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8G.120
WC-254-96
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Docket No. 50-461

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

Subject: Illinois Power's Response to Bulletin 96-02, "Movement
of Heavy Loads Over Spent Fuel, Over Fuel in the
Reactor Core, or Over Safety-Related Equipment"

Dear Sir:

Illinois Power is providing this letter in response to NRC Bulletin 96-02. The U.S. Nuclear Regulatory Commission (NRC) issued Bulletin 96-02 to accomplish the following:

- (1) "Alert addressees to the importance of complying with existing regulatory guidelines associated with the control and handling of heavy loads at nuclear power plants while the plant is operating (in all modes other than cold shutdown, refueling, and defueled) and remind addressees of their responsibilities for ensuring that heavy load activities carried out under their license are performed safely and within the requirements specified under Title 10 of the Code of Federal Regulations."
- (2) "Request that addressees review their plans and capabilities for handling heavy loads (e.g., spent fuel dry storage casks, reactor cavity biological shield blocks) in accordance with existing regulatory guidelines (specifically NUREG-0612 (Phase I) and Generic Letter (GL) 85-11) and within their licensing basis as previously analyzed in the final safety analysis report (FSAR)."
- (3) "Require addressees to report to the NRC whether and to what extent they have complied with the requested actions contained in this bulletin."

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This bulletin was reviewed to determine applicability to Clinton Power Station (CPS). The review confirmed that CPS is still within the current license basis regarding the movement of heavy loads while at power. The CPS Updated Safety Analysis Report (USAR) and Safety Evaluation Report (SER) Supplement 5 were reviewed along with CPS Procedure No. 8106.01, "Handling Of Heavy Loads." These documents describe CPS compliance to NUREG-0612, "Control of Heavy Loads at Power Plants." Presently, some clarifications, refinements, and enhancements concerning rigging instructions and safe load path travel height instructions are being pursued.

The CPS Operational Requirements Manual (ORM) prohibits heavy loads (i.e., loads in excess of 1000 pounds) from being transported over fuel assemblies in the spent fuel storage racks, upper containment fuel pool racks or new fuel storage vault racks. This requirement was previously contained in the Technical Specifications, but was moved to the ORM in Amendment 95 of the Technical Specifications. Future changes to the ORM requirements are subject to 10CFR50.59 controls. As such, no Technical Specification change or License Amendment would be required.

Both the CPS Containment Polar Crane and the Fuel Building Crane are encompassed by the requirements of NUREG-0612. Each crane is equipped with a main hoist and an auxiliary hoist. Both main hoists are designed to be single failure proof with the exception of the Fuel Building Crane hoist which does not have a redundant hook. As a result, the Fuel Building Crane main hoist lifting capacity has been derated to a single failure proof capacity equivalent in order to comply with the NUREG. In addition, neither crane auxiliary hoist is single failure proof. Accordingly, each crane auxiliary hoist has also been derated to a single failure proof capacity equivalent. Load drop analyses were also performed and the results incorporated into CPS Procedure No. 8106.01. Movement of any loads in excess of the respective crane hoist ratings will require an engineering evaluation in accordance with CPS Procedure No. 8106.01.

The remaining plant cranes were evaluated and justified for exclusion from the guidelines in NUREG-0612 as reported in CPS SER Supplement 5. This was accomplished by verifying that there is sufficient physical separation from any load-impact point and any safety-related component which a heavy load drop could result in damage to spent fuel or components required for plant shutdown or decay heat removal. Condition Report (CR) 1-90-09-033 reviewed documentation and calculations performed for NUREG-0612 requirements in 1990.

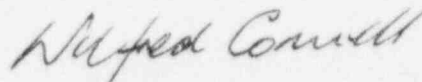
Specific to the spent fuel shipping cask movement activity, the activity will not be performed at CPS before the year 2000. In addition, a spent fuel shipping cask cannot travel over the Spent Fuel Storage Pool because of structural barriers and a redundant limit switch on the crane lifting mechanism, which prevents lifting the cask high enough to clear the pool walls. Further, 100 percent capacity rail stops are located on the crane rails to prevent bridge travel over the Spent Fuel Storage Pool. Hence, the stored spent fuel cannot be damaged in a cask drop accident. Although no specific plans have yet been

formulated for spent fuel shipping cask movement activities, the movement path of the spent fuel shipping cask could potentially impact safe shutdown equipment. The weight of the spent fuel shipping cask would be in excess of the Fuel Building Crane single failure proof capacity equivalent rating (derated load rating). Both of these issues will have to be addressed prior to performance of any cask movement activity. CPS Procedure No. 8106.01, currently requires an engineering evaluation of the activity. If an unreviewed safety question is identified when the activity is planned, appropriate actions pursuant to regulations will be taken.

Based on the review performed, the current licensing basis is being maintained. There are no current plans for movement of unanalyzed loads during the next two years. CPS Procedure No. 8106.01 controls movement of heavy loads and requires that a Nuclear Station Engineering Department evaluation be performed and that Facility Review Group approval be provided prior to any movement of loads outside of analyzed safe load movement paths.

Attachment 1 provides an affidavit supporting the facts set forth in this letter.

Sincerely yours,



Wilfred Connell
Vice President

JSP/csm

Attachment

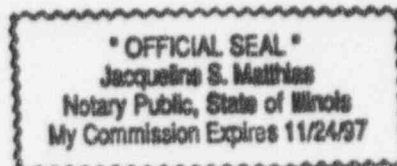
cc: NRC Clinton Licensing Project Manager
NRC Resident Office, V-690
Regional Administrator, Region III, USNRC
Illinois Department of Nuclear Safety

Wilfred Connell, being first duly sworn, deposes and says: That he is Vice President of the Nuclear Program at Illinois Power; that this letter supplying the response to Bulletin 96-02, has been prepared under his supervision and direction; that he knows the contents thereof, and that to the best of his knowledge and belief said letter and the facts contained therein are true and correct.

Date: This 9th day of August 1996.

Signed: Wilfred Connell
Wilfred Connell

STATE OF ILLINOIS }
 }
Dewitt COUNTY }



Subscribed and sworn to before me this 9th day of August 1996.

Jacqueline S. Matthias
(Notary Public)