GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Personnel Dosimetry Program
PROCEDURE TITLE

HNP-8004
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED (.)

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
13	Pages 8,11,12, & 19	W. F. Rogers	Jim Greene for	3/15/82
14	Pages 1 - 7 & 9 - 22	W. F. Rogers	C. F. Jones for HGM	10/22/82
15	Pages 1,2,12,15,16 & 21	W. F. Rogers	[illegible]	9/26/83

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-8004

Revision No. 14

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name: Mike Link ~~Mike Link~~	Date: 3-14-83 ~~3-29-83~~	Signature: [illegible] ~~[illegible]~~	Date: 3-14-83 ~~3-22-83~~

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

1) Page 2, correct spelling
~~2) Page 9, Change 100 mr to 350 mr~~
2) Page 12, Add G.E. to list of company(s)
3) Page 15, Correct error, add "and"
4) Page 21, Add (1) individual name (2) TLD# (3) I.D#
5) Page 16, Add an asterisk to "Where Worn" column
6) Page 1, Para C.1 change "HP/Lab Foreman" to "Laboratory Supervisor"

PRB RECOMMENDED APPROVAL: (✓) Yes ( ) No [signature] for PRB Secretary

83-49
PRB Number

3-22-83
Date

HNP-9

MANUAL SET

EC

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

APPROVAL
See Title Page
DATE
See Title Page

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO
HNP-8004
REVISION NO
15
PAGE NO
1 of 22

EC

PERSONNEL DOSIMETRY PROGRAM

A. PURPOSE

To describe a procedure for the issuance and use of personnel dosimetry equipment for plant personnel, visitors, and construction workers while within the operating buildings.

B. REFERENCES

Code of Federal Regulations, 10CFR20

A.P.T. Computer Exposure Records System

C. DESCRIPTION OF DOSIMETRY EQUIPMENT

1. Thermoluminescent Dosimeter (TLD Badge)

The TLD Badge is a small badge containing two or more lithium fluoride TLD chips for measuring external beta gamma radiation. These badges are supplied by a TLD badge vendor and will be processsed at monthly intervals during normal operations, and at more frequent intervals during maintenance outages or when conditions require. The TLD badge vendor will read and evaluate the badges and report the results to a Laboratory Supervisor. The record of accumulated external radiation exposure received by individuals is obtained principally from the interpretation of the TLD badge.

2. Direct reading pocket dosimeter

The direct reading pocket dosimeter is a pencil shaped ion chamber used primarily to provide day-by-day indication of external gamma radiation exposure. A dosimeter with a range of 0-200 MR is provided for normal use. For special requirements higher range dosimeters will be issued as necessary by the Health Physics staff.

3. Neutron Dosimetry

The Health Physics staff will review the R.W.P.'s each dosimetry period for personnel who may have become exposed to neutron radiation. The TLD badges for these individuals will be mailed to the TLD badge vendor requesting that the badges be read both for beta-gamma exposure and neutron exposure. The report for these badges will be handled the same as in paragraph C.1.

4. Other

As deemed appropriate the Health Physics staff will issue other personnel monitoring devices, i.e. finger rings, TLD bracelets, chirpers, etc. for monitoring personnel radiation exposure.

D. ISSUANCE OF TLD BADGES AND POCKET DOSIMETERS

1. Prior to issuance of any TLD badge or dosimeter Form 1, TLD BADGE AND DOSIMETER ISSUE must be completed. See Section G. for details.

2. Issuance of any TLD badge may be made only by a member of the Health Physics staff.

3. Issuance of pocket dosimeters may be made only by a member of the Health Physics staff.

4. Prior to entering the operating buildings where radiation exists all individuals assigned TLD badges and dosimeters will pick them up and wear the devices as in Section E. Daily dosimeter reading will be logged as in Section G.

NOTE

Dosimeters that have been used, and then placed in the "OUT" rack, will be re-zeroed prior to the start of the next work day, if a reading of 40 mRem, or greater, has been reached.

E. WEARING AND USE OF TLD BADGE AND DOSIMETER

The TLD Badge and dosimeter are to be worn adjacent to each other between the waist and neck on the front part of the body. As per Health Physics discretion, an individual may be instructed to wear the dosimeter and TLD on another part of the body, if it is determined the dose rate at that part of the body is likely to be higher than that between waist and neck. When wearing protective clothing, the TLD badge and dosimeter are clipped inside the breast pocket (Outside pocket) of the coveralls and pocket closed. The TLD badge shall always be worn with the face of the badge facing out. Each individual should examine his dosimeter periodically while in a radiation controlled area. No individual should allow the dosimeter reading to exceed 150 mR or 75% of full scale regardless of any prescribed exposure allowance, without having his dosimeter recharged and reading recorded. Personnel finding self reading dosimeters off-scale shall immediately leave a Radiation Control Area unless involved in controlling an emergency and shall notify the Health Physics

Staff. The loss of any personnel monitoring device requires the immediate notification to the Health Physics staff.

NOTE

If at anytime the dosimeter is dropped or erratic readings are noted by the user, the Health Physics Staff should be notified in order that another dosimeter can be issued if deemed necessary.

F. WEARING AND USE OF EXTREMITY DOSIMETRY

The following criteria should be used for the use of extremity dosimetry:

1. Extremity dosimetry is defined as finger rings, or as per H. P. discretion, TLDs taped to one of the extremities. The extremities of the body are hands, forearms, feet, and ankles.

2. Health Physics shall determine the need for extremity monitoring on an individual job basis. Factors involved in making this determination are dose rates, stay times, etc. Extremity dosimeters will be provided for those individuals requiring this coverage.

3. Guidelines for using extremity dosimetry are as follows:

   a. When the extremity exposure rate is likely to be four times the whole body exposure rate AND the extremity exposure rate is likely to be > 400 mrem/hr.

   b. When performing primary systems sampling, manipulating high-intensity calibration sources, or performing any task for which extremity dosimeters are required by H.P.

4. Extremity dosimetry will be issued and returned on a daily basis, unless specified differently by H.P. If personnel need extremity dosimetry more than once a month, they will be issued the same extremity dosimeter (finger ring, etc.) for the duration of the month. Form 5, Extremity Badge Issue Log will be completed as needed.

G. ESTIMATING NEUTRON EXPOSURE

1. Until an individual's TLD is read and the actual neutron exposure determined, an estimate will be generated in the following manner: Form 11, NEUTRON DOSE ESTIMATES will be used to record neutron dose.

a. As per survey data, calculate a neutron-to-gamma ratio by dividing the neutron dose rate by the gamma dose rate.

b. Multiply the neutron-to-gamma ratio times the gamma dose recorded by the pocket dosimeter.

c. Add this product to the gamma dose to obtain the total whole body exposure.

d. Example of above method:

(1) Gamma dose rate: 60 mR/hr
Neutron dose rate: 30 mR/hr
Dosimeter reading: 80 mR

(2) Neutron-to-gamma ratio: 30/60 = 0.5

(3) Estimated neutron dose: (80 mR)(0.5) = 40 mR

(4) Total whole body dose: 80 mR + 40 mR = 120 mR

e. Input the total whole body dose to the computer via DDUDAT Program or use Form 2 of this procedure if the computer is disabled.

H. RADIATION PROTECTION ORIENTATION

All new employees shall receive a radiation protection orientation prior to their assignment of work in Radiation Control Areas or have an escort by someone who has demonstrated understanding of radiation protection practices and procedures. See HNP-8018. The orientation will cover all pertinent radiation protection practices and procedures to a degree sufficient to allow an employee to perform his assignment without incurring unnecessary radiation exposure or contamination. Each employee will be required to demonstrate an understanding of these procedures prior to being allowed to enter a Radiation Control Area unescorted.

I. PERSONNEL DOSIMETRY RECORDS

1. Form 1, TLD Badge and Dosimeter Issue

a. The preparation of this form is the responsibility of the Health Physics Department. The purpose of the form is to record all information required by 10CFR20 for personnel wearing monitoring devices.

b. Procedure for recording information on Form 1.

(1) The individual shall complete the upper part of the form down to the heavy black line.

(2) Health Physics Department shall complete the bottom part of the form.

(3) The form shall be filed and maintained in the dosimetry office until termination.

2. Form 2, Weekly Pocket Dosimeter Record

a. This form provides a means for recording personnel pocket dosimeter results daily and will assist in evaluating each person's integrated dose to keep exposures as low as reasonably achievable and below exposure limits of 10CFR20.

The form will be used if the computer exposure record system described in I.9 becomes disabled and when visitors are issued dosimeters and TLD's.

b. Procedure for recording information of Form 2

(1) Form 2 for the current week will be maintained by the Health Physics Staff.

(2) Separate sheets of Form 2 will be kept for each type of personnel.

(3) The individual whose name appears on Form 2 will record or have recorded his dosimeter reading on entering the operating buildings (IN BLOCK) and on exiting the operating buildings (OUT BLOCK) at the end of the work day. It will then be calculate or have calculated the indicated exposure by determining the difference between the IN and OUT blocks and will log the result in the NET block.

(4) The Health Physics staff will log each individual's accumulated quarterly exposure in the QTR block at the beginning of each week.

(5) The Health Physics staff will determine total daily exposure by adjusting the indicated exposure with exposures determined from Form 3, Dosimeter Re-zero Record and other methods as necessary. These adjustments will be logged in the ADJ. block and will be added to the NET exposure to determine

the total exposure for the day and recorded in the TOT block.

(6) The Health Physics staff will determine the accumulated weekly exposure for each individual by summing the TOT block for the day and the WK block for the previous day.

(7) The Health Physics staff will adjust the quarterly (QTR) exposures to reflect official exposures as determined from the processing of TLD badges during the current quarter.

3. Form 3, Dosimeter Re-Zero Record

This form is used when an individual's pocket dosimeter is re-zeroed while within the operating buildings. DDUDAT cards may be used in lieu of Form 3. The form will be located at each dosimeter charger station. It shall also be used when zeroing special pocket dosimeters as issued by the Health Physics staff (Indicate special in the Remark Column). Exposure data from Form 3 shall be entered on Form 2 or in the computer record system from each individual. See I.2 or I.9 of this procedure.

4. Current TLD Occupational Radiation Exposure Report

a. This report will be furnished by the TLD vendor at a frequency based on badge exchange intervals. The report is approved for use in lieu of NRC Form 5.

b. Results of TLD exposure analysis will be entered into the computer exposure record system on a monthly basis or with greater frequency, as this data is provided by the vendor. Current NRC Form 5 information may be obtained from the computer system at any time on an individual or departmental basis by using the INDDRP or the DDLIST program respectively.

5. Form 4 Replacement Exposure for Lost or Damaged TLD Badge

This form will be completed as necessary to estimate personnel exposure during a period when a TLD badge has been lost or damaged. Exposure determined on this form will be entered on the Current TLD Occupational Radiation Exposure Report through the use of a letter to the TLD vendor as shown in Form 8 and into the computer exposure record system.

6. Form 5, Extremity Badge Issue Log

Form 5 will be filled out as needed and completed by the end of each month. The extremity dosimeters will be mailed to the vendor at the end of the month for analysis, and the results are supplied by the vendor on the Current TLD Occupational Radiation Exposure Report.

7. Form 6, Request for Employee's Previous Radiation Exposure

A letter shall be written to an employee's previous employer(s) if the employee does not have his previous exposure record and indicates that he may have received occupational radiation exposure while employed there. The letter shall be provided on Georgia Power Company stationary and in the general format as shown on Form 6, Request for Previous Radiation Exposure.

8. Form 7, Report to Former Employees and Visitors of Exposure to Radiation.

On request by former employees a report showing exposure to radiation shall be furnished within 30 days from the time the request is made, or within 30 days after exposure of the individual has been determined, whichever is later. The report shall cover each calendar quarter of the individual's time within the Protected Area involving exposure to radiation or such lesser period as may be requested. The report (Form 7) shall be xeroxed from individual's file and shall be transmitted with a cover letter (form 9) on Georgia Power stationary and in the general format as shown on Employee and Visitor Radiation Exposure Report, Form 9.

When an individual terminates employment or an individual assigned to work in Radiation Control Areas at the Hatch Nuclear Plant, but not employed by Georgia Power, completes his work assignment the individual and the Nuclear Regulatory Commission will receive a report on his exposure to radiation and radioactive material incurred during the period of employment or work assignment. Such report shall be funished within 30 days after the exposure of the individual has been determined or 30 days after the date of termination of employment or work assignment, whichever is earlier. The report shall be provided on Georgia Power stationary and in the general format as shown on Form 7, Employee and Visitor Radiation Exposure Report. The original report may be obtained by accessing the computer exposure record system using the TERMN8 program, or from the Current TLD Occupational Radiation Exposure Report (para. I.4).

9. Computerized Personnel Exposure Records

a. A computer for up-dating-personnel exposure data on a day to day basis has been developed. Pocket dosimeters are read by a Health Physics technician and the reading entered in the computer. The computer updates the individual's exposure record to reflect the latest dosimeters reading. Daily, weekly, monthly, quarterly, yearly and life time exposure information is made available to the Health Physic staff, plant supervision, and the individual through the use of various computer printout formats. See APT Automated Personnel Dosimetry Records System Manual.

b. Schedule of input and output of exposure information via the computer exposure records system.

(1) Daily - Pocket dosimeter will be read on a daily basis.

Entries will be recorded by the computer on a daily basis using the DDUDAT program. Where dosimeters are re-zeroed in the Primary Protected Area, the dose recorded on Form 3 shall also be entered into the computer using the DDUDAT program.

(2) Weekly - A listing of daily exposures for all personnel on site for each day of the week will be obtained at the end of each week using the DDPRNT program.

(3) Monthly - The net dose indicated for each worker listed in the "Time Record" section of all Radiation Work Permits issue during a given month shall be entered into the computer exposure record system prior to entry of the TLD data for the respective period, using the CWPUDT program. TLD data will be entered into the computer exposure record system each month using the CLDUDT program as this information is provided by the vendor. Corrective or supplemental TLD data may be entered into the computer exposure record system using the HLDUDT program.

NOTE

Programming has been established to determine the discrepancy between the TLD and pocket dosimeter. A discrepancy greater than 25% for exposures over 100 mR will be evaluated. An investigation shall be conducted and documented on Form 10, Dose Discrepancy Investigation. The TLD reading will be retained as the record exposure unless the investigation justifies use of pocket dosimeter totals.

Data files will be removed from the TMPDOS exposure record file each month for personnel terminating their stay at the plant whose final TLD data has been provided by the vendor. The TERMN8 program will be used to accomplish this and will produce the original letter of notification of exposure for the individual, as well as a copy of his final dosimetry file contents.

(4) Annual - The NRCRPT program will be run after the TLD results for each year has been entered into the computer. A compilation of information to satisfy 10CFR20 annual reporting requirements will be provided by the program after the exposure information for an entire year has been recorded.

(5) As required The PDFMAK program is utilized to enter new personnel information into the computer exposure records, to add identification or prior exposure information.

The DELETE program is used to transfer a personnel record from the active files to the TMPDOS file at the end of his stay. The record is retained in this file pending receipt of final TLD data from the vendor.

The HLDUDT program allows the entry of TLD information for individuals at times other than the regular monthly entry of TLD data on a plant basis.

The individual dose reports covering all NRC Form 5 information can be obtained using the INDDRP program.

The DDLIST program can be used to provide on a plant basis the same information that the INDDRP program supplies for a particular individual.

Whenever required, particularly during an outage, the DDPRNT program may be utilized to obtain a listing of dose for each day of the current week and the margin between the cummulative exposure and the most restrictive exposure limit, for each person on site.
The Applied Physical Technology Automated Personnel Dosimetry System Instruction Manual may be referenced for information on organization of data files and operation of programs.

10. Form 9, Reply to Request for Previous Radiation Exposure

When a request is received by Georgia Power Company from a previous employee or visitor for the purpose of providing his new employer (or facility being visited while in the employment of his new employer) with a record of occupational radiation exposure received at Plant Hatch, Form 9, Reply to Request for Previous Radiation Exposure, shall be used to supply this information.

J. MANAGEMENT REVIEW OF RADIATION EXPOSURE DATA

The H.P. Superintendent will be responsible for preparing a Radiation Exposure Report for the management meeting. As a minimum, the report will consist of a tabulation of exposures by department, including the average dose received per worker and the maximum dose. Also to be included will be a tabulation of exposures on specific maintenance work during the month, if significant work has been performed. Other significant exposure information will be discussed during the meeting as appropriate.

Bi-Weekly (every two weeks) updates of personnel exposure are provided to each department. These records provide supervisors as well as workers information on radiation exposure accumulation and will aid in minimizing exposure to individuals by more efficient worker utilization.

In case of some problem, such as a computer malfunction, when the Bi-weekly update listing cannot be made then H.P. supervision will be informed. As soon as the problem is resolved the computer listing will be updated and the distribution to the different departments will be resumed.

E. I. HATCH NUCLEAR PLANT

Georgia Power

FORM 1

TLD BADGE AND DOSIMETER ISSUE

TLD BADGE AND DOSIMETER ISSUE

DATE: _____ 19____ I.D. BADGE NO._____

NAME IN FULL (PRINT) _____
FIRST MIDDLE LAST

SOCIAL SECURITY NO._____-____-_____ BIRTH DATE:_____
MONTH DAY YEAR

HOME ADDRESS:_____HOME PHONE: (___)_____
STREET

_____
CITY STATE ZIP

JOB CATEGORY	INTRA. PLANT DEPT.	COMPANY
SUPERVISOR & OFFICE STAFF ( )	ENGINEERING ( )	GA. PWR CO. PLANT HATCH ( )
ENG. STAFF ( )	MAINT. MECH. ( )	GA. POWER COMPANY ( )
OPERATIONS ( )	MAINT. ELECT. ( )	SOUTHERN SERVICES INC. ( )
LAB/HP ( )	TEST DEPT. ( )	A.D.A. ( )
MAINTENANCE ( )	OPERATIONS ( )	T & B ( )
* OTHER ( )	LABORATORY ( )	C B & I ( )
* PLEASE DESCRIBE:	OFFICE ( )	* G.E. ( )
_____		* CONTRACTOR ( )
		* GIVE NAME OF COMPANY:
_____		_____
_____		_____

* Have you worked at or visited a Nuclear Facility other than Hatch in the last three months? * YES ( ) NO ( )

* If YES, what facility _____

SIGNATURE _____

Have you been at Plant Hatch in the last three months? YES( ) NO( )

If visitor, escort's name _____

TLD Badge No._____ NRC Form 4 completed_____

Authorized Quarterly Exposure_____mRem*

Issued By _____

Reviewed By _____

NOTE

If 18 years old limit exposure to 750 mRem/quarter.

* If current quarter exposure is unknown, limit is 300 mRem.

HNP-8004 R15
FORM 1

FORM 2

WEEKLY POCKET DOSIMETER RECORD

FORM 2

WEEKLY POCKET DOSIMETER RECORD

Type of Personnel________________ Dates: __________, 19___ thru __________, 19___

TLD or ID Badge No.	NAME		CODE		FRIDAY		SATURDAY		SUNDAY		MONDAY		TUESDAY		WEDNESDAY		THURSDAY	
			IN	ADJ.														
		QTR	OUT	TOT														
			NET	WK														
			IN	ADJ.														
		QTR	OUT	TOT														
			NET	WK														
			IN	ADJ.														
		QTR	OUT	TOT														
			NET	WK														
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		QTR	OUT	TOT.														
			NET	TOT.														
			IN	ADJ.														
		QTR	OUT	TOT														
			NET	WK														
			IN	ADJ														
		QTR	OUT	TOT														
			NET	WK														
			IN	ADJ.														
		QTR	OUT	TOT														
			NET	WK														
			IN	ADJ														
		QTR	OUT	TOT														
			NET	WK														

E. I. HATCH NUCLEAR PLANT

Georgia Power

FORM 3

DOSIMETER RE-ZERO RECORD

DOSIMETER RE-ZERO RECORD

FORM 3
DOSIMETER RE-ZERO RECORD

DATE	TLD # I.D. No.	NAME	DOSIMETER READING BEFORE ZERO	DOSIMETER READING AFTER ZERO	REMARKS	PERFORMED BY

HNP-8004 R15
FORM 3

FORM 4

REPLACEMENT EXPOSURE FOR LOST TLD BADGE

REPLACEMENT EXPOSURE FOR LOST TLD BADGE

Date:_____ I.D. Badge No.:_____

Name:_____ TLD No.:_____

Soc. Sec. No.:_____

TLD Badge Was: Lost ( ) Damaged ( ) *Other ( )

* If "Other" Explain:_____

First Day of Current TLD Period:_____ TLD Last Worn:_____

DOSE ASSESSMENT

Did Individual enter a radiation area today? Yes ( ) No ( )

If "No", complete items 1 and 2; If "Yes" complete all items.

1. Sum of Dosimeter readings recorded during period: _____mR
2. Source of above Dose Data: HNP-8004, Form 2:_____

   DDPRNT:_____ DDUDAT:_____ COMPUTER _____
3. What Radiation areas did the individual enter today?

   _____
4. How long was the individual in each area?_____
5. What were the Dose Rates in these areas?_____
6. What RWP No. was the individual working under?_____
7. What exposures were received by others in the area?

   Name:_____ Dose:_____ Time in area:_____

   Name:_____ Dose:_____ Time in area:_____
8. Based on the above information, what is the individual's estimated exposure for today? _____mR.

