

Table 3.3.5.1-1 (page 1 of 5)  
Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
<b>1. Core Spray System</b>					
a. Reactor Vessel Water Level - Low Low Low, Level 1	1,2,3, 4(a), 5(a)	4(b)	B	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -136 inches
b. Drywell Pressure - High	1,2,3	4(b)	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Reactor Steam Dome Pressure - Low (initiation)	1,2,3 4(a), 5(a)	4	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	407 ≥ 416 psig (lower) ≤ 433 psig (upper)
d. Reactor Steam Dome Pressure - Low (injection permissive)	1,2,3 4(a), 5(a)	4	C	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	407 ≥ 416 psig (lower) ≤ 433 psig (upper)
e. Manual Initiation	1,2,3, 4(a), 5(a)	2 1 per subsystem	C	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	NA
<b>2. Low Pressure Coolant Injection (LPCI) System</b>					
a. Reactor Vessel Water Level - Low Low Low, Level 1	1,2,3, 4(a), 5(a)	4(c)	B	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -136 inches

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407  
≥ 416 psig (lower)  
≤ 433 psig (upper)  
407  
≥ 416 psig (lower)  
≤ 433 psig (upper)  
407  
≥ 416 psig (lower)  
≤ 433 psig (upper)

(continued)

- (a) When associated subsystem(s) are required to be OPERABLE.
- (b) Also required to initiate the associated diesel generator (DG), initiate Drywell Cooling Equipment Trip, and Emergency Service Water (ESW) Pump timer reset.
- (c) Also required to initiate the associated DGs, ESW Pump timer reset and Turbine Building and Reactor Building Chillers trip.

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Table 3.3.5.1-1 (page 2 of 5)  
Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. LPCI System (continued)					
b. Drywell Pressure - High	1,2,3	4(c)	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Reactor Steam Dome Pressure - Low (initiation)	1,2,3 4(a), 5(a)	4	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	407 ≥ 416 psig (lower) ≤ 433 psig (upper)
d. Reactor Steam Dome Pressure - Low (injection permissive)	1,2,3 4(a), 5(a)	4	C	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	407 ≥ 416 psig (lower) ≤ 433 psig (upper)
e. Reactor Steam Dome Pressure - Low (Recirculation Discharge Valve Permissive)	1(d), 2(d), 3(d)	4	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	407 ≥ 416 psig (lower) ≤ 433 psig (upper)
f. Manual Initiation	1,2,3, 4(a), 5(a)	2 1 per subsystem	C	SR 3.3.5.1.5	NA

(continued)

- (a) When associated subsystem(s) are required to be OPERABLE.
- (c) Also required to initiate the associated DGs, ESW pump timer reset and Turbine Building and Reactor Building Chiller trip.
- (d) With either associated recirculation pump discharge or bypass valves open.



ATTACHMENT 4 TO PLA-4992

**NO SIGNIFICANT HAZARDS CONSIDERATIONS**



**NO SIGNIFICANT HAZARDS CONSIDERATIONS AND ENVIRONMENTAL ANALYSIS**  
**REACTOR STEAM DOME PRESSURE-LOW ALLOWABLE VALUE**

**NO SIGNIFICANT HAZARDS CONSIDERATIONS**

Pennsylvania Power and Light Company has evaluated the proposed Technical Specification change in accordance with the criteria specified by 10 CFR 50.92 and has determined that the proposed change does not involve a significant hazards consideration. The criteria and conclusions of our evaluation are presented below.

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

This proposal does not involve an increase in the probability or consequences of an accident previously evaluated. The proposed amendment changes the "Reactor Steam Dome Pressure-Low" Allowable Values so to provide further assurance that the Core Spray and RHR systems will perform their LOCA design basis function.

The functional design basis of the Core Spray and LPCI is to inject water into the reactor vessel to cool the core during a LOCA by opening the Core Spray and LPCI injection valves when reactor pressure drops below the reactor vessel low pressure permissive. The upper analytical limit for the permissive is the Core Spray and LPCI systems' maximum design pressure, and the lower analytical limit is the lowest pressure which allows injection to prevent exceeding the fuel cladding temperature limit. The new allowable values were selected to lie within the upper and lower limits to ensure there will be no change in the required logic or functions of the Core Spray and LPCI systems. These new values do not affect the LOCA or its "limiting fault" frequency of occurrence and do not introduce any new accidents or malfunctions of equipment important to safety. Since they do not affect the LOCA, they do not change the probability of occurrence of the LOCA. The new allowable values do not change the logic or function of the reactor vessel low pressure permissive. These new values simply provide the basis for which the associated pressure instruments are to be set to ensure proper operation of Core Spray and LPCI within the design pressures as described above. Therefore, the change in allowable values does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety.

