1.8 Quadrant Power Tilt Ratio

The quadrant power tilt ratio shall be the ratio of the maximum upper excore detector calibrated output to the average of the upper detector calibrated outputs, or the ratio of the maximum lower excore detector calibrated output to the average of the lower excore detector calibrated outputs, whichever is greater. With one excore detector inoperable, the remaining three detectors shall be used for computing the average.

1.9 Surveillance Intervals

Unless otherwise noted in an individual surveillance requirement, surveillance intervals shall be as specified in Table 1-1 with extensions as provided in 1.10 below. The extensions provided in 1.10 below also apply to surveillance intervals not listed in Table 1-1 unless the extensions are specifically not allowed.

1.10 Surveillance Interval Maximums

Each Surveillance Requirement shall be performed within the specified time interval with:

a. A maximum allowable extension not to exceed 25% of the surveillance interval, and

A total maximum combined interval time for any 3 consecutive surveillance intervals not to exceed 3.25 times the specified surveillance interval.*

1.11 PRESSURE BOUNDARY LEAKAGE

PRESSURE BOUNDARY LEAKAGE shall be leakage (except steam generator tube leakage) through a non-isolatable fault in a Reactor Coolant System component body, pipe wall or vessel wall.

1.12 IDENTIFIED LEAKAGE

IDENTIFIED LEAKAGE SHALL BE:

a. Reactor coolant system leakage into closed systems such as pump seal or valve packing leaks that are captured and conducted to a collecting tank, or

b. Reactor coolant system leakage through a steam generator to the secondary system, or

c. Reactor coolant system leakage through the RCS/RHR pressure isolation valves, or

* There shall be an exemption for surveillance requirements listed in Table 1 of the letter from Murray Selman to Document Control Desk dated May 29, 1987. The 3.25 maximum combined interval may be extended to permit tests and calibrations to be performed prior to startup from the Cycle 8/9 refueling outage.

Amendment No. 1-4
ATTACHMENT B

Safety Assessment

Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2
Docket No. 50-247
May, 1987
Safety Assessment

Description of Change:

The Technical Specifications (TSs) require a number of surveillance tests to be performed about once every 18 months during a refueling outage. The TSs also include a provision which permits any surveillance interval to be extended by 25% of the nominal interval (18 months), provided that the total time interval does not exceed 3.25 times the specified surveillance interval over three consecutive surveillance intervals. During the last three (3) consecutive fuel cycles Indian Point Unit No. 2 (IP-2) incurred extended outages due to unplanned events and long fuel cycles because of occasional reactor shutdowns and extended low power operation. The cumulative result of these events is that the time for performing certain surveillance tests, which are normally performed at 18 month intervals during a refueling outage, becomes due before the next scheduled refueling outage because of the 3.25 interval limit. Therefore, it has become necessary to request an extension to the 3.25 maximum combined surveillance interval limit for those surveillance requirements listed in Table 1 attached to the forwarding letter for this application. This extension will allow the listed surveillance requirements to be performed during the next refueling outage presently scheduled to commence on November 1, 1987. Furthermore, it would prevent a plant shutdown and cycling solely to perform the surveillance tests and avoid placing the plant in operational risk which could result in a greater potential for a unit trip, thus, providing added assurance of continuous operation of Indian Point Unit No. 2 for the duration of the present fuel cycle and minimizing the cost of replacement power and the ultimate cost to the consumer.

The proposed change temporarily revises Technical Specification Section 1.10.a by adding a footnote which reads: "There shall be an exemption for surveillance requirements listed in Table 1 of the letter from Murray Selman to NRC dated May 29, 1987. The 3.25 maximum combined interval may be extended to permit tests and calibrations to be performed prior to startup from the Cycle 8/9 refueling outage."

