

ATTACHMENT A  
TECHNICAL SPECIFICATION  
PAGE REVISIONS

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
INDIAN POINT UNIT NO. 2  
DOCKET NO. 50-247  
APRIL, 1993

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- b. If the reactor is subcritical, the reactor coolant system temperature and pressure shall not be increased more than 25°F and 100 psi, respectively, over existing values.
- c. In either case, if the IVSW System is not restored to an operable status within an additional 48 hours, the reactor shall be brought to the cold shutdown condition utilizing normal operating procedures. The shutdown shall start no later than the end of the 48-hour period.

D. WELD CHANNEL AND PENETRATION PRESSURIZATION SYSTEM (WC & PPS)

- 1. The reactor shall not be brought above cold shutdown unless:
  - a. All required portions of the four WC & PPS zones are pressurized at or above 47 psig.
  - b. The uncorrected air consumption for the WC & PPS is less than or equal to 0.2% of the containment volume per day.
- 2. The requirements of 3.3.D.1 may be modified as follows:
  - a. Any one zone of the WC & PPS may be inoperable for a period not to exceed seven consecutive days.
  - b. The uncorrected air consumption for the WC & PPS may be in excess of 0.2% of the containment volume per day for a period not to exceed seven consecutive days.
  - c. With a portion of the weld channel pressurization system inoperable, and it is determined that it is not repairable by any practicable means, then that portion may be disconnected from the system.

3. If the WC & PP System is not restored to an operable status within the time period specified, then:
  - a. If the reactor is critical, it shall be brought to the hot shutdown condition utilizing normal operating procedures. The shutdown shall start no later than at the end of the specified time period.
  - b. If the reactor is subcritical, the reactor coolant system temperature and pressure shall not be increased more than 25°F and 100 psi, respectively, over existing values.
  - c. In either case, if the WC & PP System is not restored to an operable status within an additional 48 hours, the reactor shall be brought to the cold shutdown condition utilizing normal operating procedures. The shutdown shall start no later than the end of the 48-hour period.

E. COMPONENT COOLING SYSTEM

1. The reactor shall not be made critical unless the following conditions are met:
  - a. Three component cooling pumps together with their associated piping and valves are operable.
  - b. Two auxiliary component cooling pumps together with their associated piping and valves are operable.
  - c. Two component cooling heat exchangers together with their associated piping and valves are operable.
2. During power operation, the requirements of 3.3.E.1 may be modified to allow one of the following components to be inoperable at any one time. If the system is not restored to meet the conditions of 3.3.E.1 within the time period specified, the reactor shall be placed in the hot shutdown condition utilizing normal operating procedures. If the requirements of 3.3.E.1 are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition utilizing normal operating procedures.

The seven-day out-of-service period for the Weld Channel and Penetration Pressurization System and the Isolation Valve Seal Water System is allowed because no credit has been taken for operation of these systems in the calculation of offsite accident doses should an accident occur. No other safeguards systems are dependent on operation of these systems<sup>(11)</sup>. The minimum pressure settings for the IVSWS and WC & PPS during operation assures effective performance of these systems and assures that the containment design pressure of 47 psig is not exceeded. Portions of the Weld Channel Pressurization System are in areas that are not accessible, such as below the concrete floor of containment or in high radiation areas. If it is determined that it is not practicable to repair an inoperable portion of the system, then that portion may be disconnected.

#### References

- (1) UFSAR Section 9
- (2) UFSAR Section 6.2
- (3) UFSAR Section 6.2
- (4) UFSAR Section 6.4
- (5) Reference Deleted
- (6) UFSAR Section 9.3
- (7) UFSAR Section 9.3
- (8) UFSAR Section 9.6.1
- (9) UFSAR Section 14.3
- (10) Indian Point Unit No. 2, UFSAR Sections 6.2 and 6.3 and the Safety Evaluation accompanying "Application for Amendment to Operating License" sworn to by Mr. William J. Cahill, Jr. on March 28, 1977.
- (11) UFSAR Sections 6.5 and 6.6
- (12) WCAP-12312, "Safety Evaluation for An Ultimate Heat Sink Temperature to 95°F at Indian Point Unit 2", July, 1989.

