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October 29, 1996

Re: Indian Point Unit No. 2  
Docket No. 50-247

Document Control Desk  
US Nuclear Regulatory Commission  
Mail Station P1-137  
Washington DC 20555

SUBJECT: Relief Request No. 3, Revision 1, for the Third Ten-Year  
Interval ISI Program (TAC No. M88559)

By letter dated January 24, 1994, Con Edison submitted the Inservice Inspection (ISI) Program summary for the third ten-year interval. Requests for relief were included in accordance with 10 CFR 50.55a(a)(3) and (g)(6) and Technical Specification 4.2.2.

In response to a March 14, 1996 telephone conference with the NRC, Con Edison hereby submits Revision 1 to Relief Request No. 3, with the basis amended to indicate that our proposed weld reference system would provide an acceptable level of quality and safety.

Should you have any questions regarding this matter, please contact Mr. Charles W. Jackson, Manager, Nuclear Safety and Licensing.

Very truly yours,

*John McQuay*  
for Steve Quinn

Enclosure

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ENCLOSURE 1

**RELIEF REQUEST NO. 3, REVISION 1  
FOR THE  
THIRD TEN-YEAR INSERVICE INSPECTION PROGRAM**

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
INDIAN POINT UNIT NO. 2  
DOCKET NO. 50-247  
OCTOBER 1996

**RELIEF REQUEST NO. 3, REVISION 1**  
(Page 1 of 3)

COMPONENT IDENTIFICATION

Code Class: 1 and 2  
References: IWA-2600  
Description: Weld Reference System

CODE REQUIREMENTS

Subarticle IWA-2600 - requires the establishment of a weld reference system for all welds and areas subject to surface or volumetric examination. Each such weld and area shall be located and identified by a system of reference points. Marking is not specifically indicated.

Appendix III, Subarticle III-4320 - requires the identification of examination areas. Weld identification and location shall be shown on a weld identification plan. Welds shall be marked once before or during the preservice examination to establish a reference point.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(a)(3)(I), relief is requested on the basis that the proposed alternative would provide an acceptable level of quality and safety.

The above current code requirements include the establishment of a weld reference system which includes the initial marking of weld joints. At the time of construction of Indian Point No. 2, the application of a reference system which included the marking of welds before or during the preservice examination was not required by the code and, accordingly, welds were not marked.

A reference system for controlling the selection and documentation of datum points has been in effect since the preservice inspections of the early 1970's. The datums and conventions established at that time have been retained to promote consistency in the recording of data. The general conventions used at Indian Point No. 2 for establishing weld reference datum points are documented in ISI program implementing procedures and include:

- o Reference system for pipe:
  - the datum point for a circumferential weld on a horizontal pipe is the intersection of the top centerline of the pipe and the weld centerline.

**RELIEF REQUEST NO. 3, REVISION 1**

(Page 2 of 3)

Dimensions are taken in a clockwise direction when viewing along the direction of system flow, which is marked on the line isometric drawing.

- the datum point for a circumferential weld on a vertical pipe is the intersection of the weld centerline and the centerline through the outside (extrodos) of the elbow or bend that is in the direction of the lower weld number.
- the datum for a longitudinal weld is the weld center line and the intersecting circumferential weld.
- o Reference system for vessels:
  - the datum for circumferential welds is the intersection of the weld centerline and the centerline of the adjacent longitudinal weld. Dimensions are taken in a clockwise direction when viewed from the top.
  - where there is no intersecting weld, the datum point is drawn from an existing structural point (i.e.; the center line of hot leg manway). This is identified on the data sheet for the weld examination.
  - the datum for longitudinal welds is the intersection of the weld centerline and the centerline of the intersecting upper circumferential weld.

The weld reference system currently used at Indian Point No. 2 has performed satisfactorily for the first twenty years of operation. During this time only one vessel has been stamped to mark the position of a indication. In all other cases, the location of indications could be positively identified using the conventions identified above. Therefore, we believe that the marking of welds joints is unnecessary.

Marking of the vessels and piping at this time, which is long after the preservice examination, to comply with current code requirements, which apply to marking before or during the preservice examination, could potentially create problems with the examination techniques and in the interpretation of the results. In general, the requirements of Appendix III, subarticle III-4320 to mark on the weld centerline to a depth of 0.046 inches and to have a surface finish suitable for ultrasonic or penetrant examination conflict with each other. Marking in the area to be examined will increase the difficulty in coupling the transducer for ultrasonic examination and may result in false indications during penetrant examinations which could mask unacceptable indications. Further, there is the potential of making an error in marking weld joints already inspected so as

**RELIEF REQUEST NO. 3, REVISION 1**  
(Page 3 of 3)

to conflict with the inspection documentation. Marking also introduces the potential for causing localized surface damage on components. These potential problems are eliminated with the proposed alternate weld reference system.

**PROPOSED ALTERNATE EXAMINATIONS**

The weld reference system described above shall be used for locating welds on existing piping and components and new installations.

Datum reference markings will be established in the event that recordable indications are to be reported. Such datum points shall either be marked on the component or have their locations adequately described in the inspection documentation so that subsequent relocation can be achieved.

The method proposed for the identification of indication locations is identical to the one employed at Indian Point No. 2 during the first and second inspection intervals. This method was previously evaluated and approved by the NRC in the Inservice Inspection Programs for the first and second intervals.

**PERIOD FOR WHICH THE RELIEF IS REQUESTED**

Relief is requested for the third inspection interval, July 1, 1994 through June 30, 2004.

**JUSTIFICATION FOR RELIEF**

Since the alternative method proposed provides an acceptable level of quality and safety, as demonstrated in the first two inspection intervals, and will continue to be as effective at locating previous indications as that required by the code, there will be no change in the level of plant quality and safety by granting this request.