_____ Employee

_____ H.P. Representative

E. I. HATCH NUCLEAR PLANT

Georgia Power

FORM 5

EXTREMITY BADGE ISSUE LOG

EXTREMITY BADGE ISSUE LOG

MONTH: _____ YEAR _____

NAME-Last, First	TLD #	BADGE #	DATE OF ISSUE	REMARKS	WHERE WORN*	ISSUED BY

* Location of where Dosimetry was worn

L.H. denotes Left Hand
R.H. denotes Right Hand
L.F.A. denotes Left Forearm
R.F.A. denotes Right Foreman
L.F. denotes Left Foot
R.F. denotes Right Foot
L.A. denotes Left Ankle
R.A. denotes Right Ankle

MANUAL SET

FORM 6

REQUEST FOR PREVIOUS RADIATION EXPOSURE

Georgia Power Company
Post Office Box 439
Baxley, Georgia 31513
Telephone 912 367-7781
912 537-9444

Georgia Power

Edwin I. Hatch Nuclear Plant

DATE: _____

_____

_____

_____

_____

Subject: Radiation Exposure Record

Gentlemen:

The following individual has indicated that he received radiation exposure while working for your organization. We would appreciate receiving copies of your exposure records for this employee.

Name of Employee _____ SS/No _____

Dates: _____ (From) _____ (To)

Very truly yours,

_____
Laboratory Foreman

I hereby authorize the release of the above information.

_____ (Signature of Employee)

_____ (Date)

FORM 7

Georgia Power Company
Post Office Box 439
Baxley, Georgia 31513
Telephone 912 367-7781
912 537-9444

Georgia Power

Edwin I. Hatch Nuclear Plant

DATE:

NAME:

SS/NO:

ADDRESS:

DATE OF BIRTH:

SUBJECT: RADIATION EXPOSURE REPORT

DEAR SIR:

PLEASE BE ADVISED THAT WHILE EMPLOYED OR VISITING AT THE EDWIN I. HATCH NUCLEAR PLANT DURING THE FOLLOWING WORK PERIOD(S), YOU RECEIVED THE FOLLOWING EXPOSURE TO IONIZING RADIATION.

DATES MONITORED		RECORDED EXPOSURE (REM)*		
FROM	TO	WHOLE BODY	SKIN	EXTREMITIES

* EXPOSURE DETERMINED BY TLD BADGE UNLESS OTHERWISE NOTED

REMARKS_____

BIO-ASSAY RESULTS:_____

_____

THIS REPORT IS FURNISHED TO YOU UNDER THE PROVISIONS OF THE NUCLEAR REGULATORY COMMISSION REGULATION 10 CFR PART 19. YOU SHOULD PRESERVE THIS REPORT FOR FURTHER REFERENCE.

_____
LABORATORY SUPERVISOR

XC: DIRECTOR, MANAGEMENT AND PROGRAM ANALYSIS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

FILE

FORM 8

Georgia Power Company
Post Office Box 439
Baxley, Georgia 31513
Telephone 912 367-7781
912 537-9444

Georgia Power

Edwin I. Hatch Nuclear Plant

Eberline Instrument Corporation
P. O. Box 2108
Santa Fe, New Mexico 87501

Attention: Dosimetry Services

Gentlemen:

The Georgia Power Company Plant E. I. Hatch TLD Occupational Radiation Exposure Report does (or will) not reflect exposure received by the following person for the indicated period because of lost or damaged TLD badge.

Based on plant exposure records, we estimate the individual's exposure to be:

TLD NO.	NAME	S.S. NO.	DATES COVERED	EST. EXPOSURE (REM)		
				W.B.	Skin	Ext
			From:			
			To:			

Please adjust this individual's record to reflect the above estimated exposure.

Yours truly,

Health Physics

cc: Individual's File

FORM 9

Georgia Power Company
Post Office Box 439
Baxley, Georgia 31513
Telephone 912 367-7781
912 537-9444

Georgia Power

Edwin I. Hatch Nuclear Plant

_____

_____

_____

_____

SUBJECT: RADIATION EXPOSURE REPORT

DEAR SIR,

ATTACHED IS A COPY OF THE EXPOSURE REPORT FURNISHED (NAME)_____

(SSAN)_____ UPON TERMINATION OF VISIT OR EMPLOYMENT AT

PLANT HATCH.

ALL EXPOSURE IS DETERMINED BY TLD BADGE UNLESS OTHERWISE NOTED ON ATTACHED.

THIS REPORT IS FURNISHED TO YOU UNDER THE PROVISIONS OF 10 CFR 19.13.

_____
LABORATORY FOREMAN

xc:File

FORM 10

DOSE DISCREPANCY INVESTIGATION

DOSE DISCREPANCY INVESTIGATION

Individuals Name:_____/TLD#_____/ID#_____

Period of Exposure_____ to _____

Reported TLD Dose _____mr

Recorded Dosimeter Dose _____mr

INVESTIGATION FINDINGS:*

Investigating Technician(s)_____

_____

Record Exposure Accepted _____mr

Individual's Supv. notified _____/_____

Lab Foreman Review/Date approval _____/_____

Exposure entered into computer by: _____
Name/Date

Eberline notified via Form 8 _____
Name/Date

* Investigation may include the following:

a. Survey Results

b. Exposure Time

c. Doses of other performing similar work.

d. Location of devices worn on the body.

e. Type of Dosimeter, High Range or Low Range.

f. RWP totals.

E. I. HATCH NUCLEAR PLANT

Georgia Power

FORM 11

NEUTRON DOSE ESTIMATES

NEUTRON DOSE ESTIMATES

DATE	RWP NO.	GAMMA DOSE RATE	NEUTRON DOSE RATE	NAME	TLD NO. 1D NO.	GAMMA DOSE RECEIVED	N-TO-G RATIO	NEUTRON DOSE RECEIVED	TOTAL DOSE RECEIVED	DOLOAT

HNP-8004 R15
FORM 11

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Shipment Of Radioactive Material
PROCEDURE TITLE

HNP-8016
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
12	Page 15, 16 & 18	W R Rogers	J M Farley	5/10/82
13	Pages 18 & 19	W R Rogers	H. Nix. Jr.	8/26/83

Need issued 4-27-83
RLT

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 5016

Revision No. 12

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
M. Wright	3-10-83	W A Rogers	3-14-83

REVISION CHANGED 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 Pg 18, para. N.2.c. delete old formula and substitute a new one incorporating density factors into curie determination. Pg. 19 add Table 5 and density graph. This is needed to close out Action Item Tracking number 01915 and associated N.R.C. I.E.B. Report number 321/82-30.

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No J Elder for PRB Secretary

83-49
PRB Number

3-22-83
Date

HNP-3

MANUAL SET

EC

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

APPROVAL	
See Title Page	
DATE	
See Title Page	

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	
HNP-8016	
REVISION NO	
13	
PAGE NO	
1 of 48	

EC

SHIPMENT OF RADIOACTIVE MATERIAL

A. PURPOSE

To assure that all shipments of radioactive material meet the Department of Transportation (DOT) and Nuclear Regulatory Commission (NRC) requirements.

B. SAFETY

Observe Radiation Protection Procedures.

C. REFERENCES

1. 49 CFR 100-199
2. 10 CFR 71
3. A review of the Department of Transportation (DOT) Regulations for Transportation of Radioactive Materials, August 1976.
4. Control and Accountability of Radioactive Material, HNP-8017
5. Health Physics Journal, Vol 31, No. 5, November 1976.
6. Barnwell site Disposal Criteria, HNP-8401.

D. SPECIAL EQUIPMENT

1. Appropriate survey instruments.
2. Appropriate DOT labels and placards.
3. Radioactive Shipment Record (RSR) form.

CAUTION

The technician is to visually inspect each package for integrity, dents, loose caps, or ruptures. All packages MUST BE approved by a Laboratory Foreman, Laboratory Supervisor, or Health Physics Superintendent. These persons must be knowledgeable in NRC, DOT regulations, Chem Nuclear requirements, and Georgia Power Company procedures for radioactive shipments.

E. MATERIAL CLASSIFICATION AND TYPE OF PACKAGE DETERMINATION

NOTE

This procedure specifies steps to consider when preparing any radioactive material for shipment. Shipment of fissile material requires special consideration to ensure against nuclear criticality due to the fissile nature of the materials.

1. Determine what isotope(s) is to be shipped and whether fissile or non-fissile.

2. Determine what quantity of each isotope is to be shipped and the total aggregate quantity. If a counting room quantitative analysis is impractical, estimate the aggregate quantity using radiation surveys and Section N.

3. Determine what is the form of the isotope, i.e., NORMAL FORM or SPECIAL FORM. See Figure 1 and Section R, Definition.

   a. If normal form, determine which transport group the radioactive material is classified by referring to 49 CFR 173.390 or the Table 1 below.

TABLE 1 *

RADIONUCLIDE	TRANSPORT GROUP
Cesium 137	III
Cobalt 58	IV
Cobalt 60	III
Chromium 51	IV
Iodine 131	III
Mixed Fission Products (MFP)	II
Manganese 54	IV
Plutonium 239	I
Strontium 90	II
Uranium 235	III
Zinc 65	IV
Zirconium 95	III

* For mixtures of radionuclides see 49 CFR 173.390 (c).

   b. Special form material is not classified by transport group.

4. Determine the package type as follows:

   a. Determine if the material is a small or exempt quantity, low specific activity material, or radioactive device by Table 2 below. If the material does not exceed the limits in Table 2, proceed to Sections F, G, or H.

TABLE 2
ACTIVITY LIMITS FOR SMALL QUANTITIES,
DEVICES AND LOW SPECIFIC ACTIVITY MATERIALS

Transport Group	Small or Exempt Quantities	Manft Articles and Radioactive Devices Maximum Quantities		Low Specific Activity Materials
		Per Device	Per Package	
I	0.01 mCi	0.0001 Ci	0.001 Ci	0.0001 mCi/gm
II	0.1 mCi	0.001 Ci	0.05 Ci	0.005 mCi/gm
III	1 mCi	0.01 Ci	3 Ci	0.3 mCi/gm
IV	1 mCi	0.05 Ci	3 Ci	0.3 mCi/gm
V	1 mCi	1 Ci	1 Ci	
VI	1 mCi	1 Ci	1 Ci	
VII	25 Ci	25 Ci	200 Ci	
Tritium Oxide (2)	0.5 mCi/ml (2)			(See also Note (1) below)
Special Form	1 mCi	0.05 Ci	20 Ci	
U.235	15 gms		15 gms (fissile material)	

NOTE

(1) Also objects of non-radioactive material externally contaminated with radioactive material, if the radioactive material is not readily dispersible and the surface contamination does not exceed 0.0001 mCi/cm^2 Group I or 0.001 mCi/cm^2 all other groups. Such objects must be suitably wrapped when shipped in a closed vehicle (except aircraft; see Section P)

(2) Aqueous solution. Total activity per package not more than 3 curies.

b. If the radioactive material does exceed the limits in Table 2 determine the package requirement from Table 3 below, then proceed to Section I.

TABLE 3
TYPE A AND TYPE B PACKAGE QUANTITY LIMITS

TRANSPORT GROUP	TYPE A PACKAGE QUANTITY (CURIES)	TYPE B PACKAGE Quantity (Curies) *
I	0.001	20
II	0.05	20
III	3	200
IV	20	200
V	20	5000
VI, VII	1000	50,000
Special Form	20**	5000

* Quantities exceeding type B are "large quantity (large radioactive source). These quantities involve all of the Type B package requirements plus other provisions unique to the specific package design. Refer to 49 CFR 173.395 (c) or 49 CFR 173.394 (c) for packaging requirements.

** Except for Californium 252, wherein the limit is 2 Ci.

F. SHIPMENT OF SMALL OR EXEMPT QUANTITY MATERIALS (Table 2 and 49 CFR 173.391)

1. Package the material to meet the following conditions:

   a. Strong tight package to prevent leakage during transit.

   b. Surface dose rate not greater than 0.5 mrem/hr at any point.

   c. No contamination on external surface of package. Refer to Section M.

   d. Mark outside of inner container "Radioactive".

2. Complete a Radioactive Shipment Record (RSR). Refer to Section K. Mark the RSR with "No Label Required" immediately following the description.

G. SHIPMENT OF MANUFACTURED ARTICLES (Table 2 and 49 CFR 173.391)

1. Package the material to meet the following conditions:

   a. Strong tight package to prevent leakage during transit.

   b. Dose rate for any unpackaged device not greater than 10 mrem/hr @ 4 inches from device.

   c. Surface dose rate not greater than 0.5 mrem/hr at any point if shipped as mixed cargo.

   d. Surface dose rate not greater than 2 mrem/hr at any point for exclusive use shipments.

   e. No contamination on external surface of package. Refer to Section M.

2. Complete a Radioactive Shipment Record (RSR). Mark the RSR with "No Label Required" immediately following the description. Refer to Section K.

H. SHIPMENT OF LOW SPECIFIC ACTIVITY MATERIALS (Table 2 and 49 CFR 173.392)

1. Mixed Shipments (173.395)

a. Package the material to meet the following conditions for normal form material.

(1) For L.S.A. quantities which do not exceed Type "A" quantities (see Table 3) use Specification 7A container (49 CFR 178.350). Refer to Figure 2. Refer to section 49 CFR 173.393 (g) for liquid radioactive material.

(2) For L.S.A. quantities which do not exceed Type "B" quantities, refer to 49 CFR 173.395 (b) for container requirements and Figure 2.

(3) For quantities greater than Type "B" quantities refer to note in Table 3.

(4) A package must be used so that the external dose rate is not greater than 200 mrem/hr at any point on the surface and the transport index is not greater than 10 (i.e. 10 mr/hr @ 3 feet).

b. If package weight exceeds 110 pounds, mark the weight plainly and durably on the outside of the package (49 CFR 172.310 (a).

NOTE

Not required for exclusive use vehicle. See 49 CFR 173.392 (b).

c. Assure that the package has been labeled "Type A" or "Type B" with letters at least 1/2 inch high and that the letters are durable and plain. (49 CFR 172.310 (a) (2).

d. Survey the package for dose rate and contamination to assure acceptability for shipment. (Refer to Section M).

e. Label the package as specified in Section J of this procedure.

f. Complete the radioactive shipment record (RSR) per Section K.

g. Placard the vehicle in which the package is to be shipped if a Radioactive Yellow III label is required. See Figure 3 for placard design.

NOTE

For shipping via aircraft see Section P for special details.

2. Sole Use Vehicles Except Aircraft (49 CFR 173.392 c)

a. Package the material to meet the following conditions:

(1) Strong tight package to prevent leakage during transit. Type B and large quantities must be shipped in Type B containers per 10 CFR 71.

NOTE

When shipping material in special casks, refer to the handling and loading procedure for that cask.

(2) No contamination on external surface of package. Refer to Secton M.

(3) External dose rate does not exceed:

(a) 1000 mrem/hr @ 3 feet from external surface of package, (closed vehicle).

(b) 200 mrem/hr at external surface of vehicle (closed vehicle).

(c) 10 mrem/hr at 6 feet from vehicle surface.

(d) 2 mrem/hr in any normally occupied position in vehicle.

NOTE

After the truck is loaded and the final radiation survey is to be performed a Laboratory Foreman will accompany the technician to survey the truck. The radiation level can not exceed the DOT limits of 200 mr/hr contact, 10 mr/hr at 6 feet and 2 mr/hr in a normally occupied position in the cab.

For administrative purposes the following limits should be adhered to:

Surface at vertical plane of truck - 165 mr/hr
Surface at truck underbelly - 165 mr/hr
Six feet from vertical plane of truck - 8 mr/hr

NOTE

For casks, measurements must be made 6 feet from the cask surface.

Surface at rear of truck cab - 1.6 mr/hr

Exceeding the administrative limits must be approved by a Laboratory Supervisor or higher authority.

The radiation measurement in the cab shall be surveyed with an E-400 or teletector which reads less than 2 mr/hr and is calibrated at a point less than 2 mr/hr. The shipment should also be surveyed with two different instruments to insure you do not have a low reading instrument. Final measurements for the truck will be made using instruments assigned solely for radwaste shipments.

b. Stencil or mark the outside of the package with "Radioactive - L.S.A.".

c. Survey package as required for RSR.

d. Perform survey of vehicle before loading. Refer to Section M. There must not be any loose radioactive material in vehicle. Also refer to Section Q for vehicle used full time for transporting radioactive materials only.

e. Load vehicle with package (s). See Barnwell Site Disposal Criteria, HNP-8401.

f. Brace package as necessary to prevent shifting or leaking during transit.

g. Survey outside of vehicle to confirm requirements of Section H.2.a. are not exceeded. Record results on Data Sheet 1 of Data Package 2 or Data Sheet 2 of Data Package 3 and file the data sheet with the pink copy of the R.S.R.

h. Placard the vehicle with radioactive placards on the front, rear, and on each side. See Figure 5 for placard designs.

NOTE

For shipping via aircraft see Section P for special details.

i. Complete the radioactive shipment record (RSR). See Section K.

I. SHIPMENT OF TYPE A AND B QUANTITIES

NOTE

Refer to Figure 2 for typical Type A and B packaging. All packages must be approved by a Laboratory Foreman or a higher classification. These persons must be knowledgeable in NRC, DOT regulations, Chem-Nuclear requirements, and Georgia Power Company Procedures for radioactive shipments.

1. Package the material to meet the following conditions (49 CFR 173.393):

   a. The package must be a DOT specification Type A or B container and so labeled. Also see handling and loading procedure for the specific cask.

   b. The package must incorporate a seal which is not readily breakable and while intact, will be evidence that the package has not been illicitly opened.

   c. The smallest outside dimension must be at least 4 inches.

   d. Shielding efficiency and leak tightness under conditions normally incident to transportation must be maintained.

   e. For large quantities see 49 CFR 173.394 (c), 173.395 (c).

   f. For pyrophoric materials see 49 CFR 173.393 (f).

   g. For liquid materials see 49 CFR 173.393 (g) and (n) (7).

   h. No contamination on surface of the package (Refer to Section M).

i. For mixed loading shipment, dose rate must not exceed:

(1) 200 mrem/hr at the surface.

(2) 10 transport index (10 mr/hr at 3 feet).

j. For sole use shipments, dose rate must not exceed:

(1) 1000 mrem/hr at 3 feet from package surface (closed vehicle).

(2) 200 mrem/hr at the surface of the vehicle.

(3) 10 mrem/hr at 6 feet from surface of vehicle, 2 mrem/hr in any normally occupied area of vehicle.

NOTE

After the truck is loaded and the final radiation survey is to be performed a Laboratory Foreman will accompany the technician to survey the truck. The radiation level can not exceed the DOT limits of 200 mr/hr contact, 10 mr/hr at 6 feet and 2 mr/hr in a normally occupied position in the cab.

For administrative purposes the following limits should be adhered to:

Surface at vertical plane of truck - 165 mr/hr
Surface at truck underbelly - 165 mr/hr
Six feet from vertical plane of truck - 8 mr/hr

NOTE

For casks, measurements must be made 6 feet from the cask surface.

Surface at rear of truck cab - 1.6 mr/hr

Exceeding the administrative limits must be approved by a Laboratory Supervisor or higher authority.

The radiation measurement in the cab shall be surveyed with an E-400 or teletector which reads less than 2 mr/hr and is calibrated at a point less than 2 mr/hr. The shipment should also be surveyed with two different instruments to insure you do not have a low reading instrument. Final measurements for the truck will be made using instruments assigned solely for radwaste shipments.

2. Survey the package for dose rate and contamination to assure acceptability for shipment (Refer to Section M).

3. Label the package as specified in Section J.

4. Complete the radioactive shipment record (RSR) per Section K or Section L.

5. Placard the vehicle in which the package is to be shipped if a Radioactive Yellow III label is required. See Figure 3 for placard details.

NOTE

For shipping via aircraft see Section P for special details.

J. PACKAGE LABELING

NOTE

Not required for L.S.A. exclusive use vehicle. See 49 C.F.R. 173.392 B. Each package of radioactive material must be labeled, unless exempt, on two opposite sides, with a distinctive warning label.

1. Refer to Figure 4 for label description.

2. Select the appropriate label from Table 4 below using the radiation survey.

3. Insert on two labels the applicable information as required by using legible printing with weather resistant marking.

4. Affix the labels to the package on opposite sides.

TABLE 4

RADIOACTIVE MATERIAL PACKAGES LABEL CRITERIA
(172.403)
DOSE RATE LIMITS

LABEL	AT ANY POINT ON ACCESSIBLE SURFACE OF PACKAGE	AT THREE FEET FROM EXTERNAL SURFACE OF PACKAGE (TRANSPORT INDEX)
"RADIOACTIVE-WHITE I"	0.5 mR/hr	0
"RADIOACTIVE-YELLOW II"	50 mR/hr	1.0 mR/hr
"RADIOACTIVE-YELLOW III"*	200 mR/hr	10 mR/hr

* Requires Vehicle Placarding
(This label mandatory for any fissile Class III (173.389A) or large quantity package (173.389B), regardless of dose rate levels.) These limits in table come from 173.393 (i).

K. COMPLETING THE RADIOACTIVE SHIPMENT RECORD (RSR)

NOTE

An RSR will be completed for every shipment of radioactive material whether it is "exempt" or not.

Refer to HNP-8017, Control and Accountability of Radioactive Material.

