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HNP-4625 Please Delete

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R L Sorrell / JBH
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HNF-O-ADM-00010 R13

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TRANSMITTAL NO: DCD 87-418

DATE: 11-30-87

TRANSMITTED TO: Dir. of Nuclear Reactor Regulation (10)

DESCRIPTION OF DOCUMENT(S) TRANSMITTED:

HNP-4733 Rev. 2
HNP-4633 Rev. 2
HNP-4533 Rev. 2
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HNP-4733
HNP-4633
HNP-4533

DATE RETURN REQUIRED 1-7-88

P.C. Gerald/JBH.
DOCUMENT CONTROL SUPERVISOR

HNP-O-ADM-00010 R13

Reference Only

DOCUMENT TRANSMITTAL

TRANSMITTAL NO: DCD-82-929

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DESCRIPTION OF DOCUMENT(S) TRANSMITTED:

HNP-4420	RW4	HNP-4825	RW7
HNP-4520	RW3	HNP-4926	RW4
HNP-4526	RW3	HNP-4831	RW3
HNP-4620	RW2	HNP-4858	RW1
HNP-4626	RW4	HNP-4860	RW5
HNP-4720	RW2	HNP-4865	RW3
HNP-4726	RW4	HNP-4866	RW1

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HNP-4420	RW3	HNP-4825	RW6
HNP-4520	RW2	HNP-4926	RW3
HNP-4526	RW2	HNP-4831	RW2
HNP-4620	RW1	HNP-4858	RW0
HNP-4626	RW3	HNP-4860	RW4
HNP-4720	RW1	HNP-4865	RW2
HNP-4726	RW3	HNP-4866	RW0

DATE RETURN REQUIRED _____

EC Semle /CAL
DOCUMENT CONTROL SUPERVISOR

DOCUMENT TRANSMITTAL

TRANSMITTAL NO: DCD-82-938

DATE: 12-8-82

TRANSMITTED TO: Dir. of Nuclear Reactor Regulation, 10 copies

DESCRIPTION OF DOCUMENT(S) TRANSMITTED:

HNP-4852 Rev 4

HNP-4892 Rev 1

RECEIVED BY _____ DATE: _____

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DESCRIPTION OF DOCUMENT(S) TO BE RETURNED:

HNP-4852 Rev 3

HNP-4892 Rev 3

DATE RETURN REQUIRED 1-14-83

E C Tomlin ICAP
DOCUMENT CONTROL SUPERVISOR

HNP-O-ADM-00010 R13

Reference Only

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Off Site Dose Estimations
PROCEDURE TITLE

HNP-4852
PROCEDURE NUMBER

Health Physics
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	General Revision	W H Rogers	Tom Greene	1/22/82
2	General Revision	W H Rogers	C T Jones	3/1/82
3	Pages 1-8, 11, 13, 21-23	W H Rogers	Harvey Mix	11/1/82
4	General Revision	C T Jones 12/2/82	C T Jones for HCN	12/7/82

WE.

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4852

Revision No. 3

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Steve Ewald	12-8-82	W H Rogers	12-8-82

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

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

Safety Related (✓) Non-Safety Related ( )

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

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

pg. 1 Sect C: Delete reference to Sect E & F. Add paragraph which discusses communications in EOF & corp office

pg. 2 Sect D E F Delete these and replace with attached Sect D Checklist & App A

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No Steve Tipps
PRB Secretary

82-217
PRB Number

12-7-82
Date

HNP-9

Reference Only

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	PROCEDURE NO
See Title Page	HNP- 4852
DATE	REVISION NO
See Title Page	14
	PAGE NO
	1 of 39

E. I. Hatch Nuclear Plant

Typed Copy To Follow!

Georgia Power

OFF SITE DOSE ESTIMATIONS

NOTE

This procedure supercedes HNP-4650 Revision 2.

A. PURPOSE

To describe methods which may be used for estimating off site radiation dose during emergency conditions at Plant Hatch.

B. REFERENCE

1. Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, E.P.A.
2. HNP-4854
3. Reg. Guide 1.145
4. Reg. Guide 1.109, Rev. 1
5. Workbook of Atmospheric Dispersion Estimates, E.P.A.

C. DISCUSSION

This procedure details methods which may be used in the event of an emergency situation to evaluate radiological conditions in the environment in order to assist plant personnel and responsible agencies (State Dept. of Natural Resources, GEMA, etc.) in making appropriate decisions to evaluate and control the hazard to public health and safety. Meteorological data will be passed along to the State Representatives as received but their 3 to estimates of thyroid doses are expected to be approximately 300 times higher due to the differences in iodine/noble gas ratio.

Sections E and F utilize meteorological and plant release data, to calculate offsite exposures. Sections G, H, and I use field measurements along with graphs from reference B.1 to estimate dose.

The methodology is based on Reg. Guide 1.145 dispersion models and Reg. Guide 1.109, Rev. 1 dose factors. These models have been ~~programmed~~ programmed ~~into a~~ ONA mini-computer located at the EOF. The same program can be run on a mini-computer located near the General Office (Atlanta) emergency center.

D. Estimation of Offsite Exposures

NOTE

The minicomputer system is designed to take various plant and meteorological data as input and calculate offsite dose rates, cumulative doses, and tabulate these for each sector at 1, 2, 5 and 10 mile distances. Protective Action Recommendations are also tabulated using the criteria of HNP-4854. The system is designed for updating every 15 minutes and has the added capability to forecast exposure data for hypothetical sets of release parameters. Tabulation of field monitoring data is also provided.

1. Set up the minicomputer per checklist No. 1.

2. Enter initial data as requested by the computer.

3. When the "verification run" is complete, assure the values match those on checklist No. 1. If they do not match, repeat system setup using an alternate disk.

4. Enter radiation monitor or sample data as requested. This information is obtained from a communicator/recorder. Meteorological data is also provided by the communicator/recorder.

5. Three copies of printout are available for use by:

   1. Status Board Recorder - and subsequent Posting
   2. Dose Assessment Manager
   3. Field Team Coordinator

6. All data printouts should be reviewed and initialed by the Dose Assessment Manager.

7. Periodically perform verification calculations using data from Tables in Appendix A of this procedure. For the appropriate stability class, wind speed and distance, multiply the curies per second release rate by the Table factor to estimate dose rate. Compare with printout data. Inconsistencies must be reported to the Dose Assessment Manager.

8. Provide all data and Protective Action Recommendations to State (DNR/EPD) personnel.

NOTE

Protective Action Recommendations are based on cumulative doses plus a two hour projection. Longer projections may be made by simply multiplying the calculated dose rates by the projections time desired.

9. Exposure estimates for field monitoring teams can be made by periodically checking pocket dosimeters (whole body) and multiplying stay times by measured radioiodine concentrations using the following conversion factor:

   mrem/hr (thyroid) = 1.85 E+9 pCi/cc (I-131)

Checklist No. 1

Setup of Dose Calculation Minicomputer

____ 1. Move Computer Console and Printer to Dose Assessment Area. Plug both units to 120 A.C. power. Connect printer to computer.

____ 2. Turn Printer on (switch is in back) and press reset button.

____ 3. Turn Computer on (switch is on right hand side).

____ 4. Insert Diskette and close door. Red light should go on.

____ 5. When red light goes off, press reset button.

* NOTE *

Hold at this point until all data needed for initial calculation is available - i.e. source term and meteorology data.

____ 6. Type in Date and Time (24 hour clock) as requested and press Enter key.

____ 7. Type in the following sequence:
(i) Basic (enter key)
(ii) (enter key)
(iii) (enter key)
(iv) LOAD "HATCH/PAG" (enter key)

____ 8. Type in information as requested.

____ 9. Compare verification run with the following values:

Verification Run Values (mrem)

Distance	Whole Body	Thyroid
1 mile	1225	3484
2 miles	503	1431
5 miles	108	306
10 miles	41	117

NOTE

If the verification run values do not match those above, return to step 4 and use an alternate diskette.

Appendix A

VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS A
FUMIGATION

MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	BOUNDING DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	3.34E+23	1.79E+23	1.24E+23	9.62E+22	9.62E+22	9.62E+22	9.62E+22	9.62E+22	9.62E+22	9.62E+22
2	1.67E+23	8.94E+22	6.20E+22	4.81E+22	4.81E+22	4.81E+22	4.81E+22	4.81E+22	4.81E+22	4.81E+22
3	1.11E+23	5.96E+22	4.13E+22	3.21E+22	3.21E+22	3.21E+22	3.21E+22	3.21E+22	3.21E+22	3.21E+22
4	8.36E+22	4.47E+22	3.10E+22	2.41E+22	2.41E+22	2.41E+22	2.41E+22	2.41E+22	2.41E+22	2.41E+22
5	6.69E+22	3.57E+22	2.48E+22	1.92E+22	1.92E+22	1.92E+22	1.92E+22	1.92E+22	1.92E+22	1.92E+22
6	5.57E+22	2.98E+22	2.07E+22	1.60E+22	1.60E+22	1.60E+22	1.60E+22	1.60E+22	1.60E+22	1.60E+22
7	4.77E+22	2.55E+22	1.77E+22	1.37E+22	1.37E+22	1.37E+22	1.37E+22	1.37E+22	1.37E+22	1.37E+22
8	4.18E+22	2.23E+22	1.55E+22	1.20E+22	1.20E+22	1.20E+22	1.20E+22	1.20E+22	1.20E+22	1.20E+22
9	3.71E+22	1.99E+22	1.38E+22	1.07E+22	1.07E+22	1.07E+22	1.07E+22	1.07E+22	1.07E+22	1.07E+22
10	3.34E+22	1.79E+22	1.24E+22	9.62E+21	9.62E+21	9.62E+21	9.62E+21	9.62E+21	9.62E+21	9.62E+21
11	3.04E+22	1.62E+22	1.13E+22	8.75E+21	8.75E+21	8.75E+21	8.75E+21	8.75E+21	8.75E+21	8.75E+21
12	2.79E+22	1.49E+22	1.03E+22	8.02E+21	8.02E+21	8.02E+21	8.02E+21	8.02E+21	8.02E+21	8.02E+21
13	2.57E+22	1.37E+22	9.53E+21	7.40E+21	7.40E+21	7.40E+21	7.40E+21	7.40E+21	7.40E+21	7.40E+21
14	2.39E+22	1.28E+22	8.85E+21	6.87E+21	6.87E+21	6.87E+21	6.87E+21	6.87E+21	6.87E+21	6.87E+21
15	2.23E+22	1.19E+22	8.26E+21	6.41E+21	6.41E+21	6.41E+21	6.41E+21	6.41E+21	6.41E+21	6.41E+21
16	2.09E+22	1.12E+22	7.75E+21	6.01E+21	6.01E+21	6.01E+21	6.01E+21	6.01E+21	6.01E+21	6.01E+21
17	1.97E+22	1.05E+22	7.29E+21	5.66E+21	5.66E+21	5.66E+21	5.66E+21	5.66E+21	5.66E+21	5.66E+21
18	1.86E+22	9.93E+21	6.89E+21	5.34E+21	5.34E+21	5.34E+21	5.34E+21	5.34E+21	5.34E+21	5.34E+21
19	1.76E+22	9.41E+21	6.53E+21	5.06E+21	5.06E+21	5.06E+21	5.06E+21	5.06E+21	5.06E+21	5.06E+21
20	1.67E+22	8.94E+21	6.20E+21	4.81E+21	4.81E+21	4.81E+21	4.81E+21	4.81E+21	4.81E+21	4.81E+21
21	1.59E+22	8.51E+21	5.90E+21	4.58E+21	4.58E+21	4.58E+21	4.58E+21	4.58E+21	4.58E+21	4.58E+21
22	1.52E+22	8.12E+21	5.63E+21	4.37E+21	4.37E+21	4.37E+21	4.37E+21	4.37E+21	4.37E+21	4.37E+21
23	1.45E+22	7.77E+21	5.39E+21	4.18E+21	4.18E+21	4.18E+21	4.18E+21	4.18E+21	4.18E+21	4.18E+21
24	1.39E+22	7.45E+21	5.16E+21	4.01E+21	4.01E+21	4.01E+21	4.01E+21	4.01E+21	4.01E+21	4.01E+21
25	1.34E+22	7.15E+21	4.96E+21	3.85E+21	3.85E+21	3.85E+21	3.85E+21	3.85E+21	3.85E+21	3.85E+21
26	1.29E+22	6.87E+21	4.77E+21	3.70E+21	3.70E+21	3.70E+21	3.70E+21	3.70E+21	3.70E+21	3.70E+21
27	1.24E+22	6.62E+21	4.59E+21	3.56E+21	3.56E+21	3.56E+21	3.56E+21	3.56E+21	3.56E+21	3.56E+21
28	1.20E+22	6.38E+21	4.43E+21	3.44E+21	3.44E+21	3.44E+21	3.44E+21	3.44E+21	3.44E+21	3.44E+21
29	1.15E+22	6.16E+21	4.27E+21	3.32E+21	3.32E+21	3.32E+21	3.32E+21	3.32E+21	3.32E+21	3.32E+21
30	1.11E+22	5.95E+21	4.13E+21	3.21E+21	3.21E+21	3.21E+21	3.21E+21	3.21E+21	3.21E+21	3.21E+21
31	1.08E+22	5.77E+21	4.00E+21	3.10E+21	3.10E+21	3.10E+21	3.10E+21	3.10E+21	3.10E+21	3.10E+21
32	1.04E+22	5.60E+21	3.88E+21	3.01E+21	3.01E+21	3.01E+21	3.01E+21	3.01E+21	3.01E+21	3.01E+21
33	1.01E+22	5.43E+21	3.76E+21	2.92E+21	2.92E+21	2.92E+21	2.92E+21	2.92E+21	2.92E+21	2.92E+21
34	9.83E+21	5.28E+21	3.64E+21	2.83E+21	2.83E+21	2.83E+21	2.83E+21	2.83E+21	2.83E+21	2.83E+21
35	9.55E+21	5.11E+21	3.54E+21	2.75E+21	2.75E+21	2.75E+21	2.75E+21	2.75E+21	2.75E+21	2.75E+21
36	9.23E+21	4.95E+21	3.44E+21	2.67E+21	2.67E+21	2.67E+21	2.67E+21	2.67E+21	2.67E+21	2.67E+21
37	9.22E+21	4.83E+21	3.37E+21	2.62E+21	2.62E+21	2.62E+21	2.62E+21	2.62E+21	2.62E+21	2.62E+21
38	8.98E+21	4.70E+21	3.25E+21	2.53E+21	2.53E+21	2.53E+21	2.53E+21	2.53E+21	2.53E+21	2.53E+21
39	8.77E+21	4.58E+21	3.15E+21	2.47E+21	2.47E+21	2.47E+21	2.47E+21	2.47E+21	2.47E+21	2.47E+21
40	8.56E+21	4.47E+21	3.10E+21	2.41E+21	2.41E+21	2.41E+21	2.41E+21	2.41E+21	2.41E+21	2.41E+21
41	8.15E+21	4.26E+21	3.01E+21	2.35E+21	2.35E+21	2.35E+21	2.35E+21	2.35E+21	2.35E+21	2.35E+21
42	7.91E+21	4.25E+21	2.93E+21	2.29E+21	2.29E+21	2.29E+21	2.29E+21	2.29E+21	2.29E+21	2.29E+21
43	7.77E+21	4.16E+21	2.88E+21	2.24E+21	2.24E+21	2.24E+21	2.24E+21	2.24E+21	2.24E+21	2.24E+21
44	7.63E+21	4.06E+21	2.80E+21	2.19E+21	2.19E+21	2.19E+21	2.19E+21	2.19E+21	2.19E+21	2.19E+21
45	7.43E+21	3.97E+21	2.75E+21	2.14E+21	2.14E+21	2.14E+21	2.14E+21	2.14E+21	2.14E+21	2.14E+21
46	7.23E+21	3.87E+21	2.69E+21	2.09E+21	2.09E+21	2.09E+21	2.09E+21	2.09E+21	2.09E+21	2.09E+21
47	7.11E+21	3.82E+21	2.64E+21	2.05E+21	2.05E+21	2.05E+21	2.05E+21	2.05E+21	2.05E+21	2.05E+21
48	6.91E+21	3.72E+21	2.57E+21	2.00E+21	2.00E+21	2.00E+21	2.00E+21	2.00E+21	2.00E+21	2.00E+21
49	6.82E+21	3.67E+21	2.53E+21	1.96E+21	1.96E+21	1.96E+21	1.96E+21	1.96E+21	1.96E+21	1.96E+21
50	6.73E+21	3.62E+21	2.50E+21	1.93E+21	1.93E+21	1.93E+21	1.93E+21	1.93E+21	1.93E+21	1.93E+21

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS B
FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

DOWNWIND DISTANCE FROM PLANT

UPPER WIND SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.94E+04	5.81E+03	2.44E+03	1.51E+03	1.24E+03	9.82E+02	9.82E+02	9.82E+02	9.82E+02	9.82E+02
2	9.82E+03	2.91E+03	1.33E+03	7.56E+02	5.17E+02	4.81E+02	4.81E+02	4.81E+02	4.81E+02	4.81E+02
3	6.55E+03	1.94E+03	8.87E+02	5.04E+02	3.44E+02	3.21E+02	3.21E+02	3.21E+02	3.21E+02	3.21E+02
4	4.91E+03	1.45E+03	6.65E+02	3.78E+02	2.58E+02	2.41E+02	2.41E+02	2.41E+02	2.41E+02	2.41E+02
5	3.93E+03	1.16E+03	5.32E+02	3.02E+02	2.06E+02	1.92E+02	1.92E+02	1.92E+02	1.92E+02	1.92E+02
6	3.27E+03	9.72E+02	4.44E+02	2.52E+02	1.73E+02	1.61E+02	1.60E+02	1.60E+02	1.60E+02	1.60E+02
7	2.81E+03	8.31E+02	3.82E+02	2.16E+02	1.48E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02
8	2.45E+03	7.27E+02	3.33E+02	1.89E+02	1.29E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02
9	2.18E+03	6.46E+02	2.96E+02	1.68E+02	1.15E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02
10	1.96E+03	5.81E+02	2.66E+02	1.51E+02	1.04E+02	9.62E+01	9.62E+01	9.62E+01	9.62E+01	9.62E+01
11	1.79E+03	5.29E+02	2.42E+02	1.37E+02	9.44E+01	8.75E+01	8.75E+01	8.75E+01	8.75E+01	8.75E+01
12	1.64E+03	4.85E+02	2.22E+02	1.25E+02	8.65E+01	8.03E+01	8.01E+01	8.01E+01	8.01E+01	8.01E+01
13	1.51E+03	4.48E+02	2.05E+02	1.16E+02	7.99E+01	7.42E+01	7.40E+01	7.40E+01	7.40E+01	7.40E+01
14	1.40E+03	4.16E+02	1.90E+02	1.08E+02	7.42E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01
15	1.31E+03	3.88E+02	1.77E+02	1.01E+02	6.93E+01	6.41E+01	6.41E+01	6.41E+01	6.41E+01	6.41E+01
16	1.23E+03	3.64E+02	1.66E+02	9.45E+01	6.49E+01	6.01E+01	6.01E+01	6.01E+01	6.01E+01	6.01E+01
17	1.16E+03	3.42E+02	1.57E+02	8.87E+01	6.11E+01	5.65E+01	5.65E+01	5.65E+01	5.65E+01	5.65E+01
18	1.09E+03	3.23E+02	1.48E+02	8.40E+01	5.77E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01
19	1.03E+03	3.06E+02	1.40E+02	7.95E+01	5.47E+01	5.06E+01	5.06E+01	5.06E+01	5.06E+01	5.06E+01
20	9.83E+02	2.91E+02	1.33E+02	7.56E+01	5.19E+01	4.81E+01	4.81E+01	4.81E+01	4.81E+01	4.81E+01
21	9.35E+02	2.77E+02	1.27E+02	7.22E+01	4.95E+01	4.58E+01	4.58E+01	4.58E+01	4.58E+01	4.58E+01
22	8.93E+02	2.64E+02	1.21E+02	6.87E+01	4.72E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
23	8.54E+02	2.53E+02	1.16E+02	6.57E+01	4.52E+01	4.18E+01	4.18E+01	4.18E+01	4.18E+01	4.18E+01
24	8.18E+02	2.42E+02	1.11E+02	6.30E+01	4.33E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01
25	7.85E+02	2.33E+02	1.07E+02	6.05E+01	4.16E+01	3.85E+01	3.85E+01	3.85E+01	3.85E+01	3.85E+01
26	7.55E+02	2.24E+02	1.03E+02	5.81E+01	4.00E+01	3.70E+01	3.70E+01	3.70E+01	3.70E+01	3.70E+01
27	7.27E+02	2.15E+02	9.91E+01	5.60E+01	3.85E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01
28	7.01E+02	2.09E+02	9.51E+01	5.42E+01	3.71E+01	3.44E+01	3.44E+01	3.44E+01	3.44E+01	3.44E+01
29	6.77E+02	2.01E+02	9.18E+01	5.21E+01	3.58E+01	3.32E+01	3.32E+01	3.32E+01	3.32E+01	3.32E+01
30	6.55E+02	1.94E+02	8.87E+01	5.04E+01	3.46E+01	3.21E+01	3.21E+01	3.21E+01	3.21E+01	3.21E+01
31	6.33E+02	1.88E+02	8.57E+01	4.88E+01	3.35E+01	3.10E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01
32	6.14E+02	1.81E+02	8.30E+01	4.73E+01	3.25E+01	3.01E+01	3.01E+01	3.01E+01	3.01E+01	3.01E+01
33	5.95E+02	1.76E+02	8.06E+01	4.59E+01	3.15E+01	2.92E+01	2.92E+01	2.92E+01	2.92E+01	2.92E+01
34	5.78E+02	1.71E+02	7.83E+01	4.45E+01	3.06E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01
35	5.61E+02	1.66E+02	7.62E+01	4.33E+01	2.97E+01	2.75E+01	2.75E+01	2.75E+01	2.75E+01	2.75E+01
36	5.45E+02	1.62E+02	7.42E+01	4.22E+01	2.89E+01	2.68E+01	2.67E+01	2.67E+01	2.67E+01	2.67E+01
37	5.31E+02	1.57E+02	7.19E+01	4.09E+01	2.81E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01
38	5.17E+02	1.53E+02	7.02E+01	3.98E+01	2.73E+01	2.53E+01	2.53E+01	2.53E+01	2.53E+01	2.53E+01
39	5.03E+02	1.49E+02	6.82E+01	3.88E+01	2.66E+01	2.47E+01	2.47E+01	2.47E+01	2.47E+01	2.47E+01
40	4.91E+02	1.45E+02	6.65E+01	3.78E+01	2.60E+01	2.41E+01	2.41E+01	2.41E+01	2.41E+01	2.41E+01
41	4.79E+02	1.42E+02	6.49E+01	3.69E+01	2.53E+01	2.35E+01	2.35E+01	2.35E+01	2.35E+01	2.35E+01
42	4.68E+02	1.39E+02	6.34E+01	3.60E+01	2.47E+01	2.29E+01	2.29E+01	2.29E+01	2.29E+01	2.29E+01
43	4.57E+02	1.35E+02	6.19E+01	3.51E+01	2.42E+01	2.24E+01	2.24E+01	2.24E+01	2.24E+01	2.24E+01
44	4.48E+02	1.32E+02	6.05E+01	3.44E+01	2.36E+01	2.19E+01	2.19E+01	2.19E+01	2.19E+01	2.19E+01
45	4.38E+02	1.29E+02	5.91E+01	3.36E+01	2.31E+01	2.14E+01	2.14E+01	2.14E+01	2.14E+01	2.14E+01
46	4.27E+02	1.26E+02	5.79E+01	3.29E+01	2.26E+01	2.09E+01	2.09E+01	2.09E+01	2.09E+01	2.09E+01
47	4.18E+02	1.24E+02	5.66E+01	3.21E+01	2.21E+01	2.05E+01	2.05E+01	2.05E+01	2.05E+01	2.05E+01
48	4.09E+02	1.21E+02	5.54E+01	3.15E+01	2.16E+01	2.00E+01	2.00E+01	2.00E+01	2.00E+01	2.00E+01
49	4.01E+02	1.19E+02	5.43E+01	3.09E+01	2.12E+01	1.96E+01	1.96E+01	1.96E+01	1.96E+01	1.96E+01
50	3.93E+02	1.16E+02	5.32E+01	3.03E+01	2.08E+01	1.92E+01	1.92E+01	1.92E+01	1.92E+01	1.92E+01

Reference Only

MANUAL SET

APPROVAL

DATE

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO. HNP-4552

REVISION NO. 4

PAGE NO. 16 of 39

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS C
FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

DOWNWIND DISTANCE FROM PLANT

UPPER WIND SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	2.98E+04	1.20E+04	6.69E+03	4.10E+03	2.78E+03	2.01E+03	1.53E+03	1.22E+03	1.17E+03	1.06E+03
2	1.48E+04	6.42E+03	3.35E+03	2.05E+03	1.39E+03	1.21E+03	7.65E+02	6.48E+02	5.84E+02	5.31E+02
3	9.87E+03	4.27E+03	2.22E+03	1.37E+03	9.26E+02	6.71E+02	5.10E+02	4.32E+02	3.89E+02	3.54E+02
4	7.42E+03	3.20E+03	1.67E+03	1.03E+03	6.95E+02	5.03E+02	3.83E+02	3.24E+02	2.91E+02	2.65E+02
5	5.92E+03	2.56E+03	1.34E+03	8.22E+02	5.56E+02	4.03E+02	3.06E+02	2.59E+02	2.34E+02	2.13E+02
6	4.93E+03	2.13E+03	1.12E+03	6.83E+02	4.63E+02	3.36E+02	2.55E+02	2.16E+02	1.95E+02	1.77E+02
7	4.22E+03	1.83E+03	9.56E+02	5.86E+02	3.97E+02	2.88E+02	2.19E+02	1.85E+02	1.67E+02	1.52E+02
8	3.72E+03	1.62E+03	8.38E+02	5.13E+02	3.47E+02	2.52E+02	1.91E+02	1.62E+02	1.46E+02	1.33E+02
9	3.29E+03	1.42E+03	7.43E+02	4.56E+02	3.09E+02	2.24E+02	1.70E+02	1.44E+02	1.30E+02	1.18E+02
10	2.96E+03	1.28E+03	6.69E+02	4.10E+02	2.78E+02	2.01E+02	1.53E+02	1.30E+02	1.17E+02	1.06E+02
11	2.69E+03	1.16E+03	6.08E+02	3.73E+02	2.53E+02	1.83E+02	1.39E+02	1.18E+02	1.06E+02	9.66E+01
12	2.47E+03	1.07E+03	5.58E+02	3.42E+02	2.32E+02	1.68E+02	1.28E+02	1.08E+02	9.73E+01	8.86E+01
13	2.28E+03	9.85E+02	5.15E+02	3.15E+02	2.14E+02	1.55E+02	1.18E+02	9.97E+01	8.98E+01	8.17E+01
14	2.11E+03	9.15E+02	4.78E+02	2.93E+02	1.99E+02	1.44E+02	1.09E+02	9.26E+01	8.34E+01	7.59E+01
15	1.97E+03	8.54E+02	4.46E+02	2.73E+02	1.85E+02	1.34E+02	1.02E+02	8.64E+01	7.78E+01	7.08E+01
16	1.85E+03	8.02E+02	4.18E+02	2.56E+02	1.74E+02	1.26E+02	9.57E+01	8.10E+01	7.30E+01	6.64E+01
17	1.74E+03	7.53E+02	3.94E+02	2.41E+02	1.63E+02	1.18E+02	9.01E+01	7.62E+01	6.87E+01	6.25E+01
18	1.64E+03	7.11E+02	3.72E+02	2.28E+02	1.54E+02	1.12E+02	8.52E+01	7.20E+01	6.49E+01	5.92E+01
19	1.56E+03	6.74E+02	3.52E+02	2.16E+02	1.46E+02	1.06E+02	8.06E+01	6.81E+01	6.14E+01	5.59E+01
20	1.48E+03	6.42E+02	3.35E+02	2.05E+02	1.39E+02	1.01E+02	7.65E+01	6.48E+01	5.84E+01	5.31E+01
21	1.41E+03	6.12E+02	3.19E+02	1.95E+02	1.32E+02	9.59E+01	7.28E+01	6.17E+01	5.56E+01	5.06E+01
22	1.35E+03	5.83E+02	3.04E+02	1.86E+02	1.26E+02	9.15E+01	6.94E+01	5.88E+01	5.31E+01	4.83E+01
23	1.29E+03	5.57E+02	2.91E+02	1.78E+02	1.21E+02	8.76E+01	6.65E+01	5.64E+01	5.08E+01	4.62E+01
24	1.23E+03	5.34E+02	2.79E+02	1.71E+02	1.16E+02	8.39E+01	6.38E+01	5.42E+01	4.88E+01	4.43E+01
25	1.18E+03	5.12E+02	2.68E+02	1.64E+02	1.11E+02	8.06E+01	6.12E+01	5.19E+01	4.67E+01	4.25E+01
26	1.14E+03	4.93E+02	2.57E+02	1.58E+02	1.07E+02	7.75E+01	5.89E+01	4.99E+01	4.49E+01	4.08E+01
27	1.10E+03	4.74E+02	2.48E+02	1.52E+02	1.03E+02	7.48E+01	5.67E+01	4.82E+01	4.33E+01	3.94E+01
28	1.06E+03	4.57E+02	2.39E+02	1.48E+02	9.92E+01	7.19E+01	5.47E+01	4.63E+01	4.17E+01	3.80E+01
29	1.02E+03	4.40E+02	2.31E+02	1.41E+02	9.59E+01	6.94E+01	5.28E+01	4.47E+01	4.03E+01	3.68E+01
30	9.87E+02	4.27E+02	2.23E+02	1.37E+02	9.26E+01	6.71E+01	5.10E+01	4.33E+01	3.89E+01	3.54E+01
31	9.55E+02	4.13E+02	2.16E+02	1.33E+02	8.96E+01	6.50E+01	4.94E+01	4.18E+01	3.77E+01	3.43E+01
32	9.25E+02	4.02E+02	2.09E+02	1.29E+02	8.69E+01	6.29E+01	4.78E+01	4.05E+01	3.65E+01	3.33E+01
33	8.97E+02	3.88E+02	2.03E+02	1.24E+02	8.43E+01	6.10E+01	4.64E+01	3.93E+01	3.54E+01	3.22E+01
34	8.71E+02	3.77E+02	1.97E+02	1.21E+02	8.17E+01	5.92E+01	4.50E+01	3.81E+01	3.43E+01	3.13E+01
35	8.48E+02	3.66E+02	1.91E+02	1.17E+02	7.94E+01	5.75E+01	4.37E+01	3.70E+01	3.34E+01	3.04E+01
36	8.22E+02	3.56E+02	1.85E+02	1.14E+02	7.70E+01	5.59E+01	4.25E+01	3.61E+01	3.24E+01	2.95E+01
37	8.03E+02	3.48E+02	1.81E+02	1.11E+02	7.51E+01	5.46E+01	4.15E+01	3.51E+01	3.16E+01	2.87E+01
38	7.79E+02	3.37E+02	1.76E+02	1.08E+02	7.31E+01	5.30E+01	4.03E+01	3.41E+01	3.07E+01	2.80E+01
39	7.59E+02	3.28E+02	1.72E+02	1.05E+02	7.12E+01	5.16E+01	3.93E+01	3.32E+01	2.99E+01	2.72E+01
40	7.40E+02	3.20E+02	1.67E+02	1.03E+02	6.95E+01	5.03E+01	3.83E+01	3.24E+01	2.92E+01	2.65E+01
41	7.22E+02	3.13E+02	1.63E+02	1.00E+02	6.78E+01	4.91E+01	3.73E+01	3.16E+01	2.85E+01	2.59E+01
42	7.05E+02	3.05E+02	1.59E+02	9.75E+01	6.62E+01	4.79E+01	3.64E+01	3.08E+01	2.78E+01	2.53E+01
43	6.88E+02	2.98E+02	1.56E+02	9.54E+01	6.48E+01	4.68E+01	3.56E+01	3.01E+01	2.72E+01	2.47E+01
44	6.73E+02	2.91E+02	1.52E+02	9.33E+01	6.33E+01	4.58E+01	3.48E+01	2.95E+01	2.66E+01	2.42E+01
45	6.59E+02	2.85E+02	1.49E+02	9.11E+01	6.17E+01	4.48E+01	3.40E+01	2.88E+01	2.59E+01	2.36E+01
46	6.44E+02	2.78E+02	1.45E+02	8.91E+01	6.04E+01	4.38E+01	3.32E+01	2.81E+01	2.54E+01	2.31E+01
47	6.32E+02	2.73E+02	1.42E+02	8.72E+01	5.91E+01	4.28E+01	3.25E+01	2.75E+01	2.48E+01	2.26E+01
48	6.17E+02	2.67E+02	1.39E+02	8.54E+01	5.79E+01	4.20E+01	3.19E+01	2.70E+01	2.43E+01	2.21E+01
49	6.04E+02	2.61E+02	1.37E+02	8.37E+01	5.67E+01	4.11E+01	3.12E+01	2.65E+01	2.38E+01	2.17E+01
50	5.93E+02	2.56E+02	1.34E+02	8.20E+01	5.56E+01	4.03E+01	3.06E+01	2.59E+01	2.34E+01	2.13E+01

APPROVAL

DATE

E. I. HATCH NUCLEAR PLANT

Georgia Power

DOCUMENT NO. HADP-4552

REVISION NO. 4

PAGE NO. 7 of 39

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS D
FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

