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8E.100c

September 20, 1996

Docket No. 50-461

Document Control Desk  
Nuclear Regulatory Commission  
Washington, D.C. 20555

10CFR50.55a

Subject: Revision of ASME Section XI Relief  
Request for Clinton Power Station

Dear Madam or Sir:

By letter dated June 5, 1996 [Illinois Power (IP) letter U-602566], IP submitted several requests for relief from the requirements of Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, 1980 Edition through Winter 1981 Addenda, with regard to the performance of non-destructive examination of welds and components for the first 120-month inservice inspection interval for Clinton Power Station (CPS). One of the relief requests, No. 4008, was a request to allow a reduction in the required surface examination area for certain welds associated with integral attachments on piping in the Main Steam and Reactor Recirculation system (Code Class 1, Category B-K-1, Item B10.10), and to permit use of ASME Section XI Code Case N-509 which would allow a sample of attachment welds to be examined in lieu of examining all of the welds for shock suppressor lugs attached to the bowls of the CPS "A" and "B" Reactor Recirculation pumps (Code Class 1, Category B-K-1, Item B10.20).

Currently, the NRC staff is completing its review of the relief requests submitted via IP letter U-602566, including Relief Request No. 4008. This relief request was recently discussed, in particular, via a telephone conference conducted on September 13, 1996. Based on that discussion, IP has determined that the relief request should be revised with respect to that part of the request addressing surface examination of the shock suppressor lug welds on the Reactor Recirculation pumps at CPS. Specifically, IP is removing all references within the relief request to ASME Section XI Code Case N-509. IP believes that sufficient justification can be provided to request relief from performing examinations of the shock suppressor lug welds for RR Pump B without requesting approval to utilize the Code Case. Further, discussion with the NRC staff has

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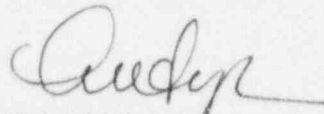
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confirmed that it is not appropriate to request use of Code Case N-509 for a specific type or limited number of components because the Code Case is intended to apply sample selection criteria to an overall examination schedule for Class 1, 2 and 3 components, at a program level.

Revised Relief Request No. 4008 is accordingly attached. The relief request has been revised as described above and to include additional information relative to justification for the requested relief from examination of the RR Pump B lug welds. It is anticipated that this revision will facilitate the NRC staff's review and approval of Relief Request No. 4008 in the near future, consistent with IP's intent to receive approved relief in time to support the forthcoming refueling outage at CPS (scheduled to begin October 13, 1996).

Sincerely yours,



Michael W. Lyon  
Director-Licensing

TBE/csm

Attachment

cc: NRC Clinton Licensing Project Manager  
NRC Resident Office, V-690  
Regional Administrator, Region III, USNRC  
Illinois Department of Nuclear Safety

ILLINOIS POWER COMPANY  
Clinton Power Station

ASME Section XI Relief Request

RELIEF REQUEST 4008 (Revision 0)

SYSTEM/ COMPONENT(s) FOR WHICH RELIEF  
IS REQUESTED

Examination Category B-K-1, Items B10.10 and B10.20 (integral attachments for piping and pumps, respectively), Code Class 1: (1) Piping Attachments/Lugs: Weld Numbers 1-MS-A-7PR-WA, 1-MS-B-8-PR-WA, 1-MS-C-8-PR-WA and 1-MS-D-7-PR-WA (for Main Steam system (MS) guide supports), and 1RR-A-PR-1-WA (for Reactor Recirculation system (RR) variable support); (2) Pump Attachments/Lugs: (Unnumbered) Welds for shock suppressor lugs attached to Reactor Recirculation Pump B bowl.

CODE REQUIREMENT

ASME Section XI, 1980 Edition through Winter 1981 Addenda, requires surface examination of welds for integral attachments during the first ten-year interval.

CODE REQUIREMENT FROM WHICH RELIEF IS  
REQUESTED

Relief for Item B10.10 is requested from performing a full surface examination of the identified welds for the MS and RR piping attachments/lugs as access to each of the examination areas is restricted due to the associated component supports. For Item B10.20, relief is requested from performing surface examination of any of the shock suppressor lug welds for RR Pump B.

