8.1, Functions 2, 3, 4, and 5, is the same as described in Discussion of Change L_1 for ITS 3.3.8.1 (only 3 of the 4 diesel generators are required to start within the required time for the design basis accident). The rationale for applying this justification to Functions 2, 3, 4, and 5 (degraded voltage Functions) as described in the Bases for Specification 3.3.8.1 is as follows:

> When the setpoint is exceeded for a degraded voltage channel, the preferred offsite source breaker to the 4kv emergency bus is tripped and autotransfer to the alternate offsite source is initiated. If the alternate source does not provide adequate power to the bus as sensed by the undervoltage relay, a diesel generator start signal is initiated.

The controls to prevent rendering a Loss of Power Instrument channel inoperable when a non-associated diesel generator or alternate source is

inoperable for some other cause are the reviews of log entries prior to rendering a Loss of Power Instrument channel inoperable. The reviews of the log entries will be performed in accordance with Specification 5.5.11, "Safety Function Determination Program", to ensure a loss of safety function would not occur (i.e., the non-associated diesel generators or alternate source, as applicable, are available).

NRC Question A-5

Provide (in tabular format, if possible) a list by ITS Function (per the tables in Section 3.3) the following information:

a. The ITS Table and Function number
b. The ITS Allowable Value
c. The corresponding trip setting
d. The corresponding CTS Trip Level Setting
e. The corresponding CTS location of the Trip Level Setting
f. A brief explanation for the changes, such as revised setpoint due to new setpoint methodology or change to the instrument range (such as with the reactor vessel level channels using instrument zero instead of the reference to vessel zero).

PECO Energy Response to NRC Question A-5

See Attachment A of Enclosure 2 for requested information.

NRC Question A-6

Please identify any differences between the Unit 2 ITS and the Unit 3 ITS for Section 3.3.

PECO Energy Response to NRC Question A-6

Differences between the PBAPS Unit 2 and Unit 3 ITS and Bases for Section 3.3 are identified in the marked up pages in Attachment B of Enclosure 2.

NRC Question A-7

Implementation of the General Electric (GE) setpoint methodology (NEDC--31336, "General Electric Instrumentation Setpoint Methodology") results in setpoints designed to provide a 95% probability of providing the trip function before the process variable reaches the analytical limit with high confidence. The staff approved NEDC-31336 in an SE dated February 9, 1993, and noted the use of independent, random and normally distributed data but expressed

concern with the use of only a one sided distribution with a 95 percent probability but an undefined confidence level. The staff notes that Regulatory Guide (RG) 1.105, "Instrument Setpoints for Safety-Related Systems," 1982, does not provide specific guidance on confidence level. The staff also notes that ISA 67-04, "Setpoints for Nuclear Power Plants," 1982 defines neither a confidence interval or level but requires justification for the adequacy of the methodology chosen to combine uncertainty terms. The staff subsequently endorsed ISA 67.04, 1982 in RG 1.105, Revision 2, dated February 1986.

Licensee's adopting the GE methodology must provide justification for an undefined confidence interval when developing a trip setpoint. Reference to a "high degree of confidence" (undefined confidence level) is not acceptable to the staff. In general the staff has accepted 95/95 confidence interval/levels for plant safety-related setpoints. Based on the above, please provide additional justification for the use of undefined confidence intervals and/or levels when utilizing the GE setpoint methodology in plant setpoint calculations.

PECO Energy Response to NRC Question A-7

PECO Energy supports the position contained in GE letter (MFN-142-93) dated September 8, 1993 from D. Robare (GE) to B. Boger (NRC), that there are no regulatory requirements to use a specific confidence level in instrument setpoint methodology. The regulatory basis established for determining protective system instrument setpoints is contained in Regulatory Guide 1.105, Revision 2, "Instrument Setpoints for Safety-Related Systems." The Regulatory Position Section of Regulatory Guide 1.105 endorses standard ISA-S67.04-1982, "Setpoints for Nuclear Safety-Related Instrumentation Used in Nuclear Power Plants." This standard does not establish a specific confidence level to be used in determining trip setpoints or allowable values. Consequently, Regulatory Guide 1.105 does not require a specific confidence level. Therefore utilization of a specific confidence level is beyond the scope of current regulatory guidance and instrument setpoint methodology does not address a specific confidence level. In addition, guidance provided in Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-month Fuel Cycle" recommends to "Confirm that the values of drift for each instrument type (make, model, and range) and application have been determined with a high probability and a high degree of confidence". Nonetheless, we have a high degree of confidence that the trips will occur as required based on many years of operating experience and design.

