ATTACHMENT A

TECHNICAL SPECIFICATION
PAGE REVISIONS

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NO. 2
DOCKET NO. 50-247
NOVEMBER, 1992

1.2.5 Refueling Operation Condition

Any operation involving movement of core components when the vessel head is completely unbolted.

1.3 OPERABLE-OPERABILITY

A system, subsystem, train, component or device shall be operable or have operability when it is capable of performing its intended safety function(s). Implicit in this definition shall be the assumption that necessary instrumentation, controls, electrical power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its safety function(s) are also capable of performing their related support functions.

A determination of Operability is an administrative check involving examination of appropriate plant records (log, surveillance test records, etc.) to determine that a system, subsystem, train, component or device is operable. Such a determination does not preclude the demonstration of operability by testing of a given system, subsystem, train, component or device if determined necessary or required.

1.4 PROTECTIVE INSTRUMENTATION LOGIC

1.4.1 Analog Channel

An arrangement of components and modules as required to generate a single protective action signal when required by a plant condition. An analog channel loses its identity where single action signals are combined.

1.4.2 Logic Channel

A group of relay contact matrices which operate in response to the analog channels signals to generate a protective action signal.

C. During power operation, the requirements of 3.2.B may be modified to allow any one of the following components to be inoperable. If the system is not restored to meet the requirements of 3.2.B within the time period specified, the reactor shall be placed in the hot shutdown condition utilizing normal operating procedures. If the requirements of 3.2.B are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition utilizing normal operating procedures.

1. One of the two operable charging pumps may be removed from service provided a second charging pump is restored to operable status within 24 hours.

2. The boric acid storage system (including the boric acid transfer pumps) may be inoperable provided the RWST is operable and provided that the boric acid storage system and at least one boric acid transfer pump is restored to operable status within 48 hours.

3. One channel of heat tracing for the flow path from the boric acid storage system to the Reactor Coolant System may be out of service provided the failed channel is restored to an operable status within 7 days and the redundant channel is operable during that period.

4. Both channels of heat tracing for the flow path from the boric acid storage system to the Reactor Coolant System may be out of service provided at least one channel is restored to operable status within 48 hours, the required flow path is shown to be clear of blockage, and the second channel is restored to operable status within 7 days.

D. When RCS temperature is less than or equal to 305°F, the requirements of Table 3.1.A-2 regarding the number of charging pumps allowed to be energized shall be adhered to.

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.A.1 are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition utilizing normal operating procedures.

a. One safety injection pump may be out of service, provided the pump is restored to operable status within 24 hours and the remaining two pumps are operable.

b. One residual heat removal pump may be out of service, provided the pump is restored to operable status within 24 hours and the other residual heat removal pump is operable.

c. One residual heat removal heat exchanger may be out of service provided that it is restored to operable status within 48 hours.

d. Any valve required for the functioning of the system during and following accident conditions may be inoperable provided that it is restored to operable status within 24 hours and all valves in the system that provide the duplicate function are operable.

e. Deleted

f. One refueling water storage tank low-level alarm may be inoperable for up to 7 days provided the other low-level alarm is operable.

3. When RCS temperature is less than or equal to 305°F, the requirements of Table 3.1.A-2 regarding the number of safety injection (SI) pumps allowed to be energized shall be adhered to.

d. The spray additive tank and its associated piping, valves and eductors may be inoperable during normal reactor operation for a period not to exceed 72 hours provided both containment spray pumps and the five fan cooler units are operable.

C. ISOLATION VALVE SEAL WATER SYSTEM (IVSWS)

1. The reactor shall not be brought above cold shutdown unless the following requirements are met:

   a. The IVSWS shall be operable.

   b. The IVSW tank shall be maintained at a minimum pressure of 52 psig and contain a minimum of 144 gallons of water.

2. The requirements of 3.3.C.1 may be modified to allow any one of the following components to be inoperable at any one time:

   a. Any one header of the IVSWS may be inoperable for a period not to exceed seven consecutive days.

   b. Any valve required for the functioning of the system during and following accident conditions may be inoperable provided it is restored to an operable status within seven days and all valves in the system that provide a duplicate function are operable.

3. If the IVSWS 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 not later than at the end of the specified time period.

a. One of the three operable component cooling pumps may be out of service provided the pump is restored to operable status within 14 days.

b. An additional component cooling pump may be out of service provided a second pump is restored to operable status within 24 hours.

c. One auxiliary component cooling pump may be out of service provided the pump is restored to operable status within 24 hours and the other pump is operable.

d. One component cooling heat exchanger or other passive component may be out of service for a period not to exceed 48 hours provided the system may still operate at design accident capability.

F. SERVICE WATER SYSTEM

1. DESIGNATED ESSENTIAL HEADER

a. The reactor shall not be above 350°F unless three service water pumps with their associated piping and valves are operable on the designated essential header.

b. When the reactor is above 350°F and one of the three service water pumps or any of its associated piping or valves is found inoperable, and an essential service water header that meets the requirements of 3.3.F.1.a. cannot be restored within 12 hours, the reactor shall be placed in the hot shutdown condition within the next 6 hours and subsequently cooled below 350°F using normal operating procedures.