1. Non-Fissile Material

Enter the following information on the R.S.R. Refer to figure 5 and 6.

a. Block #1 - Enter name of company, addresses, license number, and individual's name if sent to anyone's attention. Enter a phone number if it is known. Enter name of freight line or truck company as carrier.

b. Block #2 - Specify type of waste; generally it will be compacted waste and resins.

c. Block #3 - Identify shipment as to whether is is normal form or special form (section R of this procedure). Usually it will be normal form. If it is normal form then indicate the physical form.

d. Block #4 - Indicate class of material by checking appropriate box. See block 16 line 6.

e. Block #5 - Indicate the type of quantity by checking the appropriate box.

f. Block #6 - Indicate type of vehicle.

g. Block #7 - Indicate if any special instructions are included.

h. Block #8 - Indicate if prior notification of shipment has been given.

i. Block #9 - Indicate if placards have been affixed to vehicle.

j. Block #10 - Indicate if labels are affixed to containers.

k. Block #11 - Indicate container specifications (i.e. 7A or special permit #, etc.)

l. Block #12 - Indicate that we do have a copy of the receivers license and that it does cover this type of material. Must be signed by shipper.

m. Block #13 - Have driver read and sign exclusive use statement.

n. Block #14 - Give driver his copies of the appropriate papers and have sign block #14.

o. Block #15, line 1 - Indicate transport group number and list all radioisotopes identified.

Line 2 - Use correct section and list the measurements indicated. In section "d" list the survey instruments used by model and serial number.

Line 3 - Give the contamination level measurements. Use the average reading found.

p. Block #16 - Indicate that the packages have been correctly labeled and marked.

q. Block #17 - The technician controlling this shipment will verify that the certificate statement is true and then sign the statement.

r. Block #18 - After the technician is satisfied that the shipment is correct he will sign the first line authorizing the release of the shipment. Before the final release, an authorized, knowledgeable laboratory foreman or higher supervision must review all aspects of shipment for compliance to applicable regulations and then sign and date the release.

s. Block #19 - Indicate that the shipment does not exceed the limit of 10 nanocuries per gram of transuranics.

t. Figure 11 - List package numbers as they are loaded. If this is a drum shipment then list the drum numbers. If other items, then list the items sequentially (if they are not already numbered) as they are loaded. In the second column record the contact dose rate as measured directly with an instrument. The third column is for the dose rate at three feet from the package surface (this is the transport index or T.I.). Estimate the activity of each drum by section N of this procedure using the appropriate formulas, graphs, or tables and the dose rate at contact. Record the activity in the fourth column. Perform wipe smears on the drums or packages and record the contamination levels in the fifth column. List the quantity of the package in the appropriate units (ie. cubic feet, liters, etc.) in the sixth column. See item 11 on figure 9. Determine the total weight of each package and record the weight in the seventh column. If the weight is over 110 pounds and the shipment is mixed freight the weight must be labeled on the package (see 172.310 (a). The right side of figure 7 is a continuation of the left side. Total columns 4, 6 and 7 and list these totals in the spaces provided.

2. Fissile Material

Enter the following information in the appropriate space on the RSR.

Refer to Figures 14, and 15. Figure 15 is to be used as a continuation sheet along with Figure 14 when shipping large numbers of containers.

a. Shipped To - receiver's name, address and license number. See HNP-8017 for instructions on verification of license.

b. Number, Date - number and date of shipment.

c. Shipped Via - motor freight, air express, etc. Give name of carrier.

d. Remarks/Description - describe (i.e. six irradiated fuel bundles, L.P.R.M. assemblies, T.I.P. drive parts etc.) Include remarks such as fissile class if needed or Type A or B or Large Quantity shipment.

NOTE

More than one item or type of material can be shipped on the same RSR.

e. Physical State - check physical state, identify SN material type and isotope(s).

f. SNM Net Wt., Enrichment Isotopic Wt., Curies, Specific Activity, Concentration - complete if SNM is being shipped.

g. Container, No. of Containers, DOT/BE No., Serial No., Weight, Seal No. - complete for all radioactive shipments. If not applicable put NA.

h. Transport Group - check appropriate block.

i. Radiation Survey Data - enter data required.

j. Surveyed By - signature of surveyor.

k. Radiation Units - complete if shipping fissile material.

l. Placard Required - Check block if shipping a yellow III label package.

m. Shipment Approval - a Laboratory Foreman or a higher classification must sign here. The person approving the shipment must be knowledgeable in the NRC and DOT regulations, Chem Nuclear requirements and Georgia Power Company Procedures for radioactive shipments.

n. Method of Shipment - identify carrier.

o. Marking and Labeling - record the type of label and marking on the package.

p. Shipment Originator - place of origin of the package, normally it will be Plant Hatch.

q. Date -

2. Distribute the RSR copies as follows:

   a. Original - to package destination.

   b. Yellow - to driver of vehicle transporting package.

   c. Pink - File in H.P. office.

3. If a shipment is not exempt from packaging and labeling, the shipment receiver must be notified by telephone or letter, before the shipment arrives. Some exceptions are, (1) if the shipment receiver expects a shipment at regular time intervals or (2) if he knows it is coming.

L. RADWASTE SHIPMENTS TO CHEM NUCLEAR

1. When shipping radioactive waste to Chem Nuclear complete an RSR form (Figure 5 & 6), the Chem-Nuclear Record Form (Figure 8 and 9) and (Figure 10 & 11) and the South Carolina Prior Notification Form and Shipment Certification Form, (Figure 12, 18, and 19).

CAUTION

NO LIQUID WASTES ARE TO BE SHIPPED TO BARNWELL.

NOTE

It is very important that these forms be complete and instructions for completion followed. When shipping waste, current copy of these forms supplied by the vendor, shall be used. Forms in Fig. 8,9,10,11 and 12 are only specimen forms.

2. Assure that Barnwell Site Disposal/Criteria is complied with.

3. Distribute the Chem-Nuclear Record Form as prescribed below:

   a. Original - To Chem-Nuclear

   b. Yellow - To Chem-Nuclear

   c. Pink - File in H.P. office.

4. Distribute the RSR as prescribed for other shipments.

NOTE

When shipping radioactive waste to U.S. Ecology, Inc. complete a Radio-active Waste Shipment and Disposal Form (Figure 13). When shipping waste, current copy of these forms supplied by the vendor, shall be used. Form in Fig. 13 is only a specimen form.

M. SURVEY FOR CONTAMINATION CONTROL (49 CFR 173.397)

1. The following are permissible levels of removable (non-fixed) radioactive contamination.

   a. Package for mixed cargo shipments:
   Beta-gamma not greater than 2200 dpm/100 cm^2
   Alpha not greater than 220 dpm/100 cm^2

   b. Packages for exclusive use shipments:
   Beta-gamma not greater than 22,000 dpm 100 cm^2
   Alpha not greater than 2200 dpm/100 cm^2

   c. Transport vehicles - accessible surface (49 CFR 177.843):
   Dose Rate not greater than 0.5 mrem/hr
   Beta-gamma not greater than 2200 dpm/100 cm^2
   Alpha not greater than 220 dpm/100 cm^2

NOTE

A vehicle for transporting radioactive material as exclusive use must be surveyed prior to loading of packages for shipment from Plant Hatch and after removal of radioactive packages shipped to Plant Hatch.

   d. Transport vehicle used solely for transporting radioactive materials (49 CFR 177.843):
   Dose rate (interior surface) not greater than 10 mrem/hr.

   Dose rate (3 ft. from interior surface) not greater than 2 mrem/hr.

   These vehicles must be stenciled with the words, "For Radioactive Materials Use Only" in lettering at least 3 inches high in a conspicuous place on both sides of the exterior of the vehicle. The vehicle must be closed at all times other than loading and unloading.

2. Perform smear survey on packages using a sufficient number of smears to assure a representative assessment. Refer to HNP-8012. Results must meet criteria in M.1 before shipment can be made.

3. Perform a smear and dose rate survey on the transport vehicle (exclusive use) prior to loading package(s). Use a sufficient number of smears to assure a representative assessment. Refer to HNP-8012. Record results on Data Sheet 1 of Data Package 2 or Data Sheet 2 of Data Package 3. Results must meet criteria in M.1 before packages can be loaded. Notify Health Physics supervisor if limits are exceeded.

N. ESTIMATING CURIE CONTENT OF PACKAGES

1. Resin in a 55 gallon drum.

   a. Obtain a grab sample from each batch of resin and perform an isotopic analysis.
   b. Determine the average weight (lbs.) per drum for each batch of resin. ie. weight of the resin after subtracting the weight of the empty drum .
   c. Sum the specific activities of all the radionuclides present to obtain the specific activity of the drum contents (uCi/g).
   d. Estimate the activity of the drum contents as follows:

$$\text{Activity (mCi)} = \text{specific activity of drum contents uCi/g} \times 453.6 \text{ g/lb.} \times \text{Average drum weight lbs.} \times \frac{1 \text{ mCi}}{10^3 \text{ uCi}}$$

   e. To determine the quantity of Transport Group II isotopes normally found in spent resin, a sample of primary coolant shall be sent to an outside vendor (Teledyne) for Strontium analysis once per quarter. When significant fuel leaks are identified, as specified by the Health Physics Radiochemistry Superintendent or his designated alternate, this analysis will be done more frequently. The contribution of Transport Group II isotopes, which is determined from the ratio of the Cs^{137} activity to the activity of Sr^{90}, must be added to the total curie content of the shipment.

The following example calculation illustrates this method:

Given: Total curie content = 150 mCi
(excluding contribution from Group II isotopes)
Activity of Sr^{90} = 1.5 E-07 uCi/ml
Activity of Cs^{137} = 3.0 E-04 uCi/ml

Ratio: $\frac{\text{Activity of } Sr^{90}}{\text{Activity of } Cs^{137}} = \frac{1.5\text{ E-07}}{3.0\text{ E-04}} = 5.0\text{ E-02}$

Contribution from Group II Isotopes:

150 mCi x 5.0 E-02 = 7.5 mCi

Total Curie Content:

150 mCi + 7.5 mCi = 157.5 mCi

f. Sum the specific activities of the radionuclides present with half-lives longer than five (5) years (uCi/g).

g. Calculate the volume of the resin accounting for any settling in the container (cm^3).

h. Estimate the concentration (uCi/cm^3) of the radionuclides present with half-lives longer than five (5) years as follows:

$$\text{Concentration } \frac{uCi}{cm3} = \frac{(\text{Specific activity of radionuclides with T 1/2} > 5\text{ yrs. uCi/gm}) \times (453.6\text{ g/lb}) \times (\text{Average drum Weight LBS})}{(\text{volume of resin cm}^3)}$$

2. Trash in a B-25 box.

a. Measure the exposure rate at 3 feet from each accessible side and top of the container in mR/hr.

b. Average the highest readings collected at each point (mR/hr).

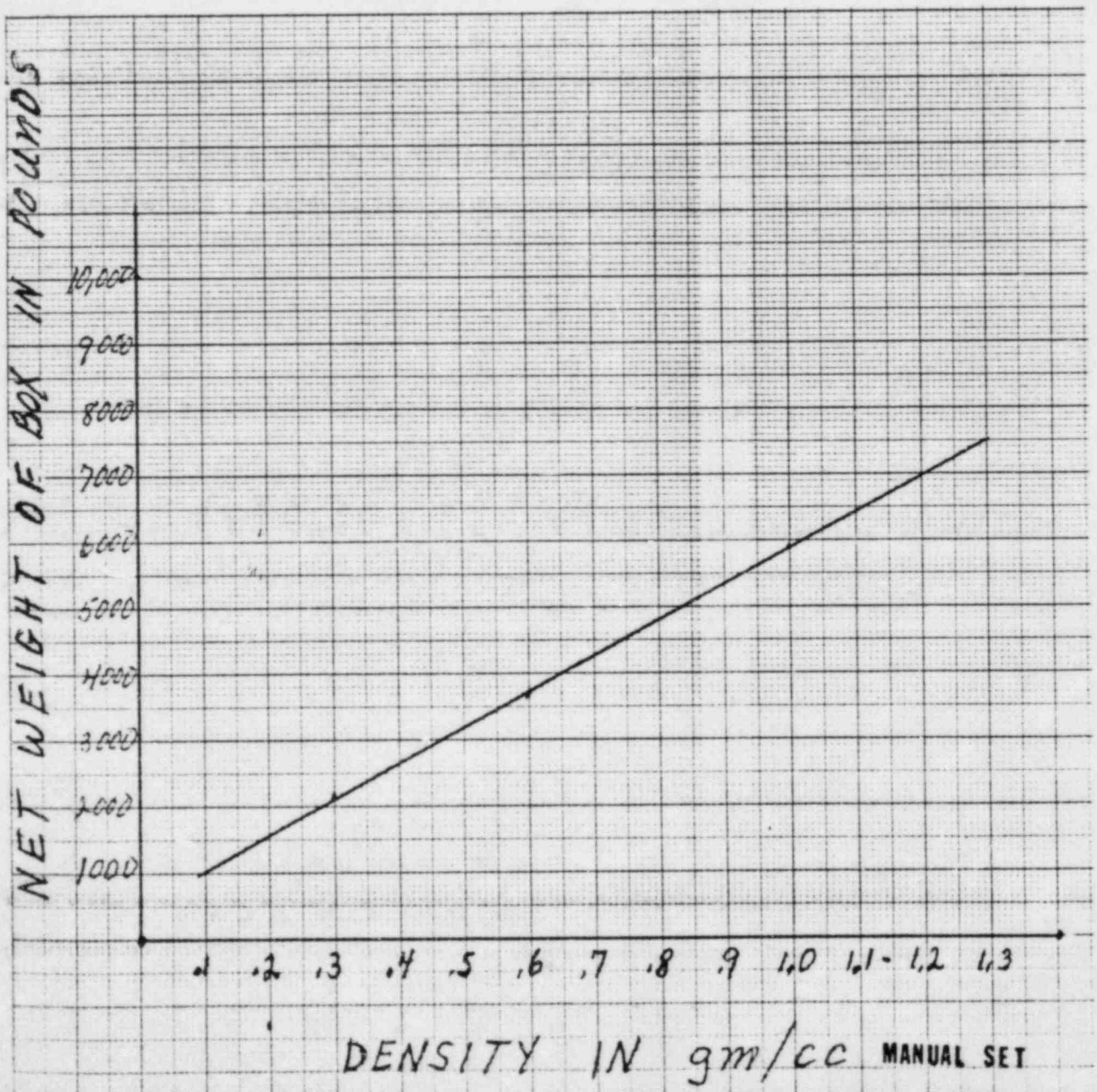
c. Estimate the Curie content using the formula below:

mCi = 2.43 x S.F. x D.R

Where D.R. is average dose rate in mR/hr from step 2.b.
S.F. is shielding factor from Table 5

TABLE 5

Density (gm/cc)	Shielding Factor
.3	1.37
.4	1.76
.5	2.30
.6	2.99
.7	3.94



O. SHIPMENT OF EMPTY CONTAINERS (49 CFR 173.29)

1. Containers originally used to ship radioactive material may be shipped as Empty containers if the following requirements are met:
   a. Containers must be securely closed so that no residual material can leak out.
   b. Radiation level must not exceed 0.5 mrem/hr at any point on the external surface of the package.
   c. Contamination on the surface of the package must not exceed values as specified in Section M.
   d. All shipping labels and all stenciled, painted, or engraved markings showing original contents must be removed, obliterated, or covered.
   e. An "Empty" label must be placed on the outside of the package. This label must be a square 6 inches on a side with the word "Empty" printed in black letters at least 1 inch high on a white background.
   f. The Bill of Lading must be marked "Empty Container, which originally contained radioactive material" immediately following the description.

P. SHIPMENT BY AIRPLANE

Packages to be shipped by airline must meet the following DOT regulations:

49 CFR 175.75 (a) (3)
49 CFR 175.85 (b)
49 CFR 175.85 (d)
49 CFR 175.700
49 CFR 175.710
49 CFR 173.393 (n) (7)
49 CFR 173.393 (p)

Q. INCOMING EMPTY VEHICLES (49 CFR 177.843)

1. Once a vehicle used for carrying Low Specific Activity radioactive material in truckload lots arrives, the vehicle must be surveyed. The vehicle cannot be loaded for normal use until:
   a. In the case of a common carrier,

(1) Radiation levels at any accessible surface must not be more than 0.5 mrem/hr.

(2) Contamination on any accessible surface must not exceed:
Beta-gamma- 2200 d/m per 100 cm^2
Alpha - 220 d/m per 100 cm^2

b. In the case of a vehicle which is used only for the transportation of radioactive material and is marked For Radioactive Materials Only.

(1) Radiation levels must not exceed 10 mrem/hr at any accessible interior surface and 2 mrem/hr at 3 feet from any interior surface

(2) There are no smearable contamination limits.

R. DEFINITION (49 CFR 173.389)

1. Fissile Material

Fissionable material, typically U-235 and Pu 239. (U-233, Pu-238 and Pu-241 are other less frequently encountered fissionable material). Less than 15 grams U-235 is considered non-fissile.

2. Normal Form

Radioactive material not in Special Form. Normal Form radioactive materials are grouped into Transport Groups. Normal form materials are typically liquids and powders.

3. Radioactive Material

Any material which spontaneously emits ionizing radiation. Materials in which the radioactivity is uniformly distributed and which has a specific activity less than 0.002 uCi per gram are not considered to be radioactive materials.

4. Special Form

Radioactive material in a form which if released from the package might present some direct radiation hazard but would present little hazard due to radiotoxicity and little possibility of contamination. To be classified as Special Form material, the material must meet the following requirements:

a. Must be in massive solid form or encapsulated.

b. Must have no overall dimension less than 0.5 mm or have at least one dimension greater than 5.0 mm.

c. Each item must not dissolve or convert into dispersible form to the extent of more than 0.005% by weight when:

(1) Immersed for 1 week in water at pH 6-8, 68° F, and a maximum conductivity of 10 umho/cm.

(2) Immersed for 1 week in air at 86° F.

d. Each item must not break, crumble or shatter if a steel rod 1 inch in diameter, weighing 3 pounds, and having a flat end is dropped from a distance of 40 inches into the item.

e. Each item must not melt, sublime or ignite at temperatures below 1000° F.

f. If the material is encapsulated, it must also withstand a free drop thru 30 feet on to an unyielding surface and it must withstand heating to 1475° F for 10 minutes.

5. Transport Group:

One of seven groups into which Normal Form radionuclides are classified according to their radiotoxicity and their relative potential hazard in transportation.

6. Transport Index:

The number placed on a package to designate the degree of control required for transportation. This number is the larger of the following:

a. The highest radiation level in mrem/hr at 3 feet from any accessible external surface of the package.

b. For Fissile Class II packages only, the number obtained by dividing 50 by the maximum number of packages that may be transported together.

7. Type A Quantity:

That quantity of radioactive material which requires Type A or general packaging requirements.

8. Type B Quantity:

That quantity of radioactive material which requires Type B packaging. Type B packaging must meet all the requirements that Type A packaging does plus it must meet the standards for hypothetical accident conditions in transportation (see 49 CFR 173.398c).

S. Semi-Annual Report of Solid Waste and Irradiated Fuel Shipments.

Record, every semi-annual period on, Figure 20 of Data Package 5, the following information.

1. Cubic meters and total curies of spent resins, filter sludges, evaporator bottoms, etc. for 6 month period.

2. Cubic meters and total curies of dry compressible waste, contaminated equipment etc. for 6 month period.

3. Cubic meters and total curies of irradiated components, control rods, fuel channels, etc. for 6 month period.

4. Other items that contain licensable amounts of radioactive materials not covered above for 6 month period.

5. Breakdown of percent and curies of major nuclides for each of the four categories above.

6. Number of solid waste shipments, mode of transportation and destination of the shipments.

7. Number of irradiated fuel shipments, mode of transportation and the destination of the shipments.

FIGURE 1

"NORMAL FORM" R.A.M. (173.389(D))
(RADIOACTIVE MATERIAL - N.O.S.)

INCLUDES ANY MATERIAL WHICH DOES NOT QUALIFY AS "SPECIAL FORM".

NORMAL FORM MATERIALS ARE CLASSIFIED INTO EITHER OF SEVEN TRANSPORT GROUPS.

WASTE MATERIAL IN PLASTIC BAG

LIQUID IN BOTTLE WITHIN METAL CONTAINER NO FIRE RESISTANCE

POWDER IN GLASS OR PLASTIC BOTTLE

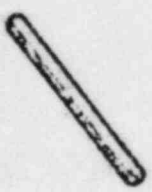
LOW-MELTING, COMBUSTIBLE AND OR FRANGIBLE SOLID

"SPECIAL FORM" R.A.M. (173.389(G) AND 173.398(A))

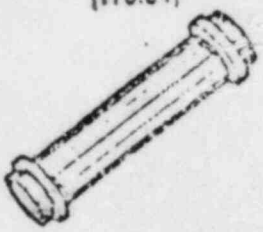
MAY PRESENT A DIRECT RADIATION HAZARD IF RELEASED FROM PACKAGE, BUT LITTLE HAZARD DUE TO CONTAMINATION

"SPECIAL FORM" R.A.M. MAY BE "NATURAL" CHARACTERISTIC, I.E., MASSIVE SOLID METAL, OR "ACQUIRED" THROUGH HIGH INTEGRITY ENCAPSULATION

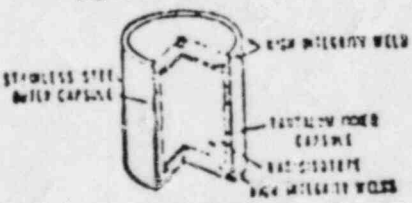
MASSIVE SOLID METAL



DOT SPEC. 2R* (178.34)



HIGH INTEGRITY ENCAPSULATION AS A SEALED SOURCE

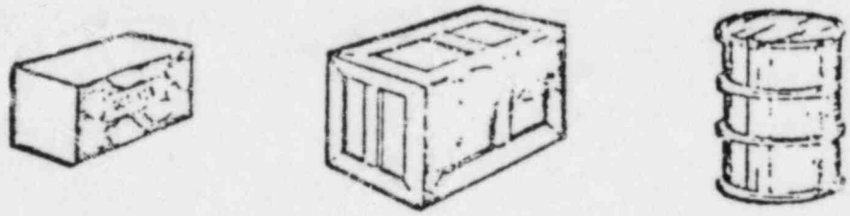


*SPEC. 2R CONTAINMENT DOES NOT AUTOMATICALLY QUALIFY AS "SPECIAL FORM" SPECIFIC EVALUATION IS NECESSARY AGAINST 173.398(A)

FIGURE 2

TYPICAL TYPE A PACKAGING

PACKAGE MUST WITHSTAND NORMAL CONDITIONS (173.398(B)) OF TRANSPORT ONLY WITHOUT LOSS OR DISPERSAL OF THE RADIOACTIVE CONTROL CONTENTS.