Confidence data are not generally available from instrument vendors. In instrument setpoint methodology, vendor limits for accuracy error, calibration error, error due to drift, etc., are conservatively interpreted as two or three

standard deviations of a normal distribution. We believe that vendor error limits in each category almost certainly cover a greater number of standard deviations than the number assumed, so the sigma values used are greater than those implied by the vendor limits. Moreover, plant surveillance data as documented in NEDC-32160P contain evidence that the total sigma used for each instrument is greater than actually being realized by the instruments in service. Confirmation Ratios (i.e, the ratio of observed value to allowed value) obtained from these field data which are greater than 1.0 are much fewer than the 5% that would be expected from a 95% probability criterion. This indicates that the instruments are performing within the limits derived from combining the error categories. These observations were further evidenced in subsequent PECO Energy As-Found/As-Left data analyses performed to support 24 month refuel cycles. In these PECO Energy analyses, the allowed value used was conservatively established as procedural allowance, thereby not taking credit for the effects of Accuracy Error, Drift, and Temperature Effect on Drift.

Considering the foregoing, we believe that utilization of a specific confidence level is beyond the scope of current regulatory guidance and we believe that 95% probability values are conservatively evaluated because the vendor instrument error limits were interpreted so as to result in larger sigma than required. This conservatism is substantiated by instrument field performance data which show that, with rare exception, actual instrument errors are less than allowed.

NRC Question A-8

For instruments used that are different than those described in Section 2.0 of NEDC-31336, please provide discussion of how the drift evaluation is in conformance to the criteria set forth in NEDC-31336

PECO Energy Response to NRC Question A-8

In addition to those instruments described in Section 2.0 of NEDC-31336, As-Found/As-Left data for additional types of instrumentation have been analyzed in NEDC-32160P, "Calibration Interval Extension" and in analyses performed by PECO Energy to support 24-month fuel cycles. These studies have been performed using the drift confirmation model described in NEDC-31336. With the exception of the functions listed below, the ITS functions listed in Attachment A are composed of instruments similar to those described in Section 2.0 of NEDC-31336, or included in NEDC-32160P or analyses performed by PECO Energy to support 24-month fuel cycles.

The following instrument functions are comprised of components that are not

similar to those analyzed in the previously mention studies and have not had drift analyses completed:

1. MSIV Closure
2. Turbine Stop Valve Closure
3. HPCI Pump Discharge Flow
4. Core Spray Pump Discharge Flow
5. LPCI Pump Discharge Flow
6. HPCI Steam Line Flow
7. RCIC Steam Line Flow
8. RWCU Flow

NRC Question A-9

Provide a discussion on the use of a single sided probability distribution for instrument channels (note that the GE methodology bounds RPS and bistables) that provide trips or permissive for both increasing and decreasing variables.

PECO Energy Response to NRC Question A-9

PECO Energy supports the position for the use of single-sided distributions contained in GE letter (MFN-142-93) dated September 8, 1993 from D. Robare (GE) to B. Boger (NRC). The use of single-sided distributions for channels that provide trips or permissives for both increasing and decreasing variables is justified if the upper and lower analytical limits cannot be reached simultaneously, or if independent trip devices, one associated with each analytical limit, are used. The scope of instrument setpoint methodology is setpoints and does not include requirements for what errors must be included for indicators and recorders.