Based upon the analysis presented above, PP&L concludes that the proposed action does not involve an increase in the probability or consequences of an accident previously evaluated.

2. **The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.**

This proposal does not create the probability of a new or different type of accident from any accident previously evaluated. The new allowable values do not change any plant systems, structures, or components, nor do they change any existing or create any new Core Spray and LPCI logic or functions. The new allowable values were selected to ensure the required operation of the Core Spray and LPCI systems within the design pressures described above.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. **The proposed change does not involve a significant reduction in the margin of safety.**

The change does not involve a reduction in the margin of safety. Technical Specification Bases Section B3.3.5.1 9 (ECCS Instrumentation) identifies that the low reactor steam dome pressure signals are used as permissives for operation of the low pressure ECCS subsystems. The new allowable values were selected so to not impact the logic, redundancy, operability or surveillance requirements for these subsystems. The new allowable values maintain the margin requirements that the Core Spray and LPCI system pressures such that they do not exceed their system maximum design pressures and that system pressures are high enough to ensure that the ECCS injection prevents the fuel peak cladding temperature from exceeding the limits of 10CFR50.46.

The margin of safety is unaffected by the proposed changes.

### **ENVIRONMENTAL ANALYSIS**

An environmental assessment is not required for the proposed change because the requested change conforms to the criteria for actions eligible for categorical exclusion as specified in 10 CFR 51.22(c)(9). The requested change will have no impact on the environment. As discussed above, the proposed change does not involve a significant hazards consideration. The proposed change does not involve a significant change in the types or significant increase in the amounts of effluents that may be released off-site. In addition, the proposed change does not involve a significant increase in the individual or cumulative occupational radiation exposure.





ATTACHMENT 5 TO PLA-4992

**TECHNICAL SPECIFICATIONS "CAMERA READY"**



Table 3.3.5.1-1 (page 1 of 5)  
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<b>1. Core Spray System</b>					
a. Reactor Vessel Water Level - Low Low Low, Level 1	1,2,3, 4(a), 5(a)	4(b)	B	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -136 inches
b. Drywell Pressure - High	1,2,3	4(b)	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Reactor Steam Dome Pressure - Low (initiation)	1,2,3 4(a), 5(a)	4	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 407 psig (lower) ≤ 433 psig (upper)
d. Reactor Steam Dome Pressure - Low (injection permissive)	1,2,3 4(a), 5(a)	4 4	C B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 407 psig (lower) ≤ 433 psig (upper) ≥ 407 psig (lower) ≤ 433 psig (upper)
e. Manual Initiation	1,2,3, 4(a), 5(a)	2 1 per subsystem	C	SR 3.3.5.1.5	NA
<b>2. Low Pressure Coolant Injection (LPCI) System</b>					
a. Reactor Vessel Water Level - Low Low Low, Level 1	1,2,3, 4(a), 5(a)	4(c)	B	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5	≥ -136 inches

(continued)

- (a) When associated subsystem(s) are required to be OPERABLE.
- (b) Also required to initiate the associated diesel generator (DG), initiate Drywell Cooling Equipment Trip, and Emergency Service Water (ESW) Pump timer reset.
- (c) Also required to initiate the associated DGs, ESW Pump timer reset and Turbine Building and Reactor Building Chillers trip.