2. DESIGNATED NON-ESSENTIAL HEADER

a. The reactor shall not be above 350°F unless two service water pumps with their associated piping and valves are operable on the designated non-essential header.

B. During power operation, the following components may be inoperable:

1. Power operation may continue for seven days if one diesel is inoperable provided the 138 kV and the 13.8 kV sources of offsite power are available and the remaining diesel generators and the engineered safety features associated with these diesel generator buses are operable. If the diesel generator became inoperable due to any cause other than planned maintenance or testing, the remaining diesel generators shall be tested to ensure operability.

2. Power operation may continue for 24 hours, if the 138 kV or the 13.8 kV source of power is lost, provided the three diesel generators are operable. This operation may be extended beyond 24 hours provided the failure is reported to the NRC within the subsequent 24-hour period with an outline of the plans for restoration of offsite power.

3. If the 138 kV power source is lost, in addition to satisfying the requirements of Specification 3.7.B.2 above, the 6.9 kV bus tie breaker control switches 1-5, 2-5, 3-6, and 4-6 in the CCR shall be placed in the "pull-out" position and tagged to prevent an automatic transfer of the 6.9 kV buses 1, 2, 3 and 4.

4. One battery may be inoperable for 24 hours provided the other batteries and four battery chargers remain operable with one battery charger carrying the dc load of the failed battery's supply system.

5. One battery charger may be inoperable for 24 hours provided the following conditions are satisfied:

   a. The other three battery chargers and their associated batteries are operable; and

   b. The affected battery shall have the Specification 4.6.C.1 surveillance initiated within one hour of the time the battery charger is determined to be inoperable and the surveillance shall be repeated every eight hours thereafter to determine battery

operation of two diesels for at least one hundred and twelve hours at the minimum load for engineered safeguards. Commercial oil supplies and trucking facilities exist to assure deliveries within one day's notice.

If a diesel generator is out of service due to planned maintenance or testing, testing of the remaining diesel generators is not required. In this case, testing is not required because a planned emergency diesel generator maintenance or testing outage does not directly affect the availability or reliability of the remaining emergency diesel generators and is not indicative of a potential failure in the remaining emergency diesel generators.

One battery charger shall be in service on each battery so that the batteries will always be at full charge in anticipation of a loss-of-ac power incident. This ensures that adequate dc power will be available for starting the emergency diesel generators and other emergency uses.

The plant can be safely shut down without the use of offsite power since all vital loads (safety systems, instruments, etc.) can be supplied from the emergency diesel generators.

Any two of three diesel generators, the station auxiliary transformer or the separate 13.8 to 6.9 kV transformer are each capable of supplying the minimum safeguards loads and therefore provide separate sources of power immediately available for operation of these loads. Thus, the power supply system meets the single failure criteria required of the safety systems.

Three (3) gas turbine generators are directly available to the Indian Point site. One is located onsite (GT-1) and two additional units are located at the adjacent Buchanan Substation (GT-2 and GT-3). One gas turbine generator is more than adequate to provide an additional contingency of backup electrical power for maintaining the plant in a safe shutdown condition. The specified gas turbine generator minimum fuel inventory of 54,200 gallons assures that one gas turbine generator will be capable of supplying more than the maximum electrical load for the Indian Point Unit No. 2 alternate safe shutdown power supply system (i.e., 750 kW) for at least three (3) days. Commercial oil supplies and trucking facilities exist to assure deliveries of additional fuel oil within one day's notice.

ATTACHMENT B

SAFETY ASSESSMENT FOR ALTERNATE TRAIN TESTING REQUIREMENTS

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NO. 2
DOCKET NO. 50-247
NOVEMBER, 1992

DESCRIPTION OF CHANGE

The specific proposed changes set forth in Attachment A to our application seek to revise definitions 1.3, Section 3.2, 3.3 and 3.7 of Appendix A of the Operating License. The proposed changes to Section 3.2 and 3.3. reflect the current NRC staff position regarding testing of the alternate train(s) of a safety system when one train of the safety system is inoperable. The proposed changes to section 3.7 allow an emergency diesel generator (EDG) to be out of service for preplanned preventative maintenance or testing without requiring special testing of the remaining emergency diesel generators. The changes to section 3.7 will make Indian Point Unit No. 2 alternate diesel generator testing requirements consistent with the Standard Technical Specification. Additionally, the Technical Specification basis is being revised to reflect the above changes and definition 1.3 is also being supplemented to reflect the actions required to determine operability.

Currently, the Indian Point Unit No. 2 Technical Specifications require certain alternate train(s) of safety equipment to be tested when one train of the equipment is inoperable. This was based on a earlier NRC staff position which has since been superseded. The original intent of the Technical Specification requirement was to provide positive demonstration that a loss of safety function had not occurred. Industry operating experience has demonstrated that multiple testing of these systems, when one system is inoperable, is not necessary to provide adequate assurance of system operability and would more likely increase the probability of equipment failure due to unnecessary wear on the equipment. Accordingly, Con Edison proposes to delete these alternate train testing requirements.