ENCLOSURE 2

ATTACHMENT A

PECO ENERGY RESPONSE
TO NRC QUESTION A-5

ITS FUNCTION MATRIX

FUNCTION	DESCRIPTION	ITS ALLOWABLE VALVE (AV)	TRIP SET POINT	CTS TRIP LEVEL SETTING	CTS LOCATION	NOTES
Table 3.3.1.1-1: Reactor Protection Instrumentation						
1.a	IRM Neutron Flux High	≤120/125 divisions	115.69%	≤120/125 divisions	Table 3.1.1(3)	1
1.b	IRM Inop	NA				
2.a	APRM Startup High Flux Scram	≤15.0% RTP	13% Power	≤15% Power	Table 3.1.1(8)	1
2.b	APRM Flow Biased High Scram	≤0.66 + 63.9% RTP; (0.66W + 63.9% - 0.66ΔW RTP for Single Loop Operation)	0.66W + 62.7%	0.66W + 66% - 0.66ΔW	Table 3.1.1(5)	2
2.c	APRM Scram Clamp	≤118.0% RTP	117%	120%	Table 3.1.1(5)	2
2.d	APRM Downscale	≥2.5% RTP	4.5%	≥2.5% Indication	Table 3.1.1(7)	2
2.e	APRM Inop	NA	NA			
3	Reactor Pressure High	≤1085.0 psig	1073.5 psig	≤1085.0 psig	Table 3.1.1(9)	1
4	Reactor Vessel Water Level-Low(L3)	≥1.0 in.	1.5 in	≥0 in	Table 3.1.1(11)	3
5	MSIV Closure	≤10% closed	≤10%	≤10% closure	Table 3.1.1(15)	1
6	Drywell Pressure-High	≤2.0 psig	1.925 psig	≤2.0 psig	Table 3.1.1(10)	1
7	SDV Water Level-High	≤50.0 Gallons	44.28 Gallons	≤50.0 Gallons	Table 3.1.1(12)	1
8	TSV-Closure	≤10% closed	≤10%	≤10% closure	Table 3.1.1(17)	1
9	TCV Fast Closure, Trip Oil Pressure-Low	≥500.0 psig	600.0 psig	500<P<850 psig	Table 3.1.1(16)	2, 5

10	Turbine Condenser-Low Vacuum	≥23.0 in. Hg vacuum	23.45 in. Hg	≥23.0 in. Hg	Table 3.1.1(13)	1
11	Main Steam Line-High Radiation	15 x Full Power Background	3 x 10E4 mR/hr	≤15 x Full Power Background	Table 3.1.1(14)	1
12	Reactor Mode Switch-Shutdown Position	NA				
13	Manual Scram	NA				
14	RPS Channel Test Switch	NA				
Table 3.3.2.1-1: Control Rod Block Instrumentation						
1.a	Low Power Range-Upscale	COLR	Per COLR	≤10E6 Counts/ Second	Table 3.2.C(10)	2, 4
1.b	Intermediate Power Range-Upscale	COLR	Per COLR	≤108% Indication	Table 3.2.C(8)	2, 4
1.c	High Power Range-Upscale	COLR	Per COLR	.66W + 54% - 0.66ΔW Clamp @ 108%	Table 3.2.C(4)	2, 4
1.d	INOP	NA				
1.e	Downscale	COLR	Per COLR	COLR	Table 3.2.C(5)	
1.f	Bypass Time Delay	COLR	Per COLR	NA		
2	Rod Worth Minimizer	NA				
3	Reactor Mode Switch	NA				
Table 3.3.5.1-1: Emergency Core Cooling System Instrumentation						
1.a	Core Spray System: Reactor Vessel Water Level-Low Low Low (L1)	≥-160.0 in.	-153.84 in.	≥-160 in.	Table 3.2.B(2)	1
1.b	Drywell Pressure High	≤2.0 psig	1.925 psig	≤2.0 psig	Table 3.2.B(7)	1