ATTACHMENT B  
SAFETY ASSESSMENT  
AND  
BASIS FOR NO SIGNIFICANT HAZARDS DETERMINATION

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**Discussion**

The Weld Channel and Penetration Pressurization System is a unique design feature installed on only a limited number of PWR plants in the U.S. The system is designed to provide added assurance that in the event of an accident, there will be no leakage of fission products from containment through containment liner welds and penetrations, when operated in conjunction with the isolation valve seal water system. Because of the uniqueness of the system and to provide additional defense-in-depth beyond that provided and required for other plants, Indian Point Unit No. 2 does not take credit for the operability of this system to satisfy regulatory requirements of 10 CFR 100 [see pg. 62 AEC Safety Evaluation Report dated November 16, 1970] and 10 CFR 50 Appendix J. Integrated Leak Rate Tests performed in accordance with 10 CFR App. J, are conducted with this system vented to the pressurized containment atmosphere. Thus, liner welds and penetrations are tested for leak tightness and are demonstrated to meet regulatory requirements without this system operable.

**Basis For No Significant Hazards Consideration Determination**

The proposed change does not involve a significant hazards consideration since:

1. There is no significant increase in the probability or consequences of an accident.

The accident analyses in the UFSAR do not rely on the operation of the weld channel pressurization system to demonstrate compliance with 10 CFR 100. In addition the 10 CFR 50 Appendix J Integrated Leak Rate Test is performed with this system vented to the pressurized containment atmosphere in order to show that containment leakage under post-accident conditions is within requirements with no credit available for the weld channel system. Therefore operation with a portion of the system inoperable can have no effect on the probability or consequences of a previously evaluated accident.

2. The possibility of a new or different kind of accident from any previously evaluated has not been created.

As discussed above, since the UFSAR accident analyses and containment leak rate testing are performed with no consideration of the existence of the weld channel system, operation of the plant with a portion of that system inoperable cannot create the possibility of any new accident.

3. There has been no reduction in the margin of safety.

This proposed change does not have any effect on the plant's margin of safety as utilized in evaluations and tests performed to show compliance with the requirements of all applicable regulations.

This proposed change to the Technical Specifications has been reviewed by the Station Nuclear Safety Committee and the Nuclear Facilities Safety Committee.

ATTACHMENT C  
BASIS FOR THE REQUEST

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**Basis for the Request**

At the beginning of the current refueling outage of Indian Point Unit 2, which began at the end of January, 1993, operability requirements of the Weld Channel and Penetration Pressurization System (WCPPS) were satisfied in accordance with Technical Specification 3.3.D. After achieving cold shutdown, the system was taken out of service to permit maintenance activities to be performed on plant components and permit access to containment by removal of the main hatch. Near the end of this outage, in preparation for heatup of the Reactor Coolant System above 200°F, a sensitive leak rate test was initiated to verify that the WCPPS met Technical Specification requirements. The applicable portion of this test was performed on April 3, 1993. The test could not have been conducted earlier because of work being performed on components served by the system.

As the test was progressing, it was noted that the air consumption on two portions of the Weld Channel Pressurization System (W-10 and B-6) had increased. These two portions of the system supply pressurization to welded liner channels located beneath the concrete of the containment floor. Despite the relative inaccessibility of these portions of the system, it was decided on April 6, 1993 to attempt to identify the sources of potential air leakage and effect repairs, if possible. These attempts involved use of a small boroscope and plugging techniques through the system's 1/2 inch pipe & tubing. It was determined that air leaks were in the WCPPS air lines going to the welded channels. The attempts to plug the air leaks were unsuccessful, and actually caused the leakage to increase such that these two portions of the system alone now have air consumption exceeding Technical Specifications limits for the entire system. To effect repairs will require access to the areas below the concrete floor of containment.

Because of equipment located on elevation 46 foot of containment above these areas (cable trays, tanks, steel support column), major equipment relocation could be required before access can be gained to begin concrete excavation. Such actions (equipment relocation and concrete excavation) to effect repairs are not currently practicable consistent with an orderly return of the unit to service following the current refueling outage.

If the WCPSS is not repaired, or relief from Technical Specification requirements is not obtained, then startup of the plant and resumption of operation would be precluded.

In light of the sequence of events described above, Consolidated Edison could neither have reasonably anticipated the events, nor have taken actions in a more timely fashion to request relief. Thus, the conditions needed to satisfy 10 CFR 50.91 (a) (5) exist.