Docket No. 50-320

Mr. F. K. Standerfer
Vice President/Director, TMI-2
GPU Nuclear Corporation
P. O. Box 480
Middletown, PA 17057

August 5, 1987
NRC/TMI 87-059

Dear Mr. Standerfer:

Subject: Heavy Load Handling Inside Containment

By reference (1) you submitted a Safety Evaluation Report (SER) for the movement of the R-2 and R-4 missile shields and structural support beams over the "A" O-ring in the reactor building. As stated in the enclosed safety evaluation issued by the Nuclear Regulatory Commission (NRC) staff, we conclude that the proposed activities can be accomplished without a significant risk to the health and safety of the public. This activity falls within the scope of activities previously considered in the Programmatic Environmental Impact Statement.

Sincerely,

John A. Thomas for

William D. Travers, Director
TMI-2 Cleanup Project Directorate

Enclosure: As stated

cc: T. F. Denmatt
K. E. Rogan
W. E. Potts
J. E. Frew
J. J. Byrne
A. W. Miller
Service Distribution List
(See attached)
REFERENCES


ENCLOSURE

SAFETY EVALUATION BY
THE OFFICE OF NUCLEAR REACTOR REGULATION FOR
LIFT OF I-BEAMS OVER EXCLUSION AREA INSIDE
THE TMI-2 CONTAINMENT

A. INTRODUCTION

As part of the continuing defueling and recovery effort at TMI-2, General Public Utilities Nuclear Corporation (GPUNC) needs to remove fuel from the tubesheet of the "A" Once Thru Steam Generator (OTSG). To accomplish this the missile shields on the "A" D-ring will have to be relocated. GPUNC has proposed the placement of I-beams and rollers to achieve these missile shield movements. The placement of the I-beams will involve the lifting of a heavy load over an exclusion area as defined in the licensee's load handling program (reference 5). Lifts over the exclusion area are to be minimized in number and evaluated on a case by case basis. The SER for this proposed activity (Reference 1) describes the specifics of a series of lifts and provides the information required for the case by case determination.

B. DISCUSSION

The activities include lifting two beams of 2650 lbs. and 2350 lbs. respectively and two beams and two channels each less than 200 lbs. The missile shields will not be lifted over the exclusion areas.

GPUNC's load handling program incorporates phase I of Generic Letter 81-07 (i.e., section 5.1.1 of NUREG-0612). Phase I included the following activities:

1. Definition of safe load paths
2. Development of load handling procedures
3. Periodic inspection and testing of cranes
4. Qualifications, training and specified conduct of operators
5. Special lifting devices should satisfy the guidelines of ANSI N14.6
6. Lifting devices that are not specially designed should be installed and used in accordance with the guidelines of ANSI B30.9
7. Design of cranes to ANSI B30.2 or CMAA-70

Implementation of these activities assures that the potential for a load drop is extremely small. GPUNC has taken an additional safety measure...
using an additional sling and shackle attached to the beams on one end to a reactor coolant pump support beam on the other. This would serve to catch the load if it were dropped and protects against the failure of any single component. The sling and shackle are certified to ANSI B30.9 and have a safety factor greater than 5 to the ultimate tensile strength.

C. CONCLUSION

GPUNC has implemented a load handling program which assures that the potential for a load drop is extremely small. Additionally, they have provided a means to catch a dropped load while it is outside the previously analyzed load path area. Based on the above and the licensee's demonstrated operational history on heavy load handling within the reactor building, the staff has determined the relocation of the beams and channels can be implemented without significant risk to the health and safety of the public.
THI-2 SERVICE LIST

William T. Russell  
Regional Administrator  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Dr. Judith H. Johnsrud  
Environmental Coalition on Nuclear Power  
433 Orlando Avenue  
State College, PA 16801

Ernest L. Blake, Jr., Esq.  
Shaw, Pittman, Potts, and Trowbridge  
2300 N Street, N.W.  
Washington, DC 20037

Secretary  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Frederick S. Rice, Chairman  
Dauphin County Board of Commissioners  
Dauphin County Courthouse  
Front and Market Streets  
Harrisburg, PA 17101

Thomas M. Gerusky, Director  
Bureau of Radiation Protection  
Department of Environmental Resources  
P.O. Box 2063  
Harrisburg, PA 17120

Ad Crable  
Lancaster New Era  
8 West King Street  
Lancaster, PA 17601

U.S. Department of Energy  
P.O. Box 88  
Middletown, PA 17057

David J. McGoff  
Office of LWR Safety and Technology  
NE-23  
U.S. Department of Energy  
Washington, DC 20545

William Lochstet  
104 Davey Laboratory  
Pennsylvania State University  
University Park, PA 16802

Frank Lynch, Editorial  
The Patriot  
812 Market Street  
Harrisburg, PA 17105

Robert B. Borsum  
Babcock & Wilcox  
Nuclear Power Division  
Suite 220  
7910 Woodmont Avenue  
Bethesda, MD 20814

Michael Churchill, Esq.  
PILCOP  
1315 Walnut Street  
Suite 1632  
Philadelphia, PA 19107

Marvin L. Lewis  
7801 Roosevelt Blvd. #62  
Philadelphia, PA 19152

Jane Lee  
183 Valley Road  
Etters, PA 17319

Walter W. Cohen, Consumer Advocate  
Department of Justice  
Strawberry Square, 14th Floor  
Harrisburg, PA 17127

Mr. Edwin Kintner  
Executive Vice President  
General Public Utilities Nuclear Corporation  
100 Interpace Parkway  
Parsippany, NJ 07054

U.S. Environmental Prot. Agency  
Region III Office  
Attn: EIS Coordinator  
Curtis Building (Sixth Floor)  
6th and Walnut Streets  
Philadelphia, PA 19106