FIBERBOARD BOX WOODEN BOX STEEL DRUM

TYPICAL SCHEMES

DOT SPECIFICATION 7A
TYPE "A" PACKAGE

TYPICAL TYPE B PACKAGING SCHEMES

PACKAGE MUST STAND BOTH NORMAL (173.398(B)) AND ACCIDENT (173.398(C)) TEST CONDITIONS WITHOUT LOSS OF CONTENTS.

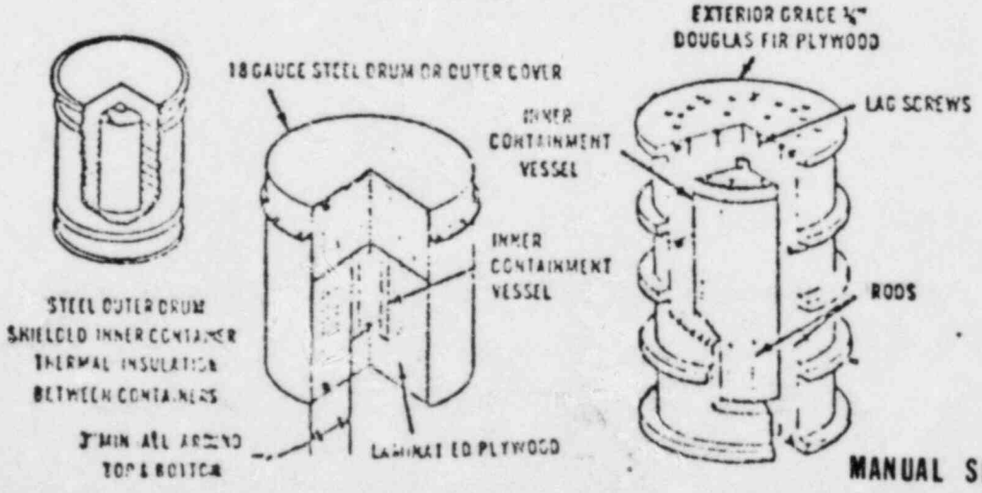


FIGURE 3

VEHICLE PLACARD FOR RADIOACTIVE MATERIALS

[172.556 (A)(2)]

PLACARD IS TO BE DISPLAYED ON FRONT, REAR, AND EACH SIDE OF TRANSPORT VEHICLE

Color Scheme

All Three Labels:

Lower Half is White
Vertical Bars are Red
Print is in Black

E. I. HATCH NUCLEAR PLANT

Georgia Power

FIGURE 4

MANUAL SET

FIGURE 5

GEORGIA POWER COMPANY
SHIPMENT RECORD
FOR NON-FISSILE RADIOACTIVE MATERIAL

1.

Shipment # _____
From: Ga. Power Co./Plant E. I. Hatch
Unit 1 License DPR-57 ☐
Unit 2 License # NPF-5 ☐
P. O. Box 442
Baxley, Ga. 31513

In Case of Emergency Call (912) 367-7781
TO: _____ License # _____
_____
_____
_____

ATTN: _____ Phone _____
CARRIER _____

SHIPMENT I.D.-CHECK APPROPRIATE BOX(ES) 2.

☐Evaporator Concentrates ☐Resins
☐Compacted Waste ☐Sludge
☐Bulk Waste
Others _____

FORM I.D.-CHECK APPROPRIATE BOX(ES) 3.

☐Normal Form* ☐Physical Form
☐Special Form ☐Solid ☐Liquid
☐Gas ☐Chemical Form ☐Nitrates
☐Sulfates ☐Phosphates ☐Oxides
☐Carbonates Other _____

*ONLY REQUIRED IF MATERIAL IS IN NORMAL FORM

SHIPPING NAME
Check appropriate box 4.

☐Radioactive Devices, n.o.s.
☐Radioactive Materials, LSA, n.o.s.
☐Radioactive Materials, Limited Qty, n.o.s.
☐Radioactive Materials, n.o.s.
☐Radioactive Materials, Special Form n.o.s.
HAZARD CLASS: Radioactive Material

TYPE-CHECK APPROPRIATE BOX(ES) 5.

☐LSA ☐Type A Quantity/Container
☐LSA-BULK* ☐Type B Quantity /Container
☐LSA-LIQUID ☐Large Quantity
☐DEVICE ☐Limited Quantity

*IF THESE ARE CHECKED, TYPE A, B, OR LARGE QUANTITY MUST ALSO BE CHECKED.

VEHICLE INFORMATION-CHECK APPROPRIATE BOXES 6.

☐Private Motor Carrier
☐Rail Sole Use
☐Rail Not Sole Use
☐Passenger Carrying Transport Vehicle
☐Closed Transport
☐U.S. Mail
☐Truck, Van, Car Sole Use
☐Truck, Van, Car Not Sole Use
Other _____

SPECIAL INSTRUCTIONS-CHECK APPROPRIATE BOX 7.

Any special instructions for safely opening this/the package/s is/are attached to this shipping form. ☐Yes ☐Not Applicable

NOTIFICATION*-CHECK APPROPRIATE BOX 8.

The consignee has been notified as to date of shipment and estimated time of arrival.
☐Yes ☐Not Applicable *REQUIRED FOR TYPE B OR LARGE QUANTITY

PLACARDS*-CHECK APPROPRIATE BOX 9.

"Radioactive" placards are affixed to both sides and both ends of transport vehicle.
☐Yes ☐Not Applicable *REQUIRED IF VEHICLE HAS YELLOW III OR SOLE USE LSA

LABELS-CHECK APPROPRIATE BOX 10.

Required labels (white I, yellow II, yellow III) are affixed to opposite sides of each package.
☐Yes ☐Not Applicable

CONTAINER SPECIFICATION 11.

DOT Specification No. _____ Special Permit No. *USNRC _____
*REQUIRED FOR TYPE B OR LARGE QTY. PACKAGES

10CFR20 REQUIREMENT 12.

There is a copy of the license or certificate on file indicating that the consignee is authorized to receive this material. _____ Signature

EXCLUSIVE USE STATEMENT 13.

If this transport vehicle is designated as "SOLE USE", it is understood that it will be loaded by the consignor. Unloaded by the consignee and no other material will be carried in/out the cargo carrying body and that the material is not to be transferred to another cargo body unless under the direction of the consignor, consignee, or authorized agent.
☐Yes ☐Not Applicable _____ DRIVER'S SIGNATURE

DISTRIBUTION 14.

The driver must have a copy of this document in his possession.

_____ DRIVER'S SIGNATURE

FIGURE 6

RADIOLOGICAL INFORMATION

1. TRANSPORT GROUP: I II III IV V VI ☐ EXEMPT FROM DOT PACKAGING SPECS.

Radionuclides-Abbreviations Authorized:

a._____ b._____ c._____ d._____ e._____ f._____ g._____ h._____

i._____ j._____ k._____ l._____ m._____ n._____ o._____ p._____

2. SURVEY DATA-USE APPROPRIATE SECTION. SURVEY UNITS TO BE MREM/HR. NUMBERS IN PARENTHESES ARE THE LIMITS FOR THOSE MEASURMENTS.

a. Sole Use-Closed Transport
3' Ext Surface Pkg (1000) _____
Ext Surface Vehicle/Car (200) _____
6' Outer Lateral Surfaces, Vehicle (10) _____
Normally Occupied Position (2) _____

b. Sole Use-Open Transport
Contact Ext Pkg (200) _____
6' Outer Edges Vehicle (10) _____
Normally Occupied Position (2) _____

c. Non Sole Use-Open or Closed Transport
Contact Ext Surface Pkg (200) _____
3' Ext Surface Pkg (10) _____

d. Survey Instruments
Inst._____ Ser. No._____
Inst._____ Ser. No._____

3. CONTAMINATION DATA

Beta-Gamma (22,000DPM/100CM^2) _____ DPM/100CM^2
*Alpha (2,200DPM/100CM^2) _____ DPM/100CM^2

*UNLESS MATERIAL IS ALPHA EMITTER OR PACKAGE HAS BEEN SUBJECT TO ALPHA CONTAMINATION, INSERT NA ON ALPHA LINE.

MARKING-CHECK APPROPRIATE BOXES 16

1. Weight*	☐ Yes	☐ Not Applicable
2. Consignee Name & Address**	☐ Yes	☐ Not Applicable
3. Type Packaging Marking (Type A or Type B)	☐ Yes	☐ Not Applicable
4. LSA Packages Marked "Radioactive LSA"	☐ Yes	☐ Not Applicable
5. Limited Quantity Packages, Interior Package Marked "Radioactive"	☐ Yes	☐ Not Applicable
6. Shipping Name Marking ***	☐ Yes	☐ Not Applicable

* REQUIRED ON EACH PACKAGE OVER 110 LBS., EXCEPT IF LSA SOLE USE
** REQUIRED UNLESS VEHICLE IS SOLE USE
*** SEE BLOCK #4

CERTIFICATE 17

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

_____
Shipper's Signature

AUTHORIZATION 18

This record completed by _____ DATE

Survey data, packaging, labeling and marking checked for compliance with applicable regulations forman _____ Signature DATE

TRANSURANICS 19

Nuclear power generating facilities do not exceed transuranics limits of 10 NANO CI/GRAM.

Is this statement applicable? ☐ Yes ☐ No

If No then give the amount of NANO Curies per gram _____.

FIGURE 7

DATA

UNIT#________ TYPE WASTE________ UNIT#________ TYPE WASTE________

Pkg. #	Contact[a] (mr/hr)	TI[b] (mr/hr)	ACT. (mCi)	Contam-ination[c]	Qty[d]	Pounds	Pkg. #	Contact[a] (mr/hr)	TI[b] (mr/hr)	ACT. (mCi)	Contam-ination[c]	Qty[d]	Pounds
TOTALS							TOTALS						

GRAND TOTALS

Shipment-Millicuries________(Do not use scientific notation)

POUNDS- ____________ QUANTITY ____________

NOTES
a. Contact reading for billing purposes.
b. TI to be filled out if packages bear Yellow II or Yellow III labels.
c. Contamination levels in DPM/100 cm^2. See section M.
d. Qty-Enter quantity used in cubic feet, gallons, milliliters as appropriate.
e. For mixed freight shipments TI cannot exceed 50.
f. When using yellow III labels vehicle must be placarded.

MANUAL SET

CHEM-NUCLEAR SYSTEMS INC.
RADIOACTIVE SHIPMENT RECORD FORM

FIGURE 8

FROM: Company Name: _____
Contact: _____
Address: _____
_____
_____
Telephone # _____
TO: _____
_____

BARNWELL WASTE MANAGEMENT FACILITY
Operated by: CHEM-NUCLEAR SYSTEMS, INC.
P. O. Box 726, Barnwell, South Carolina 29812
(803) 259-1781

RADIOACTIVE SHIPMENT RECORD FORM
Page _____ of _____
Carrier Name _____
Driver Signature _____
Date & Time Rec'd _____

Shipping Date _____
Customer Survey No. _____
(16)
Type of Cask _____
Trailer # _____

CNSI USE ONLY
Arrival Date _____ Survey No. _____
Date Buried _____ By _____
Radiation Reading _____ Weight _____
Trench No. _____ WCC _____
LOC Code _____ Items _____
Total PERS EXP _____

(1) Res Number	(2) Radio-nuclide	(3) Physical Form	(4) Chemical Form	(5) Waste Description	(6) SNM (Grams)	(7) Source (Pounds)	(8) Activity (Millicuries)	(9) Gross Weight	(10) Trans-port Group	(11) Container Cu. Ft.*	(12) Container Spec.	(13) Rad. Level (mR/HR) Surface / 3 ft.	(14) External Removable Contamination DPM/100cm² α / β/γ	(15) Label Used
TOTAL														

IMPORTANT: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signature _____
Company _____ Date _____
(See Reverse Side for Instructions for Completing This Form)

Copies: White-Accompany Shipment, Canary-Customer, Pink-Carrier

"Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low level radioactive waste has been inspected in accordance with the requirements of South Carolina Radioactive Material License No. 097 as amended and the Nuclear Regulatory Commission's License No. 46-13536-01 as amended, and the effective Barnwell Site Disposal Criteria at the hours prior to shipment. Further certification is made that the inspection revealed no items of non-compliance with all applicable laws, rules and regulations."

Date _____ By _____
Title and Organization _____
Telephone No. (___) _____

Form No. CNS 301
(9-79)

FIGURE 8

E. I. HATCH NUCLEAR PLANT
Georgia Power

MANUAL SET

FIGURE 9

CHEM-NUCLEAR SYSTEMS INC.
RADIOACTIVE SHIPMENT RECORD FORM

CHEM-NUCLEAR SYSTEMS, INC.

INSTRUCTIONS FOR COMPLETING RADIOACTIVE SHIPMENT RECORD FORM

NOTE: SHIPMENT MAY BE REFUSED IF CONTENTS, SUPPORTING DOCUMENTATION AND PACKING REQUIREMENTS ARE NOT IN COMPLIANCE WITH CHEM-NUCLEAR SYSTEMS, INC.'S STATE AND FEDERAL LICENSES, THE BARNWELL SITE CRITERIA AND APPLICABLE DOT AND NRC SHIPPING REGULATIONS.

GENERAL
Customer or shipper must provide (printed or typed) information in all numbered column headings.

Indicate company name, contact address and phone number, company name of carrier who is transporting the material and the date of the shipment in spaces provided.

An authorized representative of the company must sign and date the State of South Carolina and DOT Certification statements.

Column heading entries are to be made as follows:

(1) Item or container number - list each container separately. Identification on package itself shall match number in this column.

(2) Radionuclide - list each radioisotope contained in each container (See Note #3). The terms MFP and MCP are **not permitted.** Use as many lines as are required.

(3) Physical State - indicate state - solid, gas, biological.

(4) Chemical Form - reference section 172.203 of 49 CFR.

examples:	waste	chemical form
1.	solidified liquid	urea formaldehyde (UF) (solidification media)
2.	resin	metallic oxide deposited on resin
3.	laboratory trash	Na or K, SrCl₂, etc.

(5) Waste description examples: (evaporator bottoms), (filter materials), (solidified resins), (irradiated metals), (animal carcasses), et cetera.

(6) SNM (Special Nuclear Material) grams - weight in grams of material as defined in 10 CFR Part 20.3 (S.C. Title A 1.2.24) cannot exceed 50 grams per 4.0 cubic feet or larger container.

(7) Source Pounds - weight in pounds of material as defined in 10 CFR Part 20.3 (S.C. Title A 1.2.24).

(8) Record the activity (millicurie) quantity of each isotope in each container (including the activity of the SNM and Source Pounds).

(9) Gross Weight - weight in pounds of the disposable container (including contents). All packages in excess of 110 pounds must have weight indicated (see 49 CFR 172.310).

(10) See Section 173.390 of 49 CFR.

(11) Record external volume of container (7.5 ft³ for a 55 gallon drum, 4.0 ft³ for a 30 gallon drum, and 0.85 ft³ for a 5 gallon pail).

(12) Indicate DOT/NRC container specification if applicable, such as Spec 7A, Type B package, strong tight container, et cetera.

(13) Record the highest measured radiation levels for each disposable container at the specified distances. Transportation Index Number (T.I.) equals mR/hr reading at 3 feet.

(14) Removable contamination levels on containers shall not exceed levels set forth in Section 173.397 (a) of 49 CFR.

(15) Packages shall be labeled as required by Sections 172.101, 172.300, 172.400, 172.403 and 173.397 of 49 CFR.

(16) Record cask identification number from name plate on cask.

(17) Record the trailer identification number in space provided.

Note: 1) The total line at the bottom of each page must be completed for columns 1, 6, 7, 8 and 11 by the customer.

2) Each resin shipment must be accompanied by an isotopic analysis representing this shipment which includes each isotope, the abundance of each and the total curie content.

3) If more than one container in the shipment contains the same percent abundance of each radionuclide, then a listing of radionuclides and their percent/fractional abundance is required only for first container of this series. Subsequent containers in a series must be so designated. This listing or description should be in Column #2. In addition, only the total millicurie content for each container in the series need be listed in Column #8.

4) Additional shipping papers may be required - refer to 49 CFR 172.201 through 172.203.

FIGURE 10

PNP FORM

CHEM-NUCLEAR SYSTEMS, INC.
P.O. BOX 726
BARNWELL, S.C. 29812
Telephone (803) 259-3577 or 259-3578

1. Category of Shipment:	2. Date: Revised Date:
3. Shipper's Name:	Street Address:
City:	State: / Zip:
4. Emergency Contact Person:	Emergency Telephone No.
5. Carrier's Name:	Street Address:
City:	State: / Zip:
6. Emergency Contact Person	Emergency Telephone No.

7. Volume of Shipment: Cubic Feet:	8. Estimated Total Activity (For Type B & Large Quantity)

9. Estimated Date of Shipment:

10. Estimated Date of Arrival of Shipment:

11. Routes Shipment Will Follow In State Of South Carolina (Be Specific):

12. _____
Signature/Name of Person Completing Form

13. _____
Telephone Number

Copy #1: Chem-Nuclear Systems, Inc.
Copy #2: State of South Carolina, DHEC
Copy #3: Attach to RSR Form
Copy #4: Shipper's Copy

FIGURE 11

DEFINITIONS

The Prior Notification Plan (PNP) is required by the State of South Carolina. Prior notification is required for shipments falling into the following categories:

Category of Shipments:

Category I: Shipments containing Type B or Larger Quantity Packages (twelve days notice required).
Category II: All Cask Shipments (Five days notice required).
Category III: Non-Cask shipments greater than 75 cubic feet (ten 55-gallon drums) (Five days notice required).

Specific items as per front of form:

Item (1) Category of shipment (see above).
(2) Date: the date this form is filled out or revised.
(3) Shipper's name: Specific company and plant name, location by name of street, city, state, and zip code.
(4) Name of person to be contacted in case of an emergency with the shipment, with the appropriate EMERGENCY telephone number.
(5) Name of transportation company picking up this shipment for delivery with street address, city, state, and zip code of major home office.
(6) Name of the person to be contacted in case of an emergency with the shipment, with the appropriate EMERGENCY telephone number.
(7) External volume of the liner, box, container used to contain the radioactive material during shipment. (The actual volume of the package to be disposed of).
(8) The estimated total activity for Category I (Type B or Larger Quantity packages). The actual computed activity must be telephoned to Chem-Nuclear Systems, Inc. on the day of actual shipment.
(9) The "estimated date of shipment". The actual date will be provided by telephone on the date of shipment.
(10) The "estimated date of shipment ARRIVAL". This date will be revised when the "actual shipment date" is determined and telephoned to Chem-Nuclear Systems, Inc. Additionally, if the shipment is delayed enroute and will not arrive on the estimated date, CNSI will be advised by the shipper of the "revised estimated arrival date".
(11) Specify the route that the shipment will follow during its travel in the State of South Carolina.
(12) Signature and name (printed) of the person completing this form with office telephone number.

SPECIAL NOTE:

Receipt of mailgram or letter must be twelve (12) business days prior to shipment of Category I, and five (5) business days prior to shipment of Category II and III shipments. Send to:

CHEM-NUCLEAR SYSTEMS, INC.
Post Office Box 726
Barnwell, South Carolina 29812

Telephone No: (803) 259-3577 or 259-3578

FIGURE 12

General Instructions and Information

1. This form is to be used to provide the Department with prior notification of radioactive waste shipments transported into or within the State of South Carolina. This notification is to be made 72 hours before the expected date of arrival in the State. All written notices should be mailed to:

   Bureau of Radiological Health
   Radioactive Waste Management Section
   S.C. Dept. of Health and Environmental Control
   2600 Bull Street
   Columbia, South Carolina 29201

2. A separate form shall be submitted for each radioactive waste shipment.

3. Prior notification is required of all radioactive waste shipments as defined in paragraph 2 of Interim Regulations for the Transportation of Radioactive Waste into or within South Carolina except as provided in paragraph 4.1.2 of the Regulation.

4. The "Manifest Summary" portion of this form will satisfy requirements of providing the Department with a shipping manifest, however, it does not satisfy the requirements of shipping documents which shall accompany the shipments as required by DOT Regulations and the disposal facility's license and criteria.

5. A copy of this completed form shall be provided to the carrier and all drivers of the radioactive waste shipment.

6. Upon delivery of the shipment to the consignee, acknowledgement of receipt shall be obtained, and a copy of this form and the shipper/carrier's certification form shall be returned to the Department.