1.c	Reactor Pressure-Low	≥425.0 psig ≤475.0 psig	450.0 psig	400-500 psig	Table 3.2.B(8)	2
1.d	Core Spray Pump Discharge Flow Low	≥319.0 psid; ≤351.0 psid	325 psid DEC 345 psid INC	NA		
1.e	Core Spray Pump Start-Time Delay Relay(LOOP)	≥5.0 seconds ≤7.0 seconds	6 seconds	6 +/- 1 second	Table 3.2.B(11)	1
1.f (Pumps A,C)	Core Spray Pump Start-Time Delay Relay	≥12.1 seconds ≤13.9 seconds	13 seconds	13 seconds +/- 7% setting	Table 3.2B(11)	1
1.f (Pumps B,D)	Core Spray Pump Start-Time Delay Relay	≥21.4 seconds ≤24.6 seconds	23 seconds	23 seconds +/- 7% setting	Table 3.2.B(11)	1
2.a	LPCI System: Reactor Vessel Water Level-Low Low Low (L1)	≥-160 in.	-153.84 in.	≥160 in.	Table 3.2.B(2)	1
2.b	Drywell Pressure High	≤2.0 psig	1.925 psig	≤2.0 psig	Table 3.2.B(7)	1
2.c	Reactor Pressure-Low	≥425.0 psig ≤475.0 psig	450 psig	400-500 psig	Table 3.2.B(8)	2
2.d	Reactor Pressure-Low	≥211.0 psig	225 psig	200-250 psig	Table 3.2.B(9)	2, 5
2.e	Reactor Vessel Shroud Level-(L0)	≥-226.0 in.	-215.55 in.	≥+312 in. above vessel zero	Table 3.2.B(4)	+312 in. above a vessel zero is equivalent to -226.0 in. indicated level.
2.f (Pumps A,B)	LPCI Pump Start-Time Delay Relay	≥1.9 seconds ≤2.1 seconds	2 seconds	2 seconds +/- 7% setting	Tables 3.2.B(13)	1
2.f (Pumps C,D)	LPCI Pump Start-Time Delay Relay	≥7.5 seconds ≤8.5 seconds	8 seconds	8 seconds +/- 7% setting	Table 3.2.B(13)	1
2.g	LPCI Pump Discharge Flow-Low	≥299.0 psid ≤331.0 psid	305 psid DEC 325 psid INC	NA		
3.a	HPCI Reactor Vessel Water Level-Low Low (L2)	≥-48 in.	-41.78 in	≥-48 in.	Table 3.2.B(1)	1

3.b	Drywell Pressure-High	≤2.0 psig	1.925 psig	≤2.0 psig	Table 3.2.B(7)	1
3.c	Reactor Vessel Water Level-High (L8)	≤46 in.	42.00 in	≤+45 in.	Table 3.2.B(3)	2, The ITS AV is less conservative than the CTS Trip Level Setting, but is consistent with the analysis requirements documented in NEDC-32213
3.d	Condensate Storage Tank Level-Low	≥5.25 ft. above tank bottom	67 in.	≥5 ft above tank bottom	Table 3.2.B(24)	2
3.e	Suppression Pool Level-High	≤5.0 in. above torus midpoint	4.5 in.	≤5 in. above torus midpoint	Table 3.2.B(25)	1
3.f	HPCI Pump Discharge Flow-Low	≥3.5 in-wc and ≤19.0 in-wc	4.30 in-wc DEC 17.21 in-wc INC	NA		
4.a	ADS Reactor Vessel Water Level-Low Low Low (L1)	≥-160.0 in.	-153.84 in.	≥-160 in.	Table 3.2.B(2)	1
4.b	Drywell Pressure-High	≤2.0 psig	1.925 psig	≤2.0 psig	Table 3.2.B(7)	1
4.c	ADS Initiation Timer	≤115.0 seconds	105 seconds	90 ≤ T ≤ 120 seconds	Table 3.2.B(14)	2, 6
4.d	Reactor Vessel Water Level-Low Low Low (L1)	≥-160.0 in.	-153.84 in.	≥-160 in.	Table 3.2.B(2)	1
4.e	Reactor Vessel Water Confirmatory Level-Low (L4)	≥6.0 in.	6.9 in.	≥6.0 in.	Table 3.2.B(6)	1
4.f	Core Spray Pump Discharge Pressure-High	≥175.0 psig and ≤195.0 psig	185 psig	185 +/- 10 psig	Table 3.2.B(17)	1
4.g	LPCI Pump Discharge-High	≥40.0 psig and ≤60.0 psig	50 psig	50 +/- 10 psig	Table 3.2.B(16)	1
4.h	ADS Low Water Level Actuation Timer	≤9.5 minutes	9 minutes	8 ≤ T ≤ 10 minutes	Table 3.2.B(15)	2, 6

