

## PROCEDURE

HNP-8022  
PROCEDURE NUMBER

Lab  
RESPONSIBLE SECTION

NON-SAFETY RELATED ( X )

[illegible]

HNP-3

8205060153 820429  
PDR ALDCK 05000321  
F PDR

REFERENCE ONLY  
MANUAL SET

We . . .

Need 4/16/82  
Rec'd 4/16/82

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 8022

Revision No. 4

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Don Ph:lpott	4/8/82	W.H. Rogers	4/15/82

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:  
☐ Yes ☒ No

CHANGE INVOLVES:

☐ An unreviewed Safety Question ☐ Tech.Specs. ☒ Neither  
 (See back for Safety Evaluation if required).

Safety Related ☐ Non-Safety Related ☒

Safety/Non-safety Status Change ☐ Yes ☒ No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

Page 1: Title changed; Title of procedure HNP-8110 added;  
 under test equipment, the number of TLO's were  
 changed; The entire procedure was changed, Parts  
 of the old procedure (Rev. 04) were left in  
 the new revision.

Page 7: Data package 1, Data sheet has been  
 changed.

Attached is a copy of the old procedure.

PRB RECOMMENDS APPROVAL: ☐ Yes ☐ No

PRB Secretary

PRB Number

Date

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## E. I. HATCH NUCLEAR PLANT

Georgia Power 

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### ENVIRONMENTAL AND PERSONNEL TLD CROSS CHECK PROGRAM

#### A. PURPOSE

To ensure that personnel radiation exposure results and environmental radiation exposure results as reported by the outside contractor are reasonably accurate.

#### B. SAFETY

Observe radiation protection procedures.

#### C. REFERENCES

HNP-8110, Victoreen Condenser R-meter Model 570 Operation and Calibration

#### D. TEST EQUIPMENT

1. Dosimeter calibration board.
2. Gamma source.
3. Victoreen R meter W/"R" chambers 130 and 552.
4. Stop watch.
5. Twelve unexposed visitor TLD badges.
6. Six unexposed environmental TLD badges.
7. Six unexposed Panasonic TLD badges.

#### E. FREQUENCY

Minimum once per quarter.

#### F. PROCEDURE

1. Field Testing/Cross-Checking of Personnel TLD's

Personnel TLD cross-check program can be achieved through double badging of a certain fraction of personnel involved in jobs that result in a range of exposures. For this reason, about 5 to 10 individuals from H.P. staff shall be chosen, and they will wear the additional TLD just like their regular TLD (preferably at about the same location). On receipt of results from the vendor, an investigation will be done if difference is greater than 20%.

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### 2. Spiking of TLD's to Known Radiation Fields

- a. The unexposed TLD badges can be exposed using three different methods. The methods are the calibration board, calibration well, and the work bench area. When using the calibration well, or work bench area, the source-to-badge distance can be adjusted to obtain different exposures. There are other sources available to be used with the work bench or calibration board.

#### NOTE

The faces of the badges must be toward the source.

- b. The following badges and the number of each type should be exposed as follows:

2 Environmental badges-15 mR	2 Personnel badges-1000 mR
2 Environmental badges-25 mR	2 Personnel badges-2400 mR
2 Environmental badges-50 mR	1 Panasonic badge-50 mR
2 Personnel badges-50 mR	1 Panasonic badges-100 mR
2 Personnel badges-100 mR	1 Panasonic badges-200 mR
2 Personnel badges-200 mR	1 Panasonic badge-500 mR
2 Personnel badges-500 mR	1 Panasonic badge-1000 mR
	1 Panasonic badge-2400 mR

- c. Calculate the clock times required, and distances required (depending on the source used) for approximate doses of 15, 25, 50, 100, 200, 500, 1000, 2400 mR to be received. Record on Data Package 1, Data Sheet 1. An RD-2A (or equivalent) or R-chambers can be used for this purpose.
- d. After time and distance are calculated for each individual dose, rezero the R-chambers required for the dose needed. When exposing a set of badges to a certain dose, an R-chamber must also be exposed at the same time. If the R-chambers and reader are out of service because of calibration, the last measured R-chamber source curves may be used instead.


#### NOTE

Use the Model 130 R-chamber (0.25R) for badges exposed from 15-200 mR and the Model 552 R-chamber (2.5 R) for badges exposed 500-2400 mR.

Refer to HNP-8110 for the use of the Victoreen R-chambers and readers.

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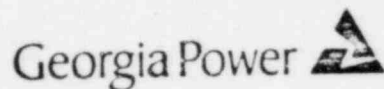
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- e. After TLD's have been exposed, they shall be mailed to the appropriate vendor for reading. Read Panasonic TLD's on the Panasonic TLD Reader and record on Data Package 1, Data Sheet 1. Read the R-chamber as per HNP-8110, and record on Data Sheet 1. If the Panasonic Reader is out of use at the time of the calibration check, do not expose the Panasonic badges until the reader is operative.
- f. After vendor's results have been obtained, log and compare the vendor's results with R-meter results on Data Package 1, Data Sheet 1. Vendor's results take approximately 1 month to obtain.
- g. If results are not within 20%, initiate corrective action and explain corrective action taken on Data Package 1, Data Sheet 1 (i.e., recalculated results, review vendor's results, etc.). Procedure can be repeated if necessary.

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PROCEDURE DATA PACKAGE	
DOCUMENT NO:	HNP-8022-1
SERIAL NO:	R05-
MPL NO:	
RTYPE:	G15.14
XREF:	
TOTAL SHEETS:	2
FREQUENCY:	Quarterly
COMPLETED BY:	
DATE COMPLETED:	
I HAVE REVIEWED THIS DATA PACKAGE FOR COMPLETENESS AND AGAINST ACCEPTANCE CRITERIA IN ACCORDANCE WITH HNP-830.	
ACCEPTANCE	UNACCEPTABLE
REVIEWED BY:	
DATE REVIEWED:	
REMARKS:	