DOWNWIND DISTANCE FROM PLANT

UPPER WIND SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	8.74E+24	4.68E+24	3.24E+24	1.10E+24	9.85E+23	8.32E+23	7.11E+23	6.15E+23	5.37E+23	4.75E+23
2	4.37E+24	2.34E+24	1.62E+24	5.92E+23	4.94E+23	4.17E+23	3.56E+23	3.07E+23	2.69E+23	2.37E+23
3	2.91E+24	1.56E+24	1.08E+24	3.95E+23	3.30E+23	2.78E+23	2.37E+23	2.05E+23	1.79E+23	1.58E+23
4	2.19E+24	1.17E+24	8.10E+23	2.96E+23	2.47E+23	2.08E+23	1.78E+23	1.54E+23	1.34E+23	1.19E+23
5	1.75E+24	9.35E+23	6.48E+23	2.36E+23	1.98E+23	1.67E+23	1.42E+23	1.23E+23	1.07E+23	9.48E+22
6	1.46E+24	7.79E+23	5.40E+23	1.97E+23	1.65E+23	1.39E+23	1.19E+23	1.03E+23	8.97E+22	7.91E+22
7	1.25E+24	6.68E+23	4.63E+23	1.69E+23	1.41E+23	1.19E+23	1.02E+23	8.78E+22	7.68E+22	6.78E+22
8	1.09E+24	5.84E+23	4.05E+23	1.48E+23	1.24E+23	1.04E+23	8.91E+22	7.68E+22	6.72E+22	5.93E+22
9	9.71E+23	5.19E+23	3.60E+23	1.31E+23	1.10E+23	9.25E+22	7.92E+22	6.83E+22	5.97E+22	5.27E+22
10	8.74E+23	4.68E+23	3.24E+23	1.18E+23	9.89E+22	8.33E+22	7.13E+22	6.15E+22	5.37E+22	4.75E+22
11	7.95E+23	4.25E+23	2.95E+23	1.07E+23	8.99E+22	7.58E+22	6.47E+22	5.59E+22	4.88E+22	4.31E+22
12	7.29E+23	3.90E+23	2.70E+23	9.84E+22	8.24E+22	6.95E+22	5.93E+22	5.12E+22	4.47E+22	3.96E+22
13	6.73E+23	3.60E+23	2.49E+23	9.08E+22	7.60E+22	6.41E+22	5.47E+22	4.73E+22	4.12E+22	3.65E+22
14	6.25E+23	3.34E+23	2.32E+23	8.43E+22	7.06E+22	5.95E+22	5.08E+22	4.39E+22	3.84E+22	3.39E+22
15	5.83E+23	3.12E+23	2.16E+23	7.87E+22	6.59E+22	5.56E+22	4.74E+22	4.10E+22	3.58E+22	3.16E+22
16	5.46E+23	2.92E+23	2.02E+23	7.38E+22	6.19E+22	5.21E+22	4.44E+22	3.84E+22	3.35E+22	2.97E+22
17	5.14E+23	2.75E+23	1.91E+23	6.94E+22	5.82E+22	4.92E+22	4.19E+22	3.62E+22	3.16E+22	2.79E+22
18	4.85E+23	2.60E+23	1.80E+23	6.56E+22	5.49E+22	4.63E+22	3.95E+22	3.41E+22	2.98E+22	2.64E+22
19	4.60E+23	2.46E+23	1.71E+23	6.21E+22	5.20E+22	4.39E+22	3.74E+22	3.23E+22	2.82E+22	2.50E+22
20	4.37E+23	2.34E+23	1.62E+23	5.90E+22	4.94E+22	4.17E+22	3.56E+22	3.07E+22	2.68E+22	2.37E+22
21	4.16E+23	2.22E+23	1.54E+23	5.62E+22	4.71E+22	3.97E+22	3.39E+22	2.93E+22	2.56E+22	2.26E+22
22	3.97E+23	2.13E+23	1.47E+23	5.36E+22	4.49E+22	3.79E+22	3.23E+22	2.79E+22	2.44E+22	2.16E+22
23	3.82E+23	2.02E+23	1.41E+23	5.12E+22	4.29E+22	3.62E+22	3.08E+22	2.67E+22	2.34E+22	2.06E+22
24	3.64E+23	1.95E+23	1.35E+23	4.91E+22	4.12E+22	3.47E+22	2.96E+22	2.56E+22	2.24E+22	1.98E+22
25	3.50E+23	1.87E+23	1.29E+23	4.72E+22	3.95E+22	3.33E+22	2.84E+22	2.46E+22	2.15E+22	1.90E+22
26	3.36E+23	1.80E+23	1.25E+23	4.54E+22	3.80E+22	3.21E+22	2.74E+22	2.38E+22	2.07E+22	1.83E+22
27	3.24E+23	1.73E+23	1.20E+23	4.37E+22	3.65E+22	3.09E+22	2.63E+22	2.28E+22	1.99E+22	1.76E+22
28	3.13E+23	1.67E+23	1.16E+23	4.22E+22	3.53E+22	2.98E+22	2.54E+22	2.19E+22	1.92E+22	1.70E+22
29	3.01E+23	1.61E+23	1.12E+23	4.07E+22	3.41E+22	2.87E+22	2.45E+22	2.12E+22	1.85E+22	1.64E+22
30	2.91E+23	1.56E+23	1.08E+23	3.93E+22	3.30E+22	2.78E+22	2.37E+22	2.05E+22	1.79E+22	1.58E+22
31	2.81E+23	1.51E+23	1.05E+23	3.81E+22	3.19E+22	2.69E+22	2.29E+22	1.98E+22	1.73E+22	1.53E+22
32	2.73E+23	1.46E+23	1.01E+23	3.69E+22	3.09E+22	2.60E+22	2.22E+22	1.91E+22	1.68E+22	1.48E+22
33	2.65E+23	1.42E+23	9.83E+22	3.58E+22	3.00E+22	2.52E+22	2.15E+22	1.86E+22	1.63E+22	1.44E+22
34	2.57E+23	1.38E+23	9.53E+22	3.47E+22	2.91E+22	2.45E+22	2.09E+22	1.81E+22	1.58E+22	1.40E+22
35	2.50E+23	1.34E+23	9.26E+22	3.37E+22	2.82E+22	2.38E+22	2.03E+22	1.76E+22	1.54E+22	1.36E+22
36	2.43E+23	1.30E+23	8.76E+22	3.27E+22	2.74E+22	2.31E+22	1.97E+22	1.71E+22	1.49E+22	1.32E+22
37	2.36E+23	1.26E+23	8.53E+22	3.18E+22	2.67E+22	2.25E+22	1.92E+22	1.66E+22	1.45E+22	1.28E+22
38	2.30E+23	1.23E+23	8.31E+22	3.10E+22	2.60E+22	2.19E+22	1.87E+22	1.62E+22	1.41E+22	1.25E+22
39	2.24E+23	1.20E+23	8.10E+22	3.02E+22	2.53E+22	2.14E+22	1.82E+22	1.58E+22	1.38E+22	1.22E+22
40	2.19E+23	1.17E+23	7.91E+22	2.95E+22	2.47E+22	2.08E+22	1.78E+22	1.54E+22	1.34E+22	1.19E+22
41	2.13E+23	1.14E+23	7.72E+22	2.88E+22	2.41E+22	2.03E+22	1.73E+22	1.50E+22	1.31E+22	1.16E+22
42	2.08E+23	1.11E+23	7.54E+22	2.81E+22	2.35E+22	1.98E+22	1.69E+22	1.47E+22	1.28E+22	1.13E+22
43	2.03E+23	1.09E+23	7.37E+22	2.74E+22	2.29E+22	1.94E+22	1.65E+22	1.43E+22	1.25E+22	1.11E+22
44	1.98E+23	1.06E+23	7.22E+22	2.68E+22	2.24E+22	1.89E+22	1.61E+22	1.39E+22	1.22E+22	1.08E+22
45	1.94E+23	1.04E+23	7.07E+22	2.62E+22	2.19E+22	1.85E+22	1.57E+22	1.36E+22	1.19E+22	1.05E+22
46	1.90E+23	1.02E+23	6.92E+22	2.57E+22	2.15E+22	1.81E+22	1.54E+22	1.33E+22	1.16E+22	1.03E+22
47	1.86E+23	9.95E+22	6.78E+22	2.51E+22	2.10E+22	1.77E+22	1.50E+22	1.30E+22	1.13E+22	1.00E+22
48	1.82E+23	9.74E+22	6.65E+22	2.46E+22	2.06E+22	1.74E+22	1.47E+22	1.27E+22	1.11E+22	9.81E+21
49	1.78E+23	9.54E+22	6.52E+22	2.41E+22	2.02E+22	1.70E+22	1.44E+22	1.24E+22	1.08E+22	9.61E+21
50	1.75E+23	9.35E+22	6.40E+22	2.36E+22	1.98E+22	1.67E+22	1.41E+22	1.22E+22	1.06E+22	9.42E+21

Reference Only

MANUAL SET

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS E
FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

UPPER MID SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT 1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.22E+25	6.57E+24	4.56E+24	3.52E+24	2.87E+24	2.44E+24	2.12E+24	1.88E+24	1.69E+24	1.54E+24
2	6.15E+24	3.29E+24	2.28E+24	1.76E+24	1.44E+24	1.22E+24	1.06E+24	9.42E+23	8.46E+23	7.68E+23
3	4.12E+24	2.19E+24	1.52E+24	1.17E+24	9.58E+23	8.13E+23	7.07E+23	6.27E+23	5.62E+23	5.12E+23
4	3.07E+24	1.64E+24	1.14E+24	8.79E+23	7.19E+23	6.09E+23	5.30E+23	4.70E+23	4.23E+23	3.84E+23
5	2.46E+24	1.31E+24	9.12E+23	7.03E+23	5.75E+23	4.88E+23	4.24E+23	3.76E+23	3.38E+23	3.07E+23
6	2.05E+24	1.10E+24	7.60E+23	5.86E+23	4.79E+23	4.06E+23	3.54E+23	3.13E+23	2.82E+23	2.56E+23
7	1.76E+24	9.39E+23	6.51E+23	5.02E+23	4.11E+23	3.48E+23	3.03E+23	2.68E+23	2.41E+23	2.20E+23
8	1.54E+24	8.22E+23	5.70E+23	4.39E+23	3.59E+23	3.05E+23	2.65E+23	2.35E+23	2.11E+23	1.92E+23
9	1.37E+24	7.31E+23	5.07E+23	3.91E+23	3.19E+23	2.71E+23	2.36E+23	2.09E+23	1.88E+23	1.71E+23
10	1.23E+24	6.57E+23	4.56E+23	3.52E+23	2.87E+23	2.44E+23	2.12E+23	1.88E+23	1.69E+23	1.54E+23
11	1.12E+24	5.98E+23	4.14E+23	3.20E+23	2.61E+23	2.22E+23	1.93E+23	1.71E+23	1.54E+23	1.40E+23
12	1.02E+24	5.48E+23	3.80E+23	2.93E+23	2.40E+23	2.03E+23	1.77E+23	1.57E+23	1.41E+23	1.28E+23
13	9.46E+23	5.06E+23	3.51E+23	2.72E+23	2.21E+23	1.88E+23	1.63E+23	1.45E+23	1.30E+23	1.18E+23
14	8.78E+23	4.70E+23	3.26E+23	2.51E+23	2.05E+23	1.74E+23	1.51E+23	1.34E+23	1.21E+23	1.10E+23
15	8.22E+23	4.39E+23	3.04E+23	2.34E+23	1.91E+23	1.62E+23	1.41E+23	1.25E+23	1.13E+23	1.02E+23
16	7.69E+23	4.11E+23	2.85E+23	2.20E+23	1.80E+23	1.52E+23	1.33E+23	1.18E+23	1.06E+23	9.61E+22
17	7.23E+23	3.87E+23	2.68E+23	2.07E+23	1.69E+23	1.43E+23	1.25E+23	1.11E+23	9.94E+22	9.04E+22
18	6.83E+23	3.65E+23	2.53E+23	1.95E+23	1.60E+23	1.35E+23	1.18E+23	1.04E+23	9.39E+22	8.54E+22
19	6.47E+23	3.46E+23	2.40E+23	1.85E+23	1.51E+23	1.28E+23	1.12E+23	9.89E+22	8.90E+22	8.09E+22
20	6.15E+23	3.29E+23	2.28E+23	1.76E+23	1.44E+23	1.22E+23	1.06E+23	9.42E+22	8.45E+22	7.68E+22
21	5.85E+23	3.13E+23	2.17E+23	1.67E+23	1.37E+23	1.16E+23	1.01E+23	8.95E+22	8.03E+22	7.30E+22
22	5.59E+23	2.99E+23	2.07E+23	1.60E+23	1.31E+23	1.11E+23	9.64E+22	8.55E+22	7.68E+22	6.97E+22
23	5.35E+23	2.86E+23	1.98E+23	1.53E+23	1.25E+23	1.06E+23	9.22E+22	8.17E+22	7.35E+22	6.68E+22
24	5.13E+23	2.74E+23	1.90E+23	1.46E+23	1.20E+23	1.02E+23	8.84E+22	7.83E+22	7.04E+22	6.40E+22
25	4.93E+23	2.63E+23	1.82E+23	1.41E+23	1.15E+23	9.75E+22	8.48E+22	7.51E+22	6.76E+22	6.15E+22
26	4.73E+23	2.53E+23	1.75E+23	1.35E+23	1.11E+23	9.38E+22	8.16E+22	7.23E+22	6.50E+22	5.91E+22
27	4.55E+23	2.44E+23	1.69E+23	1.30E+23	1.06E+23	9.02E+22	7.86E+22	6.96E+22	6.26E+22	5.69E+22
28	4.39E+23	2.35E+23	1.63E+23	1.26E+23	1.02E+23	8.71E+22	7.58E+22	6.71E+22	6.03E+22	5.49E+22
29	4.24E+23	2.27E+23	1.57E+23	1.21E+23	9.91E+22	8.41E+22	7.31E+22	6.48E+22	5.83E+22	5.30E+22
30	4.10E+23	2.19E+23	1.52E+23	1.17E+23	9.58E+22	8.13E+22	7.07E+22	6.27E+22	5.63E+22	5.12E+22
31	3.97E+23	2.13E+23	1.47E+23	1.13E+23	9.27E+22	7.86E+22	6.84E+22	6.06E+22	5.45E+22	4.96E+22
32	3.84E+23	2.06E+23	1.42E+23	1.10E+23	8.98E+22	7.61E+22	6.63E+22	5.88E+22	5.28E+22	4.80E+22
33	3.73E+23	1.99E+23	1.38E+23	1.07E+23	8.71E+22	7.39E+22	6.43E+22	5.70E+22	5.12E+22	4.66E+22
34	3.63E+23	1.93E+23	1.34E+23	1.03E+23	8.45E+22	7.17E+22	6.24E+22	5.53E+22	4.97E+22	4.51E+22
35	3.51E+23	1.88E+23	1.30E+23	1.00E+23	8.21E+22	6.97E+22	6.06E+22	5.37E+22	4.83E+22	4.39E+22
36	3.42E+23	1.83E+23	1.27E+23	9.77E+22	7.99E+22	6.77E+22	5.89E+22	5.22E+22	4.70E+22	4.27E+22
37	3.33E+23	1.78E+23	1.23E+23	9.52E+22	7.78E+22	6.59E+22	5.73E+22	5.08E+22	4.57E+22	4.15E+22
38	3.24E+23	1.73E+23	1.20E+23	9.28E+22	7.58E+22	6.42E+22	5.58E+22	4.95E+22	4.45E+22	4.04E+22
39	3.15E+23	1.69E+23	1.17E+23	9.05E+22	7.39E+22	6.25E+22	5.44E+22	4.82E+22	4.33E+22	3.94E+22
40	3.07E+23	1.64E+23	1.14E+23	8.84E+22	7.19E+22	6.09E+22	5.30E+22	4.70E+22	4.23E+22	3.84E+22
41	3.02E+23	1.62E+23	1.11E+23	8.62E+22	7.01E+22	5.93E+22	5.17E+22	4.59E+22	4.13E+22	3.75E+22
42	2.93E+23	1.57E+23	1.09E+23	8.43E+22	6.84E+22	5.80E+22	5.05E+22	4.48E+22	4.03E+22	3.66E+22
43	2.86E+23	1.53E+23	1.06E+23	8.25E+22	6.68E+22	5.67E+22	4.93E+22	4.37E+22	3.93E+22	3.57E+22
44	2.79E+23	1.49E+23	1.04E+23	7.99E+22	6.53E+22	5.54E+22	4.82E+22	4.27E+22	3.84E+22	3.49E+22
45	2.72E+23	1.46E+23	1.01E+23	7.81E+22	6.37E+22	5.41E+22	4.71E+22	4.18E+22	3.75E+22	3.41E+22
46	2.67E+23	1.43E+23	9.91E+22	7.64E+22	6.25E+22	5.30E+22	4.61E+22	4.09E+22	3.67E+22	3.34E+22
47	2.61E+23	1.40E+23	9.70E+22	7.48E+22	6.12E+22	5.19E+22	4.51E+22	4.00E+22	3.60E+22	3.27E+22
48	2.55E+23	1.37E+23	9.50E+22	7.32E+22	5.99E+22	5.08E+22	4.42E+22	3.93E+22	3.52E+22	3.20E+22
49	2.50E+23	1.34E+23	9.30E+22	7.18E+22	5.87E+22	4.98E+22	4.33E+22	3.84E+22	3.45E+22	3.14E+22
50	2.44E+23	1.31E+23	9.12E+22	7.03E+22	5.75E+22	4.88E+22	4.24E+22	3.76E+22	3.38E+22	3.07E+22

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS F
FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.78E+05	9.53E+04	6.62E+04	5.07E+04	4.16E+04	3.52E+04	3.07E+04	2.72E+04	2.45E+04	2.23E+04
2	8.91E+04	4.76E+04	3.32E+04	2.53E+04	2.08E+04	1.77E+04	1.54E+04	1.36E+04	1.22E+04	1.11E+04
3	5.94E+04	3.18E+04	2.22E+04	1.70E+04	1.39E+04	1.18E+04	1.03E+04	9.08E+03	8.16E+03	7.42E+03
4	4.45E+04	2.38E+04	1.65E+04	1.27E+04	1.04E+04	8.83E+03	7.68E+03	6.81E+03	6.12E+03	5.57E+03
5	3.56E+04	1.91E+04	1.32E+04	1.02E+04	8.32E+03	7.06E+03	6.15E+03	5.45E+03	4.90E+03	4.46E+03
6	2.97E+04	1.59E+04	1.11E+04	8.49E+03	6.94E+03	5.89E+03	5.12E+03	4.54E+03	4.08E+03	3.71E+03
7	2.54E+04	1.36E+04	9.54E+03	7.28E+03	5.95E+03	5.05E+03	4.39E+03	3.89E+03	3.50E+03	3.18E+03
8	2.23E+04	1.19E+04	8.35E+03	6.37E+03	5.20E+03	4.41E+03	3.84E+03	3.40E+03	3.06E+03	2.78E+03
9	1.98E+04	1.06E+04	7.34E+03	5.60E+03	4.62E+03	3.92E+03	3.41E+03	3.03E+03	2.72E+03	2.47E+03
10	1.78E+04	9.53E+03	6.63E+03	5.05E+03	4.16E+03	3.53E+03	3.07E+03	2.72E+03	2.45E+03	2.23E+03
11	1.62E+04	8.66E+03	6.03E+03	4.60E+03	3.79E+03	3.21E+03	2.79E+03	2.48E+03	2.23E+03	2.03E+03
12	1.48E+04	7.94E+03	5.52E+03	4.21E+03	3.47E+03	2.94E+03	2.56E+03	2.27E+03	2.04E+03	1.86E+03
13	1.37E+04	7.33E+03	5.09E+03	3.92E+03	3.20E+03	2.72E+03	2.36E+03	2.10E+03	1.88E+03	1.71E+03
14	1.27E+04	6.80E+03	4.72E+03	3.61E+03	2.97E+03	2.52E+03	2.19E+03	1.95E+03	1.75E+03	1.59E+03
15	1.19E+04	6.35E+03	4.42E+03	3.40E+03	2.78E+03	2.35E+03	2.05E+03	1.82E+03	1.63E+03	1.48E+03
16	1.11E+04	5.95E+03	4.13E+03	3.19E+03	2.62E+03	2.21E+03	1.92E+03	1.70E+03	1.53E+03	1.39E+03
17	1.05E+04	5.60E+03	3.89E+03	3.02E+03	2.48E+03	2.08E+03	1.81E+03	1.60E+03	1.44E+03	1.31E+03
18	9.92E+03	5.29E+03	3.67E+03	2.83E+03	2.31E+03	1.96E+03	1.71E+03	1.51E+03	1.36E+03	1.24E+03
19	9.38E+03	5.01E+03	3.46E+03	2.68E+03	2.19E+03	1.86E+03	1.62E+03	1.43E+03	1.29E+03	1.17E+03
20	8.91E+03	4.76E+03	3.30E+03	2.55E+03	2.08E+03	1.77E+03	1.54E+03	1.36E+03	1.22E+03	1.11E+03
21	8.48E+03	4.54E+03	3.15E+03	2.43E+03	1.98E+03	1.68E+03	1.46E+03	1.29E+03	1.17E+03	1.06E+03
22	8.10E+03	4.33E+03	3.00E+03	2.31E+03	1.89E+03	1.61E+03	1.40E+03	1.24E+03	1.11E+03	1.01E+03
23	7.74E+03	4.14E+03	2.87E+03	2.21E+03	1.81E+03	1.54E+03	1.34E+03	1.18E+03	1.06E+03	9.68E+02
24	7.42E+03	3.97E+03	2.75E+03	2.11E+03	1.72E+03	1.47E+03	1.28E+03	1.13E+03	1.02E+03	9.28E+02
25	7.13E+03	3.81E+03	2.64E+03	2.04E+03	1.67E+03	1.41E+03	1.23E+03	1.09E+03	9.82E+02	8.91E+02
26	6.85E+03	3.66E+03	2.54E+03	1.96E+03	1.60E+03	1.36E+03	1.18E+03	1.05E+03	9.42E+02	8.55E+02
27	6.60E+03	3.52E+03	2.45E+03	1.89E+03	1.54E+03	1.31E+03	1.14E+03	1.01E+03	9.07E+02	8.23E+02
28	6.36E+03	3.40E+03	2.36E+03	1.82E+03	1.49E+03	1.26E+03	1.10E+03	9.73E+02	8.73E+02	7.93E+02
29	6.14E+03	3.28E+03	2.28E+03	1.76E+03	1.44E+03	1.22E+03	1.06E+03	9.39E+02	8.44E+02	7.66E+02
30	5.94E+03	3.18E+03	2.20E+03	1.70E+03	1.39E+03	1.18E+03	1.02E+03	9.09E+02	8.16E+02	7.42E+02
31	5.75E+03	3.07E+03	2.13E+03	1.64E+03	1.34E+03	1.14E+03	9.91E+02	8.79E+02	7.90E+02	7.18E+02
32	5.57E+03	2.98E+03	2.06E+03	1.59E+03	1.30E+03	1.10E+03	9.62E+02	8.54E+02	7.65E+02	6.96E+02
33	5.42E+03	2.89E+03	2.00E+03	1.54E+03	1.26E+03	1.07E+03	9.31E+02	8.26E+02	7.42E+02	6.75E+02
34	5.26E+03	2.82E+03	1.94E+03	1.50E+03	1.22E+03	1.04E+03	9.04E+02	8.01E+02	7.20E+02	6.55E+02
35	5.09E+03	2.72E+03	1.89E+03	1.46E+03	1.19E+03	1.01E+03	8.78E+02	7.78E+02	7.00E+02	6.36E+02
36	4.95E+03	2.65E+03	1.83E+03	1.42E+03	1.16E+03	9.81E+02	8.54E+02	7.57E+02	6.80E+02	6.19E+02
37	4.81E+03	2.57E+03	1.79E+03	1.38E+03	1.13E+03	9.55E+02	8.32E+02	7.38E+02	6.63E+02	6.03E+02
38	4.69E+03	2.51E+03	1.74E+03	1.34E+03	1.10E+03	9.29E+02	8.11E+02	7.19E+02	6.46E+02	5.86E+02
39	4.57E+03	2.44E+03	1.69E+03	1.31E+03	1.07E+03	9.06E+02	7.89E+02	6.99E+02	6.28E+02	5.71E+02
40	4.45E+03	2.38E+03	1.65E+03	1.27E+03	1.04E+03	8.83E+02	7.68E+02	6.81E+02	6.12E+02	5.57E+02
41	4.34E+03	2.32E+03	1.61E+03	1.24E+03	1.02E+03	8.61E+02	7.49E+02	6.64E+02	5.97E+02	5.43E+02
42	4.24E+03	2.27E+03	1.57E+03	1.21E+03	9.91E+02	8.41E+02	7.32E+02	6.49E+02	5.83E+02	5.32E+02
43	4.14E+03	2.22E+03	1.54E+03	1.18E+03	9.68E+02	8.21E+02	7.15E+02	6.33E+02	5.70E+02	5.18E+02
44	4.05E+03	2.16E+03	1.50E+03	1.16E+03	9.48E+02	8.03E+02	6.99E+02	6.19E+02	5.57E+02	5.06E+02
45	3.96E+03	2.12E+03	1.47E+03	1.13E+03	9.25E+02	7.85E+02	6.83E+02	6.05E+02	5.44E+02	4.95E+02
46	3.87E+03	2.07E+03	1.44E+03	1.11E+03	9.05E+02	7.68E+02	6.69E+02	5.92E+02	5.32E+02	4.84E+02
47	3.79E+03	2.03E+03	1.41E+03	1.09E+03	8.86E+02	7.51E+02	6.54E+02	5.80E+02	5.21E+02	4.74E+02
48	3.71E+03	1.98E+03	1.38E+03	1.06E+03	8.67E+02	7.36E+02	6.40E+02	5.67E+02	5.10E+02	4.64E+02
49	3.64E+03	1.94E+03	1.35E+03	1.04E+03	8.50E+02	7.21E+02	6.27E+02	5.56E+02	5.00E+02	4.55E+02
50	3.55E+03	1.91E+03	1.32E+03	1.02E+03	8.33E+02	7.06E+02	6.15E+02	5.45E+02	4.90E+02	4.46E+02

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS A
FUMIGATION

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT 1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.18E+03	6.28E-01	4.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
2	5.00E-01	3.14E-01	2.19E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01
3	3.33E-01	2.09E-01	1.45E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01
4	2.94E-01	1.57E-01	1.09E-01	8.46E-02	8.46E-02	8.46E-02	8.46E-02	8.46E-02	8.46E-02	8.46E-02
5	2.35E-01	1.26E-01	8.71E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02
6	1.96E-01	1.05E-01	7.26E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02
7	1.68E-01	8.98E-02	6.22E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02
8	1.47E-01	7.85E-02	5.45E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02
9	1.31E-01	6.98E-02	4.84E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02
10	1.18E-01	6.28E-02	4.36E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02
11	1.07E-01	5.71E-02	3.96E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02
12	9.79E-02	5.24E-02	3.63E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02
13	9.04E-02	4.83E-02	3.35E-02	2.60E-02	2.60E-02	2.60E-02	2.60E-02	2.60E-02	2.60E-02	2.60E-02
14	8.39E-02	4.49E-02	3.11E-02	2.41E-02	2.41E-02	2.41E-02	2.41E-02	2.41E-02	2.41E-02	2.41E-02
15	7.83E-02	4.19E-02	2.92E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02
16	7.34E-02	3.93E-02	2.72E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02
17	6.91E-02	3.72E-02	2.56E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02
18	6.53E-02	3.47E-02	2.42E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02
19	6.18E-02	3.31E-02	2.29E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02
20	5.88E-02	3.14E-02	2.18E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02
21	5.60E-02	2.99E-02	2.07E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02
22	5.34E-02	2.86E-02	1.98E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02
23	5.11E-02	2.73E-02	1.89E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02
24	4.92E-02	2.62E-02	1.82E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02
25	4.70E-02	2.51E-02	1.74E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02
26	4.53E-02	2.42E-02	1.68E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
27	4.38E-02	2.33E-02	1.61E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02
28	4.23E-02	2.24E-02	1.56E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02
29	4.09E-02	2.17E-02	1.50E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02
30	3.96E-02	2.09E-02	1.45E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02
31	3.74E-02	2.03E-02	1.41E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02
32	3.67E-02	1.91E-02	1.36E-02	1.05E-02	1.05E-02	1.05E-02	1.05E-02	1.05E-02	1.05E-02	1.05E-02
33	3.56E-02	1.92E-02	1.32E-02	1.02E-02	1.02E-02	1.02E-02	1.02E-02	1.02E-02	1.02E-02	1.02E-02
34	3.46E-02	1.85E-02	1.28E-02	9.95E-03	9.95E-03	9.95E-03	9.95E-03	9.95E-03	9.95E-03	9.95E-03
35	3.35E-02	1.82E-02	1.24E-02	9.65E-03	9.65E-03	9.65E-03	9.66E-03	9.66E-03	9.66E-03	9.66E-03
36	3.25E-02	1.77E-02	1.21E-02	9.40E-03	9.40E-03	9.40E-03	9.40E-03	9.40E-03	9.40E-03	9.40E-03
37	3.15E-02	1.72E-02	1.18E-02	9.14E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03
38	3.09E-02	1.68E-02	1.15E-02	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03
39	3.01E-02	1.61E-02	1.12E-02	8.67E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03
40	2.94E-02	1.57E-02	1.07E-02	8.41E-03	8.44E-03	8.44E-03	8.44E-03	8.44E-03	8.44E-03	8.44E-03
41	2.87E-02	1.53E-02	1.04E-02	8.25E-03	8.25E-03	8.25E-03	8.25E-03	8.25E-03	8.25E-03	8.25E-03
42	2.80E-02	1.50E-02	1.04E-02	8.05E-03	8.05E-03	8.05E-03	8.05E-03	8.05E-03	8.05E-03	8.05E-03
43	2.72E-02	1.46E-02	1.01E-02	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03
44	2.67E-02	1.43E-02	9.70E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03
45	2.61E-02	1.40E-02	9.60E-03	7.50E-03	7.50E-03	7.50E-03	7.50E-03	7.50E-03	7.50E-03	7.50E-03
46	2.55E-02	1.37E-02	9.47E-03	7.35E-03	7.35E-03	7.35E-03	7.35E-03	7.35E-03	7.35E-03	7.35E-03
47	2.50E-02	1.34E-02	9.27E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03
48	2.45E-02	1.31E-02	9.09E-03	7.05E-03	7.05E-03	7.05E-03	7.05E-03	7.05E-03	7.05E-03	7.05E-03
49	2.40E-02	1.28E-02	8.87E-03	6.92E-03	6.92E-03	6.92E-03	6.92E-03	6.92E-03	6.92E-03	6.92E-03
50	2.35E-02	1.26E-02	8.71E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS 7
FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

DOWNWIND DISTANCE FROM PLANT

UPPER WIND SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	6.92E+00	2.05E+00	9.36E-01	5.31E-01	3.65E-01	3.28E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
2	3.45E+00	1.22E+00	4.68E-01	2.66E-01	1.83E-01	1.65E-01	1.68E-01	1.69E-01	1.69E-01	1.69E-01
3	2.30E+00	8.12E-01	3.12E-01	1.77E-01	1.22E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.12E-01
4	1.73E+00	6.09E-01	2.34E-01	1.33E-01	9.13E-02	8.46E-02	8.46E-02	8.46E-02	8.46E-02	8.46E-02
5	1.38E+00	4.87E-01	1.87E-01	1.06E-01	7.30E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02
6	1.15E+00	3.41E-01	1.56E-01	8.86E-02	6.09E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02
7	9.86E-01	2.92E-01	1.34E-01	7.59E-02	5.22E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02
8	8.63E-01	2.56E-01	1.17E-01	6.64E-02	4.57E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02
9	7.67E-01	2.27E-01	1.04E-01	5.92E-02	4.26E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02
10	6.92E-01	2.04E-01	9.36E-02	5.31E-02	3.65E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02
11	6.29E-01	1.86E-01	8.51E-02	4.83E-02	3.32E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02
12	5.75E-01	1.70E-01	7.80E-02	4.43E-02	3.04E-02	2.81E-02	2.81E-02	2.81E-02	2.81E-02	2.81E-02
13	5.31E-01	1.57E-01	7.20E-02	4.09E-02	2.80E-02	2.60E-02	2.60E-02	2.60E-02	2.60E-02	2.60E-02
14	4.93E-01	1.46E-01	6.68E-02	3.80E-02	2.61E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02
15	4.62E-01	1.36E-01	6.24E-02	3.54E-02	2.43E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02
16	4.35E-01	1.28E-01	5.85E-02	3.32E-02	2.28E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02
17	4.08E-01	1.20E-01	5.50E-02	3.12E-02	2.15E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02
18	3.84E-01	1.14E-01	5.20E-02	2.95E-02	2.03E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02
19	3.63E-01	1.08E-01	4.92E-02	2.83E-02	1.92E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02
20	3.45E-01	1.03E-01	4.68E-02	2.68E-02	1.83E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02
21	3.29E-01	9.74E-02	4.46E-02	2.53E-02	1.74E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02
22	3.14E-01	9.30E-02	4.25E-02	2.42E-02	1.66E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02
23	3.02E-01	8.89E-02	4.07E-02	2.31E-02	1.59E-02	1.47E-02	1.47E-02	1.47E-02	1.49E-02	1.47E-02
24	2.89E-01	8.52E-02	3.92E-02	2.21E-02	1.52E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02
25	2.78E-01	8.18E-02	3.74E-02	2.13E-02	1.46E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02
26	2.68E-01	7.87E-02	3.60E-02	2.04E-02	1.40E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
27	2.58E-01	7.59E-02	3.47E-02	1.97E-02	1.35E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02
28	2.49E-01	7.31E-02	3.34E-02	1.90E-02	1.30E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02
29	2.39E-01	7.05E-02	3.22E-02	1.83E-02	1.26E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02
30	2.32E-01	6.81E-02	3.12E-02	1.77E-02	1.22E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02
31	2.25E-01	6.62E-02	3.02E-02	1.71E-02	1.18E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02
32	2.16E-01	6.39E-02	2.92E-02	1.65E-02	1.14E-02	1.06E-02	1.06E-02	1.06E-02	1.06E-02	1.06E-02
33	2.09E-01	6.20E-02	2.84E-02	1.61E-02	1.11E-02	1.03E-02	1.02E-02	1.02E-02	1.02E-02	1.02E-02
34	2.03E-01	6.03E-02	2.75E-02	1.56E-02	1.07E-02	9.95E-03	9.95E-03	9.95E-03	9.95E-03	9.95E-03
35	1.97E-01	5.84E-02	2.67E-02	1.52E-02	1.04E-02	9.66E-03	9.66E-03	9.66E-03	9.66E-03	9.66E-03
36	1.91E-01	5.69E-02	2.60E-02	1.48E-02	1.01E-02	9.40E-03	9.40E-03	9.40E-03	9.40E-03	9.40E-03
37	1.87E-01	5.53E-02	2.53E-02	1.44E-02	9.81E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03
38	1.81E-01	5.39E-02	2.44E-02	1.40E-02	9.61E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03
39	1.76E-01	5.25E-02	2.40E-02	1.36E-02	9.37E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03
40	1.73E-01	5.11E-02	2.34E-02	1.33E-02	9.13E-03	8.46E-03	8.46E-03	8.46E-03	8.46E-03	8.46E-03
41	1.68E-01	4.99E-02	2.28E-02	1.30E-02	8.91E-03	8.25E-03	8.25E-03	8.25E-03	8.25E-03	8.25E-03
42	1.64E-01	4.87E-02	2.22E-02	1.27E-02	8.72E-03	8.05E-03	8.05E-03	8.05E-03	8.05E-03	8.05E-03
43	1.61E-01	4.76E-02	2.16E-02	1.24E-02	8.49E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03
44	1.57E-01	4.65E-02	2.13E-02	1.21E-02	8.32E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03
45	1.53E-01	4.55E-02	2.08E-02	1.18E-02	8.12E-03	7.52E-03	7.52E-03	7.52E-03	7.52E-03	7.52E-03
46	1.50E-01	4.45E-02	2.03E-02	1.16E-02	7.94E-03	7.35E-03	7.35E-03	7.35E-03	7.35E-03	7.35E-03
47	1.47E-01	4.35E-02	1.99E-02	1.13E-02	7.77E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03
48	1.44E-01	4.26E-02	1.95E-02	1.11E-02	7.61E-03	7.05E-03	7.05E-03	7.05E-03	7.05E-03	7.05E-03
49	1.41E-01	4.17E-02	1.91E-02	1.09E-02	7.45E-03	6.92E-03	6.92E-03	6.92E-03	6.92E-03	6.92E-03
50	1.39E-01	4.09E-02	1.87E-02	1.07E-02	7.30E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS C
FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