5.a	ADS Reactor Vessel Water Level-Low Low Low (L1)	≥-160.0 in.	-153.84 in.	≥-160 in.	Table 3.2.B(2)	1
5.b	Drywell Pressure-High	≤2.0 psig	1.925 psig	≤2.0 psig	Table 3.2.B(7)	
5.c	ADS Initiation Timer	≤115.0 seconds	105 seconds	90 ≤ T ≤ 120 seconds	Table 3.2.B(14)	2, 6
5.d	Reactor Vessel Water Level-Low Low Low (L1)	≥-160.0 in.	-153.84 in.	≥-160.0 in.	Table 3.2.B(2)	1
5.e	Reactor Vessel Water Confirmatory Level-Low (L4)	≥6.0 in.	6.9 in.	≥6.0 in.	Table 3.2.B(6)	1
5.f	Core Spray Pump Discharge Pressure-High	≥175.0 psig and ≤195.0 psig	185 psig	185 +/- 10 psig	Table 3.2.B(17)	1
5.g	LPCI Pump Discharge-High	≥40.0 psig and ≤60.0 psig	50 psig	50 +/- 10 psig	Table 3.2.B(16)	1
5.h	ADS Low Water Level Actuation Timer	≤9.5 minutes	9 minutes	8 ≤ T ≤ 10 minutes	Table 3.2.B(15)	2, 6
Table 3.3.5.2-1: Reactor Core Isolation Cooling System Instrumentation						
1.	Reactor Vessel Water Level-Low (L2)	≥48.0 in.	-41.78 in.	≥48.0 in.	Table 3.2.B(1)	1
2.	Reactor Vessel Water Level-High (L8)	≤46.0 in	42 in.	≤+45 in.	Table 3.2.B(1)	See item 3.C for Table 3.3.2.1-1
3.	Condensate Storage Tank Level-Low	≥5.25 ft above tank bottom	67.5 in	≥5 ft above tank bottom	Table 3.2.B(26)	2
Table 3.3.6.1-1: Primary Containment Isolation Instrumentation						
1.a	Main Steam Line Isolation Reactor Vessel Water Level-Low Low Low (L1)	≥-160.0 in.	-156.8 in.	≥160 in.	Table 3.2.A(3)	1

1.b	Main Steam Line Pressure-Low	≥850.0 psig	867.5 psig	≥850 psig	Table 3.2.A(6)	1
1.c	Main Steam Line Flow-High	≤123.3 psid	121 psid	≤140% Rated Steam Flow	Table 3.2.A(7)	2
1.d	Main Steam Line-High Radiation	15 x Full Power Background	3 x 10E4 mR/hr.	15 x Normal Full Power Background	Table 3.2.A(5)	1
1.e	Main Steam Tunnel Temperature-High	≤200.0°F	192.5°F	≤200°F	Table 3.2..8)	1
2.a	Primary Containment Isolation Reactor Vessel Water Level-Low(L3)	≥1.0 in.	1.5 in.	≥0 in.	Table 3.2.A(1)	3
2.b	Drywell Pressure-High	≤2.0 psig	1.925 psig	≤2.0 psig	Table 3.2.A(4)	1
2.c	Main Stack Monitor Radiation-High	≤1 x 10E6 cps	5500 cps	≤10E6 Counts/Seconds	Table 3.2.D(3)	1
2.d	Reactor Building Ventilation Exhaust Radiation-High	≤16.0 mR/hr	10 mR/hr	≤16 mR/hr	Table 3.2.D(2)	1
2.e	Refuel Floor Ventilation Exhaust Radiation-High	≤16.0 mR/hr	10 mR/hr	≤16 mR/hr	Table 3.2.D(1)	1
3.a	HPCI Steam Line Flow-High	≤225.0 in-wc	210 in-wc	≤225 in-wc	Table 3.2.A(32)	1
3.b	HPCI Steam Line Flow -Time Delay Relays	≤10.0 seconds	3 seconds	3 +/- 1 second	Table 3.2.A(33)	2, 6, The ITS AV is less conservative than the CTS Trip Level Setting, but is consistent with the analysis requirements documented in GENE report NEDE-24953.
3.c	HPCI Steam Supply Line Pressure-Low	≥60.0 psig	75 psig	100 > P > 50 psig	Table 3.2.A(34)	2, 5
3.d	Drywell Pressure High	≤2.0 psig	1.925 psig	≤2.0 psig	Table 3.2.A(4)	1