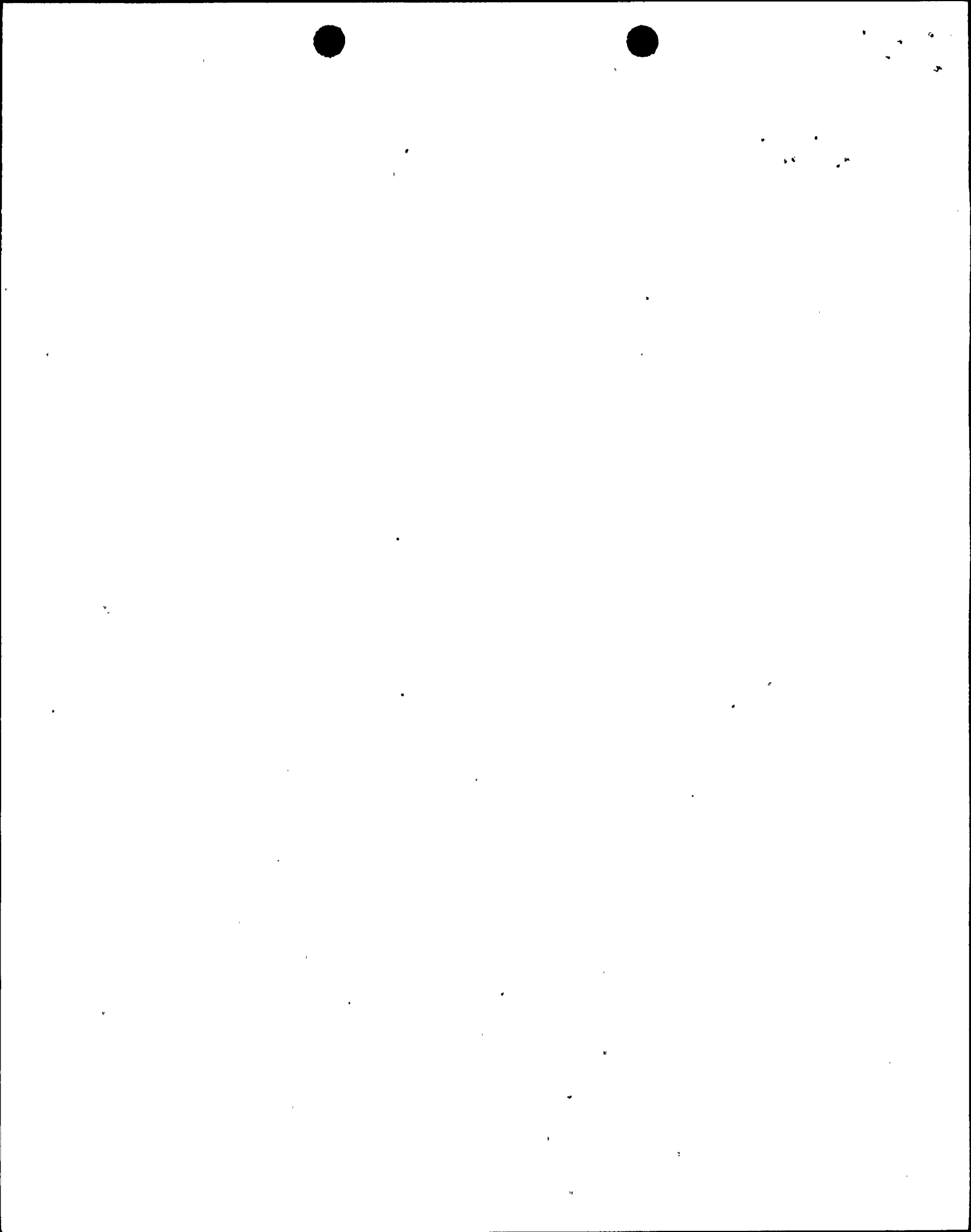


Table 3.3.5.1-1 (page 2 of 5)  
Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. LPCI System (continued)					
b. Drywell Pressure - High	1,2,3	4 <sup>(c)</sup>	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≤ 1.88 psig
c. Reactor Steam Dome Pressure - Low (initiation)	1,2,3 4 <sup>(a)</sup> , 5 <sup>(a)</sup>	4	B	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 407 psig (lower) ≤ 433 psig (upper)
d. Reactor Steam Dome Pressure - Low (injection permissive)	1,2,3 4 <sup>(a)</sup> , 5 <sup>(a)</sup>	4	C	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 407 psig (lower) ≤ 433 psig (upper)
e. Reactor Steam Dome Pressure - Low (Recirculation Discharge Valve Permissive)	1 <sup>(d)</sup> , 2 <sup>(d)</sup> , 3 <sup>(d)</sup>	4	C	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.5	≥ 216 psig
f. Manual Initiation	1,2,3, 4 <sup>(a)</sup> , 5 <sup>(a)</sup>	2 1 per subsystem	C	SR 3.3.5.1.5	NA

(continued)

- (a) When associated subsystem(s) are required to be OPERABLE.
- (c) Also required to initiate the associated DGs, ESW pump timer reset and Turbine Building and Reactor Building Chiller trip.
- (d) With either associated recirculation pump discharge or bypass valves open.