Specific Instructions

Item Number

1. Self Explanatory
2. Self Explanatory
3. This item applies to all shipments of radioactive waste transported to and within the State of South Carolina.
4. Each shipment of radioactive waste shall be identified in some manner by the shipper. This number can be a radioactive shipment record number, bill of lading number, allocation number, etc. The identification number shall only be used once to identify the one shipment for which notification is being made.
5. Self Explanatory
6. Indicate in this item the disposal facility, company, organization, etc., to which this shipment has been consigned.
7. Self Explanatory
8. For through shipments, indicate in this item estimated date shipment will pass through the state.
9. Self Explanatory

10.& 11. Applies only to exclusive use, sole use, and full load shipments.

12. All routing information must be specific. You should check with carrier to insure routes you prescribe are appropriate. The carrier is responsible to inform the Department of any changes of routes in South Carolina after departure.

13 thru 21. Self Explanatory

Certification: To be signed only by an authorized representative or agent of the shipper

…PPER: ______

…DRESS: ______

…TY: ______ STATE ______

…ONE: ______

…ATE SHIPPED ______ SHIPMENT NO. ______

…RIER: ______

RADIOACTIVE WASTE SHIPMENT & DISPOSAL FORM

US ECOLOGY, INC.

EXECUTIVE OFFICE: (502) 426-7160
P.O. BOX 7246 • LOUISVILLE, KENTUCKY 40207
Illinois Office: (815) 454-2376

NO. 01525 PAGE ____ OF ____

☐ P. O. Box 578
Beatty, NV 89003
(702) 553-2203

Permit Number ______

☐ P. O. Box 638
Richland, WA 99352
(509) 377-2411

Permit Number ______

APPROVAL	DATE
See Title Page	See Title Page

TOTAL QUANTITY	PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	IDENTIFICATION NUMBER	TOTAL WEIGHT IN POUNDS
	Waste Radioactive Device, N.O.S. — Radioactive Material	UN2911	
	Waste Radioactive Material, Fissile, N.O.S. — Radioactive Material	UN2918	
	Waste Radioactive Material, Low Specific Activity, N.O.S. — Radioactive Material	UN2912	
	Waste Radioactive Material, N.O.S. — Radioactive Material	NA9181	
	Waste Radioactive Material, Limited Quantity, N.O.S. — Radioactive Material	UN2910	
	Waste Radioactive Material, Special Form, N.O.S. — Radioactive Material	NA9182	

(1) Container I.D.	(2) Cubic Feet	(3) Weight (Pounds)	(4) Physical Form	(5) Chemical Form	(6) Radionuclide	(7) Special Nuclear Material (Grams)	(8) Source Material (Kilograms)	(9) Activity ☐ Curies ☐ Millicuries	(10) Radiation Levels mR/HR Surface	3 Feet	(11) Transport Group	(12) Transport Index	(13) Label	(14) Fissile Class	(15) Type of Container
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
													Radioactive –		
				TOTALS											

MANUAL SET

…CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, …D AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO APPLICABLE …ATIONS OF THE DEPARTMENT OF TRANSPORTATION.

______ Authorized Signature ______ Title

THIS IS TO CERTIFY THAT ARTICLES ARE IN COMPLIANCE WITH ALL REGULATIONS APPLICABLE AT THE DESIGNATED DISPOSAL SITE.

______ Authorized Signature ______ Title

DISPOSAL SITE COPY

FIGURE 13

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	REVISION NO	PAGE NO
HNP-8016	13	36 of 48

FIGURE 14

RADIOACTIVE SHIPMENT RECORD
FISSION MATERIAL

NO. _____
DATE _____

SHIPPED FROM: GEORGIA POWER COMPANY
PLANT E.I. HATCH
BAXLEY, GEORGIA 31513
LICENSE NO. DPR-57

SHIPPED TO: _____
LICENSE NO. _____
ATTENTION: _____

SHIPPED VIA: _____

REMARKS/DESCRIPTION: _____

PHYSICAL STATE: ☐ SOLID ☐ LIQUID ☐ GAS ☐ SPECIAL FORM ☐ LARGE QUANTITY

☐ SN MATERIAL–TYPE _____ ☐ BY– PRODUCT – ISOTOPE _____

SNM NET WT.	ENRICHMENT	ISOTOPIC WT.	CURIES	SPECIFIC ACTIVITY	CONCENTRATION

CONTAINER	NUMBER OF CONTAINERS	DOT/BE NO.	SERIAL NO.	WEIGHT	SEAL NUMBER

TRANSPORT GROUP: ☐ I ☐ II ☐ III ☐ IV ☐ V ☐ VI ☐ EXEMPT FROM D.O.T PACKAGING SPECS.

HEALTH PHYSICS SURVEY

READINGS TAKEN AFTER MATERIAL IS COMPLETELY PACKAGED:

MAXIMUM RADIATION AT SURFACE CONTACT _____ MR/HR. AT 3 FEET _____ MR/HR.

PRINCIPAL EMISSION: ☐ GAMMA ☐ NEUTRON ☐ ALPHA ☐ BETA

SMEAR RESULTS: _____ DPM/100 cm^2 (BETA – GAMMA): _____ DPM/100 cm^2 (ALPHA)

SURVEYED BY: _____ DATE _____

TRANSPORTATION

RADIATION UNITS: FISSILE CLASS _____ _____/PKG. FISSILE CLASS _____ _____ PKG./SHIPMENT

☐ PLACARD REQUIRED

SHIPMENT APPROVAL _____

TRANSPORTATION AND SHIPPING RELEASE

THIS IS TO CERTIFY THAT THE ABOVE NAMED ARTICLES ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION, ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPT. OF TRANSPORTATION.

METHOD OF SHIPMENT _____

MARKING & LABELING _____ RADIATION UNITS/PKG. _____

SHIPMENT ORIGINATOR _____ DATE _____

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8016-1 _____

SERIAL NO: R13-_____

MPL NO: N/A_____

RTYPE: G15.14_____

XREF: N/A_____

TOTAL SHEETS: 2_____

FREQUENCY: As Required_____

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: _____

DATA PACKAGE 1

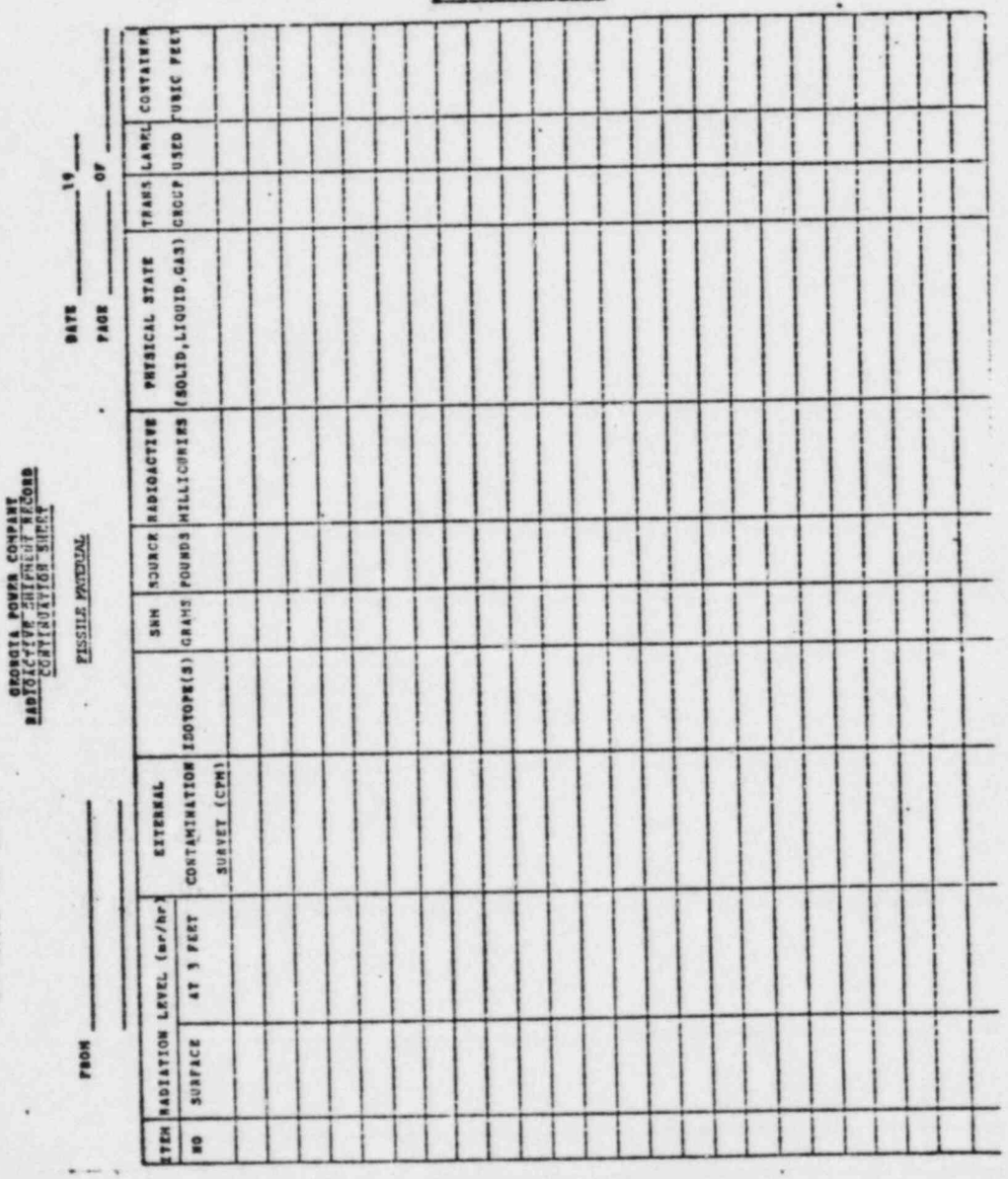


FIGURE 15
Page 2 of 2

MANUAL SET

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8016-2

SERIAL NO: R13-

MPL NO: N/A

RTYPE: G15.14

XREF: N/A

TOTAL SHEETS: 2

FREQUENCY: As Required

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: _____

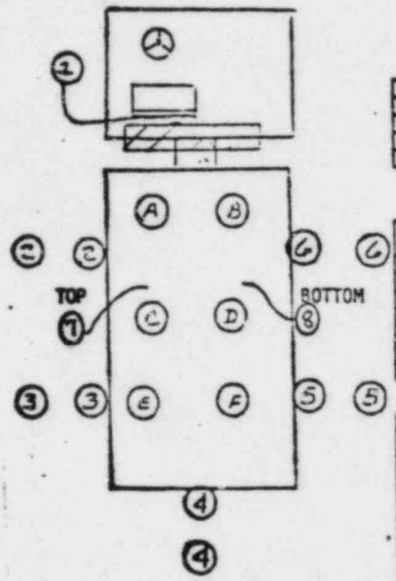
FIGURE 16
Page 1 of 2

MANUAL SET

DATA PACKAGE 2
(Data Sheet 1)

TRUCK SURVEY MAP

NO. _____



	UNLOADED	LOADED
DATE		
TIME		
LOCATION		
INSTRUMENT		

(UNLOADED)* LOCATION	DOSE RATE (SURFACE)mr/hr	UNLOADED * LOCATION	SMEAR SURVEY RESULTS ** X	Y	Z
1		A			
2		B			
3		C			
4		D			
5		E			
6		F			

(LOADED)* LOCATION	DOSE RATE mr/hr SURFACE '6' AWAY
1	
2	
3	
4	
5	
6	
7	
8	

RECORD HIGHEST READING MEASURED AT DISTANCE OF INTEREST

GENERAL VEHICLE CONDITION _____

INSPECTED BY _____ VEHICLE OPERATOR _____

REMARKS _____ DATE _____

SURVEYED BY _____ DATE _____

REVIEWED BY _____ DATE _____
HEALTH PHISICS SUPERVISOR

NOTE

THE RADIATION LEVEL SHOULD NOT EXCEED 200 mr/hr AT SURFACE, 10 mr/hr AT 6 FT. AWAY FROM SURFACE AND 2 mr/hr AT ANY NORMALLY OCCUPIED POSITION.

* See NOTE at H.2.a.(3)(d).

** Record results in dpm/100 cm^2. See Section H and Q for limits.

Assure that seals have been attached to all vehicles after loading. For incoming unloaded "Sole Use Vehicle's" the following limits shall apply:

SMEARABLE CONTAMINATION $\leq$ 2200 DPM/100 cm^2 BETA, GAMMA AND $\leq$ 220 DPM/100 cm^2 ALPHA. FIXED CONTAMINATION $\leq$ .5 mr/hr AT SURFACE.

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8016-3

SERIAL NO: R13-

MPL NO: N/A

RTYPE: G15.14

XREF: N/A

TOTAL SHEETS: 2

FREQUENCY: As Required

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: _____

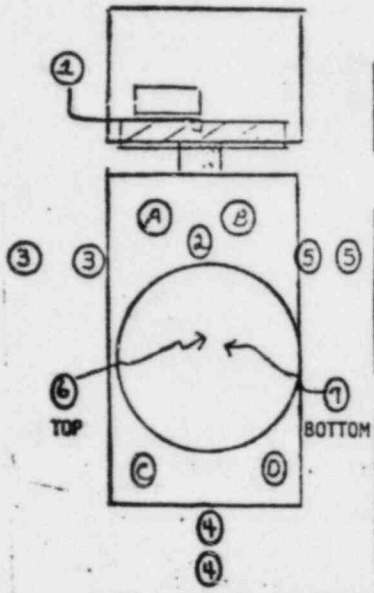
FIGURE 17
Page 1 of 2

MANUAL SET

DATA PACKAGE 3
(Data Sheet 2)

TRUCK SURVEY MAP

NO. _____



	UNLOADED	LOADED
DATE		
TIME		
LOCATION		
INSTRUMENT		

(UNLOADED) LOACATION	DOSE RATE (SURFACE) mr/hr	UNLOADED * LOCATION	SMEAR SURVEY RESULTS ** DPM/100 cm² BY	∝
1		PALLET 1		
2		PALLET 2		
3		PALLET 3		
4		A		
5		B		
6		C		
		D		

(LOADED)* LOCATION	DOSE RATE mr/hr SURFACE '6' AWAY
1	
2	
3	
4	
5	
6	
7	
8	

RECORD HIGHEST READING MEASURED AT DISTANCE OF INTEREST

GENERAL VEHICLE CONDITION _____

INSPECTED BY _____ VEHICLE OPERATOR _____

REMARKS _____ DATE _____

SURVEYED BY _____ _____ DATE _____

REVIEWED BY _____ DATE _____
HEALTH PHYSICS SUPERVISOR

NOTE

THE RADIATION LEVEL SHOULD NOT EXCEED 200 mr/hr AT SURFACE, 10 mr/hr AT 6 FT. AWAY FROM SURFACE AND 2 mr/hr AT ANY NORMALLY OCCUPIED POSITION.

* See NOTE at H.2.a.(3)(d).

** Record results in dpm/100 cm^2. See Section M and Q for limits.

Assure that seals have been attached to all vehicles after loading. For incoming unloaded "Sole Use Vehicle's" the following limits shall apply:

SMEARABLE CONTAMINATION < 2200 DPM/100 cm^2 BETA, GAMMA AND ≤ 220 DPM/100 cm^2 ALPHA. FIXED CONTAMINATION ≤ .5 mr/hr AT SURFACE.

FIGURE 17
Page 2 of 2

MANUAL SET

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8016-4

SERIAL NO: R13-

MPL NO: N/A

RTYPE: G15.14

XREF: N/A

TOTAL SHEETS: 3

FREQUENCY: As Required

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: _____

DATA PACKAGE 4

Form RHA-CT (5/80)

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Radioactive Waste Shipment Certification Form

General Instructions and Information: This is a two part form to be used by shippers and carriers of radioactive waste. The certifications contained herein satisfy the requirements of Section 13-7-150, of Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act. This certification along with a copy of the prior notification form shall accompany each shipment of radioactive waste into and within the State of South Carolina. The shipper is to complete his portion of the form and present it to the carrier as part of the shipping documents. Upon receipt, the carrier shall complete his portion of the form. Upon delivery of the shipment to the consignee, a copy of this certification form, and a copy of the Prior Notification and Manifest form with the consignee acknowledgement, shall be returned to the Department.

Part I: Shipper's Certificate of Compliance

1. Name of Shipper and Address:

Telephone No. ( )

2. Shipment Identification No.

3. Transport Permit No.

In compliance with Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act, I hereby certify on behalf of the above-named shipper to the South Carolina Department of Health and Environmental Control that the above-named shipper has complied with all provisions of Act No. 499 of 1980, and all applicable laws and administrative rules and regulations, both State and Federal, regarding the packaging, transportation, storage, disposal and delivery of such wastes. I further certify that this shipment of radioactive waste has been inspected within 48 hours of the time of departure and that no items of non-compliance with applicable laws, rules or regulations were found.

Date

Typed Name and Title of Agent of Shipper

Signature

Part II: Carrier's Certification

1. Name of Carrier and Address:

Telephone No. ( )

2. Shipment Identification No.

3. Transport Trailer No.

4. Scheduled Date of Departure of Shipment:

5. Estimated Date of Arrival of Shipment:

Certification is hereby made to the South Carolina Department of Health and Environmental Control that: (a) the shipper has provided the carrier with a copy of the shipment manifest, the certificate of compliance, and the routing instructions; (b) the shipment of radioactive waste has been properly placarded for transport according to applicable U.S. Department of Transportation Regulations; (c) all shipping papers originated or reproduced by the carrier have been properly executed; (d) the transport vehicle has been inspected according to applicable State and Federal regulations within the prescribed intervals and that all safety and operational components are in good working order and meet the requirements of regulations; (e) all drivers who will operate the vehicle within the State of South Carolina are qualified to transport hazardous materials as specified by applicable U.S. Department of Transportation regulations; (f) the Department shall be immediately notified of any variance, occuring after departure, from the shipper's notification of primary routes in South Carolina and estimated date of arrival; (g) all applicable laws and administrative rules and regulations, both State and Federal, regarding the transportation of radioactive wastes will be complied with.

Date

Typed or Printed Name and Title

Signature

DATA PACKAGE 4

Form NRA-PNC (5/90) SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Radioactive Waste Shipment Prior Notification and Manifest Form

(See reverse side for instructions)

1. Name and Address of Shipper:

2. Person Responsible for Radioactive Waste Shipment:
(a) Name
(b) Title
(c) Telephone No. ( )

3. Radioactive Waste Transport Permit No.

4. Shipment Identification No.:

5. Location from which waste will be shipped:

6. Name and Address of Consignee

7. Scheduled Date of Departure of Shipment:

8. Estimated Date of Arrival of Shipment:

9. Carrier:

10. Type of Transport Vehicle:

11. Trailer No. and Owner

12. Routes shipment will follow in State of South Carolina (Be Specific):

Manifest Summary

13. Type Container or Cask:

14. Container Spec.

15. Total No. of Containers

16. Waste Description: Physical and Chemical Form

17. Prominent Radionuclides:

18. Total Curies:

19. Transport Group:

20. Total Cubic Feet:

21. Waste Classification:

		Normal Form	Special Form	Fissile
[] Radioactive LSA	[] Bulk LSA	[] Type A quantity	[] Type A quantity	[] Class I
[] Radioactive LSA greater than Type A quantities	[] Limited quantities and radioactive devices	[] Type B quantity	[] Type B quantity	[] Class II
		[] Large quantity	[] Large quantity	[] Class III

Certification

I hereby certify on behalf of the above-named shipper to the South Carolina Department of Health and Environmental Control that the information provided herein is complete and correct to the best of my knowledge; and that the shipper has complied with all the provisions as required by Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act.

Date

Typed Name and Title of Agent of Shipper

Signature

Consignee Acknowledgement

This acknowledges to the South Carolina Department of Health and Environmental Control that the above-described radioactive waste shipment was received.

Date of Delivery

Signature of Consignee or Authorized Agent

Typed or Printed Name and Title

Page 3 of 3

HNP-8016 R13

FIGURE 18
Page 3 of 3

MANUAL SET

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8016-S

SERIAL NO: R13-

MPL NO: N/A

RTYPE: G15.14

XREF: N/A

TOTAL SHEETS: 2

FREQUENCY: As Required

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: _____

DATA PACKAGE 5

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (YEAR)_____

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
FOR UNIT _____

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (Not irradiated fuel)

1. Type of waste	Unit	6-month Period	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m^3	. E	
	Ci	. E	. E
b. Dry compressible waste, contaminated equip, etc.	m^3	. E	
	Ci	. E	. E
c. Irradiated components, control rods, etc.	m^3	. E	
	Ci	. E	. E
d. Other (describe)	m^3	. E	
	Ci	. E	. E

2. Estimate of major nuclide composition (by type of waste)

ISOTOPE	PERCENT	CURIES
a.		
b.		
c.		
d.		

3. Solid Waste Disposition

Number of Shipments	Mode of Transportation	Destination

B. IRRADIATED FUEL SHIPMENTS (Disposition)

Number of Shipments	Mode of Transportation	Destination

COMPLETED BY	DATE

FIGURE 19
Page 2 of 2

MANUAL SET

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

SITE AREA EMERGENCY - CONTROL ROOM OPERATORS
PROCEDURE TITLE

HNP-4622
PROCEDURE NUMBER

LAB
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Page 2	W H Rogers	C T Jones	3/1/82
2	Page 2	W H Rogers	Jim Gasic	7/7/82
3	Page 2	W H Rogers	Harvey Mitz	10/26/82
4	Pages 1 and 2	W H Rogers	Harvey Mitz	4/26/83

MANUAL SET

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4622

Revision No. 13

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Tim J. Kutchera	2/7/83	W H Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

Page 1 C.2 - delete " to determine location of Emergency Operation facility (EOF)," and chart: Combine a 3 into #2. *

Page 2 #4 - delete (Normal/alternate) EOF will be established.