Specifically, the alternate train testing requirements implied in Technical Specification 3.2.C.3, 3.3.A.2.a, 3.3.A.2.b, 3.3.A.2.d, 3.3.C.2.b, and 3.3.E.2.c will be deleted. Based on our current Technical Specification requirements, in order to perform the required tests the specified alternate safety equipment must be taken out of service in most instances, creating an unnecessary challenge to a safety system as well as a potential operating limitation in a scenario where minimum safeguards function is challenged. Since the operability of the alternate safety equipment is demonstrated by the performance of their required periodic tests, any added assurance provided by an additional special test is not justified by the loss of safety function which occurs during performance of the additional test. Since the deletion of additional testing requirements will allow alternate safety equipment to remain in service while the inoperable train is being repaired, the deletion of the special testing requirements will allow for improved availability of the alternate safety equipment. The bases of Technical Specification Section 3.3 have also been updated to reflect the above proposed changes.

In regards to the emergency diesel generator, Con Edison proposes to modify the requirement of 3.7.B.1 so that testing of the remaining EDGs will not be required if the inoperable EDG was taken out of service for the purpose of performing planned maintenance or testing. The requirement to test the two remaining EDGs when one EDG is inoperable for reasons other than planned maintenance will remain. This change will make the Indian Point Unit No. 2 alternate EDG testing requirements consistent with those included in the Standard Technical Specifications.

Industry experience has also revealed that excessive testing adversely impacts EDG reliability. In NRC Generic Letter 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," the NRC concluded that excessive testing of EDGs results in a degradations of the diesel engines. In this Generic Letter, the NRC stated that additional testing of the EDGs during periods when emergency core cooling systems (ECCS) were inoperable could be eliminated because the inoperability of the ECCS component does not directly affect the availability and reliability of the EDG. Likewise, a planned emergency diesel generator maintenance or testing outage does not directly affect the availability and reliability of the remaining EDGs and is not indicative of a potential failure in the remaining EDGs. Since excessive testing has been found to result in a degradation to EDGs, the benefit of performing the additional special tests is also not sufficient to justify the adverse effects.

Accordingly, the proposed changes to Technical Specification 3.7.B.1 will enhance EDG reliability and availability by reducing the number of unnecessary challenges to the emergency AC system and accepting system operability based on satisfactory performance of their required periodic tests.

The associated basis section of Technical Specification 3.7 have been updated to reflect the above proposed changes.

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 proposed changes to the technical specification sections delineated above seek to remove an unnecessary requirement to demonstrate operability of redundant equipment if one of the trains becomes inoperable, and in the case of the EDGs only when the inoperability is due to planned maintenance and testing. The current technical specifications contain requirements beyond those necessary to adequately demonstrate system operability. As noted previously, existing periodic testing requirements not impacted by this effort provide adequate assurance that remaining redundant systems are operable and capable of fulfilling their respective design functions. Further, for ESF systems, the current opposite train testing requirements create unnecessary operating limitations in a scenario where both trains are declared inoperable (i.e., one due to failure and the other due to surveillance testing). The proposed amendment will serve to ensure that a train of safety equipment is always available to perform upon demand. It will enhance this capability by reducing the probability of equipment failure because of a lower number of demands for performance.

The proposed changes to the Technical Specification for the EDGs offer similar benefits. Excessive testing has been found to result in a degradation of the EDGs. As noted previously a scheduled EDG maintenance or testing neither affects the remaining EDGs reliability and availability nor is it indicative of a potential failure in the remaining EDGs. The benefit of a positive demonstration that a loss of safety function had not occurred by performing a special test is therefore not sufficient to justify the potential adverse consequences.

For the proposed changes, demonstration of operability for the redundant systems or components is an administrative check that will assure their availability. The proposed amendment will therefore not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   As noted above, the proposed amendment will enhance the availability and reliability of the systems/components impacted. It reduces unnecessary challenges to safety systems/components and will not adversely affect their ability to perform as designed. As the proposed amendment will not adversely impact the design bases of the systems/components, the possibility of a new or different kind of accident from any previously evaluated will not be created.

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

   The proposed amendment will preserve the Technical Specification requirements of the system/components impacted while reducing the unnecessary challenges to a safety system/component. The changes proposed for the EDGs are consistent with the Standard Technical Specification requirements. The proposed changes will enhance equipment reliability and availability and eliminates a potential for a loss of safety function. Consequently no significant reduction in the margin of safety for any system/component is involved.

Conclusions

The foregoing analysis demonstrates that the proposed amendment to the Indian Point 2 Technical Specifications does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of a new or different kind of accident and does not involve a significant reduction in a margin of safety. Therefore, Con Edison concludes that the proposed amendment does not involve a significant hazards consideration.