UPPER MIXD SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.04E+01	4.50E+00	2.35E+00	1.44E+00	9.77E-01	7.09E-01	5.38E-01	4.56E-01	4.10E-01	3.74E-01
2	5.20E+00	2.25E+00	1.18E+00	7.21E-01	4.88E-01	3.54E-01	2.69E-01	2.28E-01	2.05E-01	1.87E-01
3	3.47E+00	1.50E+00	7.84E-01	4.81E-01	3.26E-01	2.36E-01	1.79E-01	1.52E-01	1.37E-01	1.25E-01
4	2.60E+00	1.13E+00	5.89E-01	3.60E-01	2.44E-01	1.77E-01	1.35E-01	1.14E-01	1.03E-01	9.34E-02
5	2.08E+00	9.01E-01	4.71E-01	2.88E-01	1.95E-01	1.41E-01	1.08E-01	9.12E-02	8.21E-02	7.47E-02
6	1.73E+00	7.50E-01	3.92E-01	2.40E-01	1.63E-01	1.18E-01	8.97E-02	7.60E-02	6.84E-02	6.23E-02
7	1.49E+00	6.43E-01	3.36E-01	2.06E-01	1.40E-01	1.01E-01	7.69E-02	6.51E-02	5.86E-02	5.34E-02
8	1.30E+00	5.63E-01	2.94E-01	1.80E-01	1.22E-01	8.85E-02	6.73E-02	5.70E-02	5.13E-02	4.67E-02
9	1.16E+00	5.02E-01	2.61E-01	1.60E-01	1.09E-01	7.87E-02	5.98E-02	5.06E-02	4.56E-02	4.15E-02
10	1.04E+00	4.50E-01	2.35E-01	1.44E-01	9.77E-02	7.08E-02	5.38E-02	4.55E-02	4.10E-02	3.74E-02
11	9.46E-01	4.09E-01	2.14E-01	1.31E-01	8.88E-02	6.44E-02	4.89E-02	4.14E-02	3.72E-02	3.40E-02
12	8.67E-01	3.75E-01	1.96E-01	1.20E-01	8.14E-02	5.90E-02	4.49E-02	3.80E-02	3.42E-02	3.11E-02
13	8.01E-01	3.46E-01	1.81E-01	1.11E-01	7.51E-02	5.45E-02	4.14E-02	3.51E-02	3.16E-02	2.87E-02
14	7.43E-01	3.22E-01	1.68E-01	1.03E-01	6.98E-02	5.06E-02	3.84E-02	3.26E-02	2.93E-02	2.67E-02
15	6.94E-01	3.02E-01	1.57E-01	9.61E-02	6.51E-02	4.72E-02	3.59E-02	3.04E-02	2.74E-02	2.49E-02
16	6.50E-01	2.81E-01	1.47E-01	9.01E-02	6.11E-02	4.43E-02	3.36E-02	2.85E-02	2.57E-02	2.34E-02
17	6.12E-01	2.65E-01	1.38E-01	8.49E-02	5.75E-02	4.16E-02	3.17E-02	2.68E-02	2.41E-02	2.20E-02
18	5.78E-01	2.50E-01	1.31E-01	8.01E-02	5.43E-02	3.93E-02	2.99E-02	2.53E-02	2.28E-02	2.08E-02
19	5.48E-01	2.37E-01	1.24E-01	7.59E-02	5.14E-02	3.72E-02	2.83E-02	2.40E-02	2.16E-02	1.97E-02
20	5.22E-01	2.25E-01	1.18E-01	7.21E-02	4.88E-02	3.54E-02	2.69E-02	2.28E-02	2.05E-02	1.87E-02
21	4.98E-01	2.14E-01	1.13E-01	6.87E-02	4.65E-02	3.37E-02	2.56E-02	2.17E-02	1.95E-02	1.78E-02
22	4.77E-01	2.05E-01	1.07E-01	6.55E-02	4.44E-02	3.21E-02	2.45E-02	2.07E-02	1.87E-02	1.70E-02
23	4.58E-01	1.96E-01	1.03E-01	6.27E-02	4.25E-02	3.08E-02	2.34E-02	1.98E-02	1.78E-02	1.62E-02
24	4.34E-01	1.88E-01	9.88E-02	6.01E-02	4.07E-02	2.95E-02	2.24E-02	1.90E-02	1.71E-02	1.56E-02
25	4.18E-01	1.80E-01	9.47E-02	5.77E-02	3.91E-02	2.83E-02	2.15E-02	1.82E-02	1.64E-02	1.49E-02
26	4.03E-01	1.73E-01	9.09E-02	5.55E-02	3.76E-02	2.72E-02	2.07E-02	1.75E-02	1.58E-02	1.44E-02
27	3.89E-01	1.67E-01	8.74E-02	5.34E-02	3.61E-02	2.62E-02	1.99E-02	1.69E-02	1.52E-02	1.39E-02
28	3.76E-01	1.61E-01	8.42E-02	5.15E-02	3.49E-02	2.53E-02	1.91E-02	1.63E-02	1.47E-02	1.33E-02
29	3.59E-01	1.55E-01	8.11E-02	4.97E-02	3.37E-02	2.44E-02	1.84E-02	1.57E-02	1.42E-02	1.29E-02
30	3.47E-01	1.50E-01	7.84E-02	4.81E-02	3.26E-02	2.36E-02	1.77E-02	1.52E-02	1.37E-02	1.25E-02
31	3.38E-01	1.45E-01	7.59E-02	4.65E-02	3.15E-02	2.28E-02	1.74E-02	1.47E-02	1.33E-02	1.21E-02
32	3.25E-01	1.41E-01	7.35E-02	4.51E-02	3.05E-02	2.21E-02	1.68E-02	1.42E-02	1.28E-02	1.17E-02
33	3.15E-01	1.36E-01	7.13E-02	4.37E-02	2.96E-02	2.15E-02	1.63E-02	1.38E-02	1.24E-02	1.13E-02
34	3.26E-01	1.32E-01	6.92E-02	4.24E-02	2.87E-02	2.09E-02	1.58E-02	1.34E-02	1.21E-02	1.10E-02
35	2.97E-01	1.29E-01	6.72E-02	4.12E-02	2.79E-02	2.03E-02	1.54E-02	1.30E-02	1.17E-02	1.07E-02
36	2.89E-01	1.25E-01	6.53E-02	4.00E-02	2.71E-02	1.97E-02	1.50E-02	1.27E-02	1.14E-02	1.04E-02
37	2.81E-01	1.22E-01	6.36E-02	3.90E-02	2.64E-02	1.91E-02	1.45E-02	1.23E-02	1.11E-02	1.01E-02
38	2.74E-01	1.18E-01	6.19E-02	3.79E-02	2.57E-02	1.86E-02	1.40E-02	1.20E-02	1.08E-02	9.83E-03
39	2.67E-01	1.15E-01	6.03E-02	3.70E-02	2.51E-02	1.81E-02	1.38E-02	1.17E-02	1.05E-02	9.58E-03
40	2.60E-01	1.13E-01	5.88E-02	3.60E-02	2.44E-02	1.77E-02	1.35E-02	1.14E-02	1.03E-02	9.34E-03
41	2.54E-01	1.10E-01	5.74E-02	3.52E-02	2.38E-02	1.73E-02	1.31E-02	1.11E-02	1.00E-02	9.11E-03
42	2.48E-01	1.07E-01	5.60E-02	3.43E-02	2.33E-02	1.69E-02	1.28E-02	1.09E-02	9.77E-03	8.92E-03
43	2.42E-01	1.05E-01	5.47E-02	3.35E-02	2.27E-02	1.65E-02	1.25E-02	1.06E-02	9.55E-03	8.69E-03
44	2.37E-01	1.02E-01	5.35E-02	3.28E-02	2.22E-02	1.61E-02	1.22E-02	1.04E-02	9.33E-03	8.49E-03
45	2.31E-01	1.00E-01	5.23E-02	3.20E-02	2.17E-02	1.57E-02	1.19E-02	1.01E-02	9.11E-03	8.30E-03
46	2.26E-01	9.79E-02	5.11E-02	3.13E-02	2.12E-02	1.54E-02	1.17E-02	9.91E-03	8.91E-03	8.11E-03
47	2.21E-01	9.58E-02	5.01E-02	3.07E-02	2.08E-02	1.51E-02	1.14E-02	9.72E-03	8.73E-03	7.95E-03
48	2.17E-01	9.39E-02	4.92E-02	3.02E-02	2.04E-02	1.48E-02	1.12E-02	9.55E-03	8.58E-03	7.81E-03
49	2.12E-01	9.19E-02	4.82E-02	2.96E-02	1.99E-02	1.44E-02	1.10E-02	9.38E-03	8.43E-03	7.68E-03
50	2.08E-01	9.01E-02	4.71E-02	2.89E-02	1.95E-02	1.42E-02	1.08E-02	9.19E-03	8.26E-03	7.52E-03

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS D
FUMIGATION

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

DOWNWIND DISTANCE FROM PLANT

UPPER WIND SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	3.87E+01	1.64E+01	1.14E+01	4.15E+00	3.48E+00	2.93E+00	2.52E+00	2.16E+00	1.87E+00	1.67E+00
2	1.54E+01	8.22E+00	5.70E+00	2.27E+00	1.74E+00	1.47E+00	1.25E+00	1.08E+00	9.45E-01	8.34E-01
3	1.02E+01	5.48E+00	3.80E+00	1.30E+00	1.16E+00	9.77E-01	8.34E-01	7.20E-01	6.29E-01	5.56E-01
4	7.69E+00	4.11E+00	2.85E+00	1.24E+00	8.69E-01	7.33E-01	6.25E-01	5.40E-01	4.72E-01	4.17E-01
5	6.15E+00	3.29E+00	2.28E+00	8.30E-01	6.95E-01	5.86E-01	5.00E-01	4.32E-01	3.78E-01	3.34E-01
6	5.12E+00	2.74E+00	1.90E+00	6.91E-01	5.79E-01	4.88E-01	4.17E-01	3.60E-01	3.15E-01	2.78E-01
7	4.39E+00	2.35E+00	1.63E+00	5.93E-01	4.97E-01	4.19E-01	3.57E-01	3.09E-01	2.70E-01	2.39E-01
8	3.84E+00	2.05E+00	1.42E+00	5.19E-01	4.34E-01	3.66E-01	3.13E-01	2.70E-01	2.36E-01	2.09E-01
9	3.42E+00	1.83E+00	1.27E+00	4.61E-01	3.86E-01	3.26E-01	2.78E-01	2.40E-01	2.10E-01	1.86E-01
10	3.07E+00	1.64E+00	1.14E+00	4.15E-01	3.48E-01	2.93E-01	2.50E-01	2.16E-01	1.89E-01	1.67E-01
11	2.79E+00	1.49E+00	1.04E+00	3.77E-01	3.16E-01	2.66E-01	2.27E-01	1.96E-01	1.72E-01	1.52E-01
12	2.56E+00	1.37E+00	9.52E-01	3.45E-01	2.90E-01	2.44E-01	2.08E-01	1.80E-01	1.57E-01	1.39E-01
13	2.36E+00	1.26E+00	8.77E-01	3.19E-01	2.67E-01	2.25E-01	1.92E-01	1.66E-01	1.45E-01	1.28E-01
14	2.20E+00	1.17E+00	8.14E-01	2.96E-01	2.48E-01	2.09E-01	1.79E-01	1.54E-01	1.35E-01	1.19E-01
15	2.05E+00	1.10E+00	7.60E-01	2.77E-01	2.32E-01	1.95E-01	1.67E-01	1.44E-01	1.26E-01	1.11E-01
16	1.91E+00	1.03E+00	7.12E-01	2.59E-01	2.17E-01	1.83E-01	1.56E-01	1.35E-01	1.18E-01	1.04E-01
17	1.81E+00	9.67E-01	6.70E-01	2.44E-01	2.04E-01	1.72E-01	1.47E-01	1.27E-01	1.11E-01	9.80E-02
18	1.71E+00	9.13E-01	6.33E-01	2.31E-01	1.93E-01	1.63E-01	1.39E-01	1.20E-01	1.05E-01	9.27E-02
19	1.62E+00	8.65E-01	6.02E-01	2.19E-01	1.83E-01	1.54E-01	1.32E-01	1.14E-01	9.94E-02	8.78E-02
20	1.54E+00	8.22E-01	5.72E-01	2.07E-01	1.74E-01	1.47E-01	1.25E-01	1.08E-01	9.45E-02	8.34E-02
21	1.46E+00	7.83E-01	5.43E-01	1.98E-01	1.66E-01	1.40E-01	1.19E-01	1.03E-01	9.00E-02	7.95E-02
22	1.40E+00	7.47E-01	5.18E-01	1.89E-01	1.58E-01	1.33E-01	1.14E-01	9.83E-02	8.58E-02	7.58E-02
23	1.34E+00	7.15E-01	4.96E-01	1.80E-01	1.51E-01	1.27E-01	1.09E-01	9.39E-02	8.20E-02	7.24E-02
24	1.28E+00	6.85E-01	4.75E-01	1.73E-01	1.45E-01	1.22E-01	1.04E-01	9.00E-02	7.87E-02	6.95E-02
25	1.22E+00	6.59E-01	4.56E-01	1.66E-01	1.39E-01	1.17E-01	1.00E-01	8.64E-02	7.54E-02	6.67E-02
26	1.18E+00	6.33E-01	4.39E-01	1.60E-01	1.34E-01	1.13E-01	9.63E-02	8.31E-02	7.27E-02	6.43E-02
27	1.14E+00	6.09E-01	4.22E-01	1.54E-01	1.29E-01	1.09E-01	9.26E-02	8.02E-02	7.02E-02	6.18E-02
28	1.12E+00	5.87E-01	4.07E-01	1.48E-01	1.24E-01	1.05E-01	8.93E-02	7.73E-02	6.75E-02	5.96E-02
29	1.08E+00	5.67E-01	3.93E-01	1.42E-01	1.20E-01	1.01E-01	8.62E-02	7.45E-02	6.51E-02	5.75E-02
30	1.05E+00	5.48E-01	3.80E-01	1.38E-01	1.16E-01	9.77E-02	8.34E-02	7.22E-02	6.30E-02	5.56E-02
31	9.93E-01	5.30E-01	3.68E-01	1.34E-01	1.12E-01	9.45E-02	8.07E-02	6.97E-02	6.07E-02	5.36E-02
32	9.61E-01	5.14E-01	3.56E-01	1.30E-01	1.09E-01	9.16E-02	7.81E-02	6.75E-02	5.90E-02	5.21E-02
33	9.30E-01	4.98E-01	3.45E-01	1.26E-01	1.05E-01	8.88E-02	7.58E-02	6.55E-02	5.72E-02	5.05E-02
34	9.04E-01	4.83E-01	3.35E-01	1.22E-01	1.02E-01	8.62E-02	7.35E-02	6.35E-02	5.56E-02	4.91E-02
35	8.76E-01	4.70E-01	3.26E-01	1.19E-01	9.93E-02	8.37E-02	7.14E-02	6.17E-02	5.42E-02	4.77E-02
36	8.54E-01	4.57E-01	3.17E-01	1.15E-01	9.64E-02	8.14E-02	6.95E-02	6.00E-02	5.28E-02	4.64E-02
37	8.31E-01	4.44E-01	3.08E-01	1.12E-01	9.37E-02	7.91E-02	6.76E-02	5.84E-02	5.13E-02	4.51E-02
38	8.09E-01	4.33E-01	3.00E-01	1.09E-01	9.10E-02	7.71E-02	6.58E-02	5.68E-02	4.99E-02	4.39E-02
39	7.90E-01	4.21E-01	2.93E-01	1.06E-01	8.85E-02	7.51E-02	6.41E-02	5.54E-02	4.86E-02	4.27E-02
40	7.67E-01	4.11E-01	2.85E-01	1.04E-01	8.69E-02	7.33E-02	6.25E-02	5.40E-02	4.74E-02	4.17E-02
41	7.50E-01	4.01E-01	2.78E-01	1.01E-01	8.45E-02	7.15E-02	6.10E-02	5.27E-02	4.63E-02	4.07E-02
42	7.33E-01	3.91E-01	2.71E-01	9.85E-02	8.22E-02	6.98E-02	5.95E-02	5.14E-02	4.52E-02	3.97E-02
43	7.15E-01	3.82E-01	2.65E-01	9.65E-02	8.05E-02	6.81E-02	5.80E-02	5.03E-02	4.43E-02	3.89E-02
44	6.99E-01	3.74E-01	2.59E-01	9.43E-02	7.92E-02	6.69E-02	5.69E-02	4.91E-02	4.33E-02	3.79E-02
45	6.83E-01	3.65E-01	2.53E-01	9.22E-02	7.72E-02	6.51E-02	5.55E-02	4.80E-02	4.22E-02	3.71E-02
46	6.65E-01	3.57E-01	2.48E-01	9.02E-02	7.56E-02	6.37E-02	5.44E-02	4.70E-02	4.13E-02	3.63E-02
47	6.54E-01	3.50E-01	2.43E-01	8.83E-02	7.40E-02	6.23E-02	5.31E-02	4.60E-02	4.05E-02	3.55E-02
48	6.42E-01	3.42E-01	2.37E-01	8.65E-02	7.24E-02	6.12E-02	5.21E-02	4.51E-02	3.96E-02	3.49E-02
49	6.27E-01	3.35E-01	2.31E-01	8.47E-02	7.09E-02	5.98E-02	5.10E-02	4.41E-02	3.88E-02	3.41E-02
50	6.12E-01	3.29E-01	2.26E-01	8.30E-02	6.95E-02	5.86E-02	5.00E-02	4.32E-02	3.79E-02	3.34E-02

APPROVAL	
DATE	

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	HNP-4302
REVISION NO	4
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VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS E
FUMIGATION

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

DOWNWIND DISTANCE FROM PLANT

UPPER WIND SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	4.20E+01	2.31E+01	1.62E+01	1.24E+01	1.01E+01	8.57E+00	7.46E+00	6.61E+00	5.94E+00	5.40E+00
2	2.16E+01	1.16E+01	8.31E+00	6.38E+00	5.05E+00	4.29E+00	3.73E+00	3.31E+00	2.97E+00	2.72E+00
3	1.44E+01	7.71E+00	5.54E+00	4.25E+00	3.37E+00	2.86E+00	2.49E+00	2.20E+00	1.98E+00	1.82E+00
4	1.08E+01	5.78E+00	4.16E+00	3.19E+00	2.53E+00	2.14E+00	1.86E+00	1.65E+00	1.49E+00	1.36E+00
5	8.65E+00	4.63E+00	3.33E+00	2.47E+00	2.02E+00	1.71E+00	1.49E+00	1.32E+00	1.19E+00	1.09E+00
6	7.21E+00	3.85E+00	2.67E+00	2.05E+00	1.62E+00	1.43E+00	1.24E+00	1.12E+00	9.91E-01	9.03E-01
7	6.18E+00	3.30E+00	2.29E+00	1.77E+00	1.44E+00	1.22E+00	1.07E+00	9.44E-01	8.49E-01	7.72E-01
8	5.42E+00	2.89E+00	2.00E+00	1.55E+00	1.26E+00	1.07E+00	9.31E-01	8.25E-01	7.43E-01	6.75E-01
9	4.82E+00	2.57E+00	1.78E+00	1.37E+00	1.12E+00	9.52E-01	8.29E-01	7.34E-01	6.62E-01	6.02E-01
10	4.33E+00	2.31E+00	1.60E+00	1.24E+00	1.01E+00	8.57E-01	7.46E-01	6.61E-01	5.94E-01	5.40E-01
11	3.93E+00	2.10E+00	1.46E+00	1.12E+00	9.19E-01	7.79E-01	6.78E-01	6.01E-01	5.42E-01	4.91E-01
12	3.60E+00	1.93E+00	1.34E+00	1.03E+00	8.42E-01	7.14E-01	6.21E-01	5.51E-01	4.95E-01	4.50E-01
13	3.32E+00	1.78E+00	1.23E+00	9.51E-01	7.77E-01	6.59E-01	5.74E-01	5.08E-01	4.57E-01	4.16E-01
14	3.09E+00	1.65E+00	1.14E+00	8.83E-01	7.22E-01	6.12E-01	5.33E-01	4.72E-01	4.25E-01	3.86E-01
15	2.88E+00	1.54E+00	1.07E+00	8.24E-01	6.74E-01	5.71E-01	4.97E-01	4.41E-01	3.96E-01	3.60E-01
16	2.70E+00	1.44E+00	1.00E+00	7.73E-01	6.32E-01	5.36E-01	4.66E-01	4.13E-01	3.71E-01	3.38E-01
17	2.54E+00	1.36E+00	9.43E-01	7.27E-01	5.94E-01	5.04E-01	4.39E-01	3.89E-01	3.50E-01	3.18E-01
18	2.40E+00	1.28E+00	8.90E-01	6.87E-01	5.61E-01	4.76E-01	4.14E-01	3.67E-01	3.30E-01	3.00E-01
19	2.28E+00	1.22E+00	8.44E-01	6.51E-01	5.32E-01	4.51E-01	3.93E-01	3.48E-01	3.13E-01	2.84E-01
20	2.16E+00	1.16E+00	8.01E-01	6.18E-01	5.05E-01	4.29E-01	3.73E-01	3.31E-01	2.97E-01	2.70E-01
21	2.06E+00	1.10E+00	7.63E-01	5.89E-01	4.81E-01	4.08E-01	3.55E-01	3.15E-01	2.83E-01	2.57E-01
22	1.97E+00	1.05E+00	7.29E-01	5.62E-01	4.59E-01	3.90E-01	3.39E-01	3.00E-01	2.70E-01	2.45E-01
23	1.88E+00	1.01E+00	6.97E-01	5.37E-01	4.39E-01	3.73E-01	3.24E-01	2.87E-01	2.58E-01	2.35E-01
24	1.82E+00	9.63E-01	6.68E-01	5.15E-01	4.21E-01	3.57E-01	3.11E-01	2.75E-01	2.48E-01	2.25E-01
25	1.73E+00	9.25E-01	6.41E-01	4.94E-01	4.04E-01	3.43E-01	2.98E-01	2.64E-01	2.38E-01	2.16E-01
26	1.66E+00	8.89E-01	6.16E-01	4.75E-01	3.89E-01	3.30E-01	2.87E-01	2.54E-01	2.29E-01	2.08E-01
27	1.60E+00	8.56E-01	5.94E-01	4.58E-01	3.74E-01	3.17E-01	2.76E-01	2.45E-01	2.20E-01	2.00E-01
28	1.54E+00	8.26E-01	5.72E-01	4.41E-01	3.61E-01	3.06E-01	2.66E-01	2.36E-01	2.12E-01	1.93E-01
29	1.49E+00	7.97E-01	5.53E-01	4.26E-01	3.48E-01	2.96E-01	2.57E-01	2.28E-01	2.05E-01	1.86E-01
30	1.44E+00	7.71E-01	5.34E-01	4.12E-01	3.37E-01	2.86E-01	2.49E-01	2.20E-01	1.98E-01	1.80E-01
31	1.39E+00	7.45E-01	5.17E-01	3.99E-01	3.26E-01	2.76E-01	2.41E-01	2.13E-01	1.92E-01	1.74E-01
32	1.35E+00	7.22E-01	5.01E-01	3.86E-01	3.16E-01	2.68E-01	2.33E-01	2.07E-01	1.86E-01	1.69E-01
33	1.31E+00	7.01E-01	4.86E-01	3.75E-01	3.06E-01	2.60E-01	2.26E-01	2.00E-01	1.80E-01	1.64E-01
34	1.27E+00	6.80E-01	4.71E-01	3.64E-01	2.97E-01	2.52E-01	2.19E-01	1.94E-01	1.75E-01	1.59E-01
35	1.24E+00	6.60E-01	4.58E-01	3.53E-01	2.89E-01	2.45E-01	2.13E-01	1.89E-01	1.70E-01	1.54E-01
36	1.20E+00	6.41E-01	4.45E-01	3.43E-01	2.81E-01	2.38E-01	2.07E-01	1.84E-01	1.65E-01	1.50E-01
37	1.17E+00	6.25E-01	4.33E-01	3.34E-01	2.73E-01	2.32E-01	2.02E-01	1.79E-01	1.61E-01	1.46E-01
38	1.14E+00	6.08E-01	4.22E-01	3.25E-01	2.66E-01	2.26E-01	1.96E-01	1.74E-01	1.56E-01	1.42E-01
39	1.11E+00	5.93E-01	4.11E-01	3.17E-01	2.59E-01	2.20E-01	1.91E-01	1.69E-01	1.52E-01	1.38E-01
40	1.08E+00	5.78E-01	4.01E-01	3.09E-01	2.53E-01	2.14E-01	1.86E-01	1.65E-01	1.48E-01	1.34E-01
41	1.05E+00	5.64E-01	3.91E-01	3.01E-01	2.46E-01	2.09E-01	1.82E-01	1.61E-01	1.45E-01	1.32E-01
42	1.03E+00	5.50E-01	3.82E-01	2.94E-01	2.41E-01	2.04E-01	1.78E-01	1.57E-01	1.42E-01	1.29E-01
43	1.01E+00	5.38E-01	3.73E-01	2.87E-01	2.35E-01	1.99E-01	1.73E-01	1.54E-01	1.38E-01	1.26E-01
44	9.83E-01	5.25E-01	3.64E-01	2.81E-01	2.30E-01	1.95E-01	1.69E-01	1.50E-01	1.35E-01	1.23E-01
45	9.61E-01	5.14E-01	3.56E-01	2.75E-01	2.25E-01	1.90E-01	1.66E-01	1.47E-01	1.32E-01	1.20E-01
46	9.43E-01	5.03E-01	3.48E-01	2.69E-01	2.20E-01	1.86E-01	1.62E-01	1.44E-01	1.29E-01	1.17E-01
47	9.22E-01	4.93E-01	3.41E-01	2.63E-01	2.15E-01	1.82E-01	1.59E-01	1.41E-01	1.26E-01	1.15E-01
48	9.21E-01	4.82E-01	3.34E-01	2.58E-01	2.11E-01	1.79E-01	1.55E-01	1.38E-01	1.24E-01	1.13E-01
49	8.83E-01	4.73E-01	3.27E-01	2.53E-01	2.06E-01	1.75E-01	1.53E-01	1.35E-01	1.21E-01	1.10E-01
50	8.65E-01	4.63E-01	3.21E-01	2.47E-01	2.02E-01	1.71E-01	1.49E-01	1.32E-01	1.19E-01	1.08E-01

Reference Only

MANUAL SET

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS F
FUMIGATION
MILLIREM/YEAR PER CURIE/SEC OF NOBLE GASES RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	6.26E+01	3.35E+01	2.33E+01	1.79E+01	1.46E+01	1.24E+01	1.08E+01	9.55E+00	8.61E+00	7.83E+00
2	3.13E+01	1.67E+01	1.16E+01	8.95E+00	7.30E+00	6.21E+00	5.40E+00	4.79E+00	4.31E+00	3.91E+00
3	2.09E+01	1.12E+01	7.74E+00	5.97E+00	4.87E+00	4.14E+00	3.60E+00	3.19E+00	2.87E+00	2.61E+00
4	1.57E+01	8.37E+00	5.81E+00	4.48E+00	3.65E+00	3.10E+00	2.70E+00	2.39E+00	2.15E+00	1.96E+00
5	1.25E+01	6.70E+00	4.64E+00	3.58E+00	2.92E+00	2.48E+00	2.16E+00	1.92E+00	1.72E+00	1.57E+00
6	1.04E+01	5.58E+00	3.87E+00	2.98E+00	2.44E+00	2.07E+00	1.80E+00	1.60E+00	1.44E+00	1.30E+00
7	8.95E+00	4.78E+00	3.32E+00	2.56E+00	2.09E+00	1.77E+00	1.54E+00	1.37E+00	1.23E+00	1.12E+00
8	7.83E+00	4.19E+00	2.92E+00	2.24E+00	1.83E+00	1.55E+00	1.35E+00	1.20E+00	1.08E+00	9.77E-01
9	6.96E+00	3.72E+00	2.58E+00	1.99E+00	1.63E+00	1.38E+00	1.20E+00	1.06E+00	9.58E-01	8.71E-01
10	6.26E+00	3.35E+00	2.32E+00	1.79E+00	1.46E+00	1.24E+00	1.08E+00	9.55E-01	8.61E-01	7.83E-01
11	5.69E+00	3.04E+00	2.11E+00	1.63E+00	1.33E+00	1.13E+00	9.82E-01	8.71E-01	7.83E-01	7.12E-01
12	5.22E+00	2.79E+00	1.94E+00	1.49E+00	1.22E+00	1.03E+00	9.02E-01	7.98E-01	7.18E-01	6.52E-01
13	4.82E+00	2.58E+00	1.79E+00	1.38E+00	1.13E+00	9.55E-01	8.31E-01	7.37E-01	6.63E-01	6.02E-01
14	4.47E+00	2.39E+00	1.66E+00	1.28E+00	1.05E+00	8.87E-01	7.72E-01	6.84E-01	6.15E-01	5.59E-01
15	4.18E+00	2.23E+00	1.55E+00	1.19E+00	9.76E-01	8.28E-01	7.20E-01	6.38E-01	5.74E-01	5.22E-01
16	3.91E+00	2.09E+00	1.45E+00	1.12E+00	9.15E-01	7.75E-01	6.75E-01	5.99E-01	5.38E-01	4.89E-01
17	3.68E+00	1.97E+00	1.37E+00	1.05E+00	8.61E-01	7.30E-01	6.36E-01	5.63E-01	5.06E-01	4.61E-01
18	3.48E+00	1.86E+00	1.29E+00	9.95E-01	8.13E-01	6.90E-01	6.00E-01	5.32E-01	4.78E-01	4.35E-01
19	3.30E+00	1.76E+00	1.22E+00	9.43E-01	7.71E-01	6.54E-01	5.69E-01	5.04E-01	4.53E-01	4.12E-01
20	3.13E+00	1.67E+00	1.16E+00	8.95E-01	7.30E-01	6.21E-01	5.40E-01	4.79E-01	4.31E-01	3.91E-01
21	2.98E+00	1.59E+00	1.11E+00	8.50E-01	6.97E-01	5.91E-01	5.14E-01	4.56E-01	4.10E-01	3.73E-01
22	2.85E+00	1.52E+00	1.05E+00	8.14E-01	6.65E-01	5.64E-01	4.91E-01	4.35E-01	3.91E-01	3.56E-01
23	2.72E+00	1.45E+00	1.01E+00	7.79E-01	6.37E-01	5.40E-01	4.70E-01	4.16E-01	3.74E-01	3.40E-01
24	2.61E+00	1.40E+00	9.65E-01	7.46E-01	6.12E-01	5.17E-01	4.50E-01	3.99E-01	3.59E-01	3.26E-01
25	2.51E+00	1.34E+00	9.29E-01	7.16E-01	5.88E-01	4.97E-01	4.32E-01	3.83E-01	3.44E-01	3.13E-01
26	2.41E+00	1.29E+00	8.93E-01	6.89E-01	5.63E-01	4.78E-01	4.16E-01	3.68E-01	3.31E-01	3.01E-01
27	2.32E+00	1.24E+00	8.62E-01	6.62E-01	5.42E-01	4.60E-01	4.00E-01	3.55E-01	3.19E-01	2.90E-01
28	2.24E+00	1.20E+00	8.32E-01	6.40E-01	5.23E-01	4.43E-01	3.85E-01	3.42E-01	3.08E-01	2.80E-01
29	2.16E+00	1.15E+00	8.01E-01	6.18E-01	5.05E-01	4.28E-01	3.73E-01	3.30E-01	2.97E-01	2.70E-01
30	2.09E+00	1.12E+00	7.74E-01	5.97E-01	4.88E-01	4.14E-01	3.60E-01	3.19E-01	2.87E-01	2.61E-01
31	2.02E+00	1.08E+00	7.49E-01	5.78E-01	4.72E-01	4.01E-01	3.49E-01	3.09E-01	2.78E-01	2.53E-01
32	1.96E+00	1.05E+00	7.25E-01	5.60E-01	4.58E-01	3.88E-01	3.38E-01	2.99E-01	2.69E-01	2.45E-01
33	1.90E+00	1.01E+00	7.04E-01	5.43E-01	4.44E-01	3.76E-01	3.27E-01	2.90E-01	2.61E-01	2.37E-01
34	1.84E+00	9.83E-01	6.83E-01	5.27E-01	4.31E-01	3.65E-01	3.18E-01	2.81E-01	2.53E-01	2.30E-01
35	1.79E+00	9.57E-01	6.63E-01	5.12E-01	4.18E-01	3.55E-01	3.09E-01	2.74E-01	2.46E-01	2.24E-01
36	1.74E+00	9.32E-01	6.45E-01	4.97E-01	4.07E-01	3.45E-01	3.01E-01	2.66E-01	2.39E-01	2.17E-01
37	1.69E+00	9.07E-01	6.28E-01	4.84E-01	3.96E-01	3.36E-01	2.93E-01	2.59E-01	2.33E-01	2.12E-01
38	1.65E+00	8.81E-01	6.11E-01	4.71E-01	3.85E-01	3.27E-01	2.84E-01	2.52E-01	2.27E-01	2.06E-01
39	1.61E+00	8.59E-01	5.95E-01	4.59E-01	3.75E-01	3.18E-01	2.77E-01	2.46E-01	2.21E-01	2.01E-01
40	1.57E+00	8.37E-01	5.81E-01	4.48E-01	3.66E-01	3.10E-01	2.70E-01	2.39E-01	2.15E-01	1.96E-01
41	1.53E+00	8.17E-01	5.66E-01	4.37E-01	3.57E-01	3.03E-01	2.64E-01	2.34E-01	2.12E-01	1.91E-01
42	1.49E+00	7.97E-01	5.52E-01	4.26E-01	3.49E-01	2.96E-01	2.57E-01	2.28E-01	2.05E-01	1.86E-01
43	1.46E+00	7.79E-01	5.40E-01	4.16E-01	3.40E-01	2.89E-01	2.51E-01	2.22E-01	2.00E-01	1.82E-01
44	1.43E+00	7.61E-01	5.28E-01	4.07E-01	3.33E-01	2.82E-01	2.46E-01	2.18E-01	1.96E-01	1.78E-01
45	1.39E+00	7.44E-01	5.16E-01	3.99E-01	3.25E-01	2.76E-01	2.42E-01	2.13E-01	1.91E-01	1.74E-01
46	1.36E+00	7.28E-01	5.05E-01	3.89E-01	3.19E-01	2.72E-01	2.36E-01	2.09E-01	1.87E-01	1.70E-01
47	1.33E+00	7.13E-01	4.94E-01	3.81E-01	3.11E-01	2.64E-01	2.30E-01	2.04E-01	1.83E-01	1.67E-01
48	1.30E+00	6.98E-01	4.84E-01	3.73E-01	3.05E-01	2.59E-01	2.25E-01	2.00E-01	1.79E-01	1.63E-01
49	1.28E+00	6.83E-01	4.74E-01	3.65E-01	2.97E-01	2.53E-01	2.20E-01	1.95E-01	1.76E-01	1.60E-01
50	1.25E+00	6.70E-01	4.64E-01	3.58E-01	2.93E-01	2.48E-01	2.16E-01	1.92E-01	1.72E-01	1.57E-01