#5 - delete forman and replace with supervisor

#6 - delete entire sentence.

#7 - delete forman and replace with supervisor

change all numbers as written in red.

* No wind direction alone will not determine whether Normal or alternate EOF is established.

KJT.

PRB RECOMMENDED APPROVAL: (X) Yes ( ) No

for PRB Secretary

83-46

PRB Number

3-17-83

Date

HNP-3

BT

MASTER SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

E. I. HATCH NUCLEAR PLANT

Georgia Power

BT

SITE AREA EMERGENCY - CONTROL ROOM OPERATORS

NOTE

This procedure supercedes HNP-4601 Revision 5 dated 8-1-80.

A. CONDITION

Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public. Any releases are not expected to exceed PAG exposure levels, except near the site boundary.

B. REFERENCES

HNP-4620

C. ACTION

1. Take appropriate action to place the plant in a safe condition in accordance with emergency operating procedures, Tech. Specs., and annunciator response procedures.

2. Check wind direction and speed on panel H11-P658. Determine evacuation route, based on wind direction as follows:

WIND DIRECTION	ROUTE
315° - 90°	North on U.S. 1
91° - 225°	South on U.S. 1
226° - 314°	Either direction on U.S. 1

3. Make the following announcement over the PA:

ATTENTION, ATTENTION: A SITE AREA EMERGENCY EXISTS. INITIATE SITE AREA EMERGENCY PROCEDURES. REPORT TO GATE 16 TO EXIT THE PLANT AND RECEIVE FURTHER INSTRUCTIONS. EVACUATION ROUTE WILL BE (NORTH/SOUTH/EITHER DIRECTION) ON U.S. 1 HIGHWAY.

Sound the Gai-Tronics tone for Site Area Emergency and repeat announcement.

4. Check Control Room instrumentation to determine status of plant as to whether or not a General Emergency should be declared. Notify Shift Supervisor of findings from performance of HNP-4853.

5. If Shift Supervisor has not reported in to the Control Room, initiate his actions as per HNP-4623.

6. Announcement of the "Site Area Emergency" status should be repeated periodically (approximately every 30 minutes) throughout the duration of the event.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Site Area Emergency - Internal Survey Team
PROCEDURE TITLE

HNP-4624
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Page 2	W H Rogers	Jim Greene for	3/23/82
2	Pages 1 & 2	W H Rogers	Glenn Kitt	1/13/83
3	Pages 1 and 2	W H Rogers	Glenn Kitt	4/26/83

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4624

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Tiffolo	2/25/83	W H Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST ~~Semi~~-Annual Review

Pages 1 & 2 of replace with new pages

Note: Ref. NRC Docket 50-321, 50-366
NYREG 0737 Item II.B.2 - Post accident Shielding
is the reason for step C.9

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No J Zelt
PRB Secretary

88-46
PRB Number

3-17-83
Date

HNP-3

MANUAL SEC

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

APPROVAL	
See Title Page	
DATE	
See Title Page	

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	
HNP-4624	
REVISION NO	
3	
PAGE NO	
1 of 2	

SITE AREA EMERGENCY - INTERNAL SURVEY TEAM

NOTE

This procedure supercedes HNP-4603 Revision 4 dated 1-2-81.

A. CONDITION

Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public. Any releases are not expected to exceed PAG exposure levels, except near the site boundary.

B. REFERENCES

HNP-4620.

C. ACTION

NOTE

This action is to be taken by the H.P. Supervisor and technicians whenever possible, or by other trained personnel.

1. OSC Manager or his designee will form the Internal Survey Team. The survey team will consist of H.P. technicians or other trained RET members. The minimum number of Internal Survey Team members will be two. The OSC Manager or designee may increase the number of survey team members if the conditions warrant.

2. Obtain the following equipment from the OSC emergency kit:

   a. High Range Dose Rate Meter

   b. Shears

   c. MSA Air Pack

   d. Protective Clothing

   e. Air Sampler (load with silver zeolite cartridge and glass fiber filter)

   f. Radio

   g. High Range Dosimeter (self-reading)

3. Turn survey instruments on to allow for warm-up. Check battery of survey instrument. Check operation of air sampler and radio's.

4. Don protective clothing and the SCBA.

5. As directed by the OSC Manager or designee, proceed toward area where the emergency exists making a survey as you go.

NOTE

At all times follow limits and guidelines in HNP-4866.

6. Notify Control Room and/or OSC Manager of any unusual conditions such as high dose rates, high contamination levels, damaged equipment, etc. Retreat if dose rates are significantly higher than expected.

7. If conditions permit survey for habitability of H.P. lab and counting room.

8. Rope off and post areas of high radiation as conditions permit.

NOTE

The primary means of communication with the OSC, Control Room, EOF and TSC will be through the use of the plant telephone system. If this system should become inoperable or an alternate system is preferred, then the plant radio and/or page will provide alternate means of communication.

9. Survey area outside Unit 2 truck door. Post area and control access as appropriate.

10. When requested, assist the Control Room, TSC and/or EOF in evaluating the extent of radioactive material released, the potential for release and offsite doses.

11. Document survey findings on standard Health Physics Survey forms; present findings and present survey forms to H.P. Supervision for approval and filing (see HNP-8012).

12. Return to the OSC when released by the Shift Supervisor or H.P. Supervisor.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Site Area Emergency - Rescue Team
PROCEDURE TITLE

HNP- 4628
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Page 1 & 2	W P Rogers	C T Jones	3/1/82
2	Pages 1 and 2	W P Rogers	[illegible]	1/12/83
3	Pages 1 and 2	W P Rogers	[illegible]	4/26/83

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4628

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Tibbo	2/23/83	W H Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST ~~Semi~~ - Annual Review

Page 1 & 2:

delete section C.1 - C.6 and replace with insert as shown

Page 2: renumber as shown

Page 2 C.12: change "notify" to update"

The changes were made based on the input of past Rescue Team members in order to provide a more workable procedure.

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No JZ Elt
PRB Secretary

83-46
PRB Number

3-12-83
Date

BT

HNP-3

MANUAL SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

APPROVAL
See Title Page
DATE
See Title Page

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO
HNP-4628
REVISION NO
3
PAGE NO
1 of 2

SITE AREA EMERGENCY - RESCUE TEAM

NOTE

This procedure supercedes HNP-4607 Revision 6 dated 8-31-79.

A. CONDITION

Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public. Any releases are not expected to exceed PAG exposure levels, except near the site boundary.

B. REFERENCE

HNP-4620

C. ACTION

1. The OSC manager or designee appoints members of the RET to serve as the Rescue Team. The OSC manager or designee shall also appoint a member of the Rescue Team to act as the Rescue Team Captain.

2. The Rescue Team Captain should designate members of the Rescue Team to fill the following positions:

   a. First Aid Leader

   b. Survey Man

   c. Rescue Team Assistant

   d. Rescue Team Assistant

3. The responsibilities of the Rescue Team members are as follows:

   a. Rescue Team Captain: Lead team in rescue effort; maintain communication with the OSC and/or the Control Room; assist, if necessary, in first aid as directed by the First Aid Leader; assure an ambulance has been called if needed; carry radio.

   b. First Aid Leader: Lead Rescue Team in first aid measures; inform Team Captain of condition of victim(s); assist with stretcher and rescue equipment if needed; carry first aid kit.

   c. Survey Man: Perform an immediate survey of area(s); update the Rescue Team with respect to radiological conditions throughout the rescue effort; assist First Aid Leader if requested; carry dose rate instrument.

d. Rescue Team Assistants: Participate in the rescue effort as directed by the Rescue Team Captain.

4. Use protective clothing only when the time and the situation permit. Respirators may also be needed depending on the nature of the situation. All team members should be equipped with a High Range Self-Reading Dosimeter in addition to their TLD and 200 MR Dosimeter.

5. Obtain the following equipment:

   a. First-Aid Kit

   b. Stretcher

   c. High Range Dose Rate Meter

   d. Walkie-Talkie

   e. Pinch Bar (if required for rescue)

   f. Rope and Tackle (if required for rescue)

6. Retreat if dosimeter reaches 2R and victim has not been located.

7. Limit dose to members of Rescue Team in accordance with HNP-4812 during rescue.

8. Refer to HNP-4801, HNP-4802, HNP-4803 and HNP-4810 for additional instructions concerning first aid, decontamination, handling and transport of exposed and/or contaminated injured individuals.

9. Report condition of victim to the Control Room, specify whether or not the victim is contaminated. Assure that the Shift Supervisor relays this information to the hospital.

10. Contact Emergency Operations Facility or Control Room by radio or phone for ambulance pickup of victim in the upwind direction of victim's location.

11. Move victim to ambulance.

12. Arrange for radiation technician to accompany victim to hospital in ambulance.

13. Update the Technical Support Center as soon as possible.

14. Take necessary measures to limit spread of contamination and report to the OSC when rescue effort is completed.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Actions for All Personnel in General Emergencies
PROCEDURE TITLE

HNP-4721
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( ) ,

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Pages 1, 2 & 3 Deletions on Pages 1 and 3, Delete Fig. 1	W. H. Rogers	C. T. Jones	3/1/82
3	Pages 1 thru 4	Dan Smith for WHR	C. T. Jones for HCN	11/18/82
4	Pages 1 & 2	W. H. Rogers	H. C. Nix	7/26/83

MANUAL SET

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4721

Revision No. 3

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Tim Kirkham	3/4/83	W H Rogers	3/8/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST Semi-annual Review

page 1 C.7: add sentences written to end of existing paragraph

page 2 C.8(a): change Shift Foreman to Shift Supervisor and change Shift Supervisor to Operations Supervisor

C-8(b): change Assistant Plant Manager to Manager Engineering and change Supt. of Administration to Manager Administration-Finance and Human Resources.

C-8(c): change Assistant Manager to Deputy General Manager, add Security Representative

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No J F Elton for PRB Secretary

83-49
PRB Number

3-22-83
Date

HNP-3

EC
MANUAL SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

APPROVAL	
See Title Page	
DATE	
See Title Page	

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	HNP-4721
REVISION NO	4
PAGE NO	1 of 4

ACTIONS FOR ALL PERSONNEL IN GENERAL EMERGENCIES

NOTE

This procedure supercedes HNP-4700, Revision 6 dated 9-5-79.

A. CONDITION

Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Release can be reasonably expected to exceed PAG exposure levels offsite for more than the immediate site area.

B. REFERENCE

HNP-4720.

C. ACTION

1. Persons discovering an emergency condition shall immediately notify the Control Room by the most expeditious means available.

2. Control Room operators shall announce the nature of the emergency on the public address system and specify that personnel initiate general emergency procedures.

3. Control Room operators shall place the plant in a safe condition as the emergency warrants.

4. If possible, person(s) in immediate area take appropriate, rapid action to limit the extent of the incident with available means, and then retreat to the rally point.

5. Persons involved in the incident report to Health Physics at the Emergency Operations Facility as soon as possible after decontamination for further evaluation of dose received.

6. Persons called in from offsite should report to the Emergency Operations Facility unless specifically directed otherwise.

7. Staffing of the Emergency Operations Facility (EOF) shall begin immediately. The normal EOF is in the Simulator Building and the alternate EOF is the Appling County Sheriff's Office in the courthouse. The OSC (Operations Support Center) should be located in the Unit 1 Service Building, with the headquarters/reporting area being the North end of the break room. The alternate OSC is the Simulator Training Building.

8. If the emergency occurs during a regular day shift, members of the plant operating organization on site will report as follows:

a. Control Room

Operations Supervisors, all on shift Operators, Shift Supervisor, Operations Supervisors, Shift Technical Advisor, Shift Clerk, (Communicator/recorders as needed)*

b. Emergency Operations Facility (EOF)

The following personnel will report to the EOF after checking through the rally point:

Manager Engineering, Health Physics Supt., Health Physicists, Manager Administration, Finance and Human Resources, Supt. of Regulatory Compliance, Security Manager, RET members assigned to Field Monitoring teams. (Communicator/recorders as needed)*

c. Technical Support Center (TSC)

The following persons will report directly to the TSC following notification of a General Emergency.

Deputy General Manager, Superintendent of Engineering Services, Superintendent of Maintenance, Superintendent of Operations, Reactor Engineer, Engineering Supervisors, Laboratory Supervisor (Health Physics), Document Control Supervisor, (Communicator/recorders as needed)* Security Representative.

d. Operations Support Center (OSC)

The following persons will report directly to the OSC following notification of a General Emergency.

1 Maintenance Supervisor, (OSC Manager), 1 crew instrument technican w/foreman (pre-designated), 1 crew electrician w/foreman (pre-designated), 1 crew mechanic w/foreman (pre-designated), all R.E.T. members, Plant Equipment Operators. (Communicator/recorders as needed).*

* Communicators/recorders are members of the Plant Engineering and Regulatory Compliance staffs, and will be dispatched as required.

9. All personnel who have not been assigned to the control room, TSC, OSC or EOF will evacuate the site per step 12 or 13.

10. Members of the plant organization will comply with applicable procedures to effect orderly coordinated actions in the emergency.

11. Members of the Radiological Emergency Team (RET) report to the OSC immediately if on site when the emergency begins. If team members are called in, they will report to the EOF for assignment.

12. Evacuation procedure for personnel inside the Primary Protected Area.

a. Every Effort shall be made to minimize personnel exposure to radiation.

b. All personnel shall stop work, turn off potentially hazardous equipment such as cutting torches, and leave the work area by the same route taken to enter the area.

NOTE

Personnel working in contaminated areas should remove rubber gloves and booties prior to crossing the first step-off pad to exit the work area. Remaining protective clothing should be removed before leaving the radiation controlled area, i.e. exiting through C52, T-16, T-17, Railroad Airlock etc. In general, protective clothing should be removed as soon as practical, depending on the nature of the situation.

c. Proceed to Gate 16 via the most direct route, unless an alternate route is specified by the Control Room.

d. Proceed to drop-off indentification badges at the Security post and continue to the area immediately outside Gate 16, the Environmental Building, or the Skills Training Building as directed by the Rally Point Leader for personnel monitoring.

NOTE

Personnel who have been in the area of the emergency should remain in a group and should not mix with other personnel at the Rally Point until monitored for possible contamination. The same holds true for personnel who have been working in contaminated areas.

e. Once personnel monitoring is completed, RET members will direct personnel to leave the plant site.

f. Personnel should leave the plant site on personal vehicles using U.S. Hwy. 1. The direction of travel (North, South, either direction) will be announced by the Control Room and will be based on wind direction.

g. If required, company vehicles will be used to supplement transportation needs.

13. Evacuation procedure for personnel outside the primary protected area:

a. All personnel shall stop work, turn off potentially hazardous equipment, and leave the work area.

b. Proceed to Gate 1, via the most direct route, unless an alternate route is specified by the Control Room.

c. Personnel monitoring will be performed at Gate 1, the Environmental Building or the Skills Training Building as determined by the RET members present.

d. Once personnel monitoring is completed, RET personnel will direct all personnel to leave the plant site.

e. Personnel should leave the plant site in personal vehicles using U.S. Hwy. 1. The direction of travel will be announced by the Control Room and will be based on wind direction.

f. If required, company vehicles will be used to supplement transportation needs.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

General Emergency - Control Room Operators
PROCEDURE TITLE

HNP- 4722
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
3	Page 2	W H Rogers	C E Jones	3/1/82
4	Page 2	W H Rogers	Jim Greiner	7/7/82
5	Page 2	W H Rogers	Harry Nix	10/29/82
6	Pages 1 and 2	W H Rogers	Harry Nix	4/26/83

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4722

Revision No. 5

REQUESTED BY	DEPARTMENT HEAD APPROVAL
Name: Tim J. Kobliha RJT Date: 2/2/83	Signature: W H Rogers Date: 3/3/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

Page 1 - C.2 - delete "to determine location of emergency operation facility (EOF)" and chart. Combine #3 into #2 *

Page 2 #3 - delete "(normal/alternate) EOF will be established"

#6 - delete whole sentence

#7 - delete foreman and replace with supervisor.

change all numbers as written in red.

* The wind direction alone will not determine whether the normal or alternate EOF is established. RJT

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No JZ Elk
PRB Secretary

83-46
PRB Number

3-7-83
Date

HNP-3

MANUAL SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

GENERAL EMERGENCY - CONTROL ROOM OPERATORS

NOTE

This procedure supercedes HNP-4701 Rev. 4 dated 5-13-78.

A. CONDITION

Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Release can be reasonably expected to exceed PAG exposure levels offsite for more than the immediate site area.

B. REFERENCE

HNP-4720

C. ACTION

1. Take appropriate action to place the plant in a safe condition in accordance with operating emergency procedures, Tech. Specs., and annunciator response procedures.

2. Check wind direction and speed on panel H11-P658. Determine evacuation route - base on wind direction as follows:

WIND DIRECTION	ROUTE
315°-90°	North on U.S. 1
91°-225°	South on U.S. 1
226°-314°	Either direction on U.S. 1

3. Make the following announcement over the PA:

ATTENTION, ATTENTION: A GENERAL EMERGENCY EXISTS.

INITIATE GENERAL EMERGENCY PROCEDURES. REPORT TO GATE 16 TO EXIT THE PLANT AND RECEIVE FURTHER INSTRUCTIONS. EVACUATION ROUTE WILL BE (NORTH/SOUTH/EITHER DIRECTION) ON US. 1 HIGHWAY.

Sound the general emergency tone on the gai-tronics system.

Then repeat announcement.

4. Using HNP-4853 perform Dose Assessment Calculations, until the dose assessment team, at the EOF is activated.

5. If Shift Supervisor has not reported in to the control room, initiate his actions per HNP-4723.

6. Announcement of the "General Emergency" status should be repeated periodically (approximately every 30 minutes) throughout the duration of the event.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

General Emergency - Internal Survey Team
PROCEDURE TITLE

HNP-4724
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Page 2	W H Rogers	Jim Boone for	3/23/83
2	Pages 1 & 2	W H Rogers	Harvey Reid	1/15/83
3	Pages 1 and 2	W H Rogers	Harvey Reid	9/26/83

MANUAL SET

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4724

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Richard Tibbs	2/25/83	W T Rogers	3/2/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST ~~Sta~~ Annual review

Pages 1 & 2 of C replace with new pages

Note: Reference NRC Docket 50-321, 50-366 (NUREG-0737 Item II.B.2 - Post Accident Shielding) is the reason for Step C.9.

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No J C Eli
PRB Secretary

83-46
PRB Number

3-17-83
Date

HNP-3

MANUAL SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

APPROVAL
See Title Page
DATE
See Title Page

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO
HNP-4724
REVISION NO
3
PAGE NO
1 of 2

GENERAL EMERGENCY - INTERNAL SURVEY TEAM

NOTE

This procedure supercedes HNP-4703 Rev. 4 dated 5-13-78.

A. CONDITION

Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Release can be reasonably expected to exceed PAG exposure levels offsite for more than the immediate site area.

B. REFERENCE

HNP-4720

C. ACTION

NOTE

This action is to be taken by the H.P. Supervisor and technicians whenever possible, or by other trained personnel.

1. OSC Manager or his designee will form the Internal Survey Team. The survey team will consist of H.P. technicians or other trained RET members. The minimum number of Internal Survey Team members will be two. The OSC Manager or designee may increase the number of survey team members if the conditions warrant.

2. Obtain the following equipment from the OSC emergency kit:

   a. High Range Dose Rate Meter

   b. Shears

   c. MSA Air Pack

   d. Protective Clothing

   e. Air Sampler (load with silver zeolite cartridge and glass fiber filter)

   f. Radio

   g. High Range Dosimeter (self-reading)

3. Turn survey instruments on to allow for warm-up. Check battery of survey instrument. Check operation of air sampler and radio's.

4. Don protective clothing and the SCBA.

5. As directed by the OSC Manager or designee, proceed toward area where the emergency exists making a survey as you go.

NOTE

At all times follow limits and guidelines in HNP-4866.

6. Notify Control Room and/or OSC Manager of any unusual conditions such as high dose rates, high contamination levels, damaged equipment, etc. Retreat if dose rates are significantly higher than expected.

7. If conditions permit survey for habitability of H.P. lab and counting room.

8. Rope off and post areas of high radiation as conditions permit.

NOTE

The primary means of communication with the OSC, Control Room, EOF and TSC will be through the use of the plant telephone system. If this system should become inoperable or an alternate system is preferred, then the plant radio and/or page will provide alternate means of communication.

9. Survey area outside Unit 2 truck door. Post area and control access as appropriate.

10. When requested, assist the Control Room, TSC and/or EOF in evaluating the extent of radioactive material released, the potential for release and offsite doses.

11. Document survey findings on standard Health Physics Survey forms; present findings and present survey forms to H.P. Supervision for approval and filing (see HNP-8012).

12. Return to the OSC when released by the Shift Supervisor or H.P. Supervisor.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

General Emergency - Rescue Team
PROCEDURE TITLE

HNP-4728
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Pages 1, 2 & 3	W.H. Rogers	C.E. Jones	3/1/82
2	Pages 1, 2, & 3	W.H. Rogers	[illegible]	1/4/83
3	Pages 1 thru 3	W.H. Rogers	[illegible]	9/26/83

MANUAL SET

PROCEDURE NO. HNP- 1778

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Titolo	2/18/83	W H Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR: ( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST ~~Start~~ Annual Review

Page 1 of 2:

Delete SECTION C.1 - C.6 and replace with insert as shown

pages 2 & 3: renumber as shown

page 3 C.13: change "with" to "update"

The changes were made based on the input of past Rescue Team members in order to provide a more workable procedure.