Safety Evaluation:

According to the NRC guidance contained in Generic Letter 83-27 entitled "Surveillance Intervals in Standard Technical Specifications," the 18 month surveillance interval is based on reactor operating experience and recognition of reactors utilizing 18 month fuel cycles. The basis for the provision which allows any surveillance interval to be extended by 25% (provided the total time interval does not exceed 3.25 times the surveillance interval over any three consecutive intervals) is to provide the necessary operational flexibility which may be required due to scheduling and operational performance considerations. Also, as indicated in Generic Letter 83-27, NRC recognizes that exceptions to the Technical Specifications surveillance interval requirements would occasionally be appropriate and would be granted in those instances where adequate justification was given. As mentioned above, the proposed change will extend
certain tests to the next refueling outage beginning November 1, 1987 rather than shutdown the plant or place the plant or personnel in a less safe condition. The latter concerns those tests that can be performed with the plant on-line with some operational risk. The concern here is to avoid the risk of unwarranted reactor trips and plant transients if we attempt to perform some tests at power with new or revised procedures. ALARA concerns are also weighed against the relatively short period of extension requested by this application. For these reasons, an extension to the maximum intervals has become necessary to prevent an unnecessary plant shutdown or avoid placing the plant in an operational risk requiring plant shutdown. The safety significance attendant to this proposed change is associated with extending the tests for a maximum of two months and the confidence that the affected components or systems will continue to perform their intended function during the period where the tests will be deferred.

All surveillance items listed in Table 1 will become due prior to the outage solely because of the requirements of the 3.25 maximum combined surveillance limit. Therefore, if the proposed technical specification change were to go into effect and the subject surveillance tests performed during the next refueling outage, in all cases the tests would be performed within the NRC allowable existing permissible technical specification interval between any two tests, i.e., 18 months + 25%. The results of previous surveillance tests were evaluated for the purpose of determining if there was any reason to expect significant safety-related component failures during the extension period. The result of that evaluation indicates that there is no reason to expect significant safety-related component failures during the extended surveillance intervals. The evaluation considered the potential impact that prior tests failures would have on the licensing basis of IP-2 and concluded that due to the redundancy and diversity of the reactor protection system and engineered safety features actuation system, there is no significant reduction in the overall reliability of IP-2 protection systems associated with the extension of the surveillance interval. Thus for all of the tests, assurance that the quality of the component and its ability to perform will be maintained during the extension period is at least equivalent to that level currently provided by the technical specification for a maximum surveillance interval (i.e., 18 months + 25%).

The earliest time for performing surveillance tests is September 5, 1987. The next refueling and maintenance outage is currently scheduled for November 1, 1987. Therefore, the maximum extension for any single surveillance item listed in Table 1 is for a period of less than two (2) months in 58.5 months (3.25 times the nominal 18 month surveillance interval). This represents an extension of 3% with regard to the 3.25 surveillance interval limit.
In summary, the above considerations indicate that the interval extension is of a short duration and within the single allowable interval limit; previous test results do not indicate any safety concerns; and conducting some of the tests at power could result in a greater potential for a unit trip. Hence, it is concluded that the requested extension of the surveillance limits is justified and does not involve a significant reduction in a margin of safety and will not compromise the health and safety of the public.

Basis For No Significant Hazards Consideration Determination:

The Commission has provided guidance concerning the application of the standards for determining whether a significant hazards consideration exists by providing certain examples (48 FR 14870). Example (vi) of those involving no significant hazards considerations discusses a change which may reduce a safety margin but where the results are clearly within all acceptable criteria with respect to the system or component. The proposed change to extend the surveillance interval limits is in a less restrictive direction and would appear to reduce a safety margin. However, consistent with the Commission's criteria in 10 CFR 50.92, we have determined that the proposed change does not involve a significant hazards consideration because the operation of Indian Point Unit No. 2 in accordance with this change would not:

1. involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed surveillance interval extension does not involve any physical change in plant equipment and would not affect the capability of the current instrumentation and components, as they exist at IP2, to perform their intended functions and, as such has no effect on the cause mechanism or the consequences of an accident. Therefore, this change will not increase the probability or consequences of an accident,

2. create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change only extends for certain tests the maximum surveillance interval limits for a short duration and has little effect on system operation and safety. Since it introduces no physical modification to the plant nor does it affect how the plant is operated, it could not create the possibility of a new or different kind of accident.

3. involve a significant reduction in a margin of safety, since our review and evaluation of the surveillance tests, including
consideration of any failure history, concluded that the quality of components and their ability to perform will be maintained during the extension interval. Therefore, the operation of IP-2 with the proposed change will not involve a significant reduction in a margin of safety.

Therefore, based on the above considerations, we conclude that the proposed change does not constitute a significant hazards consideration.

The proposed changes have been reviewed by the Station Nuclear Safety Committee and the Consolidated Edison Nuclear Facilities Safety Committee. Both committees concur that these changes do not represent a significant hazards consideration.