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS A
NO FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	3.34E+23	1.79E+03	1.24E+03	9.62E+02	9.62E+02	9.62E+02	9.62E+02	9.62E+02	9.62E+02	9.62E+02
2	1.67E+23	8.94E+02	6.22E+02	4.81E+02	4.81E+02	4.81E+02	4.81E+02	4.81E+02	4.81E+02	4.81E+02
3	1.11E+23	5.96E+02	4.13E+02	3.21E+02	3.21E+02	3.21E+02	3.21E+02	3.21E+02	3.21E+02	3.21E+02
4	8.38E+22	4.47E+02	3.10E+02	2.41E+02	2.41E+02	2.41E+02	2.41E+02	2.41E+02	2.41E+02	2.41E+02
5	6.60E+22	3.57E+02	2.48E+02	1.93E+02	1.93E+02	1.93E+02	1.93E+02	1.93E+02	1.93E+02	1.93E+02
6	5.57E+22	2.98E+02	2.07E+02	1.60E+02	1.60E+02	1.60E+02	1.60E+02	1.60E+02	1.60E+02	1.60E+02
7	4.77E+22	2.55E+02	1.77E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02
8	4.18E+22	2.23E+02	1.55E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02
9	3.71E+22	1.98E+02	1.38E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02
10	3.34E+22	1.79E+22	1.24E+22	9.62E+01	9.62E+01	9.62E+01	9.62E+01	9.62E+01	9.62E+01	9.62E+01
11	3.04E+22	1.62E+22	1.13E+22	8.75E+01	8.75E+01	8.75E+01	8.75E+01	8.75E+01	8.75E+01	8.75E+01
12	2.79E+22	1.49E+22	1.03E+22	8.02E+01	8.02E+01	8.02E+01	8.02E+01	8.02E+01	8.02E+01	8.02E+01
13	2.57E+22	1.37E+22	9.53E+21	7.42E+21	7.42E+21	7.42E+21	7.42E+21	7.42E+21	7.42E+21	7.42E+21
14	2.39E+22	1.29E+22	8.85E+21	6.87E+21	6.87E+21	6.87E+21	6.87E+21	6.87E+21	6.87E+21	6.87E+21
15	2.22E+22	1.19E+22	8.26E+21	6.41E+21	6.41E+21	6.41E+21	6.41E+21	6.41E+21	6.41E+21	6.41E+21
16	2.07E+22	1.12E+22	7.75E+21	6.01E+21	6.01E+21	6.01E+21	6.01E+21	6.01E+21	6.01E+21	6.01E+21
17	1.97E+22	1.05E+22	7.29E+21	5.66E+21	5.66E+21	5.66E+21	5.66E+21	5.66E+21	5.66E+21	5.66E+21
18	1.81E+22	9.93E+21	6.89E+21	5.34E+21	5.34E+21	5.34E+21	5.34E+21	5.34E+21	5.34E+21	5.34E+21
19	1.76E+22	9.41E+21	6.52E+21	5.05E+21	5.05E+21	5.05E+21	5.05E+21	5.05E+21	5.05E+21	5.05E+21
20	1.67E+22	8.94E+01	6.22E+01	4.81E+21	4.81E+21	4.81E+21	4.81E+21	4.81E+21	4.81E+21	4.81E+21
21	1.55E+22	8.51E+01	5.92E+01	4.58E+21	4.58E+21	4.58E+21	4.58E+21	4.58E+21	4.58E+21	4.58E+21
22	1.52E+22	8.12E+01	5.63E+21	4.37E+21	4.37E+21	4.37E+21	4.37E+21	4.37E+21	4.37E+21	4.37E+21
23	1.45E+22	7.77E+01	5.37E+21	4.18E+21	4.18E+21	4.18E+21	4.18E+21	4.18E+21	4.18E+21	4.18E+21
24	1.39E+22	7.45E+01	5.16E+21	4.01E+21	4.01E+21	4.01E+21	4.01E+21	4.01E+21	4.01E+21	4.01E+21
25	1.34E+22	7.15E+01	4.95E+21	3.85E+21	3.85E+21	3.85E+21	3.85E+21	3.85E+21	3.85E+21	3.85E+21
26	1.29E+22	6.87E+01	4.77E+21	3.72E+21	3.72E+21	3.72E+21	3.72E+21	3.72E+21	3.72E+21	3.72E+21
27	1.24E+22	6.62E+01	4.59E+21	3.58E+21	3.58E+21	3.58E+21	3.58E+21	3.58E+21	3.58E+21	3.58E+21
28	1.19E+22	6.38E+01	4.43E+21	3.44E+21	3.44E+21	3.44E+21	3.44E+21	3.44E+21	3.44E+21	3.44E+21
29	1.15E+22	6.16E+21	4.27E+21	3.32E+21	3.32E+21	3.32E+21	3.32E+21	3.32E+21	3.32E+21	3.32E+21
30	1.11E+22	5.95E+21	4.13E+21	3.21E+21	3.21E+21	3.21E+21	3.21E+21	3.21E+21	3.21E+21	3.21E+21
31	1.08E+22	5.77E+21	4.00E+21	3.10E+21	3.10E+21	3.10E+21	3.10E+21	3.10E+21	3.10E+21	3.10E+21
32	1.04E+22	5.58E+21	3.87E+21	3.01E+21	3.01E+21	3.01E+21	3.01E+21	3.01E+21	3.01E+21	3.01E+21
33	1.01E+22	5.42E+21	3.76E+21	2.92E+21	2.92E+21	2.92E+21	2.92E+21	2.92E+21	2.92E+21	2.92E+21
34	9.83E+21	5.26E+21	3.64E+21	2.83E+21	2.83E+21	2.83E+21	2.83E+21	2.83E+21	2.83E+21	2.83E+21
35	9.55E+21	5.11E+21	3.54E+21	2.75E+21	2.75E+21	2.75E+21	2.75E+21	2.75E+21	2.75E+21	2.75E+21
36	9.29E+21	4.96E+21	3.44E+21	2.67E+21	2.67E+21	2.67E+21	2.67E+21	2.67E+21	2.67E+21	2.67E+21
37	9.03E+21	4.83E+21	3.35E+21	2.60E+21	2.60E+21	2.60E+21	2.60E+21	2.60E+21	2.60E+21	2.60E+21
38	8.80E+21	4.70E+21	3.26E+21	2.53E+21	2.53E+21	2.53E+21	2.53E+21	2.53E+21	2.53E+21	2.53E+21
39	8.57E+21	4.58E+21	3.18E+21	2.47E+21	2.47E+21	2.47E+21	2.47E+21	2.47E+21	2.47E+21	2.47E+21
40	8.35E+21	4.47E+21	3.10E+21	2.41E+21	2.41E+21	2.41E+21	2.41E+21	2.41E+21	2.41E+21	2.41E+21
41	8.15E+21	4.36E+21	3.02E+21	2.35E+21	2.35E+21	2.35E+21	2.35E+21	2.35E+21	2.35E+21	2.35E+21
42	7.96E+21	4.26E+21	2.95E+21	2.29E+21	2.29E+21	2.29E+21	2.29E+21	2.29E+21	2.29E+21	2.29E+21
43	7.77E+21	4.16E+21	2.89E+21	2.24E+21	2.24E+21	2.24E+21	2.24E+21	2.24E+21	2.24E+21	2.24E+21
44	7.62E+21	4.21E+21	2.83E+21	2.19E+21	2.19E+21	2.19E+21	2.19E+21	2.19E+21	2.19E+21	2.19E+21
45	7.42E+21	3.97E+21	2.75E+21	2.14E+21	2.14E+21	2.14E+21	2.14E+21	2.14E+21	2.14E+21	2.14E+21
46	7.27E+21	3.89E+21	2.69E+21	2.09E+21	2.09E+21	2.09E+21	2.09E+21	2.09E+21	2.09E+21	2.09E+21
47	7.11E+21	3.80E+21	2.64E+21	2.05E+21	2.05E+21	2.05E+21	2.05E+21	2.05E+21	2.05E+21	2.05E+21
48	6.96E+21	3.72E+21	2.58E+21	2.00E+21	2.00E+21	2.00E+21	2.00E+21	2.00E+21	2.00E+21	2.00E+21
49	6.81E+21	3.65E+21	2.53E+21	1.96E+21	1.96E+21	1.96E+21	1.96E+21	1.96E+21	1.96E+21	1.96E+21
50	6.69E+21	3.57E+21	2.48E+21	1.92E+21	1.92E+21	1.92E+21	1.92E+21	1.92E+21	1.92E+21	1.92E+21

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS B
NO FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.96E+04	5.80E+03	2.66E+03	1.51E+03	1.04E+03	9.62E+02	9.62E+02	9.62E+02	9.62E+02	9.62E+02
2	9.81E+03	2.91E+03	1.33E+03	7.56E+02	5.19E+02	4.81E+02	4.81E+02	4.81E+02	4.81E+02	4.81E+02
3	6.55E+03	1.94E+03	8.87E+02	5.04E+02	3.46E+02	3.21E+02	3.21E+02	3.21E+02	3.21E+02	3.21E+02
4	4.91E+03	1.45E+03	6.65E+02	3.78E+02	2.60E+02	2.41E+02	2.41E+02	2.41E+02	2.41E+02	2.41E+02
5	3.93E+03	1.16E+03	5.32E+02	3.02E+02	2.08E+02	1.93E+02	1.93E+02	1.93E+02	1.93E+02	1.93E+02
6	3.27E+03	9.72E+02	4.44E+02	2.52E+02	1.73E+02	1.61E+02	1.61E+02	1.61E+02	1.61E+02	1.61E+02
7	2.81E+03	8.31E+02	3.80E+02	2.16E+02	1.48E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02
8	2.45E+03	7.27E+02	3.33E+02	1.89E+02	1.30E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02
9	2.18E+03	6.46E+02	2.96E+02	1.68E+02	1.15E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02
10	1.96E+03	5.82E+02	2.66E+02	1.51E+02	1.04E+02	9.62E+01	9.62E+01	9.62E+01	9.62E+01	9.62E+01
11	1.79E+03	5.29E+02	2.42E+02	1.37E+02	9.44E+01	8.75E+01	8.75E+01	8.75E+01	8.75E+01	8.75E+01
12	1.64E+03	4.85E+02	2.22E+02	1.26E+02	8.66E+01	8.03E+01	8.03E+01	8.03E+01	8.03E+01	8.03E+01
13	1.51E+03	4.48E+02	2.05E+02	1.16E+02	7.99E+01	7.40E+01	7.40E+01	7.40E+01	7.40E+01	7.40E+01
14	1.40E+03	4.15E+02	1.90E+02	1.08E+02	7.42E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01
15	1.31E+03	3.88E+02	1.77E+02	1.01E+02	6.93E+01	6.41E+01	6.41E+01	6.41E+01	6.41E+01	6.41E+01
16	1.23E+03	3.64E+02	1.66E+02	9.45E+01	6.49E+01	6.01E+01	6.01E+01	6.01E+01	6.01E+01	6.01E+01
17	1.16E+03	3.42E+02	1.57E+02	8.89E+01	6.11E+01	5.66E+01	5.66E+01	5.66E+01	5.66E+01	5.66E+01
18	1.09E+03	3.23E+02	1.48E+02	8.40E+01	5.77E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01
19	1.03E+03	3.06E+02	1.40E+02	7.95E+01	5.47E+01	5.06E+01	5.06E+01	5.06E+01	5.06E+01	5.06E+01
20	9.81E+02	2.91E+02	1.33E+02	7.56E+01	5.19E+01	4.81E+01	4.81E+01	4.81E+01	4.81E+01	4.81E+01
21	9.35E+02	2.77E+02	1.27E+02	7.20E+01	4.95E+01	4.58E+01	4.58E+01	4.58E+01	4.58E+01	4.58E+01
22	8.93E+02	2.64E+02	1.21E+02	6.87E+01	4.72E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
23	8.54E+02	2.53E+02	1.16E+02	6.57E+01	4.51E+01	4.18E+01	4.18E+01	4.18E+01	4.18E+01	4.18E+01
24	8.18E+02	2.42E+02	1.11E+02	6.30E+01	4.33E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01
25	7.83E+02	2.32E+02	1.06E+02	6.05E+01	4.16E+01	3.85E+01	3.85E+01	3.85E+01	3.85E+01	3.85E+01
26	7.55E+02	2.24E+02	1.02E+02	5.81E+01	4.00E+01	3.70E+01	3.70E+01	3.70E+01	3.70E+01	3.70E+01
27	7.27E+02	2.15E+02	9.86E+01	5.60E+01	3.85E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01
28	7.01E+02	2.08E+02	9.51E+01	5.40E+01	3.71E+01	3.44E+01	3.44E+01	3.44E+01	3.44E+01	3.44E+01
29	6.77E+02	2.01E+02	9.18E+01	5.21E+01	3.58E+01	3.32E+01	3.32E+01	3.32E+01	3.32E+01	3.32E+01
30	6.55E+02	1.94E+02	8.87E+01	5.04E+01	3.46E+01	3.21E+01	3.21E+01	3.21E+01	3.21E+01	3.21E+01
31	6.33E+02	1.88E+02	8.59E+01	4.88E+01	3.35E+01	3.10E+01	3.10E+01	3.10E+01	3.10E+01	3.10E+01
32	6.14E+02	1.82E+02	8.32E+01	4.73E+01	3.25E+01	3.01E+01	3.01E+01	3.01E+01	3.01E+01	3.01E+01
33	5.95E+02	1.76E+02	8.08E+01	4.59E+01	3.15E+01	2.92E+01	2.92E+01	2.92E+01	2.92E+01	2.92E+01
34	5.78E+02	1.71E+02	7.83E+01	4.45E+01	3.05E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01
35	5.61E+02	1.66E+02	7.60E+01	4.31E+01	2.97E+01	2.75E+01	2.75E+01	2.75E+01	2.75E+01	2.75E+01
36	5.45E+02	1.62E+02	7.38E+01	4.22E+01	2.89E+01	2.67E+01	2.67E+01	2.67E+01	2.67E+01	2.67E+01
37	5.31E+02	1.57E+02	7.19E+01	4.09E+01	2.81E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01
38	5.17E+02	1.53E+02	7.02E+01	3.98E+01	2.73E+01	2.53E+01	2.53E+01	2.53E+01	2.53E+01	2.53E+01
39	5.03E+02	1.49E+02	6.85E+01	3.88E+01	2.66E+01	2.47E+01	2.47E+01	2.47E+01	2.47E+01	2.47E+01
40	4.91E+02	1.45E+02	6.69E+01	3.78E+01	2.60E+01	2.41E+01	2.41E+01	2.41E+01	2.41E+01	2.41E+01
41	4.79E+02	1.42E+02	6.49E+01	3.69E+01	2.53E+01	2.35E+01	2.35E+01	2.35E+01	2.35E+01	2.35E+01
42	4.68E+02	1.39E+02	6.34E+01	3.62E+01	2.47E+01	2.29E+01	2.29E+01	2.29E+01	2.29E+01	2.29E+01
43	4.57E+02	1.35E+02	6.19E+01	3.51E+01	2.42E+01	2.24E+01	2.24E+01	2.24E+01	2.24E+01	2.24E+01
44	4.46E+02	1.32E+02	6.05E+01	3.44E+01	2.36E+01	2.19E+01	2.19E+01	2.19E+01	2.19E+01	2.19E+01
45	4.36E+02	1.29E+02	5.91E+01	3.36E+01	2.31E+01	2.14E+01	2.14E+01	2.14E+01	2.14E+01	2.14E+01
46	4.27E+02	1.26E+02	5.77E+01	3.29E+01	2.26E+01	2.09E+01	2.09E+01	2.09E+01	2.09E+01	2.09E+01
47	4.18E+02	1.24E+02	5.64E+01	3.22E+01	2.21E+01	2.05E+01	2.05E+01	2.05E+01	2.05E+01	2.05E+01
48	4.07E+02	1.21E+02	5.54E+01	3.15E+01	2.16E+01	2.00E+01	2.00E+01	2.00E+01	2.00E+01	2.00E+01
49	4.01E+02	1.19E+02	5.43E+01	3.09E+01	2.12E+01	1.96E+01	1.96E+01	1.96E+01	1.96E+01	1.96E+01
50	3.91E+02	1.16E+02	5.33E+01	3.03E+01	2.09E+01	1.92E+01	1.92E+01	1.92E+01	1.92E+01	1.92E+01

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS C
NO FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	2.56E+04	1.28E+04	6.69E+03	4.10E+03	2.72E+03	2.01E+03	1.53E+03	1.20E+03	1.17E+03	1.04E+03
2	1.48E+04	6.40E+03	3.35E+03	2.05E+03	1.39E+03	1.01E+03	7.65E+02	6.48E+02	5.84E+02	5.31E+02
3	9.67E+03	4.27E+03	2.23E+03	1.37E+03	9.28E+02	6.71E+02	5.10E+02	4.32E+02	3.89E+02	3.54E+02
4	7.48E+03	3.20E+03	1.67E+03	1.03E+03	6.95E+02	5.03E+02	3.83E+02	3.24E+02	2.92E+02	2.66E+02
5	5.92E+03	2.56E+03	1.34E+03	8.20E+02	5.56E+02	4.02E+02	3.06E+02	2.59E+02	2.34E+02	2.13E+02
6	4.93E+03	2.13E+03	1.12E+03	6.83E+02	4.63E+02	3.35E+02	2.55E+02	2.16E+02	1.95E+02	1.77E+02
7	4.22E+03	1.83E+03	9.58E+02	5.86E+02	3.97E+02	2.88E+02	2.19E+02	1.85E+02	1.68E+02	1.52E+02
8	3.72E+03	1.62E+03	8.36E+02	5.12E+02	3.47E+02	2.52E+02	1.91E+02	1.62E+02	1.46E+02	1.33E+02
9	3.29E+03	1.42E+03	7.43E+02	4.55E+02	3.09E+02	2.24E+02	1.72E+02	1.44E+02	1.30E+02	1.18E+02
10	2.96E+03	1.28E+03	6.67E+02	4.10E+02	2.78E+02	2.01E+02	1.53E+02	1.30E+02	1.17E+02	1.06E+02
11	2.69E+03	1.16E+03	6.06E+02	3.72E+02	2.53E+02	1.83E+02	1.39E+02	1.18E+02	1.06E+02	9.64E+01
12	2.47E+03	1.07E+03	5.56E+02	3.42E+02	2.32E+02	1.69E+02	1.28E+02	1.08E+02	9.73E+01	8.84E+01
13	2.28E+03	9.85E+02	5.15E+02	3.15E+02	2.14E+02	1.55E+02	1.18E+02	9.97E+01	8.98E+01	8.17E+01
14	2.11E+03	9.15E+02	4.78E+02	2.93E+02	1.98E+02	1.44E+02	1.09E+02	9.26E+01	8.34E+01	7.59E+01
15	1.97E+03	8.54E+02	4.46E+02	2.72E+02	1.85E+02	1.34E+02	1.01E+02	8.64E+01	7.78E+01	7.08E+01
16	1.85E+03	8.00E+02	4.18E+02	2.56E+02	1.74E+02	1.26E+02	9.57E+01	8.12E+01	7.32E+01	6.66E+01
17	1.74E+03	7.53E+02	3.94E+02	2.41E+02	1.63E+02	1.18E+02	9.01E+01	7.65E+01	6.89E+01	6.27E+01
18	1.64E+03	7.11E+02	3.72E+02	2.28E+02	1.54E+02	1.12E+02	8.52E+01	7.23E+01	6.51E+01	5.93E+01
19	1.56E+03	6.74E+02	3.52E+02	2.16E+02	1.46E+02	1.06E+02	8.07E+01	6.85E+01	6.17E+01	5.61E+01
20	1.48E+03	6.42E+02	3.35E+02	2.05E+02	1.39E+02	1.01E+02	7.65E+01	6.49E+01	5.84E+01	5.31E+01
21	1.41E+03	6.10E+02	3.19E+02	1.95E+02	1.32E+02	9.59E+01	7.25E+01	6.17E+01	5.55E+01	5.05E+01
22	1.35E+03	5.81E+02	3.04E+02	1.86E+02	1.25E+02	9.15E+01	6.96E+01	5.89E+01	5.31E+01	4.83E+01
23	1.29E+03	5.57E+02	2.91E+02	1.78E+02	1.21E+02	8.76E+01	6.66E+01	5.64E+01	5.08E+01	4.62E+01
24	1.23E+03	5.34E+02	2.79E+02	1.71E+02	1.15E+02	8.39E+01	6.38E+01	5.40E+01	4.86E+01	4.43E+01
25	1.18E+03	5.12E+02	2.68E+02	1.64E+02	1.11E+02	8.06E+01	6.13E+01	5.19E+01	4.67E+01	4.25E+01
26	1.14E+03	4.93E+02	2.57E+02	1.58E+02	1.07E+02	7.75E+01	5.89E+01	4.99E+01	4.49E+01	4.09E+01
27	1.10E+03	4.74E+02	2.48E+02	1.52E+02	1.03E+02	7.46E+01	5.67E+01	4.80E+01	4.32E+01	3.94E+01
28	1.05E+03	4.57E+02	2.39E+02	1.46E+02	9.93E+01	7.19E+01	5.47E+01	4.63E+01	4.17E+01	3.80E+01
29	1.01E+03	4.41E+02	2.31E+02	1.41E+02	9.60E+01	6.94E+01	5.28E+01	4.47E+01	4.02E+01	3.67E+01
30	9.78E+02	4.27E+02	2.23E+02	1.37E+02	9.28E+01	6.71E+01	5.10E+01	4.32E+01	3.89E+01	3.54E+01
31	9.45E+02	4.13E+02	2.16E+02	1.32E+02	8.96E+01	6.50E+01	4.94E+01	4.18E+01	3.77E+01	3.43E+01
32	9.15E+02	4.00E+02	2.09E+02	1.28E+02	8.68E+01	6.29E+01	4.78E+01	4.05E+01	3.65E+01	3.32E+01
33	8.87E+02	3.88E+02	2.03E+02	1.24E+02	8.42E+01	6.12E+01	4.64E+01	3.93E+01	3.54E+01	3.22E+01
34	8.71E+02	3.77E+02	1.97E+02	1.21E+02	8.17E+01	5.92E+01	4.50E+01	3.81E+01	3.43E+01	3.13E+01
35	8.46E+02	3.66E+02	1.91E+02	1.17E+02	7.94E+01	5.75E+01	4.37E+01	3.70E+01	3.34E+01	3.04E+01
36	8.23E+02	3.56E+02	1.85E+02	1.14E+02	7.72E+01	5.59E+01	4.25E+01	3.60E+01	3.24E+01	2.95E+01
37	8.02E+02	3.46E+02	1.81E+02	1.11E+02	7.51E+01	5.44E+01	4.14E+01	3.50E+01	3.16E+01	2.87E+01
38	7.79E+02	3.37E+02	1.76E+02	1.08E+02	7.31E+01	5.30E+01	4.03E+01	3.41E+01	3.07E+01	2.80E+01
39	7.59E+02	3.28E+02	1.72E+02	1.05E+02	7.11E+01	5.16E+01	3.93E+01	3.32E+01	2.99E+01	2.72E+01
40	7.42E+02	3.20E+02	1.67E+02	1.03E+02	6.95E+01	5.03E+01	3.83E+01	3.24E+01	2.92E+01	2.65E+01
41	7.22E+02	3.12E+02	1.63E+02	1.00E+02	6.78E+01	4.91E+01	3.73E+01	3.16E+01	2.85E+01	2.59E+01
42	7.05E+02	3.05E+02	1.59E+02	9.75E+01	6.62E+01	4.79E+01	3.64E+01	3.09E+01	2.78E+01	2.53E+01
43	6.88E+02	2.97E+02	1.56E+02	9.54E+01	6.46E+01	4.68E+01	3.56E+01	3.01E+01	2.72E+01	2.47E+01
44	6.73E+02	2.91E+02	1.52E+02	9.32E+01	6.32E+01	4.58E+01	3.48E+01	2.94E+01	2.65E+01	2.41E+01
45	6.59E+02	2.85E+02	1.49E+02	9.11E+01	6.17E+01	4.48E+01	3.40E+01	2.88E+01	2.59E+01	2.36E+01
46	6.44E+02	2.78E+02	1.45E+02	8.91E+01	6.04E+01	4.38E+01	3.33E+01	2.81E+01	2.54E+01	2.31E+01
47	6.32E+02	2.72E+02	1.42E+02	8.72E+01	5.91E+01	4.28E+01	3.26E+01	2.76E+01	2.48E+01	2.26E+01
48	6.17E+02	2.67E+02	1.39E+02	8.54E+01	5.79E+01	4.20E+01	3.19E+01	2.70E+01	2.43E+01	2.21E+01
49	6.04E+02	2.61E+02	1.37E+02	8.37E+01	5.67E+01	4.11E+01	3.12E+01	2.65E+01	2.38E+01	2.17E+01
50	5.93E+02	2.56E+02	1.34E+02	8.20E+01	5.56E+01	4.03E+01	3.06E+01	2.59E+01	2.34E+01	2.13E+01

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS D
NO FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	4.54E+03	1.42E+04	1.03E+04	1.19E+04	9.69E+03	8.33E+03	7.11E+03	6.19E+03	5.37E+03	4.75E+03
2	2.27E+03	7.21E+03	6.91E+03	5.90E+03	4.99E+03	4.17E+03	3.56E+03	3.07E+03	2.69E+03	2.37E+03
3	1.51E+03	4.87E+03	4.61E+03	3.93E+03	3.32E+03	2.78E+03	2.37E+03	2.05E+03	1.79E+03	1.58E+03
4	1.13E+03	3.51E+03	3.45E+03	2.95E+03	2.47E+03	2.08E+03	1.78E+03	1.54E+03	1.34E+03	1.19E+03
5	9.64E+02	2.83E+03	2.76E+03	2.36E+03	1.98E+03	1.67E+03	1.42E+03	1.23E+03	1.07E+03	9.49E+02
6	7.55E+02	2.34E+03	2.30E+03	1.97E+03	1.65E+03	1.39E+03	1.19E+03	1.03E+03	8.95E+02	7.91E+02
7	6.48E+02	2.03E+03	1.97E+03	1.69E+03	1.41E+03	1.19E+03	1.02E+03	8.78E+02	7.68E+02	6.79E+02
8	5.67E+02	1.75E+03	1.73E+03	1.48E+03	1.24E+03	1.04E+03	8.87E+02	7.69E+02	6.72E+02	5.93E+02
9	5.04E+02	1.55E+03	1.54E+03	1.31E+03	1.10E+03	9.26E+02	7.92E+02	6.83E+02	5.97E+02	5.27E+02
10	4.54E+02	1.40E+03	1.38E+03	1.18E+03	9.87E+02	8.33E+02	7.11E+02	6.15E+02	5.37E+02	4.75E+02
11	4.13E+02	1.27E+03	1.26E+03	1.07E+03	8.99E+02	7.58E+02	6.47E+02	5.59E+02	4.88E+02	4.31E+02
12	3.78E+02	1.17E+03	1.15E+03	9.8+E+02	8.24E+02	6.95E+02	5.93E+02	5.12E+02	4.48E+02	3.96E+02
13	3.49E+02	1.08E+03	1.06E+03	9.03E+02	7.67E+02	6.41E+02	5.47E+02	4.73E+02	4.13E+02	3.65E+02
14	3.24E+02	1.00E+03	9.87E+02	8.43E+02	7.08E+02	5.95E+02	5.08E+02	4.39E+02	3.84E+02	3.39E+02
15	3.03E+02	9.35E+02	9.21E+02	7.87E+02	6.59E+02	5.56E+02	4.74E+02	4.12E+02	3.58E+02	3.16E+02
16	2.84E+02	8.76E+02	8.64E+02	7.38E+02	6.18E+02	5.21E+02	4.44E+02	3.84E+02	3.36E+02	2.97E+02
17	2.67E+02	8.25E+02	8.13E+02	6.94E+02	5.82E+02	4.92E+02	4.18E+02	3.61E+02	3.18E+02	2.79E+02
18	2.52E+02	7.79E+02	7.68E+02	6.56E+02	5.49E+02	4.63E+02	3.95E+02	3.41E+02	2.99E+02	2.64E+02
19	2.39E+02	7.38E+02	7.27E+02	6.21E+02	5.20E+02	4.39E+02	3.74E+02	3.23E+02	2.83E+02	2.50E+02
20	2.27E+02	7.01E+02	6.91E+02	5.90E+02	4.94E+02	4.17E+02	3.56E+02	3.07E+02	2.69E+02	2.37E+02
21	2.16E+02	6.68E+02	6.58E+02	5.62E+02	4.71E+02	3.97E+02	3.39E+02	2.93E+02	2.56E+02	2.26E+02
22	2.05E+02	6.37E+02	6.28E+02	5.36E+02	4.49E+02	3.79E+02	3.23E+02	2.79E+02	2.44E+02	2.16E+02
23	1.97E+02	6.12E+02	6.01E+02	5.13E+02	4.30E+02	3.63E+02	3.09E+02	2.67E+02	2.34E+02	2.06E+02
24	1.89E+02	5.84E+02	5.75E+02	4.91E+02	4.11E+02	3.47E+02	2.96E+02	2.56E+02	2.24E+02	1.97E+02
25	1.82E+02	5.61E+02	5.53E+02	4.71E+02	3.95E+02	3.33E+02	2.84E+02	2.46E+02	2.15E+02	1.90E+02
26	1.75E+02	5.39E+02	5.32E+02	4.54E+02	3.80E+02	3.21E+02	2.74E+02	2.36E+02	2.07E+02	1.83E+02
27	1.69E+02	5.19E+02	5.12E+02	4.37E+02	3.66E+02	3.09E+02	2.63E+02	2.28E+02	1.99E+02	1.76E+02
28	1.63E+02	5.01E+02	4.94E+02	4.21E+02	3.53E+02	2.98E+02	2.54E+02	2.19E+02	1.92E+02	1.70E+02
29	1.58E+02	4.87E+02	4.77E+02	4.07E+02	3.41E+02	2.87E+02	2.45E+02	2.12E+02	1.85E+02	1.64E+02
30	1.51E+02	4.67E+02	4.61E+02	3.93E+02	3.30E+02	2.78E+02	2.37E+02	2.05E+02	1.79E+02	1.58E+02
31	1.48E+02	4.51E+02	4.46E+02	3.81E+02	3.19E+02	2.69E+02	2.29E+02	1.98E+02	1.73E+02	1.53E+02
32	1.42E+02	4.38E+02	4.32E+02	3.69E+02	3.09E+02	2.60E+02	2.22E+02	1.92E+02	1.68E+02	1.48E+02
33	1.38E+02	4.25E+02	4.19E+02	3.58E+02	3.00E+02	2.52E+02	2.16E+02	1.86E+02	1.62E+02	1.44E+02
34	1.33E+02	4.13E+02	4.08E+02	3.47E+02	2.91E+02	2.45E+02	2.09E+02	1.81E+02	1.58E+02	1.39E+02
35	1.30E+02	4.01E+02	3.95E+02	3.37E+02	2.83E+02	2.38E+02	2.03E+02	1.76E+02	1.54E+02	1.36E+02
36	1.26E+02	3.89E+02	3.84E+02	3.28E+02	2.75E+02	2.32E+02	1.98E+02	1.71E+02	1.49E+02	1.32E+02
37	1.23E+02	3.79E+02	3.73E+02	3.19E+02	2.67E+02	2.25E+02	1.92E+02	1.66E+02	1.45E+02	1.28E+02
38	1.19E+02	3.69E+02	3.64E+02	3.11E+02	2.60E+02	2.19E+02	1.87E+02	1.62E+02	1.41E+02	1.25E+02
39	1.16E+02	3.60E+02	3.54E+02	3.03E+02	2.53E+02	2.14E+02	1.82E+02	1.58E+02	1.38E+02	1.22E+02
40	1.13E+02	3.51E+02	3.45E+02	2.95E+02	2.47E+02	2.08E+02	1.78E+02	1.54E+02	1.34E+02	1.19E+02
41	1.11E+02	3.42E+02	3.37E+02	2.88E+02	2.41E+02	2.03E+02	1.73E+02	1.50E+02	1.31E+02	1.16E+02
42	1.08E+02	3.34E+02	3.29E+02	2.81E+02	2.35E+02	1.98E+02	1.69E+02	1.46E+02	1.28E+02	1.13E+02
43	1.05E+02	3.26E+02	3.21E+02	2.74E+02	2.29E+02	1.94E+02	1.65E+02	1.43E+02	1.25E+02	1.10E+02
44	1.03E+02	3.19E+02	3.14E+02	2.68E+02	2.25E+02	1.89E+02	1.62E+02	1.40E+02	1.22E+02	1.08E+02
45	1.01E+02	3.12E+02	3.07E+02	2.61E+02	2.20E+02	1.85E+02	1.58E+02	1.37E+02	1.19E+02	1.05E+02
46	9.84E+01	3.03E+02	3.00E+02	2.57E+02	2.15E+02	1.81E+02	1.55E+02	1.34E+02	1.17E+02	1.03E+02
47	9.65E+01	2.90E+02	2.94E+02	2.51E+02	2.12E+02	1.77E+02	1.51E+02	1.31E+02	1.14E+02	1.01E+02
48	9.45E+01	2.93E+02	2.88E+02	2.46E+02	2.01E+02	1.74E+02	1.48E+02	1.29E+02	1.12E+02	9.8?E+01
49	9.21E+01	2.86E+02	2.82E+02	2.41E+02	2.02E+02	1.70E+02	1.45E+02	1.26E+02	1.10E+02	9.6?E+01
50	9.03E+01	2.80E+02	2.76E+02	2.36E+02	1.98E+02	1.67E+02	1.42E+02	1.23E+02	1.07E+02	9.4?E+01