3.e	HPCI Compartment and Steam Line Area Temperature High	≤200.0°F	192.5°F	≤200.0°F	Table 3.2.A (35, 36)	1
4.a	RCIC Steam Line Flow-High	≤450.0 in-wc	428.5 in-wc	≤450 in-wc	Table 3.2.A(27)	1
4.b	RCIC Steam Line Flow-Time Delay Relays	≤10.0 seconds	3 seconds	3 +/- 1 second	Table 3.2.A(28)	See item 3.C of Table 3.3.6.1-1.
4.c	RCIC Steam Supply Line Pressure-Low	≥60.0 psig	75 psig	100 > P > 75 psig	Table 3.2.A (31)	2, 5
4.d	Drywell Pressure High	≤2.0 psig	1.925 psig	≤2.0 psig	Table 3.2.A(4)	1
4.e	RCIC Compartment and Steam Line Area Temperature High	≤200.0 °F	192.5°F	≤200.0°F	Table 3.2.A (29, 30)	1
5.a	RWCU Flow-High	≤125% rated flow (23.0 in-wc)	22.00 in-wc (122% Rated Flow)	<300% Rated Flow	Table 3.2.A(10)	2
5.b	SLC System Initiation	NA				
5.c	Reactor Vessel Water Level-Low (L3)	≥1.0 in.	1.5 in.	≥0 in.	Table 3.2.A(1)	3
6.a	Shutdown Cooling System Isolation Reactor Pressure-High	≤70.0 psig	60.5 psig	≤75 psig	Table 3.2.A(2)	2
6.b	Reactor Vessel Water Level-Low (L3)	≥1.0 in.	1.5 in.	≥0 in.	Table 3.2.A(1)	3
7.a	Feedwater Recirculation Isolation Reactor Pressure-High	≤600 psig	592 psig	≤600 psig	Table 3.2.A(12)	1

Table 3.3.6.2-1: Secondary Containment Isolation Instrumentation

1.	Reactor Vessel Water Level-Low (L3)	≥1.0 in.	1.5 in.	≥0 in.	Table 3.2.A(1)	3
2.	Drywell Pressure-High	≤2.0 psig	1.925 psig	≤2.0 psig	Table 3.2.A(4)	1
3.	Reactor Building Ventilation Exhaust Radiation-High	≤16 mR/hr	10 mR/hr	≤16 mR/hr	Table 3.2.D(2)	1
4.	Refuel Floor Ventilation Exhaust Radiation-High	≤16 mR/hr	10 mR/hr	≤16 mR/hr	Table 3.2.D(1)	1
Table 3.3.8.1-1: Loss of Power Instrumentation						
1.	4kV Emergency Bus Undervoltage (loss of Voltage	NA				
2.a	4kV Emergency Bus Undervoltage (Degraded Voltage Low Setting) Undervoltage	≥2288 V ≤2704 V	2496 V	60% +/- 5%	Table 3.2.B(41)	1
2.b	Time Delay	≥1.6 seconds ≤2.0 seconds	1.8 seconds	1.8 +/- 10% seconds	Table 3.2.B(41)	1
3.a	4kV Emergency Bus Undervoltage (Degraded Voltage High Setting) Undervoltage	≥3411 V ≤3827 V	3619 V	87% +/- 5%	Table 3.2.B(44)	1
3.b	Time Delay	≥27.0 seconds ≤33.0 seconds	30 seconds	30 seconds +/- 10%	Table 3.2.B(44)	1
4.a	4kV Emergency Bus Undervoltage (Degraded Voltage LOCA) Undervoltage	≥3691 V ≤3713 V	3702 V	3702 +/- 11 V	Table 3.2.B(43)	1
4.b	Time Delay	≥8.4 seconds ≤9.6 seconds	9 seconds	9 seconds +/- 7%	Table 3.2.B(43)	1

5.a	4kV Emergency Bus Undervoltage (Degraded Voltage Non-LOCA) Undervoltage	≥4065 V ≤4089 V	4077 V	4077 +/- 12 V	Table 3.2.B (42)	1
5.b	Time Delay	≥57.0 seconds ≤63.0 seconds	60 seconds	60 seconds +/- 5%	Table 3.2.B(42)	1

Notes:

1. CTS Level Setting = ITS AV

2. The ITS AV is established by applying instrument setpoint methodology and supports the existing plant trip setting. The existing plant trip setting was set more conservative than the CTS Trip Level Setting. No change to the existing plant trip setting is required as a result of applying instrument setpoint methodology for ITS.

3. The ITS AV is established by applying instrument setpoint methodology. The existing plant trip setting will be revised as part ITS implementation, so that a whole number, rather that a fractional number, can be used for the ITS AV, for ease of operator training.

4. Allowable Values have been relocated to the COLR.

5. There are no design limit or safety analyses assumptions that require an upper Allowable Value to be specified in ITS.

6. There are no design limit or safety analyses assumptions that require a lower Allowable Value to be specified in ITS.