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No S Z Elle
PRB Secretary

83-46
PRB Number

3-17-83
Date

HNP-3

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

APPROVAL	
See Title Page	
DATE	
See Title Page	

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	
HNP-4728	
REVISION NO	
3	
PAGE NO	
1 of 3	

GENERAL EMERGENCY - RESCUE TEAM

NOTE

This procedure supercedes HNP-4707 Rev. 3 dated 5-13-78.

A. CONDITION

Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Release can be reasonably expected to exceed PAG exposure levels offsite for more than the immediate site area.

B. REFERENCE

HNP-4720

C. ACTION

1. The OSC manager or designee appoints members of the RET to serve as the Rescue Team. The OSC manager or designee shall also appoint a member of the Rescue Team to act as the Rescue Team Captain.

2. The Rescue Team Captain should designate members of the Rescue Team to fill the following positions:

   a. First Aid Leader

   b. Survey Man

   c. Rescue Team Assistant

   d. Rescue Team Assistant

3. The responsibilities of the Rescue Team members are as follows:

   a. Rescue Team Captain: Lead team in rescue effort; maintain communication with the OSC and/or the Control Room; assist, if necessary, in first aid as directed by the First Aid Leader; assure an ambulance has been called if needed; carry radio.

   b. First Aid Leader: Lead Rescue Team in first aid measures; inform Team Captain of condition of victim(s); assist with stretcher and rescue equipment if needed; carry first aid kit.

c. Survey Man: Perform an immediate survey of area(s); update the Rescue Team with respect to radiological conditions throughout the rescue effort; assist First Aid Leader if requested; carry dose rate instrument.

d. Rescue Team Assistants: Participate in the rescue effort as directed by the Rescue Team Captain.

4. Use protective clothing only when the time and the situation permit. Respirators may also be needed depending on the nature of the situation. All team members should be equipped with a High Range Self-Reading Dosimeter in addition to their TLD and 200 MR Dosimeter.

5. Obtain the following equipment:

a. First-Aid Kit

b. Stretcher

c. High Range Dose Rate Meter

d. Walkie-Talkie

e. Pinch Bar (if required for rescue)

f. Rope and Tackle (if required for rescue)

6. Retreat if dosimeter reaches 2R and victim has not been located.

7. Limit dose to members of Rescue Team in accordance with HNP-4812 during rescue.

8. Refer to HNP-4801, HNP-4802, HNP-4803 and HNP-4810 for additional instructions concerning first aid, decontamination, handling and transport of exposed and/or contaminated injured individuals.

9. Report condition of victim to the Control Room, specify whether or not the victim is contaminated. Assure that the Shift Supervisor relays this information to the hospital.

10. Contact Emergency Operations Facility or Control Room by radio or phone and arrange for ambulance pickup of victim in the upwind direction of victim's location.

11. Move victim to ambulance.

12. Arrange for a radiation technician to accompany victim to hospital in ambulance.

13. Update Technical Support Center as soon as possible.

14. Take necessary measures to limit spread of contamination and report to the OSC Manager when rescue effort is completed.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Review and Revision of Emergency Plan and Implementing Procedures
PROCEDURE TITLE

HNP-4891
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Pages 1, 2, 3 & 4 Deletion on Page 1	W F Rogers	C T Jones	3/1/82
2	Page 1	W F Rogers	C Jones Jr	4/26/82

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-4611

Revision No. 1

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Tiffo	2/22/83	W.H. Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST To define the review.

Page 1 B.2: Insert paragraph in red after original paragraph.

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No

for PRB Secretary

83-40

PRB Number

3-17-83

Date

HNP-9

MANUAL SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above these analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

REVIEW AND REVISION OF EMERGENCY PLAN AND IMPLEMENTING PROCEDURES

A. PURPOSE

To describe generally the methods for review of emergency plans, agreements, and procedures.

B. FREQUENCY (MINIMUM)

1. Emergency Planning Coordinator Responsibility

Emergency Plan - Update as necessary; review and certify to be current annually.

Agreements - Update as needed; review and certify to be current annually.

Procedures - Review annually and revise as needed.

Emergency Call List - Update quarterly.

2. Independent Review Group Responsibility

Emergency plan, procedures, practices, training, readiness testing, equipment, and interfaces with State and local governments -review nominally every twelve months, the interval from the previous review may be shortened, -but may not be extended beyond 15 months.

The review may include the emergency plan, its implementing procedures and practices, training, readiness testing, equipment and interfaces with offiste agencies. The results of the review, along with its recommendations for improvements, shall be documented and reported to licensee management and to appropriate offsite agencies. Management controls shall be implemented for evaluation and correction of review findings. Records of the results of these reviews and any recommendations shall be retained for a minimum of five years.

C. EMERGENCY PLANNING COORDINATOR (EPC)

The EPC will be responsible for reviewing and revising where necessary; the emergency plan, procedures, agreements, and call lists at the frequency in Section B. Documentation and scheduling of the procedure reviews will be through the use of the normal plant procedure review process. Certification that the plan and agreements are current will be stated in Data Package 1 (Data Sheet 1).

D. INDEPENDENT REVIEW GROUP

The onsite QA organization shall conduct the review described in Section B. Documentation for this review will be by report to the SRB and Plant Manager and to offsite agencies as appropriate.

E. EVALUATION OF REVIEWS AND RECOMMENDED CHANGES

The PRB and SRB will review recommended changes to the emergency plan, and agreements.

The PRB will review recommended changes to emergency procedures and call lists.

The PRB and SRB will evaluate the report on the independent review and will assume implementation of the corrections which they deem appropriate.

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4891-1

SERIAL NO: R02-

MPL NO: N/A

RTYPE: C15.03

XREF: N/A

TOTAL SHEETS: 2

FREQUENCY: Annual

COMPLETED BY: _____

DATE COMPLETED: _____

I HAVE REVIEWED THIS DATA PACKAGE FOR COMPLETENESS AND AGAINST ACCEPTANCE CRITERIA IN ACCORDANCE WITH HNP-830.

ACCEPTABLE _____ UNACCEPTABLE _____

REVIEWED BY: _____

DATE REVIEWED: _____

REMARKS: _____

FIGURE 1
Page 1 of 2

MANUAL SET

DATA PACKAGE 1
(Data Sheet 1)

EMERGENCY PLANNING REVIEW REPORT

DATE_____

The Emergency Plan and Agreements have been reviewed and are certified to be current.

_____
Emergency Planning Coordinator

FIGURE 1
Page 2 of 2

MANUAL SET

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Security Alert - Security Force
PROCEDURE TITLE

HNP-4302
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
4	Page 2	W. F. Rogers	Harvey Mick	9/26/83

HNP-9

MANUAL SET

PROCEDURE NO. HNP- 4402

Revision No. 3

REQUESTED BY	DEPARTMENT HEAD APPROVAL
Name: RJT Date: 2/4/83 Tim Kirkham	Signature: Date: 3/9/83 W R Rogers

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

Page 2 d. delete Shift and replace with Operations
delete "(operations)"

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No J J Elton for PRB Secretary

83-49
PRB Number

3-22-83
Date

HNP-9

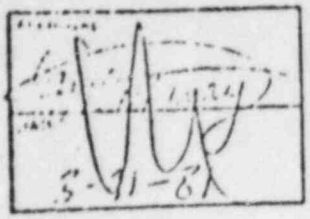
SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.



E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	HNP-4002
REVISION NO	34
PAGE NO	1 of 2

SECURITY ALERT - SECURITY FORCE

A. CONDITION

Notification has been received of a security alert involving:

A bomb, other overt threat, or a civil disturbance.

B. ACTION

1. Security Post 200 Delta (Monitor/Communications Operator).

   a. Notify the Appling County, and/or Toombs County Sheriff's Department, and/or the Georgia State Patrol (depending on the nature of the cause for the alert) giving them the conditions causing the alert.

   b. Initiate provided up to date call list for security alerts giving to the persons on the list the conditions for the security alert.

   c. Notify Gate 1 (Construction) that a security alert has been called and to admit no persons or vehicles until the alert has been terminated or access granted by plant management.

   d. If the security officer on 200 Charlie (Access) has been committed to the Response Force, admit no persons or vehicles to the protected area until the security alert has been terminated or access is granted plant management.

   e. Verify communication radio and telephone communication with the Control Room.

2. Shift Supervisor (Security)

   a. Have all non designated vehicles removed from the protected area.

   b. Recall all visitors and have them leave the protected area.

   c. If unauthorized entry or intrusion is discovered or suspected, notify the Shift Foreman, and begin a search for the intruder. If necessary, activate the Response Force and call in additional security personnel. Search the exterior of all buildings and structures. The Shift Foreman will conduct the necessary interior searches.

If a bomb is suspected or discovered, refer to HNP-302, Bomb and Other Overt Threats.

d. Assist Shift Supervisor (operations) in determining if further emergency actions are required.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Radiological Event
PROCEDURE TITLE

HNP-4220
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Pages 1 & 2	W H Rogers	[signature]	5/11/82
2	Pages 1 and 2	W H Rogers	[signature]	9/21/83

MANUAL SET

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4320

Revision No. 1

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Tim D. Verhihen	2/7/83	W. F. Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

Page 1 C. HNP 4323 - delete Shift foreman and replace with Shift Supervisor

D. Note - replace shift foreman with shift Supervisor replace shift supervisor with operations Supervisor

Page 1 A - replace paragraph marked out with new paragraph.

PRB RECOMMENDS APPROVAL: (Yes ( ) No T. E. Elt for PRB Secretary

83-46
PRB Number

3-17-83
Date

HNP-3

BT

MANUAL SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

APPROVAL
See Title Page
DATE
See Title Page

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO
HNP-4320
REVISION NO
2
PAGE NO
1 of 2

RADIOLOGICAL EVENT

A. CLASS DESCRIPTION

One or more of the following conditions are satified:

1. An ARM alarms upscale; or
2. Local dose rates as indicated by other instruments are about 10 times higher than expected; or
3. Air activity is greater than 1 MPC (particulates and iodines).

and

1. Control Room has not been notified prior to event; or
2. Access is not controlled; or
3. Event is not preplanned.

B. PURPOSE

To assure that personnel are promptly notified and that adequate protective and corrective measures are undertaken to mitigate the consequences of a radiological event within the operating buildings.

C. REFERENCES

HNP-4321 "Actions For All Personnel In A Radiological Event"

HNP-4322 "Radiological Event - Control Room Operator"

HNP-4323 "Radiological Event - Shift Supervisor"

HNP-4324 "Radiological Event Survey Team"

HNP-4420 "Notification Of An Unusual Event"

HNP-4520 "Alert"

HNP-4620 "Site Area Emergency"

HNP-4720 "General Emergency"

D. PLANT ACTIONS

NOTE

The Shift Supervisor, Operations Supervisor (or higher ranking licensed or certified person present) in consultation with the Health Physics staff, when applicable, recognizes and declares that the plant (or area within the plant)is in a class of a Radiological Event.

1. The Control Room staff will announce the Radiological Event per their applicable procedure (HNP-4322).

2. All plant personnel should follow the actions described in HNP-4321.

3. Augment on-shift resources as needed.

4. Assess and respond as outlined in HNP-4323 & HNP-4324.

5. Escalate to a more severe class, ie, "Notification Of An Unusual Event", "Alert", "Site Area Emergency" or "General Emergency", if appropriate. The criteria describing these classes are specified in HNP-4420, HNP-4520, HNP-4620 and HNP-4720 respectively.

6. Close out with an announcement over the P.A. system when the event has ended.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Actions for All Personnel in a Radiological Event
PROCEDURE TITLE

HNP-4321
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Pages 1 and 2	W.A. Rogers	J.T. Beckham Jr.	4/6/83

HNP-3

MANUAL SET

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4321

Revision No. 1

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Wm J. Kelliher	2/7/83	W H Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

Page 1 B.1.f - delete Shift foreman and replace with Shift supervisor

Pg 1 Section A - replace paragraph marked out with paragraph on the new page

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No

PRB Secretary

83-46
PRB Number

3-17-83
Date

HNP-9

MANUAL SET

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

E. I. HATCH NUCLEAR PLANT

Georgia Power

ACTIONS FOR ALL PERSONNEL IN A RADIOLOGICAL EVENT

NOTE

This procedure supercedes HNP-4500 Revision 7 dated 2-21-81.

A. CONDITION

One or more of the following conditions are satisfied:

1. An ARM alarms upscale; or
2. Local dose rates as indicated by other instruments are about 10 times higher than expected; or
3. Air activity is greater than 1 MPC (particulates and iodines).

and

1. Control Room has not been notified prior to event; or
2. Access is not controlled; or
3. Event is not preplanned.

B. ACTION

1. For personnel involved in incident:
   a. Retreat to safe room and contact Control Room. Give location, nature, and extent of incident. Request assistance if required.
   b. Eliminate or limit extent of incident if possible. Do not stay in high radiation or airborne contamination area.
   c. Evacuate non-essential persons from adjacent areas.
   d. For liquid spill:
      (1) Avoid contact with liquid.
      (2) Contain with plastic sheets, if available.
      (3) Absorb with cloth or paper.
   e. Assist injured.

f. Stand by for further instructions from Shift Supervisor.

g. Submit to radiological survey. Verify not contaminated.

CAUTION

Do not enter Control Room until verified not contaminated. Remain segregated until decontaminated.

2. Person(s) not involved in incident.

a. Observe public address announcement and radiation alarm.

b. Evacuate and stay clear of radiation area specified by PA announcement and Control Room unless requested otherwise.

c. Be prepared to implement NOTIFICATION OF UNUSUAL EVENT, ALERT, SITE AREA or GENERAL EMERGENCY procedures if the emergency is reclassified.

d. Continue normal work activity.

3. Visitors' escorts direct visitors to stay with you. Avoid radiation area. Escort visitors, if not involved with radiation area, to Service Building until emergency is eliminated or further instructions given.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Radiological Event-Control Room Operator
PROCEDURE TITLE

HNP-4322
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Page 1	W H Rogers	Harry Mit	4/30/93

PROCEDURE NO. HNP- 4322

Revision No. 1

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Tim J. Kubiak	2/7/83	T R Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST ~~Spec~~ Annual Review

Page 1. B. 3 - delete shift foreman and replace with
Shift. supervisor

Page A - replace paragraph marked out with new paragraph

PRB RECOMMENDS APPROVAL: (Yes ( ) No

PRB Secretary

83-46
PRB Number

3-17-83
Date

HNP-9

MANUAL SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

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HNP-3

E. I. HATCH NUCLEAR PLANT

Georgia Power

RADIOLOGICAL EVENT-CONTROL ROOM OPERATOR

NOTE

This procedure supercedes HNP-4501 Revision 8 dated 2-23-81.

A. CONDITION

One or more of the following conditions are satisfied:

1. An ARM alarms upscale; or
2. Local dose rates as indicated by other instruments are about 10 times higher than expected; or
3. Air activity is greater than 1 MPC (particulates and iodines).

and

1. Control Room has not been notified prior to event; or
2. Access is not controlled; or
3. Event is not preplanned.

B. ACTION

1. Announce over the public address system:

   A RADIOLOGICAL EVENT IS OCCURRING. ABOVE NORMAL RADIATION (OR AIRBORNE RADIOACTIVITY) EXISTS IN THE __(location)__ AREA. EVACUATE AND STAY CLEAR OF THE ___(location)___ AREA. FOLLOW ACTIONS FOR ALL PERSONNEL IN RADIOLOGICAL EVENTS. Repeat Announcement.

2. Contact the Health Physics office to assist in mitigating this condition.
3. Check status of ARM's and effluent monitors near incident areas. Notify Shift Supervisor of abnormal indication or sudden change. Attempt to verify accuracy of alarmed ARM's and effluent monitors.
4. Observe control room instrumentation and controls. Implement corrective action to eliminate cause of this abnormal condition, if possible to do so from the control room.

5. If requested by the person discovering the incident, shutdown equipment to limit the spread of contamination.

6. Check habitability of control room by observing radiation monitors or possible isolation of control room ventilation system.

7. When this abnormal condition no longer exists, announce an all clear over the public address system.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Radiological Event - Shift Supervisor
PROCEDURE TITLE

HNP-4323
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
3	Page 1	W.H. Rogers	J.T. Beckham Jr.	4/26/83

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-4323

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Tim J. Fulcher	2/7/83	W R Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST Semi-annual Review

Page 1. Title - delete shift foreman and replace with shift supervisor.

Page 1 A. - replace paragraph marked out with new paragraph

PRB RECOMMENDS APPROVAL: (Yes ( )No

PRB Secretary

83-46
PRB Number

3-17-83
Date

HNP-3

BT

MANUAL SET

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

APPROVAL	See Title Page
DATE	See Title Page

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	HNP-4503
REVISION NO	3
PAGE NO	1 of 2

RADIOLOGICAL EVENT - SHIFT SUPERVISOR

NOTE

This procedure supercedes HNP-4502
Revision 7 dated 2-23-81.

A. CONDITION

One or more of the following conditions are satified:

1. An ARM alarms upscale; or
2. Local dose rates as indicated by other instruments are about 10 times higher than expected; or
3. Air activity is greater than 1 MPC (particulates and iodines).

and

1. Control Room has not been notified prior to event; or
2. Access is not controlled; or
3. Event is not preplanned.

B. ACTION

1. Contact Control Room. Request location and nature of incident and dose rate of areas involved.
2. Go to Control Room.
3. Confirm incident announced over public address system.
4. Contact person who discovered this abnormal condition, if possible, and evaluate situation.
5. If necessary, and if laboratory personnel are on site, request that the Health Physics Supervisor or designated alternate provide survey team(s) to determine nature, and extent of incident.
6. Co-ordinate corrective action as required.

7. Determine cause of incident, limit extent of incident, and bring the abnormal condition under control.

8. Evaluate incident with Health Physics staff assistance to determine if an emergency exists. Upgrade to the proper emergency classification.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Radiological Event - Survey Team
PROCEDURE TITLE

HNP-4324
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Page 1 and 2	W.F. Rogers	Jim Beasley	1/11/83
3	Pages 1 and 2	W.F. Rogers	Harvey Hall	4/20/83

HNP-9

MANUAL SET

PROCEDURE NO. HNP- 4324

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Tim J. Kitchen	2/7/83	W H Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

Page 1 B.1 - delete "and wipes from 3rd line in list and add "Wipes" to end of list.

B.3.c - Reword as shown

Page 2 #5 - delete Shift Foreman and replace with Shift Supervisor

#8 - " " " " " "

Page 1 A. replace paragraph marked out with new paragraph

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No

for PRB Secretary

83-46
PRB Number

3-12-83
Date

HNP-3

MANUAL SET

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

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APPROVAL
See Title Page
DATE
See Title Page

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE No.
HNP-4304
REVISION NO
3
PAGE NO
1 of 2

BT

RADIOLOGICAL EVENT - SURVEY TEAM

NOTE

This procedure supercedes HNP-4503 Revision 6 dated 2-23-81.

A. CONDITION

One or more of the following conditions are satified:

1. An ARM alarms upscale; or
2. Local dose rates as indicated by other instruments are about 10 times higher than expected; or
3. Air activity is greater than 1 MPC (particulates and iodines).

and

1. Control Room has not been notified prior to event; or
2. Access is not uncontrolled; or
3. Event is not preplanned.

B. ACTION

NOTE

This action is to be taken by Health Physics (HP) personnel whenever possible or by other trained personnel when HP is not available.

1. Obtain the following equipment as necessary:

   High range dose rate meter
   High range dosimeter
   GM survey instrument
   Full face respirator
   Protective clothing
   Air sampler
   Wipes

2. Turn instruments on and allow them to warm up.
3. Proceed toward area where the Radiological Event exists making survey as you go. If survey indicates the need to do so, don the protective clothing and the respirator if necessary.

NOTE

At all times adhere to the limits and guidelines in HNP-4866.

a. Notify the Control Room if any of the following readings are observed:

Beta, Gamma - Any reading above 5 r/hr.

Contamination - 10,000 cpm above background on a wipe.

4. Take samples with an air sampler if conditions permit.

5. Determine cause of high local activity and notify Control Room. If conditions indicate that a higher emergency classification exists notify the Shift Supervisor and discuss declaring the upgraded emergency

6. Rope off and post areas of high air activity or radiation as conditions permit and clear area of personnel where necessary.

7. Using HNP-8005 and HNP-8006 procedures to control local contamination and radiation when returning to normal.

8. Assist, when requested, the Shift Supervisor in evaluating incident to determine if any radioactive material released from the plant will cause the action levels in HNP-4853 to be exceeded.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Notification of Unusual Event-Rescue Team
PROCEDURE TITLE

HNP-4423
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Page 2	W.B. Regan	Jim Swint	1/11/83
3	Pages 1 and 2	W.B. Regan	Harvey Mac	9/20/83

HNP-9

MANUAL SET

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4428

Revision No. 7

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name: Rick Tibbs	Date: 2/23/83	Signature: H H Rogers	Date: 3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST Annual Review

Page 1 & 2 :
Delete section C.1.- C.6 and replace with insert as shown

Page 2 : renumber as shown.

The changes were made based on the input of past rescue team members in order to provide a more workable procedure.

PRB RECOMMENDS APPROVAL: (Yes ( ) No J Tell
PRB Secretary

83-46
PRB Number

3-17-83
Date

HNP-3

BT

MANUAL SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

APPROVAL
See Title Page
DATE
See Title Page

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO
HNP-4423
REVISION NO
3
PAGE NO
1 of 2

NOTIFICATION OF UNUSUAL EVENT-RESCUE TEAM

A. CONDITIONS

Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant, such as those noted in HNP-4420, Table 1. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

B. REFERENCE

HNP-4420

C. ACTION

1. The OSC manager or designee appoints members of the RET to serve as the Rescue Team. The OSC manager or designee shall also appoint a member of the Rescue Team to act as the Rescue Team Captain.

