UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION

AMENDMENT NO. 7 TO NPF-21

WPPSS NUCLEAR PROJECT NO. 2

DOCKET NO. 50-397

Introduction

By a letter dated August 15, 1984, and as supplemented by letters dated September 7, and October 10, 1984, the licensee requested changes to the license condition 2.C.(11) of the WNP-2 licensee NPF-21.

Prior to the issuance of the WNP-2 operating license, the applicant requested and was granted a temporary deferral of construction of several concrete block shielding walls and a leaded glass viewing window. The resulting license condition 2.C.(11) stated that the licensee must complete construction of all deferred shield walls and window within one year after issuance of the WNP-2 operating license, or prior to operation of the permanent solid radioactive waste solidification system at WNP-2, whichever occurs first. Of the nine shield wall locations as described in the August 15, 1984, request and listed on Table 1 below, items 1, 2, and 4 will be completed as required by the license condition 2.C.(11) prior to the expiration of the one year period following issuance of the WNP-2 operating license. The licensee has requested to amend the current license condition to further defer the construction of the remaining shield walls and window (described in item 3, and 5 through 9) until an ALARA review identifies the need for additional shielding.

TABLE-1

LIST OF SHIELD WALLS

1. FSAR Figure 12.3-32, Zone H-9 - The partial height wall outside the spent resin tank room.

2. FSAR Figure 12.3-26, Zone G-12 - The tube access wall to the main condenser.

3. FSAR Figure 12.3-27, Zone D-11 - Same as above, only other end of condenser.

4. FSAR Figure 12.3.-34, Zone H-8 - The access blockout to the spare demineralizer cubicle.

5. FSAR Figure 12.3-33, Zone G-9 - Same as above for the duplicate centrifuge room.

6. FSAR Figure 12.3-33, Zone F-9 - Same as above for the duplicate centrifuge.

7. FSAR Figure 12.3-34, Zone J-5 - The blockout for one of the two decon concentrators.

8. FSAR Figure 12.3-32, Zone D-8 - The two block walls at the north end of the truck loading bay.

9. FSAR Figure 12.3-32, Zone E-8 - The leaded glass viewing window in the radwaste area.

Evaluation

In Attachment 3 to the license for WNP-2, Item 3 inadvertently combines Item 3 and Item 4 through the omission of several lines of text. The correct text is contained in the licensee's March 28 and April 27, 1983 letters which were referenced in Supplement 4 to NUREG-0892, the WNP-2 Safety Evaluation Report.

The present wording is:

Item 3. FSAR Figure 12.3-27, Zone D-11 - The access blockout to the spare demineralizer cubicle.

The correct wording (with missing text shown in brackets) is:

Item 3. FSAR Figure 12.3-27, Zone D-11 - [Same as above, only other end of condenser.

Item 4. FSAR Figure 12.3-34, Zone H-8 -] The access blockout to the spare demineralizer cubicle.

Since the evaluation was based on the correct wording of Items 3 and 4, this error did not impact the staff's evaluation.

The shield walls described in items 4 through 8 and the shield window in item 9 were all originally designed to shield portions of the permanent radwaste solidification system at WNP-2. Since this system has yet to be installed, the licensee requested deferral of construction of these walls and window (with the exception of item 4, which will be installed on schedule). The licensee will monitor radiation levels in these areas during the Power Ascension Test Programs in order to establish a base case. These areas will then be routinely monitored during commercial operation with periodic ALARA reviews performed to ensure personnel exposures are minimized. ALARA reviews will also be initiated per approved plant procedures upon significant radiation level increases. The licensee has committed to construct these deferred shield walls whenever the dose rate at the shield wall location exceeds the radiation dose rate for which the area was zoned.

The two deferred shield wall locations not associated with the solid radwaste system are described in items 2 and 3. These are on the east and west ends of the condenser access areas. These walls were deferred because the licensee's ALARA review showed the principal radiation sources are not in

line of sight with these two locations. The licensee has been using a locked gate for each location in place of the shield wall to control entry to the high radiation zone. The licensee has performed ALARA reviews on both of these areas during startup to evaluate the need for these shield walls. The dose-rate criteria for construction of these walls is 2.5 mrem/hr at the locked gate location. Based on the results of these ALARA surveys, the licensee has determined the need to construct the shield wall at the east end of the condenser (item 3). This wall will be constructed prior to the expiration of the one year period following issuance of the WNP-2 operating license. The licensee will continue to monitor the dose rates at the gate location at the west end of the condenser and will construct that shield wall if future dose rates at the gate location exceed 2.5 mrem/hr.

The licensee has performed ALARA reviews of each of the nine temporary shielding wall deferral areas and has determined that these deferrals will have no appreciable effect on personnel exposures. The licensee has also stated that in no case following a LOCA accident will workers be required to enter areas in the vicinity of the deferred shielding to mitigate the course of the accident.

If the ongoing ALARA reviews determine that the deferred walls should be built, the block shield walls can be erected quickly, and, in all cases, will be erected for each cubicle prior to component operation. The licensee shall ensure that personnel doses are minimized during construction of the deferred shield walls. This can be accomplished by draining/flushing adjacent radioactive components, and using temporary shielding when necessary.

The staff has reviewed the licensee's request to complete construction of the deferred shield walls and window whenever the associated radiation levels at these locations exceed 2.5 mR/hr as dictated by ongoing ALARA reviews. Based on the reasons described above, and on the fact that these shield wall deferrals would have no appreciable effect on personnel exposures, the staff finds the licensee's request acceptable.

Environmental Consideration

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

Conclusion

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal register (49 FR 39936) on October 11, 1984. No public comments were received.

We have concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendment will not be inimical in the common defense and security or to the health and safety of the public.

Dated: DEC 10 1984

Principal Contributor: Charles S. Hinson

DEC 10 1984

Issuance of Amendment No. 7 to Facility Operating License No. NPF-21
WPPSS Nuclear Project No. 2

DISTRIBUTION

Docket File
NRC PDR
Local PDR
PRC System
NSIC
LB#2 Reading
EHylton
RAuluck
TNovak
JSaltzman, SAB
WPaton, OELD
OMiles
HDenton
JRutberg
AToalson
WMiller, LFMB
NGrace
EJordan
LHarman
DBrinkman, SSPB
TBarnhart (4)
Inez Bailey