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS E
NO FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT 1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.30E+02	4.82E+03	7.50E+03	8.94E+03	9.18E+03	8.92E+03	8.47E+03	7.96E+03	7.46E+03	6.98E+03
2	6.51E+01	2.81E+03	3.76E+03	4.47E+03	4.59E+03	4.46E+03	4.23E+03	3.98E+03	3.73E+03	3.49E+03
3	4.34E+01	1.34E+03	2.50E+03	2.98E+03	3.06E+03	2.97E+03	2.82E+03	2.65E+03	2.49E+03	2.33E+03
4	3.26E+01	1.00E+03	1.88E+03	2.24E+03	2.29E+03	2.23E+03	2.12E+03	1.99E+03	1.86E+03	1.75E+03
5	2.61E+01	8.04E+02	1.51E+03	1.79E+03	1.84E+03	1.78E+03	1.69E+03	1.59E+03	1.49E+03	1.40E+03
6	2.17E+01	6.70E+02	1.26E+03	1.49E+03	1.53E+03	1.48E+03	1.41E+03	1.33E+03	1.24E+03	1.16E+03
7	1.86E+01	5.74E+02	1.08E+03	1.28E+03	1.31E+03	1.27E+03	1.21E+03	1.14E+03	1.07E+03	9.97E+02
8	1.63E+01	5.02E+02	9.44E+02	1.12E+03	1.15E+03	1.11E+03	1.06E+03	9.95E+02	9.32E+02	8.73E+02
9	1.45E+01	4.47E+02	8.41E+02	9.94E+02	1.02E+03	9.91E+02	9.41E+02	8.85E+02	8.29E+02	7.76E+02
10	1.30E+01	4.03E+02	7.57E+02	8.94E+02	9.18E+02	8.92E+02	8.47E+02	7.96E+02	7.46E+02	6.98E+02
11	1.18E+01	3.66E+02	6.88E+02	8.13E+02	8.34E+02	8.11E+02	7.70E+02	7.24E+02	6.78E+02	6.35E+02
12	1.09E+01	3.35E+02	6.31E+02	7.45E+02	7.65E+02	7.43E+02	7.06E+02	6.63E+02	6.22E+02	5.82E+02
13	1.00E+01	3.09E+02	5.82E+02	6.88E+02	7.06E+02	6.86E+02	6.51E+02	6.12E+02	5.74E+02	5.37E+02
14	9.31E+00	2.87E+02	5.41E+02	6.39E+02	6.55E+02	6.37E+02	6.03E+02	5.69E+02	5.33E+02	4.99E+02
15	8.69E+00	2.68E+02	5.05E+02	5.96E+02	6.12E+02	5.94E+02	5.64E+02	5.31E+02	4.97E+02	4.65E+02
16	8.14E+00	2.51E+02	4.73E+02	5.59E+02	5.73E+02	5.57E+02	5.29E+02	4.98E+02	4.66E+02	4.36E+02
17	7.66E+00	2.36E+02	4.45E+02	5.26E+02	5.40E+02	5.24E+02	4.98E+02	4.68E+02	4.38E+02	4.11E+02
18	7.24E+00	2.23E+02	4.20E+02	4.97E+02	5.10E+02	4.95E+02	4.70E+02	4.42E+02	4.14E+02	3.88E+02
19	6.88E+00	2.12E+02	3.98E+02	4.71E+02	4.83E+02	4.69E+02	4.46E+02	4.19E+02	3.93E+02	3.67E+02
20	6.51E+00	2.01E+02	3.78E+02	4.47E+02	4.59E+02	4.46E+02	4.23E+02	3.98E+02	3.73E+02	3.49E+02
21	6.20E+00	1.91E+02	3.60E+02	4.26E+02	4.37E+02	4.25E+02	4.03E+02	3.79E+02	3.55E+02	3.32E+02
22	5.90E+00	1.83E+02	3.44E+02	4.07E+02	4.17E+02	4.05E+02	3.85E+02	3.62E+02	3.39E+02	3.17E+02
23	5.65E+00	1.75E+02	3.29E+02	3.89E+02	3.99E+02	3.88E+02	3.68E+02	3.46E+02	3.24E+02	3.04E+02
24	5.42E+00	1.67E+02	3.15E+02	3.73E+02	3.83E+02	3.72E+02	3.53E+02	3.32E+02	3.11E+02	2.91E+02
25	5.21E+00	1.61E+02	3.03E+02	3.58E+02	3.67E+02	3.57E+02	3.39E+02	3.19E+02	2.98E+02	2.79E+02
26	5.01E+00	1.55E+02	2.91E+02	3.44E+02	3.53E+02	3.43E+02	3.26E+02	3.06E+02	2.87E+02	2.69E+02
27	4.83E+00	1.49E+02	2.80E+02	3.31E+02	3.40E+02	3.30E+02	3.14E+02	2.95E+02	2.76E+02	2.59E+02
28	4.65E+00	1.44E+02	2.70E+02	3.19E+02	3.28E+02	3.18E+02	3.02E+02	2.84E+02	2.66E+02	2.49E+02
29	4.49E+00	1.39E+02	2.61E+02	3.08E+02	3.16E+02	3.07E+02	2.91E+02	2.75E+02	2.57E+02	2.41E+02
30	4.34E+00	1.34E+02	2.52E+02	2.98E+02	3.06E+02	2.97E+02	2.82E+02	2.65E+02	2.49E+02	2.33E+02
31	4.20E+00	1.30E+02	2.44E+02	2.89E+02	2.96E+02	2.88E+02	2.73E+02	2.57E+02	2.41E+02	2.25E+02
32	4.07E+00	1.26E+02	2.37E+02	2.79E+02	2.87E+02	2.79E+02	2.65E+02	2.49E+02	2.33E+02	2.18E+02
33	3.95E+00	1.22E+02	2.29E+02	2.71E+02	2.78E+02	2.72E+02	2.57E+02	2.41E+02	2.26E+02	2.12E+02
34	3.83E+00	1.18E+02	2.23E+02	2.63E+02	2.70E+02	2.62E+02	2.49E+02	2.34E+02	2.19E+02	2.05E+02
35	3.72E+00	1.15E+02	2.16E+02	2.56E+02	2.62E+02	2.55E+02	2.42E+02	2.27E+02	2.13E+02	1.99E+02
36	3.62E+00	1.12E+02	2.10E+02	2.48E+02	2.55E+02	2.48E+02	2.35E+02	2.21E+02	2.07E+02	1.94E+02
37	3.52E+00	1.09E+02	2.05E+02	2.42E+02	2.48E+02	2.41E+02	2.29E+02	2.15E+02	2.02E+02	1.89E+02
38	3.43E+00	1.06E+02	1.99E+02	2.35E+02	2.41E+02	2.35E+02	2.23E+02	2.10E+02	1.96E+02	1.84E+02
39	3.34E+00	1.03E+02	1.94E+02	2.29E+02	2.35E+02	2.29E+02	2.17E+02	2.04E+02	1.91E+02	1.79E+02
40	3.26E+00	1.00E+02	1.89E+02	2.24E+02	2.29E+02	2.23E+02	2.12E+02	1.99E+02	1.86E+02	1.75E+02
41	3.18E+00	9.80E+01	1.85E+02	2.18E+02	2.24E+02	2.17E+02	2.07E+02	1.94E+02	1.81E+02	1.70E+02
42	3.12E+00	9.57E+01	1.80E+02	2.13E+02	2.18E+02	2.12E+02	2.02E+02	1.89E+02	1.77E+02	1.66E+02
43	3.03E+00	9.35E+01	1.76E+02	2.08E+02	2.13E+02	2.07E+02	1.97E+02	1.85E+02	1.73E+02	1.62E+02
44	2.96E+00	9.13E+01	1.72E+02	2.03E+02	2.08E+02	2.03E+02	1.93E+02	1.81E+02	1.70E+02	1.57E+02
45	2.90E+00	8.93E+01	1.68E+02	1.99E+02	2.04E+02	1.98E+02	1.88E+02	1.77E+02	1.66E+02	1.55E+02
46	2.83E+00	8.74E+01	1.65E+02	1.94E+02	1.99E+02	1.94E+02	1.84E+02	1.73E+02	1.62E+02	1.52E+02
47	2.77E+00	8.55E+01	1.61E+02	1.90E+02	1.95E+02	1.90E+02	1.80E+02	1.69E+02	1.59E+02	1.49E+02
48	2.71E+00	8.37E+01	1.58E+02	1.86E+02	1.91E+02	1.86E+02	1.76E+02	1.66E+02	1.55E+02	1.45E+02
49	2.66E+00	8.20E+01	1.54E+02	1.83E+02	1.87E+02	1.82E+02	1.73E+02	1.62E+02	1.51E+02	1.42E+02
50	2.61E+00	8.04E+01	1.51E+02	1.77E+02	1.84E+02	1.79E+02	1.69E+02	1.59E+02	1.48E+02	1.40E+02

MANUAL SET

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS F
NO FUMIGATION
MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

DOWNWIND DISTANCE FROM PLANT

UPPER WIND SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	6.10E-03	4.90E+01	4.31E+02	1.02E+03	1.74E+03	2.32E+03	2.79E+03	3.00E+03	3.03E+03	3.49E+03
2	3.05E-03	2.44E+01	2.16E+02	5.11E+02	8.72E+02	1.15E+03	1.37E+03	1.54E+03	1.66E+03	1.74E+03
3	2.03E-03	1.64E+01	1.44E+02	3.41E+02	5.81E+02	7.68E+02	9.16E+02	1.03E+03	1.11E+03	1.16E+03
4	1.53E-03	1.23E+01	1.08E+02	2.56E+02	4.36E+02	5.76E+02	6.87E+02	7.72E+02	8.33E+02	8.72E+02
5	1.22E-03	9.83E+00	8.62E+01	2.04E+02	3.49E+02	4.61E+02	5.49E+02	6.18E+02	6.66E+02	6.98E+02
6	1.02E-03	8.19E+00	7.19E+01	1.70E+02	2.91E+02	3.84E+02	4.58E+02	5.15E+02	5.55E+02	5.81E+02
7	8.72E-04	7.02E+00	6.16E+01	1.46E+02	2.49E+02	3.29E+02	3.92E+02	4.42E+02	4.76E+02	4.98E+02
8	7.63E-04	6.14E+00	5.39E+01	1.28E+02	2.18E+02	2.88E+02	3.43E+02	3.86E+02	4.15E+02	4.36E+02
9	6.78E-04	5.46E+00	4.79E+01	1.14E+02	1.94E+02	2.56E+02	3.05E+02	3.43E+02	3.69E+02	3.88E+02
10	6.10E-04	4.92E+00	4.31E+01	1.02E+02	1.74E+02	2.30E+02	2.75E+02	3.09E+02	3.32E+02	3.49E+02
11	5.55E-04	4.47E+00	3.92E+01	9.30E+01	1.58E+02	2.09E+02	2.50E+02	2.81E+02	3.02E+02	3.17E+02
12	5.08E-04	4.10E+00	3.59E+01	8.52E+01	1.45E+02	1.92E+02	2.29E+02	2.57E+02	2.77E+02	2.91E+02
13	4.70E-04	3.78E+00	3.32E+01	7.87E+01	1.34E+02	1.77E+02	2.11E+02	2.37E+02	2.55E+02	2.68E+02
14	4.36E-04	3.51E+00	3.08E+01	7.32E+01	1.24E+02	1.65E+02	1.96E+02	2.20E+02	2.37E+02	2.49E+02
15	4.07E-04	3.28E+00	2.88E+01	6.84E+01	1.16E+02	1.54E+02	1.83E+02	2.05E+02	2.21E+02	2.32E+02
16	3.81E-04	3.07E+00	2.70E+01	6.41E+01	1.09E+02	1.44E+02	1.71E+02	1.92E+02	2.07E+02	2.18E+02
17	3.59E-04	2.89E+00	2.54E+01	6.04E+01	1.02E+02	1.36E+02	1.61E+02	1.81E+02	1.95E+02	2.05E+02
18	3.39E-04	2.73E+00	2.40E+01	5.70E+01	9.67E+01	1.28E+02	1.52E+02	1.71E+02	1.84E+02	1.94E+02
19	3.21E-04	2.59E+00	2.27E+01	5.40E+01	9.16E+01	1.21E+02	1.44E+02	1.62E+02	1.75E+02	1.84E+02
20	3.05E-04	2.46E+00	2.16E+01	5.13E+01	8.70E+01	1.15E+02	1.37E+02	1.54E+02	1.66E+02	1.75E+02
21	2.91E-04	2.34E+00	2.05E+01	4.88E+01	8.28E+01	1.10E+02	1.31E+02	1.47E+02	1.58E+02	1.66E+02
22	2.77E-04	2.23E+00	1.96E+01	4.65E+01	7.91E+01	1.05E+02	1.25E+02	1.40E+02	1.51E+02	1.59E+02
23	2.65E-04	2.14E+00	1.88E+01	4.45E+01	7.57E+01	1.00E+02	1.19E+02	1.34E+02	1.44E+02	1.52E+02
24	2.54E-04	2.05E+00	1.80E+01	4.26E+01	7.25E+01	9.62E+01	1.14E+02	1.28E+02	1.38E+02	1.45E+02
25	2.44E-04	1.97E+00	1.73E+01	4.09E+01	6.96E+01	9.23E+01	1.10E+02	1.23E+02	1.33E+02	1.40E+02
26	2.35E-04	1.89E+00	1.66E+01	3.93E+01	6.69E+01	8.88E+01	1.05E+02	1.18E+02	1.28E+02	1.34E+02
27	2.26E-04	1.82E+00	1.60E+01	3.78E+01	6.45E+01	8.53E+01	1.01E+02	1.14E+02	1.23E+02	1.29E+02
28	2.18E-04	1.76E+00	1.54E+01	3.65E+01	6.21E+01	8.23E+01	9.81E+01	1.10E+02	1.19E+02	1.25E+02
29	2.11E-04	1.69E+00	1.49E+01	3.52E+01	6.00E+01	7.95E+01	9.47E+01	1.06E+02	1.15E+02	1.21E+02
30	2.03E-04	1.64E+00	1.44E+01	3.40E+01	5.79E+01	7.68E+01	9.16E+01	1.03E+02	1.11E+02	1.16E+02
31	1.97E-04	1.59E+00	1.39E+01	3.29E+01	5.61E+01	7.43E+01	8.85E+01	9.93E+01	1.07E+02	1.13E+02
32	1.91E-04	1.54E+00	1.35E+01	3.19E+01	5.44E+01	7.22E+01	8.59E+01	9.63E+01	1.04E+02	1.09E+02
33	1.85E-04	1.49E+00	1.31E+01	3.10E+01	5.27E+01	6.98E+01	8.30E+01	9.30E+01	1.01E+02	1.06E+02
34	1.80E-04	1.45E+00	1.27E+01	3.01E+01	5.12E+01	6.78E+01	8.06E+01	9.03E+01	9.78E+01	1.03E+02
35	1.74E-04	1.40E+00	1.23E+01	2.92E+01	4.97E+01	6.58E+01	7.83E+01	8.77E+01	9.50E+01	9.99E+01
36	1.72E-04	1.37E+00	1.20E+01	2.84E+01	4.83E+01	6.40E+01	7.61E+01	8.53E+01	9.24E+01	9.71E+01
37	1.68E-04	1.33E+00	1.17E+01	2.76E+01	4.70E+01	6.23E+01	7.40E+01	8.30E+01	8.99E+01	9.45E+01
38	1.61E-04	1.29E+00	1.14E+01	2.69E+01	4.58E+01	6.06E+01	7.21E+01	8.08E+01	8.75E+01	9.20E+01
39	1.59E-04	1.26E+00	1.11E+01	2.62E+01	4.46E+01	5.91E+01	7.04E+01	7.89E+01	8.55E+01	8.99E+01
40	1.55E-04	1.23E+00	1.08E+01	2.57E+01	4.36E+01	5.76E+01	6.87E+01	7.70E+01	8.35E+01	8.78E+01
41	1.49E-04	1.20E+00	1.05E+01	2.51E+01	4.24E+01	5.62E+01	6.70E+01	7.51E+01	8.14E+01	8.56E+01
42	1.46E-04	1.17E+00	1.03E+01	2.45E+01	4.14E+01	5.47E+01	6.54E+01	7.33E+01	7.94E+01	8.35E+01
43	1.42E-04	1.14E+00	1.00E+01	2.39E+01	4.03E+01	5.36E+01	6.39E+01	7.16E+01	7.76E+01	8.16E+01
44	1.37E-04	1.12E+00	9.82E+00	2.34E+01	3.93E+01	5.24E+01	6.24E+01	7.00E+01	7.58E+01	7.97E+01
45	1.36E-04	1.09E+00	9.58E+00	2.29E+01	3.83E+01	5.12E+01	6.10E+01	6.84E+01	7.41E+01	7.79E+01
46	1.33E-04	1.07E+00	9.35E+00	2.24E+01	3.73E+01	5.01E+01	5.97E+01	6.69E+01	7.24E+01	7.62E+01
47	1.30E-04	1.05E+00	9.15E+00	2.19E+01	3.65E+01	4.90E+01	5.84E+01	6.55E+01	7.09E+01	7.45E+01
48	1.27E-04	1.03E+00	8.97E+00	2.14E+01	3.57E+01	4.80E+01	5.72E+01	6.41E+01	6.94E+01	7.30E+01
49	1.25E-04	1.02E+00	8.80E+00	2.10E+01	3.50E+01	4.70E+01	5.61E+01	6.29E+01	6.81E+01	7.16E+01
50	1.23E-04	9.83E-01	8.63E+00	2.06E+01	3.44E+01	4.61E+01	5.49E+01	6.16E+01	6.66E+01	6.99E+01

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS A
NO FUMIGATION

MILLIREM/YEAR PER CURIE/SEC OF NOBLE GASES RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.10E+00	6.20E-01	4.36E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01
2	5.60E-01	3.14E-01	2.10E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01
3	3.90E-01	2.09E-01	1.45E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01
4	2.94E-01	1.57E-01	1.09E-01	8.46E-02	8.46E-02	8.46E-02	8.46E-02	8.46E-02	8.46E-02	8.46E-02
5	2.35E-01	1.26E-01	8.71E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02
6	1.96E-01	1.05E-01	7.26E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02
7	1.68E-01	8.99E-02	6.20E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02
8	1.47E-01	7.85E-02	5.41E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02
9	1.31E-01	6.98E-02	4.81E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02
10	1.19E-01	6.28E-02	4.34E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02
11	1.07E-01	5.71E-02	3.94E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02
12	9.79E-02	5.24E-02	3.63E-02	2.83E-02	2.81E-02	2.81E-02	2.81E-02	2.81E-02	2.81E-02	2.81E-02
13	9.04E-02	4.83E-02	3.35E-02	2.62E-02	2.62E-02	2.62E-02	2.62E-02	2.62E-02	2.62E-02	2.62E-02
14	8.37E-02	4.49E-02	3.11E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02
15	7.82E-02	4.19E-02	2.90E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02
16	7.34E-02	3.93E-02	2.72E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02
17	6.91E-02	3.72E-02	2.56E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02
18	6.53E-02	3.49E-02	2.42E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02
19	6.18E-02	3.31E-02	2.29E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02
20	5.88E-02	3.14E-02	2.19E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02
21	5.60E-02	2.99E-02	2.07E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02
22	5.34E-02	2.85E-02	1.98E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02
23	5.11E-02	2.73E-02	1.89E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02
24	4.90E-02	2.62E-02	1.82E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02
25	4.72E-02	2.51E-02	1.74E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02
26	4.53E-02	2.42E-02	1.68E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
27	4.38E-02	2.33E-02	1.61E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02
28	4.22E-02	2.24E-02	1.55E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02
29	4.07E-02	2.17E-02	1.50E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02
30	3.91E-02	2.09E-02	1.45E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02
31	3.79E-02	2.03E-02	1.41E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02
32	3.67E-02	1.95E-02	1.35E-02	1.05E-02	1.05E-02	1.05E-02	1.05E-02	1.05E-02	1.05E-02	1.05E-02
33	3.56E-02	1.90E-02	1.32E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02
34	3.45E-02	1.85E-02	1.28E-02	9.95E-03	9.95E-03	9.95E-03	9.95E-03	9.95E-03	9.95E-03	9.95E-03
35	3.36E-02	1.80E-02	1.24E-02	9.66E-03	9.66E-03	9.66E-03	9.66E-03	9.66E-03	9.66E-03	9.66E-03
36	3.31E-02	1.75E-02	1.21E-02	9.40E-03	9.40E-03	9.40E-03	9.40E-03	9.40E-03	9.40E-03	9.40E-03
37	3.13E-02	1.72E-02	1.18E-02	9.14E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03
38	3.21E-02	1.69E-02	1.15E-02	8.92E-03	8.92E-03	8.92E-03	8.92E-03	8.92E-03	8.92E-03	8.92E-03
39	3.01E-02	1.61E-02	1.12E-02	8.67E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03
40	2.91E-02	1.57E-02	1.09E-02	8.46E-03	8.46E-03	8.46E-03	8.46E-03	8.46E-03	8.46E-03	8.46E-03
41	2.87E-02	1.53E-02	1.06E-02	8.25E-03	8.25E-03	8.25E-03	8.25E-03	8.25E-03	8.25E-03	8.25E-03
42	2.80E-02	1.50E-02	1.04E-02	8.05E-03	8.05E-03	8.05E-03	8.05E-03	8.05E-03	8.05E-03	8.05E-03
43	2.72E-02	1.46E-02	1.01E-02	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03
44	2.67E-02	1.43E-02	9.92E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03
45	2.61E-02	1.40E-02	9.68E-03	7.50E-03	7.50E-03	7.50E-03	7.50E-03	7.50E-03	7.50E-03	7.50E-03
46	2.55E-02	1.37E-02	9.47E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03	7.33E-03
47	2.50E-02	1.34E-02	9.29E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03
48	2.45E-02	1.31E-02	9.03E-03	7.03E-03	7.03E-03	7.03E-03	7.03E-03	7.03E-03	7.03E-03	7.03E-03
49	2.42E-02	1.28E-02	8.87E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-03
50	2.38E-02	1.26E-02	8.71E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS F
NO FUMIGATION

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	6.92E+02	2.85E+03	9.36E-01	5.31E-01	3.65E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
2	3.45E+03	1.30E+03	4.68E-01	2.66E-01	1.83E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01
3	2.30E+03	6.82E-01	3.12E-01	1.77E-01	1.22E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01
4	1.73E+03	5.11E-01	2.34E-01	1.33E-01	9.12E-02	8.46E-02	8.46E-02	8.46E-02	8.46E-02	8.46E-02
5	1.38E+03	4.09E-01	1.87E-01	1.06E-01	7.30E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02	6.76E-02
6	1.15E+03	3.41E-01	1.56E-01	8.85E-02	6.07E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02	5.64E-02
7	9.84E-01	2.90E-01	1.34E-01	7.59E-02	5.22E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02
8	8.63E-01	2.56E-01	1.17E-01	6.64E-02	4.57E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02	4.23E-02
9	7.67E-01	2.27E-01	1.04E-01	5.90E-02	4.06E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02
10	6.90E-01	2.05E-01	9.36E-02	5.31E-02	3.65E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02
11	6.29E-01	1.86E-01	8.51E-02	4.83E-02	3.32E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02
12	5.75E-01	1.72E-01	7.82E-02	4.43E-02	3.04E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02
13	5.31E-01	1.57E-01	7.22E-02	4.09E-02	2.81E-02	2.60E-02	2.60E-02	2.60E-02	2.60E-02	2.60E-02
14	4.93E-01	1.46E-01	6.69E-02	3.80E-02	2.61E-02	2.42E-02	2.42E-02	2.42E-02	2.41E-02	2.41E-02
15	4.60E-01	1.36E-01	6.24E-02	3.54E-02	2.43E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02
16	4.33E-01	1.28E-01	5.85E-02	3.32E-02	2.28E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02	2.11E-02
17	4.06E-01	1.20E-01	5.50E-02	3.13E-02	2.15E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02	1.99E-02
18	3.84E-01	1.14E-01	5.20E-02	2.95E-02	2.03E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02
19	3.63E-01	1.08E-01	4.92E-02	2.80E-02	1.92E-02	1.78E-02	1.78E-02	1.78E-02	1.76E-02	1.75E-02
20	3.45E-01	1.02E-01	4.68E-02	2.66E-02	1.83E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02	1.69E-02
21	3.29E-01	9.74E-02	4.46E-02	2.53E-02	1.74E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02	1.61E-02
22	3.14E-01	9.30E-02	4.25E-02	2.42E-02	1.66E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02	1.54E-02
23	3.03E-01	8.99E-02	4.07E-02	2.31E-02	1.59E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02	1.47E-02
24	2.83E-01	8.52E-02	3.90E-02	2.21E-02	1.52E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02	1.41E-02
25	2.76E-01	8.18E-02	3.74E-02	2.12E-02	1.46E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02
26	2.66E-01	7.87E-02	3.60E-02	2.04E-02	1.40E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
27	2.55E-01	7.59E-02	3.47E-02	1.97E-02	1.35E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02
28	2.47E-01	7.31E-02	3.34E-02	1.90E-02	1.30E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02	1.21E-02
29	2.39E-01	7.05E-02	3.23E-02	1.83E-02	1.26E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02
30	2.32E-01	6.83E-02	3.12E-02	1.77E-02	1.22E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.13E-02
31	2.22E-01	6.62E-02	3.02E-02	1.71E-02	1.18E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02
32	2.16E-01	6.39E-02	2.93E-02	1.66E-02	1.14E-02	1.06E-02	1.05E-02	1.05E-02	1.05E-02	1.05E-02
33	2.09E-01	6.22E-02	2.84E-02	1.61E-02	1.11E-02	1.02E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
34	2.03E-01	6.02E-02	2.75E-02	1.56E-02	1.07E-02	9.95E-03	9.95E-03	9.95E-03	9.95E-03	9.95E-03
35	1.97E-01	5.84E-02	2.67E-02	1.50E-02	1.04E-02	9.66E-03	9.66E-03	9.66E-03	9.66E-03	9.66E-03
36	1.92E-01	5.69E-02	2.60E-02	1.46E-02	1.01E-02	9.42E-03	9.42E-03	9.42E-03	9.42E-03	9.42E-03
37	1.87E-01	5.53E-02	2.53E-02	1.44E-02	9.87E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03
38	1.81E-01	5.39E-02	2.46E-02	1.42E-02	9.61E-03	8.92E-03	8.92E-03	8.92E-03	8.92E-03	8.92E-03
39	1.77E-01	5.25E-02	2.40E-02	1.36E-02	9.37E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03
40	1.73E-01	5.11E-02	2.34E-02	1.33E-02	9.13E-03	8.46E-03	8.46E-03	8.46E-03	8.46E-03	8.46E-03
41	1.68E-01	4.99E-02	2.28E-02	1.30E-02	8.91E-03	8.25E-03	8.25E-03	8.25E-03	8.25E-03	8.25E-03
42	1.64E-01	4.87E-02	2.23E-02	1.27E-02	8.72E-03	8.05E-03	8.05E-03	8.05E-03	8.05E-03	8.05E-03
43	1.61E-01	4.76E-02	2.18E-02	1.24E-02	8.49E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03
44	1.57E-01	4.65E-02	2.13E-02	1.21E-02	8.32E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03	7.69E-03
45	1.53E-01	4.55E-02	2.08E-02	1.18E-02	8.10E-03	7.50E-03	7.50E-03	7.50E-03	7.50E-03	7.50E-03
46	1.50E-01	4.45E-02	2.03E-02	1.16E-02	7.94E-03	7.35E-03	7.35E-03	7.35E-03	7.35E-03	7.35E-03
47	1.47E-01	4.35E-02	1.99E-02	1.13E-02	7.77E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03	7.20E-03
48	1.44E-01	4.26E-02	1.95E-02	1.11E-02	7.61E-03	7.05E-03	7.05E-03	7.05E-03	7.05E-03	7.05E-03
49	1.41E-01	4.17E-02	1.91E-02	1.09E-02	7.45E-03	6.90E-03	6.92E-03	6.92E-03	6.92E-03	6.92E-03
50	1.38E-01	4.09E-02	1.87E-02	1.06E-02	7.32E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS C
NO PRECIPITATION

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

DOWNWIND DISTANCE FROM PLANT

UPPER WIND SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.04E+01	3.52E+00	2.05E+00	1.44E+00	9.77E-01	7.03E-01	5.38E-01	4.56E-01	4.12E-01	3.74E-01
2	5.20E+00	2.25E+00	1.16E+00	7.21E-01	4.68E-01	3.54E-01	2.69E-01	2.28E-01	2.05E-01	1.87E-01
3	3.47E+00	1.50E+00	7.84E-01	4.81E-01	3.26E-01	2.36E-01	1.79E-01	1.52E-01	1.37E-01	1.25E-01
4	2.60E+00	1.13E+00	5.83E-01	3.60E-01	2.44E-01	1.77E-01	1.35E-01	1.14E-01	1.03E-01	9.31E-02
5	2.08E+00	9.01E-01	4.71E-01	2.88E-01	1.95E-01	1.42E-01	1.08E-01	9.12E-02	8.21E-02	7.47E-02
6	1.73E+00	7.50E-01	3.93E-01	2.40E-01	1.63E-01	1.18E-01	8.97E-02	7.60E-02	6.84E-02	6.22E-02
7	1.49E+00	6.43E-01	3.36E-01	2.06E-01	1.40E-01	1.01E-01	7.69E-02	6.51E-02	5.86E-02	5.34E-02
8	1.30E+00	5.63E-01	2.94E-01	1.80E-01	1.22E-01	8.85E-02	6.73E-02	5.70E-02	5.13E-02	4.67E-02
9	1.16E+00	5.00E-01	2.61E-01	1.60E-01	1.09E-01	7.87E-02	5.98E-02	5.06E-02	4.56E-02	4.15E-02
10	1.04E+00	4.50E-01	2.35E-01	1.44E-01	9.77E-02	7.08E-02	5.38E-02	4.56E-02	4.10E-02	3.74E-02
11	9.44E-01	4.09E-01	2.14E-01	1.31E-01	8.88E-02	6.44E-02	4.89E-02	4.14E-02	3.72E-02	3.40E-02
12	8.67E-01	3.75E-01	1.96E-01	1.20E-01	8.14E-02	5.90E-02	4.49E-02	3.80E-02	3.42E-02	3.11E-02
13	8.01E-01	3.46E-01	1.81E-01	1.11E-01	7.52E-02	5.45E-02	4.14E-02	3.51E-02	3.16E-02	2.87E-02
14	7.43E-01	3.22E-01	1.68E-01	1.03E-01	6.98E-02	5.05E-02	3.84E-02	3.26E-02	2.93E-02	2.67E-02
15	6.94E-01	3.02E-01	1.57E-01	9.61E-02	6.51E-02	4.72E-02	3.59E-02	3.04E-02	2.74E-02	2.49E-02
16	6.50E-01	2.81E-01	1.47E-01	9.01E-02	6.11E-02	4.43E-02	3.36E-02	2.85E-02	2.57E-02	2.34E-02
17	6.13E-01	2.65E-01	1.38E-01	8.48E-02	5.75E-02	4.16E-02	3.17E-02	2.68E-02	2.41E-02	2.20E-02
18	5.78E-01	2.50E-01	1.31E-01	8.01E-02	5.43E-02	3.93E-02	2.99E-02	2.53E-02	2.28E-02	2.08E-02
19	5.48E-01	2.37E-01	1.24E-01	7.59E-02	5.14E-02	3.72E-02	2.83E-02	2.40E-02	2.16E-02	1.97E-02
20	5.20E-01	2.25E-01	1.18E-01	7.21E-02	4.88E-02	3.54E-02	2.69E-02	2.28E-02	2.05E-02	1.87E-02
21	4.96E-01	2.14E-01	1.12E-01	6.87E-02	4.65E-02	3.37E-02	2.56E-02	2.17E-02	1.95E-02	1.78E-02
22	4.73E-01	2.05E-01	1.07E-01	6.55E-02	4.44E-02	3.22E-02	2.45E-02	2.07E-02	1.87E-02	1.70E-02
23	4.53E-01	1.96E-01	1.02E-01	6.27E-02	4.25E-02	3.08E-02	2.34E-02	1.98E-02	1.78E-02	1.63E-02
24	4.34E-01	1.88E-01	9.83E-02	6.01E-02	4.07E-02	2.95E-02	2.24E-02	1.90E-02	1.71E-02	1.56E-02
25	4.16E-01	1.80E-01	9.41E-02	5.77E-02	3.91E-02	2.83E-02	2.15E-02	1.82E-02	1.64E-02	1.49E-02
26	4.00E-01	1.73E-01	9.01E-02	5.55E-02	3.76E-02	2.72E-02	2.07E-02	1.75E-02	1.58E-02	1.44E-02
27	3.85E-01	1.67E-01	8.71E-02	5.34E-02	3.62E-02	2.62E-02	1.99E-02	1.69E-02	1.52E-02	1.38E-02
28	3.72E-01	1.61E-01	8.42E-02	5.15E-02	3.49E-02	2.53E-02	1.92E-02	1.63E-02	1.47E-02	1.33E-02
29	3.59E-01	1.55E-01	8.11E-02	4.97E-02	3.37E-02	2.44E-02	1.86E-02	1.57E-02	1.42E-02	1.29E-02
30	3.47E-01	1.50E-01	7.84E-02	4.81E-02	3.26E-02	2.36E-02	1.79E-02	1.52E-02	1.37E-02	1.25E-02
31	3.35E-01	1.45E-01	7.59E-02	4.65E-02	3.15E-02	2.28E-02	1.74E-02	1.47E-02	1.32E-02	1.21E-02
32	3.25E-01	1.41E-01	7.35E-02	4.51E-02	3.05E-02	2.21E-02	1.68E-02	1.42E-02	1.28E-02	1.17E-02
33	3.15E-01	1.36E-01	7.13E-02	4.37E-02	2.96E-02	2.15E-02	1.63E-02	1.38E-02	1.24E-02	1.13E-02
34	3.05E-01	1.32E-01	6.90E-02	4.24E-02	2.87E-02	2.08E-02	1.58E-02	1.34E-02	1.20E-02	1.10E-02
35	2.97E-01	1.29E-01	6.72E-02	4.12E-02	2.79E-02	2.02E-02	1.54E-02	1.30E-02	1.17E-02	1.07E-02
36	2.89E-01	1.25E-01	6.53E-02	4.00E-02	2.71E-02	1.97E-02	1.50E-02	1.27E-02	1.14E-02	1.04E-02
37	2.81E-01	1.22E-01	6.36E-02	3.89E-02	2.64E-02	1.91E-02	1.45E-02	1.23E-02	1.11E-02	1.01E-02
38	2.74E-01	1.18E-01	6.17E-02	3.77E-02	2.57E-02	1.86E-02	1.41E-02	1.19E-02	1.07E-02	9.83E-03
39	2.67E-01	1.15E-01	6.03E-02	3.70E-02	2.51E-02	1.81E-02	1.38E-02	1.17E-02	1.05E-02	9.61E-03
40	2.60E-01	1.12E-01	5.88E-02	3.60E-02	2.44E-02	1.77E-02	1.35E-02	1.14E-02	1.03E-02	9.34E-03
41	2.54E-01	1.10E-01	5.74E-02	3.51E-02	2.38E-02	1.73E-02	1.31E-02	1.11E-02	9.99E-03	9.11E-03
42	2.48E-01	1.07E-01	5.60E-02	3.43E-02	2.33E-02	1.69E-02	1.28E-02	1.08E-02	9.77E-03	8.92E-03
43	2.42E-01	1.05E-01	5.47E-02	3.35E-02	2.27E-02	1.65E-02	1.25E-02	1.06E-02	9.55E-03	8.72E-03
44	2.37E-01	1.02E-01	5.35E-02	3.28E-02	2.22E-02	1.61E-02	1.22E-02	1.04E-02	9.35E-03	8.54E-03
45	2.31E-01	1.00E-01	5.23E-02	3.20E-02	2.17E-02	1.57E-02	1.20E-02	1.01E-02	9.15E-03	8.35E-03
46	2.26E-01	9.77E-02	5.11E-02	3.13E-02	2.12E-02	1.54E-02	1.17E-02	9.91E-03	8.96E-03	8.17E-03
47	2.21E-01	9.58E-02	5.01E-02	3.07E-02	2.08E-02	1.51E-02	1.15E-02	9.72E-03	8.79E-03	7.99E-03
48	2.17E-01	9.38E-02	4.92E-02	3.02E-02	2.04E-02	1.48E-02	1.12E-02	9.55E-03	8.63E-03	7.83E-03
49	2.12E-01	9.19E-02	4.82E-02	2.96E-02	1.99E-02	1.44E-02	1.10E-02	9.39E-03	8.48E-03	7.69E-03
50	2.08E-01	9.01E-02	4.71E-02	2.89E-02	1.91E-02	1.42E-02	1.08E-02	9.12E-03	8.21E-03	7.47E-03