2. The Rescue Team Captain should designate members of the Rescue Team to fill the following positions:

   a. First Aid Leader

   b. Survey Man

   c. Rescue Team Assistant

   d. Rescue Team Assistant

3. The responsibilities of the Rescue Team members are as follows:

   a. Rescue Team Captain: Lead team in rescue effort; maintain communication with the OSC and/or the Control Room; assist, if necessary, in first aid as directed by the First Aid Leader; assure an ambulance has been called if needed; carry radio.

   b. First Aid Leader: Lead Rescue Team in first aid measures; inform Team Captain of condition of victim(s); assist with stretcher and rescue equipment if needed; carry first aid kit.

   c. Survey Man: Perform an immediate survey of area(s); update the Rescue Team with respect to radiological conditions throughout the rescue effort; assist First Aid Leader if requested; carry dose rate instrument.

d. Rescue Team Assistants: Participate in the rescue effort as directed by the Rescue Team Captain.

4. Use protective clothing only when the time and the situation permit. Respirators may also be needed depending on the nature of the situation. All team members should be equipped with a High Range Self-Reading Dosimeter in addition to their TLD and 200 MR Dosimeter.

5. Obtain the following equipment:

   a. First-Aid Kit

   b. Stretcher

   c. High Range Dose Rate Meter

   d. Walkie-Talkie

   e. Pinch Bar (if required for rescue)

   f. Rope and Tackle (if required for rescue)

6. Retreat if dosimeter reaches 2R and victim has not been located.

7. Limit dose to members of Rescue Team in accordance with HNP-4812 during rescue.

8. Refer to HNP-4801, HNP-4802, HNP-4803 and HNP-4810 for additional instructions concerning first aid, decontamination, handling and transport of exposed and/or contaminated injured individuals.

9. Report condition of victim to the Control Room, specify whether or not the victim is contaminated. Assure that the Shift Supervisor relays this information to the hospital.

10. Move victim to ambulance.

11. Arrange for radiation technician to accompany victim to hospital in ambulance.

12. Notify a laboratory supervisor as soon as possible.

13. Take necessary measures to limit spread of contamination and report to the Laboratory Foreman or Supervisor and Shift Supervisor when completed.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Actions for All Personnel in Alert
PROCEDURE TITLE

HNP-4521
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
3	Pages 1 & 2 Deletion on Page 2	W.T. Bigger	C.T. Jones	3/1/82
4	Pages 1, 2 & 3	Leroy Smith	C.T. Jones for HCW	11/13/82
5	Pages 1, 2 & 3	W.T. Bigger	Leroy Smith	9/26/83

1692-0
MANUAL S1.1

PROCEDURE REVISION REQUEST

PROCEDURE NO. TSP- 4521

Revision No. 4

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Tim Kirkham	3/4/83	M H Rogers	3/8/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST Semi-annual Review

Page 1 C: add new number 7 from next page and renumber.
C 7a: change Shift Foreman to Shift Supervisor and change Shift Supervisor to Operations Supervisor.
(b): change Asst. Plant Manager to Manager Engineering change Supt. of Administration to Manager of Administration Finance and Human Resources.
(c): change Asst. Plant Manager to Deputy General Manager, add Security Representative.

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No J Eller for PRB Secretary

83-19
PRB Number

3-22-83
Date

TSP-3

MANUAL SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above these analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

ACTIONS FOR ALL PERSONNEL IN ALERT

A. CONDITIONS

Events are in process or have occurred which involve actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline (P.A.G.) exposure levels.

B. REFERENCES

HNP-4520

C. ACTION

1. Persons discovering an emergency condition shall immediately notify the Control Room by the most expeditious means available.

2. As soon as an emergency condition of the Alert Class is confirmed, Control Room Operators shall announce the nature of the emergency on the public address system and specify that personnel initiate Alert procedures.

3. Control Room Operators shall place the plant in a safe condition as the emergency warrants.

4. If possible, person(s) in immediate area take appropriate rapid action to limit the extent of the incident with available means and then retreat to their report area (see C.10).

5. Persons involved in radiation incidents report to the Health Physics Office for decontamination, if necessary, and further instructions concerning evaluation of dose received. Personnel decontamination should be documented as described in HNP-8009, "Personnel Contamination Survey".

6. Persons called in from offsite should report to their assigned locations and, if unassigned, to the Operations Support Center for assignments.

7. Staffing of the Operations Support Center (OSC) and the Emergency Operations Facility (EOF) should begin immediately. The OSC should be located in the Unit 1 Service Building, with the headquarters/reporting area being North end of the breakroom. The alternate OSC is the Simulator Training Building. The normal EOF is in the Simulator Training Building with the alternate being the Appling County Sheriff's office in the courthouse.

8. If the emergency occurs during a regular day shift, members of the plant operating organization on site will report as follows:

a. Control Room

Operations Supervisor - All onshift operators, Shift Supervisor, Operations Supervisor, Shift Technical Advisor, Shift Clerks, (Communicator/Recorders as needed) *.

b. Emergency Operations Facility (EOF)

Manager Engineering

HP Supt.

Health Physicists

Manager of Administration, Finance and Human Resources

Supt. of Regulatory Compliance

Security Manager

RET Members on Field Monitoring Teams

(Communicator/Recorders as needed) *

c. Technical Support Center (TSC)

Deputy General Manager

Superintendent of Plant Engineering and Services

Superintendent of Maintenance

Superintendent of Operations

Reactor Engineer

Engineering Supervisors

Laboratory Supervisor (Health Physics)

Document Control Supervisor

Security representative

(Communicator/Recorders as needed) *

d. Operations Support Center (OSC)

1 Maintenance Supervisor (OSC Manager)

1/2 crew instrument technicians w/foreman (pre-designated)

1/2 crew electricians w/foreman (pre-designated)

1/2 crew mechanics w/foreman (pre-designated)

All RET members

Plant Equipment Operators

(Communicator/Recorders as needed) *

* Communicator/Recorders are members of the Plant Engineering and Regulatory Compliance Staffs, and will be dispatched as required.

9. Personnel assigned to work locations outside the protected area and who have not been assigned to the Control Room, TSC, OSC or EOF will remain at their work location and await further instructions.

10. Members of the Radiological Emergency Team report to the OSC if on site when the emergency begins. If team members are called in, they report to the OSC for assignments.

11. Members of the plant organization and contractors inside the protected area and who do not have specific emergency assignment locations, go immediately to your report area, i.e. Maintenance Department to Maintenance Shop or Instrument Shop, Administration Department to Service Building offices, contract workers to contract office areas, Warehouse workers to Warehouse area, etc. Remain in these areas until further instructions are given.

12. Members of the plant organization will comply with applicable procedures to effect orderly coordinated actions in the emergency.

13. Department heads should consider the dismissal of nonessential personnel, through normal exiting procedures, based on the nature of the emergency.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Alert - Control Room Operators
PROCEDURE TITLE

HNP-4522
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Page 1	W.H. Rogers	Henry Nix	10/20/82
3	Page 1	W.H. Rogers	Henry Nix	2/25/83

PROCEDURE REVISION REQUEST

PROCEDURE NO. IEP- 4522

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Tim J. Kubilan PJT	2/7/83	[signature]	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

Page 1. C.2 - delete all of number 2*

.3 - delete "(Normal/Alternate) EOF will be established."

.4 - delete foreman and replace with supervisor

.5 - delete entire sentence

.6 - delete foreman and replace with Supervisor

* The wind direction alone will not determine whether the normal or alternate EOF is established. PJT

PRB RECOMMENDATION APPROVAL: (X) Yes ( ) No [signature]
PRB Secretary

83-16
PRB Number

3-17-83
Date

IEP-3

ORIGINAL SET

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

ALERT - CONTROL ROOM OPERATIONS

A. CONDITIONS

Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline (P.A.G.) exposure levels.

B. REFERENCE

HNP-4520

C. ACTION

1. Take appropriate action to place the plant in a safe condition in accordance with emergency operating procedures, Tech. Specs., and annunciator response procedures.

2. Make the following announcement over the PA:

   ATTENTION, ATTENTION: A STATE OF EMERGENCY OF THE ALERT CLASS EXISTS. INITIATE ALERT PROCEDURES.

   Sound the Gai-tronics tone for an Alert and repeat announcement.

3. Check control room instrumentation to determine status of plant as to whether or not a Site or General Emergency should be declared. Notify Shift Supervisor of findings from performance of HNP-4853.

4. If Shift Supervisor has not reported to the control room, initiate his actions as per HNP-4523.

5. Announcement of the "ALERT" status should be repeated periodically (approximately every 30 minutes) throughout the duration of the event.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

ALERT - RESCUE TEAM
PROCEDURE TITLE

HNP-4528
PROCEDURE NUMBER

LAB
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Pages 1 and 2	[signature]	C T Jones	3/1/82
3	Pages 1 and 2	[signature]	[signature]	1/13/83
4	Pages 1 and 2	[signature]	[signature]	9/26/85

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4523

Revision No. 3

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Tilda	2/25/83	W.R. Rogers	3/4/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST Semi-Annual Review

Pages 1-12:
Delete section C.1-C.6 and replace with insert as shown

Page 2: renumber as shown

Page 7: C13 - change "notify" to "update".

The changes were made based on the input of past Rescue Team members in order to provide a more workable procedure.

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No [signature]
for PRB Secretary

83-46
PRB Number

3-17-83
Date

HNP-9

MANUAL SIT

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

1602-3

MANUAL SET

ALERT - RESCUE TEAM

A. CONDITION

Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline (PAG) exposure levels.

B. REFERENCE

HNP-4520

C. ACTION

1. The OSC manager or designee appoints members of the RET to serve as the Rescue Team. The OSC manager or designee shall also appoint a member of the Rescue Team to act as the Rescue Team Captain.

2. The Rescue Team Captain should designate members of the Rescue Team to fill the following positions:

   a. First Aid Leader

   b. Survey Man

   c. Rescue Team Assistant

   d. Rescue Team Assistant

3. The responsibilities of the Rescue Team members are as follows:

   a. Rescue Team Captain: Lead team in rescue effort; maintain communication with the OSC and/or the Control Room; assist, if necessary, in first aid as directed by the First Aid Leader; assure an ambulance has been called if needed; carry radio.

   b. First Aid Leader: Lead Rescue Team in first aid measures; inform Team Captain of condition of victim(s); assist with stretcher and rescue equipment if needed; carry first aid kit.

   c. Survey Man: Perform an immediate survey of area(s); update the Rescue Team with respect to radiological conditions throughout the rescue effort; assist First Aid Leader if requested; carry dose rate instrument.

d. Rescue Team Assistants: Participate in the rescue effort as directed by the Rescue Team Captain.

4. Use protective clothing only when the time and the situation permit. Respirators may also be needed depending on the nature of the situation. All team members should be equipped with a High Range Self-Reading Dosimeter in addition to their TLD and 200 MR Dosimeter.

5. Obtain the following equipment:

   a. First-Aid Kit

   b. Stretcher

   c. High Range Dose Rate Meter

   d. Walkie-Talkie

   e. Pinch Bar (if required for rescue)

   f. Rope and Tackle (if required for rescue)

6. Retreat if dosimeter reaches 2R and victim has not been located.

7. Limit dose to members of Rescue Team in accordance with HNP-4812 during rescue.

8. Refer to HNP-4801, HNP-4802, HNP-4803 and HNP-4810 for additional instructions concerning first aid, decontamination, handling and transport of exposed and/or contaminated injured individuals.

9. Report condition of victim to the Control Room, specify whether or not the victim is contaminated. Assure that the Shift Supervisor relays this information to the hospital.

10. Contact Technical Support Center or Control Room by radio or phone for ambulance pickup of victim in the upwind direction of victim's location.

11. Move victim to ambulance.

12. Arrange for radiation technician to accompany victim to hospital in ambulance.

13. Update the TSC as soon as possible.

14. Take necessary measures to limit spread of contamination and report to the OSC Manager when rescue effort is completed.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Site Area Emergency
PROCEDURE TITLE

HNP-4620
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Page 2	W. Rogers	C. Jones	3/1/82
2	Pages 1 & 3 thru 7	W. Rogers	[illegible]	8/1/82
3	Pages 1, 4-7	W. Rogers	[illegible]	8/26/82

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 9620

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name: PJT	Date:	Signature:	Date:
Tim Kirkham	2/4/83	W H Rogers	3/7/83

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR:
( ) Yes (X) No

CHANGE INVOLVES:
( ) An unreviewed Safety Question ( ) Tech. Specs. (X) Neither
(See back for Safety Evaluation if required).

Safety Related (X) Non-Safety Related ( )

Safety/Non-safety Status Change ( ) Yes (X) No

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

Page 1 C, note - delete Shift Forman and replace with Shift Supervisor, delete Shift Supervisn and replace with Operations Supervisor (2), delete Plant Manager replace with General Manager.

Page 4 # 9 & 10 - delete Shift and replace with Operations (2)

Page 5 # B & B - delete Shift and replace with Operations (2)

Page 6 # 14 - delete Shift and replace with Operations

Page 7 # 15 - delete Shift and replace with Operations

PRB RECOMMENDED APPROVAL: (✓) Yes ( ) No

for PRB Secretary

CS-46

PRB Number

3-17-83
Date

HNP-3

MANUAL SET

SAFETY EVALUATION

The revision of this procedure does not constitute an unreviewed safety question as explained below.

1. The probability of occurrence and the consequences of an accident or malfunction of equipment important to safety are not increased above those analyzed in the FSAR due to these changes because the revision does not change the purpose or performance of the system.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this change because the system responds and is operated as before the change.

3. The margin of safety as defined in the Technical Specifications is not reduced due to this revision because the revision does not change any limited safety system settings which would allow a safety limit to be exceeded or to allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

SITE AREA EMERGENCY

A. CLASS DESCRIPTION

Events are in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public. Refer to Table 1. Any releases are not expected to exceed PAG exposure levels, except near the site boundary.

B. PURPOSE

Purpose of the site area emergency declaration is to (1) assure that response centers are manned, (2) assure that monitoring teams are dispatched, (3) assure that personnel required for evacuation of near site areas are at duty stations if situation becomes more serious, (4) provide consultation with offsite authorities, and (5) provide updates for the public through offsite authorities.

C. PLANT ACTIONS

NOTE

Supervisor Operations

The Shift Foreman or Shift Supervisor (or higher ranking licensed or certified person present) in consultation with the STA, if feasible, recognizes and declares that the plant is in a state of emergency of the site area class. The Operations Shift Supervisor assumes the role of emergency director until relieved by the Plant Manager or his designee. General

1. Promptly inform State and/or local offsite authories of site area emergency status and reasons for emergency.

2. Augment resources by activating TSC, operations support center and EOF.

3. Assess and respond.

4. Dispatch onsite and offsite monitoring teams with associated communications.

5. Dedicate an individual for plant status updates to offsite authorities and periodic press briefings (perhaps in conjunction with offsite authorities).

6. Make senior technicial and management staff onsite available for consultation with NRC and State on a periodic basis.

7. Provide meteorological data and dose estimates to offsite authorities for actual releases via a dedicated individual or automated data transmission.

8. Provide release and dose projections based on available plant condition information and foreseeable contingencies.

9. Escalate to general emergency class, if appropriate.

OR

10. Close out or reduce emergency class by briefing of offsite authorities followed by written summary within 8 hours of closeout or class reduction.

D. STATE AND/OR LOCAL OFFSITE AUTHORITY ACTIONS

1. Provide any assistance requested.

2. If sheltering near the site is desirable, activate public notification system within at least two miles of the plant.

3. Provide public within at least abrut 10 miles periodic updates on emergency status.

4. Augment resources by activating primary response centers.

5. Dispatch key emergency personnel including monitoring teams with associated communications.

6. Alert to standby status other emergency personnel (e.g., those needed for evacuation) and dispatch personnel to near site duty stations.

7. Provide offsite monitoring results to GPC, DOE and others and jointly assess them.

8. Continuously assess information from GPC and offsite monitoring teams with regard to changes to protective actions already initiated for public and mobilizing evacuation resources.

9. Consider placing milk animals within 2 miles on stored feed and assess need to extend distance.

10. Provide press briefings, perhaps with GPC.

11. Escalate to general emergency class, if appropriate.

12. Maintain site area emergency status until closeout or reduction of emergency class.

TABLE 1
SITE AREA EMERGENCY

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
1. Known loss of coolant accident greater than makeup pumps capacity.	Drywell High pressure Initiation alarm, Reactor Low level Initiation alarm Hi Flow Drywell Drain Sump alarm	Greater than 1.8 psig and increasing Less than -38 in and decreasing
	Drywell High Temperature alarm	Greater than 148 °F and Increasing
2. Degraded core with possible loss of coolant geometry (e.g. massive cladding failure or loss of core flow)	Some combination of the following: Containment High Radiation alarm, N.G. Fission Product monitor Hi Hi Radiation alarm and N.G. Fission Product monitor indicator off scale on high end, Reactor Low Level Initiation alarm	
3. Steam line break outside containment without isolation	Some combination of the following: Turbine Bldg ARM Hi alarm	Greater than 15 mr/hr
	MSL Hi Flow alarm	Greater than 120% and increasing
	MSL Low Pressure alarm	Less than 855 psig and decreasing
4. Loss of offsite power and loss of onsite power for more than 15 minutes	Undervoltage alarms on all 4.16 kV buses for more than 15 minutes and loss of control room normal lighting or more than 15 minutes and inability to energize 4.16 kV buses from Diesel Generators for more than 15 minutes.	Zero voltage indicated on all 4.16 kV buses

TABLE 1
SITE AREA EMERGENCY (CONTINUED)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
6. Loss of all vital onsite DC power for more than 15 minutes	Loss of DC Busses for more than 15 minutes	
8. Complete loss of all function needed for plant hot shutdown	Inability to Shutdown with Control Rods	
7. Transient requiring operation of shutdown systems with failure to scram (continued power generation but no core damage immediately evident).	Scram signal present and power not decreasing, Standby Liquid Control initiated.	
9. Major damage to spent fuel in Reactor Building (e.g. large object damages fuel or water lost below fuel (level)	Observation Spent Fuel Storage Pool Low Level alarm	Less than 8 ft above fuel and decreasing
5. Fire compromising the functions of safety systems	Fire alarm and observation	Shift Supervisor's judgement
10. Most or all alarms (annunciators) lost and plant transient initiated or in progress	One or more of the following: a. loss of feed water b. turbine trip c. loss of offsite power d. loss of reactor coolant pump e. reactor trip	Shift Supervisor's judgement

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
11a. Radiological gaseous effluent monitors detect levels corresponding to greater than 50 mr/hr for 1/2 hour or greater than 500 mr/hr W.B. for two minutes (or five times these levels to the thyroid) at the site boundary, for adverse meteorology	Main Stack and Reactor Bldg. Vent monitors Hi Hi alarm plus monitor readings plus dose projection calculations plus field measurements	
11b. Containment post LOCA radiation monitor readings indicating a fission product inventory equivalent to offsite dose rates as described in 11a.	Containment Post LOCA Radiation alarm plus monitor readings plus dose projection calculations	
11c. PASs projected to be exceeded outside site boundary	Effluent monitor readings plus dose projection calculations	
12. Imminent loss of physical control of the plant	Loss of control of vital areas	Operations Shift Supervisor's judgement based on advice of Security Shift Supervisor
13. Severe natural phenomena being experienced or projected with plant not in cold shutdown:	Observation	Shift Supervisor's judgement
a. Earthquake greater than DBE level	1. "Seismic Instrumentation Triggered" alarm	DBE level is 0.15 g
	2. Units I and II recorders start	
	3. "Seismic Switch Tripped" alarm which is set at DBE level (Unit II)	
	4. or Unit I Seismic Peak Shock Recorder high g level alarms	
	5. or Unit II Seismic Peak Shock Recorder high g level alarms	
	6. Peak Shock Annunciators set at 100% DBE have been actuated	
	7. The maximum g level measured by the Time/ History Acellerograph Recorders is greater	

TABLE 1
SITE AREA EMERGENCY (CONTINUED)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
b. Low water affecting plant safety systems	Very low river elevation Plus observation of safety systems	Less than 57 ft. MSL
c. Flow or hurricane surge greater than design levels	Very high river water elevation	Greater than 120 ft MSL
d. Sustained winds or tornadoes in excess of design level (300 mph)	Very high winds Observation of damage	
14. Other hazards being experienced or projected with plant not in cold shutdown		Shift Supervisor's judgement
a. Aircraft crash affecting vital structures by impact or fire	Observation	
b. Severe damage to shift shutdown equipment from missiles or explosion	Observation	
c. Entry of uncontrolled flammable gases into vital areas. Entry of uncontrolled toxic gases into vital areas where lack of access to the area consititutes a safety problem	Observation, Control Room Outside Air Inlet alarm	

TABLE 1
SITE AREA EMERGENCY (CONT)

	PARAMETER VALUE
	Shift Supervisor's judgement

TABLE 1
SITE AREA EMERGENCY (CONTINUED)

	INITIATING CONDITION	EQUIPMENT STATUS
15.	Other plant conditions exist that warrant activation of emergency centers and monitoring teams or a precautionary notification to the public near the site	Observation
16.	Evacuation of control room and control of shutdown systems not established from local stations in 15 minutes	Observation