

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
CONSUMERS POWER COMPANY)	Docket No. 50-155
(Big Rock Point Nuclear Power Plant))	Spent Fuel Pool Modification

NRC STAFF PROPOSED FINDINGS OF FACT AND
CONCLUSIONS OF LAW ON O'NEILL CONTENTION II.G.(a)

I. BACKGROUND

This is a decision on an application by Consumers Power Company (Licensee) to amend its operating license to modify its spent fuel storage pool at Big Rock Point Nuclear Power Plant. The application for amendment is contested by Christa-Maria et al. and John O'Neill (Intervenors) who have submitted a number of contentions opposing the proposed modification of the spent fuel pool. This decision is limited to subcontention II.G. (a) of John O'Neill which deals with the adequacy of the administrative controls involving the handling of spent fuel at Big Rock Point.

II. O'NEILL CONTENTION II.C.

O'Neill Contention II.G.(a) states: ^{1/}

Administrative controls proposed to prevent a cask drop over the pool are inadequate. These are mentioned on pages 4-9 of the application. Administrative controls have proved inadequate in the past in preventing incidents and are frequently violated at the plant.

^{1/} The reference to the application is in error. The correct reference is to pages 4-9 of the "Spent Fuel Rack Addition Description and Safety Analysis," dated April 1979.

Pages 4-9 of the Spent Fuel Rack Addition Description and Safety Analysis state in pertinent part:

Administrative controls will be established for casks other than the fuel transfer cask to ensure that; (a) no cask is moved over stored spent fuel, (b) all cask handling operations are limited to the south-west corner of the spent fuel pool, and (c) no spent fuel is stored in the two existing "A" racks adjacent to the cask handling area during cask handling operations. These controls will preclude the dropping or tipping of a cask onto a fuel rack with stored fuel.

This Board must determine whether the administrative controls used at Big Rock Point are adequate to prevent a cask drop over the spent fuel pool. The Board must also determine whether these controls have proved inadequate in the past and are frequently violated at the plant.

III. STATEMENT OF APPLICABLE LAW

10 C.F.R. §§ 50.57(a)(3)(i) and (ii) require reasonable assurance that all activities authorized by the operating license, such as the movement of the fuel transfer cask considered here, can be conducted without endangering the health and safety of the public, and that the administrative controls governing such movements are adequate to prevent accidents, and are not frequently violated.

IV. OPINION

Counsel for the Licensee presented three witnesses to testify on the adequacy of the administrative controls applicable to spent fuel pool operations at Big Rock Point. (Testimony of Edmund W. Raciborski, David P. Blanchard and Patrick M. Donnelly, Tr. ff. 2579).

Edmund W. Raciborski, the Quality Assurance Superintendent at Big Rock Point, presented testimony addressing quality assurance at Big Rock Point. He also explained how the quality assurance staff identifies,

tracks and resolves deficiencies associated with the violation of administrative controls. (Raciborski, p. 2). Mr. Raciborski and his staff performed a review of the entire Corrective Action and Deviation Reporting System to sort out all documented Big Rock Point administrative control violations since the plant started operation. (Raciborski, p. 10). His review indicated that a total of twenty-three administrative control violations had occurred in the areas mentioned, over a period of nineteen years of operation. He stated that, in his opinion, this number of violations is not significant, nor does it indicate any unusual trend which could be termed frequent. (Raciborski, p. 10).

Furthermore, all of the violations, with the exception of a September 1, 1981 incident, have been resolved.^{2/}

In conclusion, Mr. Raciborski stated that the administrative controls relating to spent fuel pool operations, including those listed on pages 4-9 of the Spent Fuel Rack Addition Description & Safety Analysis, are in fact adequate, and they have not been frequently violated at Big Rock Point. (Raciborski, p. 14).

David P. Blanchard, a technical engineer at Big Rock Point, participated in the development of administrative controls and procedures used during operations involving the handling of the fuel casks. He described how the administrative controls minimize the potential for dropping a fuel cask and prevent damage to spent fuel in the event of a cask drop. (Blanchard, p. 3). He stated that in addition to the administrative controls delineated in the Safety Analysis

^{2/} The September 1, 1981 occurrence involved the movement of fuel assemblies without the use of proper controls by operations personnel. The incident was observed by maintenance personnel in the area who notified the quality control inspector immediately, who in turn investigated, then notified the shift supervisor, where-upon all activity was halted pending resolution.

the Licensee performs inspections, preventive maintenance, and functional testing on a periodic basis to assure that all controls, load bearing and safety devices are in satisfactory working order.