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS D
NO FUMIGATION

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT 1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.62E+00	4.93E+00	4.88E+00	4.15E+00	3.48E+00	2.93E+00	2.50E+00	2.16E+00	1.89E+00	1.67E+00
2	7.98E-01	2.45E+00	2.43E+00	2.07E+00	1.74E+00	1.47E+00	1.25E+00	1.08E+00	9.45E-01	8.34E-01
3	5.32E-01	1.64E+00	1.62E+00	1.38E+00	1.15E+00	9.77E-01	8.34E-01	7.20E-01	6.30E-01	5.56E-01
4	3.99E-01	1.23E+00	1.21E+00	1.04E+00	8.69E-01	7.33E-01	6.25E-01	5.40E-01	4.72E-01	4.17E-01
5	3.19E-01	9.81E-01	9.72E-01	8.32E-01	6.95E-01	5.86E-01	5.00E-01	4.32E-01	3.78E-01	3.34E-01
6	2.66E-01	8.20E-01	8.10E-01	6.93E-01	5.79E-01	4.88E-01	4.17E-01	3.60E-01	3.15E-01	2.78E-01
7	2.28E-01	7.24E-01	6.94E-01	5.93E-01	4.97E-01	4.19E-01	3.57E-01	3.09E-01	2.70E-01	2.38E-01
8	1.99E-01	6.16E-01	6.07E-01	5.19E-01	4.34E-01	3.66E-01	3.13E-01	2.70E-01	2.36E-01	2.09E-01
9	1.77E-01	5.48E-01	5.40E-01	4.61E-01	3.86E-01	3.26E-01	2.78E-01	2.40E-01	2.10E-01	1.85E-01
10	1.60E-01	4.93E-01	4.85E-01	4.15E-01	3.48E-01	2.93E-01	2.50E-01	2.16E-01	1.89E-01	1.67E-01
11	1.45E-01	4.48E-01	4.42E-01	3.77E-01	3.16E-01	2.66E-01	2.27E-01	1.96E-01	1.72E-01	1.52E-01
12	1.33E-01	4.11E-01	4.05E-01	3.46E-01	2.90E-01	2.44E-01	2.08E-01	1.80E-01	1.57E-01	1.39E-01
13	1.22E-01	3.79E-01	3.74E-01	3.19E-01	2.67E-01	2.25E-01	1.92E-01	1.66E-01	1.45E-01	1.28E-01
14	1.14E-01	3.52E-01	3.47E-01	2.96E-01	2.48E-01	2.09E-01	1.78E-01	1.54E-01	1.35E-01	1.19E-01
15	1.06E-01	3.29E-01	3.24E-01	2.77E-01	2.32E-01	1.95E-01	1.67E-01	1.44E-01	1.26E-01	1.11E-01
16	9.97E-02	3.08E-01	3.04E-01	2.59E-01	2.17E-01	1.83E-01	1.56E-01	1.35E-01	1.18E-01	1.04E-01
17	9.38E-02	2.92E-01	2.86E-01	2.44E-01	2.04E-01	1.72E-01	1.47E-01	1.27E-01	1.11E-01	9.82E-02
18	8.85E-02	2.74E-01	2.70E-01	2.31E-01	1.93E-01	1.63E-01	1.39E-01	1.20E-01	1.05E-01	9.27E-02
19	8.42E-02	2.59E-01	2.56E-01	2.19E-01	1.83E-01	1.54E-01	1.32E-01	1.14E-01	9.94E-02	8.78E-02
20	7.98E-02	2.46E-01	2.43E-01	2.07E-01	1.74E-01	1.47E-01	1.25E-01	1.08E-01	9.45E-02	8.34E-02
21	7.60E-02	2.35E-01	2.31E-01	1.96E-01	1.66E-01	1.40E-01	1.19E-01	1.03E-01	9.02E-02	7.96E-02
22	7.25E-02	2.24E-01	2.21E-01	1.89E-01	1.58E-01	1.33E-01	1.14E-01	9.83E-02	8.59E-02	7.58E-02
23	6.94E-02	2.14E-01	2.11E-01	1.80E-01	1.51E-01	1.27E-01	1.09E-01	9.39E-02	8.21E-02	7.24E-02
24	6.65E-02	2.05E-01	2.02E-01	1.73E-01	1.45E-01	1.22E-01	1.04E-01	9.02E-02	7.87E-02	6.95E-02
25	6.38E-02	1.97E-01	1.94E-01	1.66E-01	1.39E-01	1.17E-01	1.00E-01	8.64E-02	7.56E-02	6.67E-02
26	6.14E-02	1.90E-01	1.87E-01	1.60E-01	1.34E-01	1.13E-01	9.61E-02	8.31E-02	7.27E-02	6.42E-02
27	5.91E-02	1.83E-01	1.80E-01	1.54E-01	1.29E-01	1.09E-01	9.26E-02	8.02E-02	7.02E-02	6.18E-02
28	5.72E-02	1.76E-01	1.74E-01	1.49E-01	1.24E-01	1.05E-01	8.93E-02	7.73E-02	6.75E-02	5.95E-02
29	5.53E-02	1.70E-01	1.68E-01	1.43E-01	1.20E-01	1.01E-01	8.62E-02	7.45E-02	6.51E-02	5.75E-02
30	5.31E-02	1.64E-01	1.62E-01	1.38E-01	1.16E-01	9.77E-02	8.34E-02	7.22E-02	6.32E-02	5.56E-02
31	5.15E-02	1.59E-01	1.57E-01	1.34E-01	1.12E-01	9.41E-02	8.07E-02	6.97E-02	6.09E-02	5.38E-02
32	4.99E-02	1.54E-01	1.52E-01	1.30E-01	1.09E-01	9.16E-02	7.81E-02	6.75E-02	5.92E-02	5.21E-02
33	4.83E-02	1.49E-01	1.47E-01	1.26E-01	1.05E-01	8.88E-02	7.58E-02	6.55E-02	5.73E-02	5.06E-02
34	4.69E-02	1.45E-01	1.43E-01	1.22E-01	1.01E-01	8.63E-02	7.36E-02	6.36E-02	5.56E-02	4.91E-02
35	4.56E-02	1.41E-01	1.39E-01	1.19E-01	9.93E-02	8.37E-02	7.14E-02	6.17E-02	5.40E-02	4.77E-02
36	4.40E-02	1.37E-01	1.35E-01	1.15E-01	9.64E-02	8.14E-02	6.95E-02	6.02E-02	5.25E-02	4.64E-02
37	4.31E-02	1.33E-01	1.31E-01	1.12E-01	9.35E-02	7.92E-02	6.76E-02	5.84E-02	5.11E-02	4.51E-02
38	4.22E-02	1.30E-01	1.28E-01	1.09E-01	9.15E-02	7.71E-02	6.58E-02	5.69E-02	4.97E-02	4.37E-02
39	4.05E-02	1.26E-01	1.25E-01	1.06E-01	8.91E-02	7.51E-02	6.41E-02	5.54E-02	4.84E-02	4.26E-02
40	3.94E-02	1.23E-01	1.21E-01	1.04E-01	8.69E-02	7.33E-02	6.25E-02	5.40E-02	4.72E-02	4.17E-02
41	3.84E-02	1.20E-01	1.19E-01	1.01E-01	8.48E-02	7.15E-02	6.10E-02	5.27E-02	4.61E-02	4.07E-02
42	3.80E-02	1.17E-01	1.16E-01	9.85E-02	8.28E-02	6.98E-02	5.95E-02	5.14E-02	4.50E-02	3.97E-02
43	3.71E-02	1.15E-01	1.13E-01	9.61E-02	8.08E-02	6.81E-02	5.80E-02	5.01E-02	4.39E-02	3.88E-02
44	3.63E-02	1.12E-01	1.10E-01	9.43E-02	7.92E-02	6.68E-02	5.68E-02	4.91E-02	4.29E-02	3.79E-02
45	3.55E-02	1.10E-01	1.08E-01	9.22E-02	7.75E-02	6.53E-02	5.56E-02	4.80E-02	4.20E-02	3.71E-02
46	3.47E-02	1.07E-01	1.05E-01	9.02E-02	7.58E-02	6.39E-02	5.44E-02	4.70E-02	4.11E-02	3.63E-02
47	3.39E-02	1.05E-01	1.03E-01	8.83E-02	7.42E-02	6.25E-02	5.32E-02	4.60E-02	4.02E-02	3.55E-02
48	3.32E-02	1.03E-01	1.01E-01	8.65E-02	7.26E-02	6.12E-02	5.21E-02	4.50E-02	3.94E-02	3.47E-02
49	3.26E-02	1.01E-01	9.92E-02	8.47E-02	7.11E-02	5.98E-02	5.10E-02	4.41E-02	3.86E-02	3.41E-02
50	3.19E-02	9.89E-02	9.72E-02	8.30E-02	6.96E-02	5.85E-02	4.98E-02	4.31E-02	3.78E-02	3.34E-02

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS E
NO FUMIGATION

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	4.50E-02	1.41E+00	2.66E+00	3.14E+00	3.23E+00	3.13E+00	2.98E+00	2.80E+00	2.62E+00	2.45E+00
2	2.29E-02	7.06E-01	1.33E+00	1.57E+00	1.61E+00	1.57E+00	1.49E+00	1.40E+00	1.31E+00	1.23E+00
3	1.53E-02	4.71E-01	8.87E-01	1.05E+00	1.08E+00	1.04E+00	9.92E-01	9.33E-01	8.74E-01	8.18E-01
4	1.15E-02	3.53E-01	6.65E-01	7.86E-01	8.08E-01	7.84E-01	7.44E-01	7.00E-01	6.56E-01	6.14E-01
5	9.16E-03	2.83E-01	5.32E-01	6.29E-01	6.45E-01	6.27E-01	5.95E-01	5.60E-01	5.24E-01	4.91E-01
6	7.63E-03	2.35E-01	4.43E-01	5.24E-01	5.38E-01	5.22E-01	4.95E-01	4.67E-01	4.37E-01	4.09E-01
7	6.54E-03	2.02E-01	3.80E-01	4.49E-01	4.61E-01	4.48E-01	4.25E-01	4.00E-01	3.75E-01	3.51E-01
8	5.72E-03	1.77E-01	3.33E-01	3.93E-01	4.03E-01	3.92E-01	3.72E-01	3.50E-01	3.28E-01	3.07E-01
9	5.09E-03	1.57E-01	2.96E-01	3.49E-01	3.58E-01	3.48E-01	3.31E-01	3.11E-01	2.91E-01	2.73E-01
10	4.58E-03	1.41E-01	2.66E-01	3.14E-01	3.22E-01	3.13E-01	2.98E-01	2.80E-01	2.62E-01	2.46E-01
11	4.16E-03	1.28E-01	2.42E-01	2.86E-01	2.93E-01	2.85E-01	2.71E-01	2.54E-01	2.38E-01	2.23E-01
12	3.82E-03	1.18E-01	2.22E-01	2.62E-01	2.69E-01	2.61E-01	2.48E-01	2.33E-01	2.19E-01	2.05E-01
13	3.52E-03	1.08E-01	2.05E-01	2.42E-01	2.48E-01	2.41E-01	2.29E-01	2.15E-01	2.02E-01	1.89E-01
14	3.27E-03	1.01E-01	1.90E-01	2.25E-01	2.30E-01	2.24E-01	2.13E-01	2.00E-01	1.87E-01	1.75E-01
15	3.05E-03	9.42E-02	1.77E-01	2.10E-01	2.15E-01	2.09E-01	1.98E-01	1.87E-01	1.75E-01	1.64E-01
16	2.86E-03	8.83E-02	1.66E-01	1.97E-01	2.02E-01	1.96E-01	1.86E-01	1.75E-01	1.64E-01	1.53E-01
17	2.69E-03	8.31E-02	1.57E-01	1.85E-01	1.90E-01	1.84E-01	1.75E-01	1.65E-01	1.54E-01	1.44E-01
18	2.54E-03	7.85E-02	1.48E-01	1.75E-01	1.79E-01	1.74E-01	1.65E-01	1.56E-01	1.46E-01	1.36E-01
19	2.41E-03	7.44E-02	1.40E-01	1.65E-01	1.70E-01	1.65E-01	1.57E-01	1.47E-01	1.38E-01	1.29E-01
20	2.29E-03	7.08E-02	1.33E-01	1.57E-01	1.61E-01	1.57E-01	1.49E-01	1.40E-01	1.31E-01	1.22E-01
21	2.18E-03	6.72E-02	1.27E-01	1.50E-01	1.54E-01	1.49E-01	1.42E-01	1.33E-01	1.25E-01	1.17E-01
22	2.08E-03	6.42E-02	1.21E-01	1.43E-01	1.47E-01	1.42E-01	1.35E-01	1.27E-01	1.19E-01	1.12E-01
23	1.99E-03	6.14E-02	1.16E-01	1.37E-01	1.40E-01	1.36E-01	1.29E-01	1.22E-01	1.14E-01	1.07E-01
24	1.91E-03	5.89E-02	1.11E-01	1.31E-01	1.34E-01	1.31E-01	1.24E-01	1.17E-01	1.09E-01	1.02E-01
25	1.83E-03	5.65E-02	1.06E-01	1.26E-01	1.29E-01	1.25E-01	1.19E-01	1.12E-01	1.05E-01	9.82E-02
26	1.76E-03	5.43E-02	1.02E-01	1.21E-01	1.24E-01	1.21E-01	1.14E-01	1.08E-01	1.01E-01	9.44E-02
27	1.70E-03	5.22E-02	9.84E-02	1.16E-01	1.19E-01	1.16E-01	1.10E-01	1.04E-01	9.71E-02	9.07E-02
28	1.64E-03	5.02E-02	9.50E-02	1.12E-01	1.15E-01	1.12E-01	1.06E-01	1.00E-01	9.37E-02	8.77E-02
29	1.58E-03	4.87E-02	9.18E-02	1.08E-01	1.11E-01	1.08E-01	1.03E-01	9.65E-02	9.04E-02	8.46E-02
30	1.53E-03	4.71E-02	8.87E-02	1.05E-01	1.08E-01	1.04E-01	9.92E-02	9.33E-02	8.74E-02	8.18E-02
31	1.48E-03	4.58E-02	8.59E-02	1.01E-01	1.04E-01	1.01E-01	9.60E-02	9.03E-02	8.46E-02	7.92E-02
32	1.43E-03	4.42E-02	8.32E-02	9.80E-02	1.01E-01	9.80E-02	9.30E-02	8.75E-02	8.19E-02	7.67E-02
33	1.39E-03	4.29E-02	8.08E-02	9.53E-02	9.79E-02	9.50E-02	9.02E-02	8.48E-02	7.95E-02	7.44E-02
34	1.35E-03	4.16E-02	7.83E-02	9.23E-02	9.49E-02	9.21E-02	8.76E-02	8.23E-02	7.71E-02	7.22E-02
35	1.31E-03	4.03E-02	7.60E-02	8.96E-02	9.20E-02	8.93E-02	8.51E-02	8.00E-02	7.49E-02	7.01E-02
36	1.27E-03	3.93E-02	7.39E-02	8.72E-02	8.96E-02	8.71E-02	8.27E-02	7.78E-02	7.28E-02	6.81E-02
37	1.24E-03	3.82E-02	7.19E-02	8.50E-02	8.72E-02	8.47E-02	8.05E-02	7.57E-02	7.09E-02	6.63E-02
38	1.21E-03	3.72E-02	7.00E-02	8.27E-02	8.49E-02	8.25E-02	7.83E-02	7.37E-02	6.90E-02	6.45E-02
39	1.17E-03	3.60E-02	6.82E-02	8.06E-02	8.27E-02	8.04E-02	7.63E-02	7.18E-02	6.72E-02	6.29E-02
40	1.15E-03	3.53E-02	6.65E-02	7.86E-02	8.06E-02	7.84E-02	7.44E-02	7.00E-02	6.55E-02	6.14E-02
41	1.12E-03	3.45E-02	6.49E-02	7.67E-02	7.87E-02	7.65E-02	7.26E-02	6.83E-02	6.40E-02	5.99E-02
42	1.09E-03	3.36E-02	6.34E-02	7.49E-02	7.68E-02	7.46E-02	7.08E-02	6.66E-02	6.24E-02	5.84E-02
43	1.07E-03	3.29E-02	6.19E-02	7.31E-02	7.50E-02	7.29E-02	6.92E-02	6.51E-02	6.10E-02	5.71E-02
44	1.04E-03	3.21E-02	6.05E-02	7.15E-02	7.33E-02	7.12E-02	6.77E-02	6.36E-02	5.96E-02	5.58E-02
45	1.02E-03	3.14E-02	5.91E-02	6.97E-02	7.17E-02	6.97E-02	6.62E-02	6.22E-02	5.83E-02	5.46E-02
46	9.96E-04	3.07E-02	5.78E-02	6.84E-02	7.02E-02	6.81E-02	6.47E-02	6.09E-02	5.72E-02	5.36E-02
47	9.75E-04	3.01E-02	5.65E-02	6.67E-02	6.86E-02	6.67E-02	6.33E-02	5.96E-02	5.60E-02	5.25E-02
48	9.54E-04	2.94E-02	5.54E-02	6.53E-02	6.72E-02	6.53E-02	6.20E-02	5.84E-02	5.49E-02	5.15E-02
49	9.35E-04	2.87E-02	5.41E-02	6.41E-02	6.59E-02	6.40E-02	6.07E-02	5.71E-02	5.37E-02	5.03E-02
50	9.15E-04	2.83E-02	5.32E-02	6.27E-02	6.45E-02	6.27E-02	5.95E-02	5.60E-02	5.26E-02	4.93E-02

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS F
NO FUMIGATION

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	2.15E-06	1.73E-02	1.55E-01	3.79E-01	6.12E-01	8.12E-01	9.66E-01	1.08E+00	1.17E+00	1.23E+00
2	1.07E-06	8.64E-03	7.75E-02	1.89E-01	3.06E-01	4.05E-01	4.83E-01	5.41E-01	5.83E-01	6.13E-01
3	7.15E-07	5.76E-03	5.25E-02	1.26E-01	2.04E-01	2.70E-01	3.22E-01	3.61E-01	3.87E-01	4.07E-01
4	5.37E-07	4.32E-03	3.79E-02	9.47E-02	1.53E-01	2.03E-01	2.41E-01	2.71E-01	2.92E-01	3.07E-01
5	4.29E-07	3.46E-03	3.03E-02	7.58E-02	1.22E-01	1.62E-01	1.93E-01	2.16E-01	2.33E-01	2.45E-01
6	3.58E-07	2.88E-03	2.53E-02	6.31E-02	1.02E-01	1.35E-01	1.61E-01	1.80E-01	1.94E-01	2.04E-01
7	3.07E-07	2.47E-03	2.17E-02	5.41E-02	8.74E-02	1.16E-01	1.38E-01	1.55E-01	1.67E-01	1.75E-01
8	2.68E-07	2.16E-03	1.90E-02	4.74E-02	7.65E-02	1.01E-01	1.21E-01	1.35E-01	1.46E-01	1.53E-01
9	2.38E-07	1.92E-03	1.68E-02	4.21E-02	6.80E-02	9.00E-02	1.07E-01	1.20E-01	1.30E-01	1.36E-01
10	2.15E-07	1.73E-03	1.51E-02	3.79E-02	6.12E-02	8.10E-02	9.66E-02	1.08E-01	1.17E-01	1.23E-01
11	1.95E-07	1.57E-03	1.38E-02	3.44E-02	5.56E-02	7.37E-02	8.78E-02	9.84E-02	1.06E-01	1.11E-01
12	1.79E-07	1.44E-03	1.26E-02	3.16E-02	5.10E-02	6.75E-02	8.05E-02	9.02E-02	9.71E-02	1.02E-01
13	1.65E-07	1.33E-03	1.17E-02	2.91E-02	4.71E-02	6.23E-02	7.42E-02	8.32E-02	8.96E-02	9.43E-02
14	1.53E-07	1.23E-03	1.08E-02	2.70E-02	4.37E-02	5.79E-02	6.90E-02	7.73E-02	8.33E-02	8.76E-02
15	1.42E-07	1.15E-03	1.01E-02	2.52E-02	4.07E-02	5.40E-02	6.44E-02	7.21E-02	7.78E-02	8.18E-02
16	1.34E-07	1.08E-03	9.48E-03	2.37E-02	3.82E-02	5.06E-02	6.04E-02	6.76E-02	7.29E-02	7.67E-02
17	1.26E-07	1.02E-03	8.92E-03	2.22E-02	3.60E-02	4.77E-02	5.68E-02	6.37E-02	6.86E-02	7.21E-02
18	1.19E-07	9.60E-04	8.42E-03	2.10E-02	3.40E-02	4.50E-02	5.36E-02	6.01E-02	6.48E-02	6.81E-02
19	1.13E-07	9.12E-04	7.99E-03	1.99E-02	3.22E-02	4.26E-02	5.08E-02	5.70E-02	6.14E-02	6.46E-02
20	1.07E-07	8.64E-04	7.58E-03	1.89E-02	3.06E-02	4.05E-02	4.83E-02	5.41E-02	5.83E-02	6.13E-02
21	1.02E-07	8.22E-04	7.22E-03	1.80E-02	2.91E-02	3.86E-02	4.60E-02	5.15E-02	5.56E-02	5.84E-02
22	9.76E-08	7.86E-04	6.87E-03	1.72E-02	2.78E-02	3.68E-02	4.39E-02	4.92E-02	5.32E-02	5.57E-02
23	9.33E-08	7.51E-04	6.59E-03	1.65E-02	2.66E-02	3.52E-02	4.20E-02	4.71E-02	5.07E-02	5.32E-02
24	8.94E-08	7.20E-04	6.30E-03	1.58E-02	2.55E-02	3.38E-02	4.03E-02	4.51E-02	4.85E-02	5.11E-02
25	8.59E-08	6.91E-04	6.07E-03	1.52E-02	2.45E-02	3.24E-02	3.86E-02	4.33E-02	4.67E-02	4.91E-02
26	8.25E-08	6.65E-04	5.83E-03	1.46E-02	2.35E-02	3.12E-02	3.71E-02	4.16E-02	4.49E-02	4.72E-02
27	7.95E-08	6.42E-04	5.62E-03	1.42E-02	2.27E-02	3.02E-02	3.58E-02	4.01E-02	4.33E-02	4.54E-02
28	7.67E-08	6.17E-04	5.42E-03	1.35E-02	2.19E-02	2.89E-02	3.45E-02	3.87E-02	4.17E-02	4.38E-02
29	7.42E-08	5.96E-04	5.23E-03	1.31E-02	2.11E-02	2.79E-02	3.33E-02	3.73E-02	4.03E-02	4.23E-02
30	7.15E-08	5.76E-04	5.04E-03	1.26E-02	2.04E-02	2.72E-02	3.22E-02	3.61E-02	3.89E-02	4.09E-02
31	6.93E-08	5.57E-04	4.89E-03	1.22E-02	1.97E-02	2.61E-02	3.12E-02	3.49E-02	3.76E-02	3.94E-02
32	6.71E-08	5.40E-04	4.74E-03	1.18E-02	1.91E-02	2.53E-02	3.02E-02	3.38E-02	3.64E-02	3.82E-02
33	6.52E-08	5.24E-04	4.60E-03	1.15E-02	1.85E-02	2.46E-02	2.93E-02	3.28E-02	3.53E-02	3.71E-02
34	6.31E-08	5.08E-04	4.46E-03	1.11E-02	1.80E-02	2.38E-02	2.84E-02	3.18E-02	3.43E-02	3.61E-02
35	6.13E-08	4.94E-04	4.33E-03	1.08E-02	1.75E-02	2.31E-02	2.76E-02	3.09E-02	3.33E-02	3.50E-02
36	5.95E-08	4.80E-04	4.21E-03	1.04E-02	1.70E-02	2.25E-02	2.68E-02	3.01E-02	3.24E-02	3.41E-02
37	5.82E-08	4.67E-04	4.10E-03	1.02E-02	1.65E-02	2.19E-02	2.61E-02	2.93E-02	3.15E-02	3.31E-02
38	5.65E-08	4.55E-04	3.99E-03	9.97E-03	1.61E-02	2.13E-02	2.54E-02	2.85E-02	3.07E-02	3.23E-02
39	5.50E-08	4.43E-04	3.89E-03	9.71E-03	1.57E-02	2.08E-02	2.48E-02	2.78E-02	2.99E-02	3.14E-02
40	5.37E-08	4.32E-04	3.79E-03	9.47E-03	1.53E-02	2.03E-02	2.41E-02	2.71E-02	2.92E-02	3.07E-02
41	5.24E-08	4.22E-04	3.70E-03	9.24E-03	1.49E-02	1.98E-02	2.36E-02	2.64E-02	2.85E-02	2.99E-02
42	5.11E-08	4.11E-04	3.61E-03	9.01E-03	1.46E-02	1.93E-02	2.30E-02	2.58E-02	2.78E-02	2.92E-02
43	4.99E-08	4.02E-04	3.53E-03	8.81E-03	1.43E-02	1.88E-02	2.25E-02	2.52E-02	2.71E-02	2.85E-02
44	4.88E-08	3.93E-04	3.45E-03	8.61E-03	1.39E-02	1.84E-02	2.19E-02	2.46E-02	2.65E-02	2.78E-02
45	4.77E-08	3.84E-04	3.37E-03	8.42E-03	1.36E-02	1.80E-02	2.15E-02	2.40E-02	2.59E-02	2.72E-02
46	4.67E-08	3.75E-04	3.29E-03	8.24E-03	1.33E-02	1.76E-02	2.10E-02	2.35E-02	2.53E-02	2.66E-02
47	4.58E-08	3.68E-04	3.22E-03	8.04E-03	1.30E-02	1.72E-02	2.05E-02	2.30E-02	2.48E-02	2.61E-02
48	4.49E-08	3.60E-04	3.16E-03	7.87E-03	1.27E-02	1.68E-02	2.01E-02	2.25E-02	2.43E-02	2.56E-02
49	4.39E-08	3.53E-04	3.09E-03	7.73E-03	1.25E-02	1.65E-02	1.97E-02	2.21E-02	2.38E-02	2.51E-02
50	4.29E-08	3.46E-04	3.03E-03	7.58E-03	1.23E-02	1.62E-02	1.93E-02	2.16E-02	2.33E-02	2.45E-02

Reference Only

MANUAL SET

APPROVAL	
DATE	

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	
HNP - 4852	
REVISION NO	
4	
PAGE NO	
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VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS A

MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	3.34E+03	1.00E+03	1.25E+03	9.69E+02	9.69E+02	9.69E+02	9.69E+02	9.69E+02	9.69E+02	9.69E+02
2	1.66E+03	9.02E+02	6.24E+02	4.84E+02	4.84E+02	4.84E+02	4.84E+02	4.84E+02	4.84E+02	4.84E+02
3	1.12E+03	6.02E+02	4.16E+02	3.23E+02	3.23E+02	3.23E+02	3.23E+02	3.23E+02	3.23E+02	3.23E+02
4	8.41E+02	4.52E+02	3.13E+02	2.42E+02	2.42E+02	2.42E+02	2.42E+02	2.42E+02	2.42E+02	2.42E+02
5	6.73E+02	3.62E+02	2.50E+02	1.94E+02	1.94E+02	1.94E+02	1.94E+02	1.94E+02	1.94E+02	1.94E+02
6	5.61E+02	3.02E+02	2.08E+02	1.61E+02	1.61E+02	1.61E+02	1.61E+02	1.61E+02	1.61E+02	1.61E+02
7	4.80E+02	2.57E+02	1.78E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02
8	4.20E+02	2.25E+02	1.56E+02	1.21E+02	1.21E+02	1.21E+02	1.21E+02	1.21E+02	1.21E+02	1.21E+02
9	3.74E+02	2.00E+02	1.39E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
10	3.36E+02	1.80E+02	1.25E+02	9.69E+01	9.69E+01	9.69E+01	9.69E+01	9.69E+01	9.69E+01	9.69E+01
11	3.04E+02	1.64E+02	1.13E+02	8.81E+01	8.81E+01	8.81E+01	8.81E+01	8.81E+01	8.81E+01	8.81E+01
12	2.80E+02	1.50E+02	1.04E+02	8.07E+01	8.07E+01	8.07E+01	8.07E+01	8.07E+01	8.07E+01	8.07E+01
13	2.56E+02	1.38E+02	9.62E+01	7.45E+01	7.45E+01	7.45E+01	7.45E+01	7.45E+01	7.45E+01	7.45E+01
14	2.40E+02	1.29E+02	8.91E+01	6.92E+01	6.92E+01	6.92E+01	6.92E+01	6.92E+01	6.92E+01	6.92E+01
15	2.24E+02	1.20E+02	8.32E+01	6.46E+01	6.46E+01	6.46E+01	6.46E+01	6.46E+01	6.46E+01	6.46E+01
16	2.10E+02	1.12E+02	7.80E+01	6.05E+01	6.05E+01	6.05E+01	6.05E+01	6.05E+01	6.05E+01	6.05E+01
17	1.98E+02	1.05E+02	7.34E+01	5.70E+01	5.70E+01	5.70E+01	5.70E+01	5.70E+01	5.70E+01	5.70E+01
18	1.87E+02	10.00E+01	6.93E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01
19	1.77E+02	9.47E+01	6.57E+01	5.10E+01	5.10E+01	5.10E+01	5.10E+01	5.10E+01	5.10E+01	5.10E+01
20	1.66E+02	9.00E+01	6.24E+01	4.84E+01	4.84E+01	4.84E+01	4.84E+01	4.84E+01	4.84E+01	4.84E+01
21	1.60E+02	8.57E+01	5.94E+01	4.61E+01	4.61E+01	4.61E+01	4.61E+01	4.61E+01	4.61E+01	4.61E+01
22	1.53E+02	8.18E+01	5.67E+01	4.40E+01	4.40E+01	4.40E+01	4.40E+01	4.40E+01	4.40E+01	4.40E+01
23	1.46E+02	7.82E+01	5.43E+01	4.21E+01	4.21E+01	4.21E+01	4.21E+01	4.21E+01	4.21E+01	4.21E+01
24	1.40E+02	7.50E+01	5.20E+01	4.04E+01	4.04E+01	4.04E+01	4.04E+01	4.04E+01	4.04E+01	4.04E+01
25	1.35E+02	7.22E+01	4.99E+01	3.87E+01	3.87E+01	3.87E+01	3.87E+01	3.87E+01	3.87E+01	3.87E+01
26	1.29E+02	6.92E+01	4.80E+01	3.73E+01	3.73E+01	3.73E+01	3.73E+01	3.73E+01	3.73E+01	3.73E+01
27	1.25E+02	6.66E+01	4.62E+01	3.59E+01	3.59E+01	3.59E+01	3.59E+01	3.59E+01	3.59E+01	3.59E+01
28	1.20E+02	6.43E+01	4.46E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01
29	1.16E+02	6.20E+01	4.30E+01	3.34E+01	3.34E+01	3.34E+01	3.34E+01	3.34E+01	3.34E+01	3.34E+01
30	1.13E+02	6.02E+01	4.16E+01	3.23E+01	3.23E+01	3.23E+01	3.23E+01	3.23E+01	3.23E+01	3.23E+01
31	1.08E+02	5.82E+01	4.03E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01
32	1.05E+02	5.62E+01	3.90E+01	3.03E+01	3.03E+01	3.03E+01	3.03E+01	3.03E+01	3.03E+01	3.03E+01
33	1.01E+02	5.45E+01	3.78E+01	2.94E+01	2.94E+01	2.94E+01	2.94E+01	2.94E+01	2.94E+01	2.94E+01
34	9.69E+01	5.29E+01	3.67E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01
35	9.61E+01	5.14E+01	3.57E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01
36	9.34E+01	5.02E+01	3.47E+01	2.69E+01	2.69E+01	2.69E+01	2.69E+01	2.69E+01	2.69E+01	2.69E+01
37	9.09E+01	4.86E+01	3.37E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01
38	8.85E+01	4.73E+01	3.29E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01
39	8.63E+01	4.61E+01	3.20E+01	2.48E+01	2.48E+01	2.48E+01	2.48E+01	2.48E+01	2.48E+01	2.48E+01
40	8.41E+01	4.50E+01	3.12E+01	2.42E+01	2.42E+01	2.42E+01	2.42E+01	2.42E+01	2.42E+01	2.42E+01
41	8.20E+01	4.39E+01	3.04E+01	2.36E+01	2.36E+01	2.36E+01	2.36E+01	2.36E+01	2.36E+01	2.36E+01
42	8.01E+01	4.28E+01	2.97E+01	2.31E+01	2.31E+01	2.31E+01	2.31E+01	2.31E+01	2.31E+01	2.31E+01
43	7.82E+01	4.18E+01	2.90E+01	2.25E+01	2.25E+01	2.25E+01	2.25E+01	2.25E+01	2.25E+01	2.25E+01
44	7.64E+01	4.09E+01	2.84E+01	2.20E+01	2.20E+01	2.20E+01	2.20E+01	2.20E+01	2.20E+01	2.20E+01
45	7.47E+01	4.00E+01	2.77E+01	2.15E+01	2.15E+01	2.15E+01	2.15E+01	2.15E+01	2.15E+01	2.15E+01
46	7.31E+01	3.91E+01	2.71E+01	2.11E+01	2.11E+01	2.11E+01	2.11E+01	2.11E+01	2.11E+01	2.11E+01
47	7.16E+01	3.83E+01	2.65E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01
48	7.01E+01	3.75E+01	2.60E+01	2.02E+01	2.02E+01	2.02E+01	2.02E+01	2.02E+01	2.02E+01	2.02E+01
49	6.87E+01	3.67E+01	2.55E+01	1.98E+01	1.98E+01	1.98E+01	1.98E+01	1.98E+01	1.98E+01	1.98E+01
50	6.73E+01	3.60E+01	2.50E+01	1.94E+01	1.94E+01	1.94E+01	1.94E+01	1.94E+01	1.94E+01	1.94E+01

ORIGINAL
DATE

E. I. HATCH NUCLEAR PLANT

Georgia Power

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VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS B

MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	2.41E+04	6.09E+03	2.71E+03	1.53E+03	1.05E+03	9.69E+02	9.69E+02	9.69E+02	9.69E+02	9.69E+02
2	1.21E+04	3.04E+03	1.36E+03	7.63E+02	5.23E+02	4.84E+02	4.84E+02	4.84E+02	4.84E+02	4.84E+02
3	8.04E+03	2.02E+03	9.04E+02	5.07E+02	3.49E+02	3.23E+02	3.23E+02	3.23E+02	3.23E+02	3.23E+02
4	6.03E+03	1.52E+03	6.78E+02	3.81E+02	2.62E+02	2.42E+02	2.42E+02	2.42E+02	2.42E+02	2.42E+02
5	4.82E+03	1.22E+03	5.42E+02	3.05E+02	2.09E+02	1.94E+02	1.94E+02	1.94E+02	1.94E+02	1.94E+02
6	4.02E+03	1.01E+03	4.52E+02	2.54E+02	1.74E+02	1.61E+02	1.61E+02	1.61E+02	1.61E+02	1.61E+02
7	3.44E+03	8.69E+02	3.87E+02	2.18E+02	1.49E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02
8	3.01E+03	7.61E+02	3.39E+02	1.91E+02	1.31E+02	1.21E+02	1.21E+02	1.21E+02	1.21E+02	1.21E+02
9	2.68E+03	6.76E+02	3.01E+02	1.70E+02	1.16E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
10	2.41E+03	6.09E+02	2.71E+02	1.53E+02	1.05E+02	9.69E+01	9.69E+01	9.69E+01	9.69E+01	9.69E+01
11	2.19E+03	5.53E+02	2.46E+02	1.39E+02	9.51E+01	8.81E+01	8.81E+01	8.81E+01	8.81E+01	8.81E+01
12	2.01E+03	5.07E+02	2.26E+02	1.27E+02	8.72E+01	8.07E+01	8.07E+01	8.07E+01	8.07E+01	8.07E+01
13	1.85E+03	4.68E+02	2.09E+02	1.17E+02	8.05E+01	7.45E+01	7.45E+01	7.45E+01	7.45E+01	7.45E+01
14	1.72E+03	4.35E+02	1.94E+02	1.09E+02	7.47E+01	6.91E+01	6.91E+01	6.91E+01	6.91E+01	6.91E+01
15	1.61E+03	4.08E+02	1.81E+02	1.02E+02	6.97E+01	6.46E+01	6.46E+01	6.46E+01	6.46E+01	6.46E+01
16	1.51E+03	3.80E+02	1.69E+02	9.54E+01	6.54E+01	6.05E+01	6.05E+01	6.05E+01	6.05E+01	6.05E+01
17	1.42E+03	3.59E+02	1.59E+02	8.98E+01	6.15E+01	5.70E+01	5.70E+01	5.70E+01	5.70E+01	5.70E+01
18	1.34E+03	3.38E+02	1.51E+02	8.48E+01	5.81E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01
19	1.27E+03	3.20E+02	1.43E+02	8.03E+01	5.51E+01	5.10E+01	5.10E+01	5.10E+01	5.10E+01	5.10E+01
20	1.21E+03	3.04E+02	1.36E+02	7.63E+01	5.23E+01	4.84E+01	4.84E+01	4.84E+01	4.84E+01	4.84E+01
21	1.15E+03	2.90E+02	1.29E+02	7.27E+01	4.98E+01	4.61E+01	4.61E+01	4.61E+01	4.61E+01	4.61E+01
22	1.10E+03	2.77E+02	1.23E+02	6.94E+01	4.75E+01	4.40E+01	4.40E+01	4.40E+01	4.40E+01	4.40E+01
23	1.05E+03	2.65E+02	1.18E+02	6.64E+01	4.55E+01	4.21E+01	4.21E+01	4.21E+01	4.21E+01	4.21E+01
24	1.02E+03	2.54E+02	1.13E+02	6.38E+01	4.36E+01	4.04E+01	4.04E+01	4.04E+01	4.04E+01	4.04E+01
25	9.84E+02	2.43E+02	1.09E+02	6.11E+01	4.18E+01	3.87E+01	3.87E+01	3.87E+01	3.87E+01	3.87E+01
26	9.47E+02	2.34E+02	1.04E+02	5.87E+01	4.02E+01	3.73E+01	3.73E+01	3.73E+01	3.73E+01	3.73E+01
27	8.93E+02	2.25E+02	1.00E+02	5.65E+01	3.87E+01	3.59E+01	3.59E+01	3.59E+01	3.59E+01	3.59E+01
28	8.61E+02	2.17E+02	9.68E+01	5.45E+01	3.74E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01
29	8.31E+02	2.10E+02	9.35E+01	5.26E+01	3.61E+01	3.34E+01	3.34E+01	3.34E+01	3.34E+01	3.34E+01
30	8.04E+02	2.03E+02	9.04E+01	5.07E+01	3.49E+01	3.23E+01	3.23E+01	3.23E+01	3.23E+01	3.23E+01
31	7.78E+02	1.96E+02	8.75E+01	4.92E+01	3.37E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01
32	7.53E+02	1.90E+02	8.47E+01	4.77E+01	3.27E+01	3.03E+01	3.03E+01	3.03E+01	3.03E+01	3.03E+01
33	7.31E+02	1.84E+02	8.22E+01	4.63E+01	3.17E+01	2.94E+01	2.94E+01	2.94E+01	2.94E+01	2.94E+01
34	7.09E+02	1.79E+02	7.97E+01	4.49E+01	3.08E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01
35	6.89E+02	1.74E+02	7.75E+01	4.36E+01	2.99E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01
36	6.72E+02	1.69E+02	7.53E+01	4.24E+01	2.91E+01	2.69E+01	2.69E+01	2.69E+01	2.69E+01	2.69E+01
37	6.52E+02	1.64E+02	7.33E+01	4.12E+01	2.83E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01
38	6.34E+02	1.60E+02	7.13E+01	4.01E+01	2.75E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01
39	6.19E+02	1.56E+02	6.95E+01	3.91E+01	2.68E+01	2.48E+01	2.48E+01	2.48E+01	2.48E+01	2.48E+01
40	6.03E+02	1.51E+02	6.78E+01	3.81E+01	2.61E+01	2.41E+01	2.41E+01	2.41E+01	2.41E+01	2.41E+01
41	5.85E+02	1.48E+02	6.61E+01	3.72E+01	2.55E+01	2.36E+01	2.36E+01	2.36E+01	2.36E+01	2.36E+01
42	5.74E+02	1.45E+02	6.45E+01	3.63E+01	2.49E+01	2.31E+01	2.31E+01	2.31E+01	2.31E+01	2.31E+01
43	5.61E+02	1.42E+02	6.31E+01	3.55E+01	2.43E+01	2.25E+01	2.25E+01	2.25E+01	2.25E+01	2.25E+01
44	5.49E+02	1.38E+02	6.16E+01	3.47E+01	2.38E+01	2.20E+01	2.20E+01	2.20E+01	2.20E+01	2.20E+01
45	5.39E+02	1.35E+02	6.03E+01	3.39E+01	2.33E+01	2.15E+01	2.15E+01	2.15E+01	2.15E+01	2.15E+01
46	5.29E+02	1.33E+02	5.89E+01	3.32E+01	2.27E+01	2.11E+01	2.11E+01	2.11E+01	2.11E+01	2.11E+01
47	5.13E+02	1.29E+02	5.77E+01	3.25E+01	2.22E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01
48	5.01E+02	1.27E+02	5.65E+01	3.18E+01	2.18E+01	2.02E+01	2.02E+01	2.02E+01	2.02E+01	2.02E+01
49	4.91E+02	1.24E+02	5.53E+01	3.11E+01	2.13E+01	1.98E+01	1.98E+01	1.98E+01	1.98E+01	1.98E+01
50	4.81E+02	1.22E+02	5.42E+01	3.05E+01	2.09E+01	1.94E+01	1.94E+01	1.94E+01	1.94E+01	1.94E+01

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS C

MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	5.24E+04	1.51E+04	7.22E+03	4.29E+03	2.85E+03	2.06E+03	1.56E+03	1.31E+03	1.18E+03	1.07E+03
2	2.61E+04	7.53E+03	3.61E+03	2.15E+03	1.43E+03	1.03E+03	7.78E+02	6.57E+02	5.92E+02	5.31E+02
3	1.75E+04	5.02E+03	2.41E+03	1.43E+03	9.55E+02	6.88E+02	5.19E+02	4.38E+02	3.93E+02	3.57E+02
4	1.31E+04	3.76E+03	1.81E+03	1.07E+03	7.16E+02	5.15E+02	3.89E+02	3.28E+02	2.95E+02	2.68E+02
5	1.05E+04	3.01E+03	1.45E+03	8.58E+02	5.73E+02	4.12E+02	3.11E+02	2.63E+02	2.36E+02	2.14E+02
6	8.73E+03	2.51E+03	1.20E+03	7.15E+02	4.77E+02	3.43E+02	2.59E+02	2.19E+02	1.97E+02	1.79E+02
7	7.49E+03	2.15E+03	1.03E+03	6.13E+02	4.09E+02	2.94E+02	2.22E+02	1.88E+02	1.69E+02	1.53E+02
8	6.55E+03	1.88E+03	9.03E+02	5.37E+02	3.58E+02	2.57E+02	1.95E+02	1.64E+02	1.47E+02	1.34E+02
9	5.82E+03	1.67E+03	8.03E+02	4.77E+02	3.18E+02	2.29E+02	1.73E+02	1.46E+02	1.31E+02	1.19E+02
10	5.24E+03	1.51E+03	7.23E+02	4.29E+02	2.86E+02	2.06E+02	1.56E+02	1.31E+02	1.18E+02	1.07E+02
11	4.76E+03	1.37E+03	6.57E+02	3.90E+02	2.60E+02	1.87E+02	1.41E+02	1.19E+02	1.07E+02	9.74E+01
12	4.37E+03	1.25E+03	6.02E+02	3.58E+02	2.38E+02	1.71E+02	1.30E+02	1.09E+02	9.83E+01	8.93E+01
13	4.03E+03	1.16E+03	5.56E+02	3.30E+02	2.20E+02	1.58E+02	1.20E+02	1.01E+02	9.07E+01	8.24E+01
14	3.74E+03	1.08E+03	5.16E+02	3.07E+02	2.05E+02	1.47E+02	1.11E+02	9.38E+01	8.43E+01	7.66E+01
15	3.49E+03	1.02E+03	4.82E+02	2.86E+02	1.91E+02	1.37E+02	1.04E+02	8.76E+01	7.86E+01	7.15E+01
16	3.28E+03	9.41E+02	4.52E+02	2.68E+02	1.79E+02	1.29E+02	9.73E+01	8.21E+01	7.37E+01	6.72E+01
17	3.09E+03	8.89E+02	4.25E+02	2.52E+02	1.68E+02	1.21E+02	9.15E+01	7.72E+01	6.94E+01	6.32E+01
18	2.91E+03	8.38E+02	4.02E+02	2.38E+02	1.59E+02	1.14E+02	8.65E+01	7.30E+01	6.55E+01	5.95E+01
19	2.76E+03	7.92E+02	3.82E+02	2.26E+02	1.51E+02	1.08E+02	8.19E+01	6.91E+01	6.21E+01	5.64E+01
20	2.62E+03	7.52E+02	3.61E+02	2.15E+02	1.43E+02	1.03E+02	7.78E+01	6.57E+01	5.90E+01	5.36E+01
21	2.50E+03	7.17E+02	3.44E+02	2.04E+02	1.36E+02	9.82E+01	7.41E+01	6.26E+01	5.62E+01	5.10E+01
22	2.38E+03	6.84E+02	3.29E+02	1.95E+02	1.30E+02	9.36E+01	7.07E+01	5.97E+01	5.36E+01	4.87E+01
23	2.28E+03	6.54E+02	3.14E+02	1.87E+02	1.25E+02	8.95E+01	6.77E+01	5.71E+01	5.12E+01	4.66E+01
24	2.18E+03	6.27E+02	3.01E+02	1.79E+02	1.19E+02	8.58E+01	6.48E+01	5.47E+01	4.92E+01	4.47E+01
25	2.12E+03	6.02E+02	2.89E+02	1.72E+02	1.15E+02	8.23E+01	6.23E+01	5.25E+01	4.72E+01	4.29E+01
26	2.03E+03	5.79E+02	2.78E+02	1.65E+02	1.10E+02	7.92E+01	5.99E+01	5.05E+01	4.54E+01	4.13E+01
27	1.94E+03	5.57E+02	2.68E+02	1.59E+02	1.06E+02	7.62E+01	5.76E+01	4.86E+01	4.37E+01	3.97E+01
28	1.87E+03	5.38E+02	2.58E+02	1.53E+02	1.02E+02	7.35E+01	5.55E+01	4.69E+01	4.21E+01	3.83E+01
29	1.81E+03	5.19E+02	2.49E+02	1.48E+02	9.88E+01	7.10E+01	5.37E+01	4.53E+01	4.07E+01	3.70E+01
30	1.75E+03	5.02E+02	2.41E+02	1.43E+02	9.55E+01	6.86E+01	5.19E+01	4.38E+01	3.93E+01	3.57E+01
31	1.69E+03	4.85E+02	2.33E+02	1.38E+02	9.24E+01	6.64E+01	5.02E+01	4.24E+01	3.81E+01	3.46E+01
32	1.64E+03	4.70E+02	2.26E+02	1.34E+02	8.95E+01	6.43E+01	4.85E+01	4.10E+01	3.69E+01	3.35E+01
33	1.59E+03	4.56E+02	2.19E+02	1.30E+02	8.68E+01	6.24E+01	4.72E+01	3.98E+01	3.57E+01	3.25E+01
34	1.54E+03	4.43E+02	2.13E+02	1.25E+02	8.42E+01	6.05E+01	4.58E+01	3.86E+01	3.47E+01	3.15E+01
35	1.50E+03	4.32E+02	2.07E+02	1.22E+02	8.18E+01	5.88E+01	4.45E+01	3.75E+01	3.37E+01	3.06E+01
36	1.46E+03	4.18E+02	2.01E+02	1.19E+02	7.96E+01	5.72E+01	4.33E+01	3.65E+01	3.28E+01	2.98E+01
37	1.42E+03	4.07E+02	1.95E+02	1.16E+02	7.74E+01	5.56E+01	4.21E+01	3.55E+01	3.19E+01	2.90E+01
38	1.38E+03	3.96E+02	1.90E+02	1.13E+02	7.54E+01	5.42E+01	4.10E+01	3.46E+01	3.10E+01	2.82E+01
39	1.34E+03	3.86E+02	1.85E+02	1.10E+02	7.34E+01	5.28E+01	3.99E+01	3.37E+01	3.02E+01	2.75E+01
40	1.31E+03	3.76E+02	1.81E+02	1.07E+02	7.16E+01	5.15E+01	3.89E+01	3.28E+01	2.95E+01	2.68E+01
41	1.28E+03	3.67E+02	1.76E+02	1.05E+02	6.97E+01	5.01E+01	3.80E+01	3.20E+01	2.87E+01	2.61E+01
42	1.25E+03	3.59E+02	1.72E+02	1.02E+02	6.82E+01	4.90E+01	3.71E+01	3.13E+01	2.81E+01	2.55E+01
43	1.22E+03	3.50E+02	1.68E+02	9.98E+01	6.66E+01	4.79E+01	3.62E+01	3.05E+01	2.74E+01	2.49E+01
44	1.19E+03	3.42E+02	1.64E+02	9.75E+01	6.51E+01	4.68E+01	3.54E+01	2.98E+01	2.68E+01	2.44E+01
45	1.16E+03	3.34E+02	1.61E+02	9.54E+01	6.37E+01	4.57E+01	3.46E+01	2.92E+01	2.62E+01	2.38E+01
46	1.14E+03	3.27E+02	1.57E+02	9.33E+01	6.23E+01	4.47E+01	3.38E+01	2.85E+01	2.56E+01	2.33E+01
47	1.11E+03	3.22E+02	1.54E+02	9.12E+01	6.09E+01	4.37E+01	3.31E+01	2.79E+01	2.51E+01	2.28E+01
48	1.09E+03	3.14E+02	1.51E+02	8.94E+01	5.97E+01	4.28E+01	3.24E+01	2.74E+01	2.46E+01	2.23E+01
49	1.07E+03	3.07E+02	1.48E+02	8.76E+01	5.85E+01	4.20E+01	3.18E+01	2.68E+01	2.41E+01	2.19E+01
50	1.05E+03	3.01E+02	1.45E+02	8.58E+01	5.73E+01	4.12E+01	3.11E+01	2.63E+01	2.36E+01	2.14E+01

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS D

MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.25E+05	5.10E+04	2.97E+04	2.01E+04	1.48E+04	1.15E+04	9.20E+03	7.72E+03	6.55E+03	5.65E+03
2	6.23E+04	2.55E+04	1.49E+04	1.01E+04	7.41E+03	5.75E+03	4.65E+03	3.86E+03	3.27E+03	2.83E+03
3	4.15E+04	1.70E+04	9.92E+03	6.72E+03	4.94E+03	3.84E+03	3.10E+03	2.57E+03	2.18E+03	1.88E+03
4	3.11E+04	1.27E+04	7.43E+03	5.03E+03	3.70E+03	2.88E+03	2.33E+03	1.93E+03	1.64E+03	1.41E+03
5	2.61E+04	1.05E+04	6.08E+03	4.09E+03	3.01E+03	2.33E+03	1.88E+03	1.56E+03	1.32E+03	1.14E+03
6	2.35E+04	9.17E+03	5.24E+03	3.51E+03	2.58E+03	1.98E+03	1.59E+03	1.33E+03	1.13E+03	9.81E+02
7	2.15E+04	8.15E+03	4.62E+03	3.07E+03	2.24E+03	1.72E+03	1.39E+03	1.15E+03	9.86E+02	8.53E+02
8	1.98E+04	7.36E+03	4.13E+03	2.74E+03	1.99E+03	1.53E+03	1.23E+03	1.01E+03	8.54E+02	7.31E+02
9	1.84E+04	6.72E+03	3.74E+03	2.47E+03	1.79E+03	1.37E+03	1.10E+03	9.06E+02	7.65E+02	6.57E+02
10	1.72E+04	6.19E+03	3.42E+03	2.25E+03	1.62E+03	1.25E+03	9.95E+02	8.21E+02	6.90E+02	5.95E+02
11	1.61E+04	5.74E+03	3.15E+03	2.08E+03	1.49E+03	1.14E+03	9.10E+02	7.51E+02	6.32E+02	5.45E+02
12	1.51E+04	5.35E+03	2.92E+03	1.91E+03	1.38E+03	1.05E+03	8.40E+02	6.93E+02	5.83E+02	5.03E+02
13	1.42E+04	4.92E+03	2.71E+03	1.77E+03	1.28E+03	9.76E+02	7.77E+02	6.41E+02	5.40E+02	4.65E+02
14	1.30E+04	4.60E+03	2.52E+03	1.64E+03	1.18E+03	9.06E+02	7.22E+02	5.95E+02	5.01E+02	4.32E+02
15	1.21E+04	4.29E+03	2.35E+03	1.54E+03	1.11E+03	8.46E+02	6.75E+02	5.55E+02	4.68E+02	4.03E+02
16	1.14E+04	4.03E+03	2.20E+03	1.44E+03	1.04E+03	7.93E+02	6.33E+02	5.21E+02	4.39E+02	3.78E+02
17	1.07E+04	3.79E+03	2.07E+03	1.35E+03	9.75E+02	7.48E+02	5.96E+02	4.90E+02	4.13E+02	3.56E+02
18	1.01E+04	3.58E+03	1.96E+03	1.28E+03	9.21E+02	7.07E+02	5.63E+02	4.63E+02	3.90E+02	3.36E+02
19	9.56E+03	3.39E+03	1.85E+03	1.21E+03	8.73E+02	6.69E+02	5.33E+02	4.38E+02	3.69E+02	3.17E+02
20	9.08E+03	3.22E+03	1.76E+03	1.15E+03	8.29E+02	6.34E+02	5.05E+02	4.16E+02	3.51E+02	3.01E+02
21	8.65E+03	3.07E+03	1.68E+03	1.10E+03	7.89E+02	6.04E+02	4.81E+02	3.97E+02	3.34E+02	2.87E+02
22	8.26E+03	2.93E+03	1.62E+03	1.05E+03	7.54E+02	5.77E+02	4.60E+02	3.79E+02	3.19E+02	2.73E+02
23	7.92E+03	2.80E+03	1.53E+03	1.00E+03	7.21E+02	5.51E+02	4.40E+02	3.63E+02	3.05E+02	2.61E+02
24	7.57E+03	2.68E+03	1.47E+03	9.59E+02	6.91E+02	5.29E+02	4.22E+02	3.47E+02	2.93E+02	2.51E+02
25	7.27E+03	2.55E+03	1.41E+03	9.21E+02	6.63E+02	5.07E+02	4.05E+02	3.33E+02	2.81E+02	2.41E+02
26	6.99E+03	2.49E+03	1.36E+03	8.86E+02	6.38E+02	4.88E+02	3.89E+02	3.20E+02	2.70E+02	2.31E+02
27	6.72E+03	2.38E+03	1.31E+03	8.53E+02	6.14E+02	4.70E+02	3.75E+02	3.08E+02	2.60E+02	2.22E+02
28	6.49E+03	2.30E+03	1.26E+03	8.21E+02	5.91E+02	4.53E+02	3.61E+02	2.97E+02	2.51E+02	2.15E+02
29	6.26E+03	2.22E+03	1.22E+03	7.94E+02	5.72E+02	4.37E+02	3.49E+02	2.87E+02	2.42E+02	2.07E+02
30	6.05E+03	2.15E+03	1.17E+03	7.68E+02	5.53E+02	4.23E+02	3.37E+02	2.78E+02	2.34E+02	2.01E+02
31	5.86E+03	2.08E+03	1.14E+03	7.43E+02	5.35E+02	4.09E+02	3.27E+02	2.69E+02	2.26E+02	1.94E+02
32	5.68E+03	2.01E+03	1.10E+03	7.22E+02	5.18E+02	3.95E+02	3.16E+02	2.60E+02	2.19E+02	1.88E+02
33	5.50E+03	1.95E+03	1.07E+03	6.99E+02	5.03E+02	3.84E+02	3.07E+02	2.53E+02	2.13E+02	1.82E+02
34	5.34E+03	1.89E+03	1.04E+03	6.77E+02	4.88E+02	3.73E+02	2.98E+02	2.45E+02	2.06E+02	1.77E+02
35	5.19E+03	1.84E+03	1.01E+03	6.58E+02	4.74E+02	3.62E+02	2.89E+02	2.38E+02	2.00E+02	1.72E+02
36	5.05E+03	1.79E+03	9.79E+02	6.40E+02	4.61E+02	3.52E+02	2.81E+02	2.31E+02	1.95E+02	1.67E+02
37	4.91E+03	1.74E+03	9.52E+02	6.22E+02	4.48E+02	3.43E+02	2.74E+02	2.25E+02	1.89E+02	1.63E+02
38	4.78E+03	1.69E+03	9.27E+02	6.06E+02	4.36E+02	3.34E+02	2.66E+02	2.19E+02	1.84E+02	1.58E+02
39	4.66E+03	1.65E+03	9.03E+02	5.90E+02	4.25E+02	3.25E+02	2.60E+02	2.14E+02	1.79E+02	1.54E+02
40	4.54E+03	1.61E+03	8.81E+02	5.76E+02	4.14E+02	3.17E+02	2.53E+02	2.08E+02	1.75E+02	1.50E+02
41	4.43E+03	1.57E+03	8.59E+02	5.61E+02	4.04E+02	3.09E+02	2.47E+02	2.03E+02	1.71E+02	1.47E+02
42	4.33E+03	1.53E+03	8.39E+02	5.48E+02	3.95E+02	3.02E+02	2.41E+02	1.98E+02	1.67E+02	1.43E+02
43	4.23E+03	1.50E+03	8.19E+02	5.35E+02	3.85E+02	2.95E+02	2.35E+02	1.94E+02	1.63E+02	1.40E+02
44	4.13E+03	1.46E+03	8.01E+02	5.23E+02	3.77E+02	2.88E+02	2.30E+02	1.89E+02	1.59E+02	1.37E+02
45	4.04E+03	1.43E+03	7.83E+02	5.11E+02	3.68E+02	2.81E+02	2.25E+02	1.85E+02	1.56E+02	1.34E+02
46	3.95E+03	1.40E+03	7.66E+02	5.01E+02	3.60E+02	2.75E+02	2.20E+02	1.81E+02	1.52E+02	1.31E+02
47	3.87E+03	1.37E+03	7.50E+02	4.90E+02	3.52E+02	2.70E+02	2.15E+02	1.77E+02	1.49E+02	1.28E+02
48	3.79E+03	1.34E+03	7.34E+02	4.80E+02	3.45E+02	2.64E+02	2.11E+02	1.74E+02	1.46E+02	1.25E+02
49	3.71E+03	1.31E+03	7.19E+02	4.70E+02	3.38E+02	2.59E+02	2.07E+02	1.70E+02	1.43E+02	1.23E+02
50	3.63E+03	1.29E+03	7.05E+02	4.61E+02	3.31E+02	2.54E+02	2.03E+02	1.67E+02	1.40E+02	1.20E+02

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS E

MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.92E+05	8.91E+04	5.65E+04	4.06E+04	3.12E+04	2.52E+04	2.10E+04	1.79E+04	1.55E+04	1.37E+04
2	9.51E+04	4.45E+04	2.82E+04	2.03E+04	1.55E+04	1.26E+04	1.05E+04	8.94E+03	7.75E+03	6.83E+03
3	6.34E+04	2.97E+04	1.88E+04	1.35E+04	1.03E+04	8.40E+03	6.99E+03	5.96E+03	5.17E+03	4.55E+03
4	4.78E+04	2.23E+04	1.41E+04	1.01E+04	7.81E+03	6.30E+03	5.24E+03	4.47E+03	3.88E+03	3.41E+03
5	4.14E+04	1.89E+04	1.18E+04	8.42E+03	6.45E+03	5.18E+03	4.32E+03	3.65E+03	3.17E+03	2.78E+03
6	3.95E+04	1.72E+04	1.05E+04	7.42E+03	5.64E+03	4.52E+03	3.71E+03	3.15E+03	2.72E+03	2.35E+03
7	3.77E+04	1.58E+04	9.52E+03	6.62E+03	5.02E+03	3.97E+03	3.27E+03	2.76E+03	2.38E+03	2.08E+03
8	3.61E+04	1.46E+04	8.68E+03	5.99E+03	4.50E+03	3.56E+03	2.92E+03	2.46E+03	2.12E+03	1.84E+03
9	3.44E+04	1.36E+04	7.97E+03	5.47E+03	4.09E+03	3.22E+03	2.64E+03	2.22E+03	1.91E+03	1.65E+03
10	3.32E+04	1.27E+04	7.37E+03	5.03E+03	3.74E+03	2.94E+03	2.41E+03	2.02E+03	1.73E+03	1.51E+03
11	3.20E+04	1.22E+04	6.88E+03	4.65E+03	3.45E+03	2.71E+03	2.21E+03	1.86E+03	1.58E+03	1.39E+03
12	2.97E+04	1.12E+04	6.41E+03	4.33E+03	3.22E+03	2.51E+03	2.05E+03	1.71E+03	1.47E+03	1.28E+03
13	2.74E+04	1.04E+04	5.93E+03	4.01E+03	2.97E+03	2.32E+03	1.90E+03	1.59E+03	1.36E+03	1.19E+03
14	2.54E+04	9.63E+03	5.51E+03	3.73E+03	2.76E+03	2.15E+03	1.76E+03	1.48E+03	1.26E+03	1.10E+03
15	2.37E+04	8.95E+03	5.14E+03	3.48E+03	2.57E+03	2.01E+03	1.64E+03	1.38E+03	1.18E+03	1.03E+03
16	2.20E+04	8.43E+03	4.82E+03	3.26E+03	2.41E+03	1.88E+03	1.54E+03	1.29E+03	1.11E+03	9.63E+02
17	2.05E+04	7.93E+03	4.54E+03	3.07E+03	2.27E+03	1.78E+03	1.45E+03	1.22E+03	1.04E+03	9.06E+02
18	1.95E+04	7.49E+03	4.28E+03	2.92E+03	2.15E+03	1.68E+03	1.37E+03	1.15E+03	9.87E+02	8.56E+02
19	1.87E+04	7.10E+03	4.06E+03	2.75E+03	2.03E+03	1.59E+03	1.30E+03	1.09E+03	9.31E+02	8.11E+02
20	1.78E+04	6.74E+03	3.85E+03	2.61E+03	1.93E+03	1.51E+03	1.23E+03	1.03E+03	8.85E+02	7.70E+02
21	1.72E+04	6.42E+03	3.67E+03	2.48E+03	1.84E+03	1.44E+03	1.17E+03	9.8+E+02	6.43E+02	7.34E+02
22	1.62E+04	6.13E+03	3.51E+03	2.37E+03	1.76E+03	1.38E+03	1.12E+03	9.39E+02	8.04E+02	7.02E+02
23	1.55E+04	5.86E+03	3.35E+03	2.27E+03	1.68E+03	1.32E+03	1.07E+03	8.98E+02	7.69E+02	6.72E+02
24	1.48E+04	5.61E+03	3.21E+03	2.17E+03	1.61E+03	1.26E+03	1.03E+03	8.61E+02	7.37E+02	6.42E+02
25	1.42E+04	5.39E+03	3.09E+03	2.09E+03	1.54E+03	1.21E+03	9.86E+02	8.27E+02	7.08E+02	6.16E+02
26	1.37E+04	5.19E+03	2.97E+03	2.01E+03	1.49E+03	1.16E+03	9.48E+02	7.95E+02	6.80E+02	5.93E+02
27	1.32E+04	4.99E+03	2.85E+03	1.93E+03	1.43E+03	1.12E+03	9.13E+02	7.65E+02	6.55E+02	5.71E+02
28	1.27E+04	4.81E+03	2.75E+03	1.85E+03	1.38E+03	1.08E+03	8.81E+02	7.38E+02	6.31E+02	5.50E+02
29	1.22E+04	4.65E+03	2.66E+03	1.80E+03	1.33E+03	1.04E+03	8.52E+02	7.13E+02	6.10E+02	5.31E+02
30	1.17E+04	4.49E+03	2.57E+03	1.74E+03	1.29E+03	1.01E+03	8.23E+02	6.89E+02	5.90E+02	5.14E+02
31	1.15E+04	4.35E+03	2.49E+03	1.68E+03	1.25E+03	9.76E+02	7.97E+02	6.67E+02	5.71E+02	4.97E+02
32	1.11E+04	4.21E+03	2.41E+03	1.63E+03	1.21E+03	9.46E+02	7.71E+02	6.45E+02	5.52E+02	4.81E+02
33	1.08E+04	4.09E+03	2.34E+03	1.58E+03	1.17E+03	9.17E+02	7.47E+02	6.26E+02	5.35E+02	4.67E+02
34	1.05E+04	3.97E+03	2.27E+03	1.53E+03	1.14E+03	8.90E+02	7.25E+02	6.08E+02	5.20E+02	4.53E+02
35	1.02E+04	3.85E+03	2.20E+03	1.49E+03	1.10E+03	8.65E+02	7.05E+02	5.90E+02	5.05E+02	4.40E+02
36	9.89E+03	3.74E+03	2.14E+03	1.45E+03	1.07E+03	8.41E+02	6.85E+02	5.74E+02	4.91E+02	4.28E+02
37	9.62E+03	3.64E+03	2.08E+03	1.41E+03	1.04E+03	8.18E+02	6.66E+02	5.58E+02	4.78E+02	4.16E+02
38	9.36E+03	3.55E+03	2.03E+03	1.37E+03	1.01E+03	7.97E+02	6.49E+02	5.44E+02	4.65E+02	4.05E+02
39	9.12E+03	3.46E+03	1.98E+03	1.34E+03	9.92E+02	7.76E+02	6.32E+02	5.30E+02	4.54E+02	3.95E+02
40	8.90E+03	3.37E+03	1.93E+03	1.32E+03	9.66E+02	7.57E+02	6.16E+02	5.17E+02	4.42E+02	3.85E+02
41	8.68E+03	3.29E+03	1.88E+03	1.27E+03	9.42E+02	7.38E+02	6.01E+02	5.04E+02	4.31E+02	3.76E+02
42	8.48E+03	3.21E+03	1.84E+03	1.24E+03	9.20E+02	7.21E+02	5.87E+02	4.92E+02	4.21E+02	3.67E+02
43	8.29E+03	3.14E+03	1.79E+03	1.21E+03	8.98E+02	7.04E+02	5.73E+02	4.81E+02	4.11E+02	3.58E+02
44	8.12E+03	3.06E+03	1.75E+03	1.19E+03	8.77E+02	6.88E+02	5.60E+02	4.70E+02	4.02E+02	3.50E+02
45	7.91E+03	3.00E+03	1.71E+03	1.16E+03	8.58E+02	6.72E+02	5.48E+02	4.59E+02	3.93E+02	3.43E+02
46	7.74E+03	2.93E+03	1.68E+03	1.13E+03	8.40E+02	6.59E+02	5.36E+02	4.49E+02	3.85E+02	3.36E+02
47	7.57E+03	2.87E+03	1.64E+03	1.11E+03	8.21E+02	6.44E+02	5.25E+02	4.40E+02	3.76E+02	3.28E+02
48	7.43E+03	2.81E+03	1.61E+03	1.09E+03	8.05E+02	6.31E+02	5.14E+02	4.31E+02	3.69E+02	3.21E+02
49	7.28E+03	2.75E+03	1.57E+03	1.06E+03	7.8 E+02	6.18E+02	5.03E+02	4.22E+02	3.61E+02	3.14E+02
50	7.13E+03	2.70E+03	1.54E+03	1.04E+03	7.7 E+02	6.05E+02	4.93E+02	4.13E+02	3.54E+02	3.08E+02

APPROVAL	
DATE	

E. I. HATCH NUCLEAR PLANT

Georgia Power

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VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS F