BASIS FOR RELIEF

For Item B10.10: Performing the required surface examination of the entire examination area for each of the welds associated with integral attachments or lugs on each of the main steam lines and on the RR Loop "A" suction line requires the removal/disassembly of four guide supports (one for each steam line) and one variable support (for the RR loop "A" suction line) in order to gain access to the required examination areas. For Item B10.20: In order to perform the required surface examination of the shock suppressor lugs on Reactor Recirculation Pump B the entire insulation surrounding the pump bowl, which is located in a high radiation area, would have to be removed.

ALTERNATE EXAMINATIONS

For Item B10.10: Perform a surface examination of each of the weld areas to the maximum extent feasible without removal or disassembly of the associated component supports. Table 1 identifies the examination coverage feasible based on examinations that have been completed to date and on what is projected to be done for the remaining welds to be examined in the next scheduled refueling outage. For Item B10.20: Perform a surface examination of at least 50% of the total number of shock suppressor lug welds for RR pumps A and B.

JUSTIFICATION FOR THE GRANTING OF  
RELIEF

For Item B10.10 - Main steam line attachments: Based on the size, design and installation of the Main Steam guide supports, disassembly and reassembly of these guide supports (one for each steam line) would be a complicated and tedious process, involving a difficult procedure to implement. (A drawing of one of the main steamline guide supports is attached as Figure 1.) Further, although none of the guide supports were removed for any of the attachment weld examinations performed to date for the main steam lines, based on the previous disassembly of a similar guide support in another system, Illinois Power Company (IP) believes that completion of the process would require replacing

the Lubron plates for the supports, which are difficult to procure. The intent of the ASME Section XI examination is to provide assurance of structural integrity rather than require disassembly and reassembly of properly functioning components/supports, possibly adversely affecting their operability. Disassembly of a properly functioning guide support is thus not judged to be prudent. In addition, due to the extensive effort required, disassembly and reassembly of the main steam line guide supports would likely extend the duration of the outage and result in unnecessary radiation exposure.

For Item B10.10 - Reactor recirculation piping attachment: The variable support for the associated Reactor Recirculation system pipe is a load-carrying support. In order to remove this support, a temporary support would be required to be installed. The variable support is located 13 feet above the floor elevation and is in a high radiation area. Several man-hours would have to be expended to erect scaffolding, remove insulation, install a temporary support and transfer the piping load prior to removing the variable support. Further effort would then be required for system restoration. The total dose that would be incurred is estimated to be five (5) man-rem. Examining 65 percent of the weld area (to facilitate examination of the obstructed weld area for the attachment/lug on the associated reactor recirculation line) should be sufficient to establish the integrity of the lug weld without significantly reducing the safety margin provided by such verification.

For Item B10.20 - Shock suppresser lugs on RR Pump B: IP has performed examination of all the welded attachments on RR Pump A (which is essentially identical to RR Pump B). This is equivalent to 50% of the total number of welded attachments on both RR pumps (A and B). In order to perform the required surface examination of the shock suppressor lugs on RR Pump B the entire insulation surrounding the pump bowl would have to be removed and reinstalled after the examination. The total dose that would be incurred to perform this activity is estimated to be 3 man-rem. Examining all of the welded attachments on RR Pump A, or 50% of the total number of attachment welds on both RR Pumps, will reduce the undue burden on IP (i.e., the cost in resources and man-rem) but still support the safety margin provided by adequate verification and assurance of weld integrity for the RR pump shock suppressor lugs.

IMPLEMENTATION SCHEDULE

The requested relief is for the first ten-year interval at CPS.

**TABLE 1**  
**CODE CATEGORY B-K-1**  
**EXAMINATION COVERAGE**

<u>Weld Number</u>	<u>System Description</u>	<u>Estimated Percentage of Area Examined Due To Component Support (s) Interference</u>
IMS-A-7PR-WA	Main Steam	25
IMS-B-8PR-WA	Main Steam	*
IMS-C-8PR-WA	Main Steam	27
IMS-D-7PR-WA	Main Steam	27
IRR-A-PR-1-WA	Reactor Recirculation	65

\* This item is scheduled for examination during the next refueling outage. IP expects the percentage of area examined to be 25 to 27 percent.

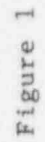


Figure 1