(Blanchard, p. 9). Furthermore, preventive maintenance measures combined with operator training in the operation of the crane and the rigging and handling of the casks, have resulted in 20 years of operation without a cask drop. Mr. Blanchard concluded that the various administrative controls provide the maximum practical defense in depth against the occurrence of a cask drop over the spent fuel pool, and they are sufficient to minimize the consequences of such an event. (Blanchard, p. 11).

Mr. Patrick M. Donnelly, responsible for the day-to-day operation of the Big Rock Point plant, testified that the implementation of administrative controls at Big Rock Point has been effective in the past, and there is reasonable assurance that the plant can implement the specific administrative controls for preventing the cask drops mentioned on pages 4-9 of the Safety Analysis. (Donnelly, p. 3).

Mr. Donnelly discussed the incident which occurred on September 1, 1981, where an irradiated fuel bundle was to be moved to the fuel pool elevator. In the process of moving the bundle, a maintenance employee discovered that the mechanical block was not attached to the fuel pool hoist. While the error could have resulted in serious injury or even death to the operators involved, immediate corrective action was implemented, correcting the violation of the administrative control. (Donnelly, p. 8, 10-11). As a result of the incident the Licensee drafted a completely new set of procedures for handling irradiated components within the spent fuel pool. Also, a training program is

is being formulated to instruct all auxiliary operators in component handling within the fuel pool (Donnelly, p. 11). Mr. Donnelly concluded that, contrary to the assertions in O'Neill Contention II.G.(a), the administrative controls at Big Rock Point are implemented in a very effective manner. The present administrative controls at Big Rock Point have led to nearly twenty years of effective and safe plant operations. (Donnelly, pp. 13-14). The administrative controls regarding cask movements referred to in O'Neill Contention II.G.(a) will be safely and effectively implemented. Although on cross-examination Mr. Donnelly stated that he believed it was possible for a violation of administrative controls to go undetected, he also stated that he thought serious violations of administrative controls could not go undetected and that they would show up somewhere. (Tr. 2580, 2583).

Counsel for NRC Staff presented Mr. Richard L. Emch, who sponsored testimony originally prepared by Walter A. Paulson, the previous NRC Project Manager for Big Rock Point. Mr. Emch adopted the testimony of Mr. Paulson as his own. (Tr. 2595). This testimony indicates that the 24-ton cask is the heaviest load to be transported over stored spent fuel and that a redundant support sling assembly, functional testing of this assembly prior to each refueling action, and interim actions dealing with inspections and maintenance of fuel handling equipment and training of personnel are adequate to prevent the occurrence of a cask drop over the pool. (Tr. ff. 2597). This testimony in no way conflicts with the testimony of Licensee's witnesses.

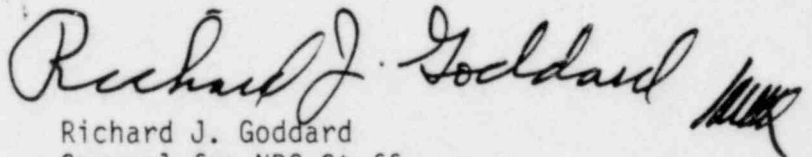
Counsel for the Intervenors presented no evidence or testimony to controvert either the statements or conclusions of the Licensee's or the

Staff's witnesses, and did not cross-examine these witnesses upon their testimony.

V. CONCLUSIONS OF LAW

Based on the foregoing reasons and the uncontroverted evidence of the Licensee and Staff, the Board finds as a matter of law that the administrative controls associated with the movement of the fuel transfer cask are adequate to prevent accidents and are not frequently violated, and that these fuel handling activities can be conducted without endangering the health and safety of the public, in accordance with the requirements of Title 10 C.F.R. Section 50.57(a)(3)(i) and (ii).

Respectfully submitted


Richard J. Goddard
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 30th day of July, 1982