

54-529
530

SAFEGUARDS INFORMATION

NOV 25 1985

MEMORANDUM FOR: L. L. Bush, Physical Security Specialist
Operating Reactor Programs Branch
Division of Safeguards and Inspection Programs

THROUGH: M. D. Schuster, Chief
Safeguards Section

FROM: L. R. Norderhaug
Senior Material Control Analyst

SUBJECT: EVALUATION MEMORANDUM: ARIZONA NUCLEAR POWER PROJECT

In the course of a recent security preoperational inspection of the Palo Verde Nuclear Generating Station, Unit-2 (NRC Inspection Report No. 50-529/85-30), a possible vital area not described in the licensee's approved security plan was identified. The plan, entitled: Palo Verde Nuclear Generating Station Security Plan has been approved through Amendment 7 dated November 15, 1984. Amendment 8, submitted September 20, 1985 does not change the section of interest.

On page 6-8 of the plan, the spray pond pumps are identified as vital: "Each pump house of Train A and B is protected as a Vital Area..." While the pumphouse appears to be of adequate construction, the intake port and impeller of the spray pond pump extends below the floor of the pump house into the spray pond sump (See Exhibit A). Upon interview, the licensee agreed that a 6 inch piece of 2 x 4 lumber or a 4' x 6' piece of canvas drawn into the impeller could likely disable the pump for a considerable period of time.

It would appear that the lower portion of the pump should be considered vital and protected accordingly.

During operation, when the pump might be called upon to provide an ultimate heat sink for the reactor, the area below the pumphouse floor is completely flooded with water containing a minimum of 0.5 parts per million free chlorine for algae control. Also, a submerged, 2400 lb. screen assembly is in place to protect the pump from debris which may have gotten into the pond.

The screen, which can be removed only with a crane moved into position outside the pump house appears to satisfy the intent of locked (due to weight) and alarmed (due to equipment needed for removal). This concept has been accepted for shielding blocks which serve as a portion of other vital area barriers.

Direct visual access to the pump components is severely limited by the water and screen.

WARNING: SAFEGUARDS INFORMATION
SECTION 147 ATOMIC ENERGY ACT 1954.
VIOLATIONS OF THE PROTECTION
REQUIREMENTS OF 10 CFR 73.21
SUBJECT TO CIVIL OR CRIMINAL SANCTIONS.

8512020446 851125
PDR ADOCK 05000529
G PDR

SAFEGUARDS INFORMATION

110
LECH

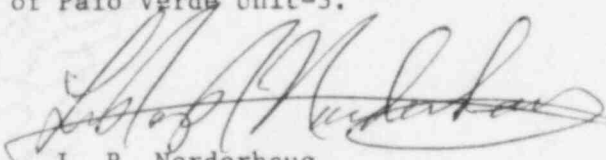
SAFEGUARDS INFORMATION

-2-

NOV 25 1985

Of concern however, is the screen's resistance to penetration. The screen is composed of a woven mesh of 10 gauge aluminum-bronze alloy wire with 7/16 inch clear square openings (See Exhibit B). Since a generally accepted vital area barrier material is steel turbine deck grating, a judgement is needed as to whether submerged screening material as described above offers a level of penetration resistance adequate to protect the lower vital pump components.

Exhibit C includes a series of pictures taken of the corresponding screen installed in the dry spray pond of Palo Verde Unit-3.


L. R. Norderhaug
Senior Material Control Analyst

cc w/enclosures:

G. W. McCorkle, NMSS:SGPR
R. R. Keimig, Region I
E. J. McAlpine, Region II
J. R. Creed, Region III
J. B. Baird, Region IV

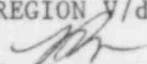
bcc w/o enclosures:

RSB/Document Control Desk (RIDS)

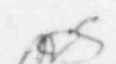
bcc w/enclosures:

Mr. Martin, RV

REGION V/dot


Norderhaug

11/22/85


Schuster

11/22/85

SAFEGUARDS INFORMATION