MILLIREM/HOUR PER CURIE/SEC OF IODINE RELEASED

DOWNWIND DISTANCE FROM PLANT

WIND SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	3.38E+05	1.72E+05	1.15E+05	8.61E+04	6.83E+04	5.64E+04	4.79E+04	4.15E+04	3.65E+04	3.26E+04
2	1.68E+05	8.59E+04	5.75E+04	4.30E+04	3.41E+04	2.82E+04	2.39E+04	2.07E+04	1.83E+04	1.63E+04
3	1.12E+05	5.73E+04	3.84E+04	2.87E+04	2.28E+04	1.88E+04	1.60E+04	1.38E+04	1.22E+04	1.09E+04
4	8.39E+04	4.30E+04	2.88E+04	2.15E+04	1.71E+04	1.41E+04	1.20E+04	1.04E+04	9.13E+03	8.14E+03
5	7.52E+04	3.74E+04	2.48E+04	1.85E+04	1.43E+04	1.19E+04	9.95E+03	8.59E+03	7.54E+03	6.71E+03
6	7.49E+04	3.54E+04	2.27E+04	1.65E+04	1.28E+04	1.04E+04	8.76E+03	7.51E+03	6.57E+03	5.83E+03
7	7.42E+04	3.34E+04	2.09E+04	1.50E+04	1.16E+04	9.35E+03	7.81E+03	6.68E+03	5.82E+03	5.14E+03
8	7.31E+04	3.15E+04	1.94E+04	1.37E+04	1.05E+04	8.49E+03	7.04E+03	6.02E+03	5.21E+03	4.60E+03
9	7.17E+04	2.99E+04	1.80E+04	1.27E+04	9.64E+03	7.72E+03	6.42E+03	5.44E+03	4.70E+03	4.14E+03
10	7.03E+04	2.82E+04	1.68E+04	1.17E+04	8.89E+03	7.09E+03	5.88E+03	4.98E+03	4.31E+03	3.79E+03
11	6.44E+04	2.67E+04	1.56E+04	1.09E+04	8.24E+03	6.55E+03	5.41E+03	4.58E+03	3.97E+03	3.48E+03
12	5.91E+04	2.45E+04	1.46E+04	1.01E+04	7.63E+03	6.07E+03	5.01E+03	4.24E+03	3.67E+03	3.21E+03
13	5.43E+04	2.26E+04	1.35E+04	9.33E+03	7.04E+03	5.60E+03	4.62E+03	3.91E+03	3.38E+03	2.97E+03
14	5.25E+04	2.10E+04	1.25E+04	8.67E+03	6.54E+03	5.20E+03	4.29E+03	3.64E+03	3.14E+03	2.75E+03
15	4.72E+04	1.98E+04	1.17E+04	8.09E+03	6.10E+03	4.84E+03	4.01E+03	3.39E+03	2.93E+03	2.56E+03
16	4.43E+04	1.84E+04	1.09E+04	7.55E+03	5.72E+03	4.55E+03	3.76E+03	3.18E+03	2.75E+03	2.41E+03
17	4.17E+04	1.73E+04	1.03E+04	7.14E+03	5.39E+03	4.29E+03	3.54E+03	2.99E+03	2.59E+03	2.27E+03
18	3.94E+04	1.63E+04	9.72E+03	6.74E+03	5.09E+03	4.05E+03	3.34E+03	2.83E+03	2.45E+03	2.15E+03
19	3.73E+04	1.55E+04	9.21E+03	6.39E+03	4.82E+03	3.83E+03	3.16E+03	2.68E+03	2.32E+03	2.03E+03
20	3.54E+04	1.47E+04	8.75E+03	6.07E+03	4.58E+03	3.64E+03	3.00E+03	2.55E+03	2.20E+03	1.93E+03
21	3.37E+04	1.40E+04	8.33E+03	5.78E+03	4.36E+03	3.47E+03	2.86E+03	2.42E+03	2.10E+03	1.84E+03
22	3.22E+04	1.34E+04	7.95E+03	5.52E+03	4.16E+03	3.31E+03	2.73E+03	2.31E+03	2.00E+03	1.75E+03
23	3.08E+04	1.28E+04	7.61E+03	5.28E+03	3.98E+03	3.17E+03	2.61E+03	2.21E+03	1.91E+03	1.68E+03
24	2.95E+04	1.22E+04	7.29E+03	5.06E+03	3.82E+03	3.04E+03	2.50E+03	2.12E+03	1.83E+03	1.61E+03
25	2.83E+04	1.18E+04	7.00E+03	4.85E+03	3.66E+03	2.91E+03	2.40E+03	2.04E+03	1.76E+03	1.55E+03
26	2.73E+04	1.13E+04	6.73E+03	4.67E+03	3.52E+03	2.80E+03	2.31E+03	1.96E+03	1.69E+03	1.49E+03
27	2.63E+04	1.09E+04	6.48E+03	4.49E+03	3.39E+03	2.70E+03	2.22E+03	1.88E+03	1.63E+03	1.43E+03
28	2.53E+04	1.05E+04	6.25E+03	4.33E+03	3.27E+03	2.60E+03	2.15E+03	1.81E+03	1.57E+03	1.38E+03
29	2.44E+04	1.01E+04	6.03E+03	4.18E+03	3.16E+03	2.51E+03	2.07E+03	1.75E+03	1.51E+03	1.33E+03
30	2.36E+04	9.77E+03	5.83E+03	4.05E+03	3.05E+03	2.43E+03	2.00E+03	1.70E+03	1.47E+03	1.29E+03
31	2.29E+04	9.48E+03	5.64E+03	3.91E+03	2.95E+03	2.35E+03	1.94E+03	1.64E+03	1.42E+03	1.25E+03
32	2.21E+04	9.16E+03	5.47E+03	3.79E+03	2.86E+03	2.28E+03	1.88E+03	1.59E+03	1.38E+03	1.21E+03
33	2.15E+04	8.92E+03	5.32E+03	3.68E+03	2.77E+03	2.21E+03	1.82E+03	1.54E+03	1.33E+03	1.17E+03
34	2.09E+04	8.68E+03	5.18E+03	3.57E+03	2.69E+03	2.14E+03	1.77E+03	1.50E+03	1.29E+03	1.14E+03
35	2.03E+04	8.42E+03	5.02E+03	3.47E+03	2.62E+03	2.08E+03	1.72E+03	1.45E+03	1.26E+03	1.10E+03
36	1.97E+04	8.16E+03	4.85E+03	3.37E+03	2.54E+03	2.02E+03	1.67E+03	1.41E+03	1.22E+03	1.07E+03
37	1.91E+04	7.94E+03	4.73E+03	3.28E+03	2.47E+03	1.97E+03	1.62E+03	1.38E+03	1.19E+03	1.04E+03
38	1.87E+04	7.73E+03	4.60E+03	3.19E+03	2.41E+03	1.92E+03	1.58E+03	1.34E+03	1.16E+03	1.02E+03
39	1.81E+04	7.53E+03	4.49E+03	3.11E+03	2.35E+03	1.87E+03	1.54E+03	1.31E+03	1.13E+03	9.91E+02
40	1.77E+04	7.35E+03	4.37E+03	3.03E+03	2.29E+03	1.82E+03	1.50E+03	1.27E+03	1.10E+03	9.66E+02
41	1.73E+04	7.17E+03	4.27E+03	2.95E+03	2.23E+03	1.78E+03	1.47E+03	1.24E+03	1.07E+03	9.42E+02
42	1.69E+04	7.02E+03	4.18E+03	2.89E+03	2.18E+03	1.73E+03	1.43E+03	1.21E+03	1.05E+03	9.22E+02
43	1.65E+04	6.83E+03	4.07E+03	2.82E+03	2.12E+03	1.69E+03	1.40E+03	1.18E+03	1.02E+03	8.99E+02
44	1.61E+04	6.69E+03	3.99E+03	2.76E+03	2.08E+03	1.65E+03	1.37E+03	1.16E+03	1.00E+03	8.78E+02
45	1.57E+04	6.57E+03	3.91E+03	2.70E+03	2.03E+03	1.62E+03	1.34E+03	1.13E+03	9.78E+02	8.57E+02
46	1.54E+04	6.34E+03	3.83E+03	2.64E+03	1.99E+03	1.59E+03	1.31E+03	1.11E+03	9.57E+02	8.40E+02
47	1.51E+04	6.25E+03	3.73E+03	2.58E+03	1.95E+03	1.55E+03	1.28E+03	1.08E+03	9.36E+02	8.22E+02
48	1.48E+04	6.12E+03	3.64E+03	2.53E+03	1.91E+03	1.52E+03	1.25E+03	1.06E+03	9.17E+02	8.05E+02
49	1.45E+04	6.02E+03	3.57E+03	2.48E+03	1.87E+03	1.49E+03	1.23E+03	1.04E+03	8.99E+02	7.89E+02
50	1.42E+04	5.89E+03	3.50E+03	2.43E+03	1.83E+03	1.46E+03	1.20E+03	1.02E+03	8.82E+02	7.73E+02

MANUAL SET

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS A

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

DOWNWIND DISTANCE FROM PLANT

WIND SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.1625	0.6326	0.4307	0.3406	0.3406	0.3406	0.3406	0.3406	0.3406	0.3406
2	0.5913	0.3163	0.2194	0.1723	0.1723	0.1723	0.1723	0.1703	0.1703	0.1723
3	0.3942	0.2129	0.1462	0.1135	0.1135	0.1135	0.1135	0.1135	0.1135	0.1135
4	0.2956	0.1582	0.1097	0.0852	0.0852	0.0852	0.0852	0.0852	0.0852	0.0852
5	0.2365	0.1265	0.0877	0.0681	0.0681	0.0681	0.0681	0.0681	0.0681	0.0681
6	0.1971	0.1054	0.0731	0.0568	0.0568	0.0568	0.0568	0.0568	0.0568	0.0568
7	0.1689	0.0904	0.0627	0.0487	0.0487	0.0487	0.0487	0.0487	0.0487	0.0487
8	0.1478	0.0791	0.0548	0.0426	0.0426	0.0426	0.0426	0.0426	0.0426	0.0426
9	0.1314	0.0703	0.0487	0.0378	0.0378	0.0378	0.0378	0.0378	0.0378	0.0378
10	0.1183	0.0633	0.0439	0.0341	0.0341	0.0341	0.0341	0.0341	0.0341	0.0341
11	0.1075	0.0575	0.0399	0.0310	0.0310	0.0310	0.0310	0.0310	0.0310	0.0310
12	0.0985	0.0527	0.0366	0.0284	0.0284	0.0284	0.0284	0.0284	0.0284	0.0284
13	0.0910	0.0487	0.0337	0.0262	0.0262	0.0262	0.0262	0.0262	0.0262	0.0262
14	0.0845	0.0452	0.0313	0.0243	0.0243	0.0243	0.0243	0.0243	0.0243	0.0243
15	0.0788	0.0422	0.0292	0.0227	0.0227	0.0227	0.0227	0.0227	0.0227	0.0227
16	0.0739	0.0395	0.0274	0.0213	0.0213	0.0213	0.0213	0.0213	0.0213	0.0213
17	0.0696	0.0372	0.0258	0.0200	0.0200	0.0200	0.0200	0.0200	0.0200	0.0200
18	0.0657	0.0351	0.0244	0.0189	0.0189	0.0189	0.0189	0.0189	0.0189	0.0189
19	0.0622	0.0333	0.0231	0.0179	0.0179	0.0179	0.0179	0.0179	0.0179	0.0179
20	0.0591	0.0316	0.0219	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170
21	0.0563	0.0301	0.0209	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162	0.0162
22	0.0538	0.0288	0.0199	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155
23	0.0514	0.0275	0.0191	0.0148	0.0148	0.0148	0.0148	0.0148	0.0148	0.0148
24	0.0493	0.0264	0.0183	0.0142	0.0142	0.0142	0.0142	0.0142	0.0142	0.0142
25	0.0473	0.0253	0.0175	0.0136	0.0136	0.0136	0.0136	0.0136	0.0136	0.0136
26	0.0455	0.0243	0.0169	0.0131	0.0131	0.0131	0.0131	0.0131	0.0131	0.0131
27	0.0438	0.0234	0.0162	0.0126	0.0126	0.0126	0.0126	0.0126	0.0126	0.0126
28	0.0422	0.0226	0.0157	0.0122	0.0122	0.0122	0.0122	0.0122	0.0122	0.0122
29	0.0408	0.0218	0.0151	0.0117	0.0117	0.0117	0.0117	0.0117	0.0117	0.0117
30	0.0394	0.0211	0.0146	0.0114	0.0114	0.0114	0.0114	0.0114	0.0114	0.0114
31	0.0381	0.0204	0.0142	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110	0.0110
32	0.0370	0.0198	0.0137	0.0106	0.0106	0.0106	0.0106	0.0106	0.0106	0.0106
33	0.0359	0.0192	0.0133	0.0103	0.0103	0.0103	0.0103	0.0103	0.0103	0.0103
34	0.0348	0.0186	0.0129	0.0100	0.0100	0.0100	0.0100	0.0100	0.0100	0.0100
35	0.0338	0.0181	0.0125	0.0097	0.0097	0.0097	0.0097	0.0097	0.0097	0.0097
36	0.0328	0.0176	0.0122	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095
37	0.0320	0.0171	0.0119	0.0092	0.0092	0.0092	0.0092	0.0092	0.0092	0.0092
38	0.0311	0.0166	0.0115	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090	0.0090
39	0.0303	0.0162	0.0112	0.0087	0.0087	0.0087	0.0087	0.0087	0.0087	0.0087
40	0.0296	0.0158	0.0110	0.0085	0.0085	0.0085	0.0085	0.0085	0.0085	0.0085
41	0.0288	0.0154	0.0107	0.0083	0.0083	0.0083	0.0083	0.0083	0.0083	0.0083
42	0.0282	0.0151	0.0104	0.0081	0.0081	0.0081	0.0081	0.0081	0.0081	0.0081
43	0.0275	0.0147	0.0102	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079
44	0.0269	0.0144	0.0100	0.0077	0.0077	0.0077	0.0077	0.0077	0.0077	0.0077
45	0.0263	0.0141	0.0097	0.0076	0.0076	0.0076	0.0076	0.0076	0.0076	0.0076
46	0.0257	0.0138	0.0095	0.0074	0.0074	0.0074	0.0074	0.0074	0.0074	0.0074
47	0.0252	0.0135	0.0093	0.0072	0.0072	0.0072	0.0072	0.0072	0.0072	0.0072
48	0.0246	0.0132	0.0091	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071	0.0071
49	0.0241	0.0129	0.0090	0.0070	0.0070	0.0070	0.0070	0.0070	0.0070	0.0070
50	0.0237	0.0127	0.0089	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068

MANUAL SET

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS B

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	0.4764	2.1099	0.9532	0.5367	0.3678	0.3406	0.3406	0.3406	0.3406	0.3406
2	4.2332	1.0703	0.4766	0.2693	0.1839	0.1703	0.1703	0.1703	0.1703	0.1703
3	2.8255	0.7133	0.3177	0.1789	0.1226	0.1135	0.1135	0.1135	0.1135	0.1135
4	2.1191	0.5350	0.2383	0.1342	0.0919	0.0852	0.0852	0.0852	0.0852	0.0852
5	1.6953	0.4283	0.1906	0.1073	0.0736	0.0681	0.0681	0.0681	0.0681	0.0681
6	1.4127	0.3567	0.1589	0.0894	0.0613	0.0568	0.0568	0.0568	0.0568	0.0568
7	1.2109	0.3059	0.1362	0.0767	0.0525	0.0487	0.0487	0.0487	0.0487	0.0487
8	1.0595	0.2675	0.1192	0.0671	0.0460	0.0426	0.0426	0.0426	0.0426	0.0426
9	0.9418	0.2378	0.1059	0.0596	0.0409	0.0378	0.0378	0.0378	0.0378	0.0378
10	0.8476	0.2140	0.0953	0.0537	0.0368	0.0341	0.0341	0.0341	0.0341	0.0341
11	0.7706	0.1945	0.0867	0.0488	0.0334	0.0310	0.0310	0.0310	0.0310	0.0310
12	0.7064	0.1783	0.0794	0.0447	0.0306	0.0284	0.0284	0.0284	0.0284	0.0284
13	0.6520	0.1646	0.0733	0.0413	0.0283	0.0262	0.0262	0.0262	0.0262	0.0262
14	0.6055	0.1529	0.0681	0.0383	0.0263	0.0243	0.0243	0.0243	0.0243	0.0243
15	0.5651	0.1427	0.0635	0.0358	0.0245	0.0227	0.0227	0.0227	0.0227	0.0227
16	0.5298	0.1337	0.0596	0.0335	0.0230	0.0213	0.0213	0.0213	0.0213	0.0213
17	0.4986	0.1259	0.0561	0.0316	0.0216	0.0200	0.0200	0.0200	0.0200	0.0200
18	0.4709	0.1189	0.0530	0.0298	0.0204	0.0189	0.0189	0.0189	0.0189	0.0189
19	0.4461	0.1126	0.0502	0.0282	0.0194	0.0179	0.0179	0.0179	0.0179	0.0179
20	0.4239	0.1070	0.0477	0.0268	0.0184	0.0170	0.0170	0.0170	0.0170	0.0170
21	0.4036	0.1019	0.0454	0.0256	0.0175	0.0162	0.0162	0.0162	0.0162	0.0162
22	0.3853	0.0973	0.0433	0.0244	0.0167	0.0155	0.0155	0.0155	0.0155	0.0155
23	0.3685	0.0930	0.0414	0.0233	0.0160	0.0148	0.0148	0.0148	0.0148	0.0148
24	0.3532	0.0892	0.0397	0.0224	0.0153	0.0142	0.0142	0.0142	0.0142	0.0142
25	0.3391	0.0856	0.0381	0.0215	0.0147	0.0136	0.0136	0.0136	0.0136	0.0136
26	0.3260	0.0823	0.0367	0.0206	0.0141	0.0131	0.0131	0.0131	0.0131	0.0131
27	0.3139	0.0793	0.0353	0.0199	0.0136	0.0126	0.0126	0.0126	0.0126	0.0126
28	0.3027	0.0764	0.0340	0.0192	0.0131	0.0122	0.0122	0.0122	0.0122	0.0122
29	0.2923	0.0738	0.0329	0.0185	0.0127	0.0117	0.0117	0.0117	0.0117	0.0117
30	0.2825	0.0713	0.0318	0.0179	0.0123	0.0114	0.0114	0.0114	0.0114	0.0114
31	0.2734	0.0690	0.0307	0.0173	0.0119	0.0110	0.0110	0.0110	0.0110	0.0110
32	0.2649	0.0669	0.0298	0.0168	0.0115	0.0106	0.0106	0.0106	0.0106	0.0106
33	0.2569	0.0648	0.0289	0.0163	0.0111	0.0103	0.0103	0.0103	0.0103	0.0103
34	0.2493	0.0629	0.0280	0.0158	0.0108	0.0100	0.0100	0.0100	0.0100	0.0100
35	0.2422	0.0611	0.0272	0.0153	0.0105	0.0097	0.0097	0.0097	0.0097	0.0097
36	0.2355	0.0594	0.0265	0.0149	0.0102	0.0095	0.0095	0.0095	0.0095	0.0095
37	0.2291	0.0578	0.0258	0.0145	0.0099	0.0092	0.0092	0.0092	0.0092	0.0092
38	0.2231	0.0563	0.0251	0.0141	0.0097	0.0090	0.0090	0.0090	0.0090	0.0090
39	0.2173	0.0549	0.0244	0.0138	0.0094	0.0087	0.0087	0.0087	0.0087	0.0087
40	0.2119	0.0535	0.0238	0.0134	0.0092	0.0085	0.0085	0.0085	0.0085	0.0085
41	0.2067	0.0522	0.0232	0.0131	0.0090	0.0083	0.0083	0.0083	0.0083	0.0083
42	0.2018	0.0510	0.0227	0.0129	0.0088	0.0081	0.0081	0.0081	0.0081	0.0081
43	0.1971	0.0498	0.0222	0.0125	0.0086	0.0079	0.0079	0.0079	0.0079	0.0079
44	0.1926	0.0486	0.0217	0.0122	0.0084	0.0077	0.0077	0.0077	0.0077	0.0077
45	0.1884	0.0476	0.0212	0.0119	0.0082	0.0076	0.0076	0.0076	0.0076	0.0076
46	0.1843	0.0465	0.0207	0.0117	0.0080	0.0074	0.0074	0.0074	0.0074	0.0074
47	0.1803	0.0455	0.0203	0.0114	0.0078	0.0072	0.0072	0.0072	0.0072	0.0072
48	0.1766	0.0446	0.0199	0.0112	0.0077	0.0071	0.0071	0.0071	0.0071	0.0071
49	0.1730	0.0437	0.0195	0.0110	0.0075	0.0070	0.0070	0.0070	0.0070	0.0070
50	0.1695	0.0428	0.0191	0.0107	0.0074	0.0069	0.0069	0.0069	0.0069	0.0068

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS C

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	10.4241	5.2916	2.5412	1.5891	1.0371	0.7236	0.5472	0.4617	0.4148	0.3748
2	9.2120	2.5458	1.2726	0.7546	0.5036	0.3619	0.2736	0.2309	0.2074	0.1824
3	6.1414	1.7639	0.8471	0.5333	0.3357	0.2412	0.1824	0.1539	0.1383	0.1216
4	4.6060	1.3229	0.6353	0.3773	0.2519	0.1809	0.1368	0.1154	0.1037	0.0912
5	3.6848	1.0583	0.5082	0.2818	0.2014	0.1447	0.1094	0.0923	0.0830	0.0730
6	3.0707	0.8819	0.4235	0.2515	0.1679	0.1206	0.0912	0.0769	0.0691	0.0608
7	2.6320	0.7559	0.3630	0.2156	0.1439	0.1034	0.0782	0.0660	0.0593	0.0521
8	2.3030	0.6615	0.3176	0.1886	0.1259	0.0905	0.0684	0.0577	0.0518	0.0456
9	2.0471	0.5880	0.2824	0.1677	0.1119	0.0804	0.0608	0.0513	0.0461	0.0419
10	1.8424	0.5292	0.2541	0.1509	0.1007	0.0724	0.0547	0.0462	0.0415	0.0377
11	1.6749	0.4811	0.2310	0.1372	0.0916	0.0658	0.0497	0.0420	0.0377	0.0343
12	1.5353	0.4410	0.2118	0.1258	0.0839	0.0603	0.0456	0.0385	0.0346	0.0314
13	1.4172	0.4073	0.1955	0.1161	0.0775	0.0557	0.0421	0.0355	0.0319	0.0290
14	1.3160	0.3783	0.1815	0.1078	0.0719	0.0517	0.0391	0.0330	0.0296	0.0269
15	1.2283	0.3529	0.1694	0.1006	0.0671	0.0482	0.0365	0.0308	0.0277	0.0251
16	1.1515	0.3307	0.1588	0.0943	0.0629	0.0452	0.0342	0.0289	0.0259	0.0236
17	1.0833	0.3113	0.1495	0.0888	0.0592	0.0426	0.0322	0.0272	0.0244	0.0222
18	1.0226	0.2940	0.1412	0.0838	0.0560	0.0402	0.0304	0.0257	0.0230	0.0209
19	0.9687	0.2785	0.1337	0.0794	0.0530	0.0381	0.0288	0.0243	0.0218	0.0198
20	0.9212	0.2646	0.1271	0.0755	0.0504	0.0362	0.0274	0.0231	0.0207	0.0188
21	0.8773	0.2520	0.1210	0.0719	0.0480	0.0345	0.0261	0.0220	0.0197	0.0179
22	0.8375	0.2405	0.1155	0.0686	0.0458	0.0329	0.0249	0.0210	0.0188	0.0171
23	0.8010	0.2301	0.1105	0.0656	0.0439	0.0315	0.0238	0.0201	0.0180	0.0164
24	0.7677	0.2205	0.1059	0.0629	0.0420	0.0302	0.0229	0.0192	0.0173	0.0157
25	0.7370	0.2117	0.1016	0.0604	0.0403	0.0289	0.0219	0.0185	0.0166	0.0151
26	0.7086	0.2035	0.0977	0.0580	0.0387	0.0278	0.0210	0.0178	0.0160	0.0145
27	0.6824	0.1960	0.0941	0.0559	0.0373	0.0268	0.0203	0.0171	0.0154	0.0140
28	0.6580	0.1890	0.0908	0.0539	0.0362	0.0259	0.0195	0.0165	0.0148	0.0135
29	0.6352	0.1825	0.0876	0.0520	0.0347	0.0250	0.0187	0.0159	0.0143	0.0130
30	0.6141	0.1764	0.0847	0.0503	0.0335	0.0241	0.0182	0.0154	0.0138	0.0126
31	0.5943	0.1707	0.0820	0.0487	0.0325	0.0233	0.0177	0.0149	0.0134	0.0122
32	0.5758	0.1654	0.0794	0.0472	0.0315	0.0226	0.0171	0.0144	0.0130	0.0118
33	0.5583	0.1604	0.0770	0.0457	0.0305	0.0219	0.0166	0.0140	0.0126	0.0114
34	0.5419	0.1556	0.0747	0.0444	0.0296	0.0213	0.0161	0.0136	0.0122	0.0111
35	0.5264	0.1512	0.0726	0.0431	0.0288	0.0207	0.0156	0.0132	0.0119	0.0108
36	0.5119	0.1470	0.0706	0.0419	0.0280	0.0201	0.0152	0.0128	0.0115	0.0105
37	0.4979	0.1430	0.0687	0.0408	0.0272	0.0196	0.0148	0.0125	0.0112	0.0102
38	0.4848	0.1393	0.0669	0.0397	0.0265	0.0191	0.0144	0.0122	0.0109	0.0099
39	0.4724	0.1357	0.0652	0.0387	0.0259	0.0186	0.0140	0.0118	0.0106	0.0097
40	0.4606	0.1323	0.0635	0.0377	0.0252	0.0181	0.0137	0.0115	0.0104	0.0094
41	0.4494	0.1291	0.0620	0.0368	0.0246	0.0176	0.0133	0.0113	0.0101	0.0092
42	0.4387	0.1260	0.0605	0.0359	0.0240	0.0172	0.0130	0.0110	0.0099	0.0090
43	0.4285	0.1231	0.0591	0.0351	0.0234	0.0168	0.0127	0.0107	0.0096	0.0088
44	0.4187	0.1203	0.0578	0.0343	0.0229	0.0164	0.0124	0.0105	0.0094	0.0086
45	0.4094	0.1176	0.0565	0.0335	0.0224	0.0161	0.0122	0.0103	0.0092	0.0084
46	0.4005	0.1150	0.0552	0.0328	0.0219	0.0157	0.0119	0.0101	0.0090	0.0082
47	0.3919	0.1125	0.0541	0.0321	0.0214	0.0154	0.0116	0.0098	0.0088	0.0079
48	0.3838	0.1102	0.0529	0.0314	0.0210	0.0151	0.0114	0.0096	0.0085	0.0077
49	0.3760	0.1080	0.0519	0.0308	0.0206	0.0148	0.0112	0.0094	0.0083	0.0075
50	0.3685	0.1058	0.0508	0.0302	0.0201	0.0145	0.0109	0.0092	0.0081	0.0073

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS D

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	43.7886	17.9258	10.4443	7.8702	6.2271	4.0485	3.2689	2.7142	2.3025	1.9267
2	21.8723	8.9645	5.2222	3.9351	2.6236	2.0242	1.6345	1.3571	1.1512	0.9734
3	14.5935	5.9763	3.4814	2.6567	1.7357	1.3495	1.0896	0.9047	0.7675	0.6622
4	10.9451	4.4822	2.6111	1.9676	1.3018	1.0121	0.8172	0.6786	2.5756	3.4967
5	9.1608	3.6986	2.1265	1.4358	1.0573	0.8203	0.6613	0.5484	0.4648	0.4037
6	8.2670	3.3099	1.8424	1.2334	0.9016	2.6972	0.5628	0.4642	0.3928	0.3332
7	7.5433	2.8745	1.6226	1.0802	0.7867	0.6068	0.4871	0.4026	0.3403	0.2923
8	6.9553	2.5937	1.4524	0.9617	0.6983	0.5375	0.4328	0.3557	0.3024	0.2592
9	6.4655	2.3657	1.3150	0.8672	0.6281	0.4827	0.3884	0.3187	0.2699	0.2310
10	6.0503	2.1765	1.2000	0.7920	0.5710	0.4381	0.3523	0.2887	0.2435	0.2083
11	5.6919	2.0167	1.1075	0.7257	0.5235	0.4012	0.3225	0.2639	0.2224	0.1909
12	5.3222	1.8799	1.0272	0.6713	0.4835	0.3701	0.2954	0.2431	0.2049	0.1757
13	4.9128	1.7415	0.9533	0.6228	0.4464	0.3431	0.2738	0.2253	0.1897	0.1627
14	4.5619	1.6171	0.8849	0.5783	0.4164	0.3195	0.2542	0.2092	0.1762	0.1511
15	4.2578	1.5093	0.8259	0.5398	0.3886	0.2974	0.2373	0.1952	0.1644	0.1410
16	3.9917	1.4149	0.7743	0.5260	0.3643	0.2788	0.2225	0.1830	0.1541	0.1322
17	3.7569	1.3317	0.7287	0.4763	0.3429	0.2624	0.2094	0.1723	0.1451	0.1244
18	3.5482	1.2577	0.6882	0.4498	0.3238	0.2478	0.1977	0.1627	0.1370	0.1175
19	3.3614	1.1915	0.6518	0.4261	0.3068	0.2348	0.1873	0.1541	0.1298	0.1113
20	3.1933	1.1320	0.6194	0.4048	0.2915	0.2230	0.1780	0.1464	0.1233	0.1058
21	3.0413	1.0780	0.5899	0.3855	0.2776	0.2124	0.1695	0.1395	0.1174	0.1007
22	2.9030	1.0289	0.5631	0.3680	0.2650	0.2028	0.1618	0.1331	0.1121	0.0962
23	2.7769	0.9843	0.5386	0.3520	0.2534	0.1939	0.1548	0.1273	0.1072	0.0920
24	2.6611	0.9433	0.5162	0.3373	0.2429	0.1859	0.1483	0.1220	0.1028	0.0881
25	2.5547	0.9056	0.4955	0.3239	0.2332	0.1784	0.1424	0.1171	0.0987	0.0846
26	2.4564	0.8707	0.4765	0.3114	0.2242	0.1716	0.1369	0.1126	0.0949	0.0814
27	2.3654	0.8385	0.4589	0.2999	0.2159	0.1652	0.1318	0.1085	0.0913	0.0784
28	2.2810	0.8085	0.4424	0.2892	0.2082	0.1593	0.1271	0.1045	0.0881	0.0756
29	2.2023	0.7807	0.4272	0.2792	0.2010	0.1538	0.1227	0.1010	0.0850	0.0729
30	2.1289	0.7546	0.4129	0.2699	0.1943	0.1487	0.1186	0.0976	0.0822	0.0705
31	2.0602	0.7301	0.3996	0.2612	0.1880	0.1439	0.1148	0.0945	0.0796	0.0682
32	1.9958	0.7075	0.3871	0.2530	0.1822	0.1394	0.1112	0.0915	0.0771	0.0661
33	1.9354	0.6860	0.3754	0.2453	0.1766	0.1352	0.1079	0.0887	0.0747	0.0641
34	1.8784	0.6659	0.3644	0.2381	0.1714	0.1312	0.1047	0.0861	0.0725	0.0622
35	1.8248	0.6468	0.3540	0.2313	0.1665	0.1274	0.1017	0.0837	0.0705	0.0604
36	1.7741	0.6289	0.3441	0.2249	0.1619	0.1239	0.0989	0.0813	0.0685	0.0588
37	1.7261	0.6119	0.3348	0.2188	0.1575	0.1206	0.0962	0.0791	0.0667	0.0572
38	1.6807	0.5958	0.3260	0.2131	0.1534	0.1174	0.0937	0.0771	0.0649	0.0557
39	1.6376	0.5805	0.3177	0.2076	0.1495	0.1144	0.0913	0.0751	0.0632	0.0542
40	1.5967	0.5660	0.3097	0.2024	0.1457	0.1115	0.0890	0.0732	0.0617	0.0529
41	1.5577	0.5522	0.3022	0.1975	0.1422	0.1088	0.0868	0.0714	0.0602	0.0516
42	1.5206	0.5390	0.2950	0.1928	0.1388	0.1062	0.0847	0.0697	0.0587	0.0504
43	1.4853	0.5265	0.2881	0.1883	0.1356	0.1037	0.0828	0.0681	0.0574	0.0492
44	1.4515	0.5145	0.2816	0.1840	0.1325	0.1014	0.0809	0.0666	0.0561	0.0481
45	1.4193	0.5031	0.2753	0.1799	0.1295	0.0991	0.0791	0.0651	0.0548	0.0470
46	1.3886	0.4922	0.2693	0.1760	0.1267	0.0970	0.0774	0.0637	0.0536	0.0460
47	1.3593	0.4817	0.2636	0.1723	0.1240	0.0949	0.0757	0.0623	0.0525	0.0450
48	1.3313	0.4718	0.2581	0.1687	0.1214	0.0929	0.0742	0.0610	0.0514	0.0441
49	1.3044	0.4623	0.2529	0.1652	0.1189	0.0910	0.0726	0.0598	0.0503	0.0432
50	1.2787	0.4532	0.2478	0.1619	0.1166	0.0892	0.0712	0.0586	0.0493	0.0423

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS E

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	66.8967	31.3218	19.6493	14.2578	10.9867	8.9585	7.3732	6.2830	5.4522	4.8022
2	33.4483	15.6607	9.8247	7.1289	5.4934	4.4793	3.6866	3.1415	2.7261	2.4011
3	22.2989	10.4405	6.5498	4.7526	3.6622	2.9862	2.4577	2.0943	1.8174	1.6007
4	16.7242	7.8304	4.9123	3.5644	2.7467	2.2396	1.8433	1.5708	1.3631	1.2005
5	14.5633	6.8444	4.1552	2.9685	2.2686	1.8219	1.5116	1.2850	1.1108	0.9781
6	13.8782	6.3582	3.7283	2.6284	1.9817	1.5915	1.3261	1.1262	0.9552	0.8375
7	13.2546	5.5671	3.3482	2.3311	1.7572	1.3972	1.1498	0.9711	0.8267	0.7203
8	12.6946	5.1497	3.0519	2.1271	1.5816	1.2514	1.0269	0.8654	0.7443	0.6525
9	12.1815	4.7924	2.8037	1.9224	1.4346	1.1332	0.9278	0.7835	0.6723	0.5852
10	11.6831	4.4731	2.5929	1.7675	1.3159	1.0333	0.8461	0.7127	0.6097	0.5317
11	11.2352	4.2040	2.4115	1.6357	1.2139	0.9531	0.7776	0.6524	0.5591	0.4873
12	10.8093	3.9520	2.2539	1.5221	1.1286	0.8829	0.7194	0.6029	0.5163	0.4497
13	9.6271	3.6481	2.0868	1.4103	1.0446	0.8186	0.6669	0.5589	0.4785	0.4167
14	8.9394	3.3557	1.9378	1.3120	0.9720	0.7631	0.6193	0.5190	0.4443	0.3869
15	8.3435	3.1620	1.8079	1.2227	0.9053	0.7095	0.5780	0.4844	0.4147	0.3611
16	7.8228	2.9525	1.6949	1.1463	0.8487	0.6651	0.5419	0.4541	0.3888	0.3385
17	7.3619	2.7882	1.5992	1.0788	0.7986	0.6263	0.5102	0.4274	0.3659	0.3186
18	6.9529	2.6333	1.5086	1.0187	0.7544	0.5912	0.4817	0.4036	0.3456	0.3009
19	6.5889	2.4947	1.4273	0.9653	0.7147	0.5601	0.4563	0.3824	0.3274	0.2851
20	6.2576	2.3733	1.3559	0.9178	0.6798	0.5321	0.4335	0.3633	0.3110	0.2708
21	5.9596	2.2571	1.2913	0.8733	0.6467	0.5066	0.4128	0.3460	0.2962	0.2579
22	5.6887	2.1545	1.2326	0.8335	0.6173	0.4837	0.3941	0.3302	0.2828	0.2462
23	5.4414	2.0627	1.1793	0.7974	0.5904	0.4627	0.3769	0.3159	0.2705	0.2355
24	5.2147	1.9793	1.1299	0.7642	0.5658	0.4434	0.3612	0.3027	0.2592	0.2257
25	5.0061	1.8968	1.0847	0.7336	0.5432	0.4257	0.3468	0.2906	0.2489	0.2167
26	4.8135	1.8231	1.0430	0.7054	0.5223	0.4093	0.3335	0.2794	0.2393	0.2083
27	4.6353	1.7555	1.0044	0.6793	0.5033	0.3941	0.3211	0.2691	0.2304	0.2006
28	4.4697	1.6928	0.9685	0.6552	0.4850	0.3801	0.3096	0.2595	0.2222	0.1934
29	4.3155	1.6345	0.9351	0.6324	0.4683	0.3670	0.2989	0.2505	0.2145	0.1868
30	4.1717	1.5803	0.9039	0.6113	0.4527	0.3547	0.2890	0.2422	0.2074	0.1805
31	4.0372	1.5298	0.8748	0.5916	0.4381	0.3433	0.2797	0.2344	0.2007	0.1747
32	3.9112	1.4827	0.8474	0.5731	0.4244	0.3326	0.2709	0.2270	0.1944	0.1693
33	3.7935	1.4386	0.8218	0.5558	0.4115	0.3225	0.2627	0.2202	0.1885	0.1641
34	3.6829	1.3971	0.7976	0.5394	0.3994	0.3130	0.2550	0.2137	0.1830	0.1593
35	3.5793	1.3583	0.7748	0.5240	0.3880	0.3041	0.2477	0.2076	0.1777	0.1548
36	3.4764	1.3187	0.7533	0.5095	0.3772	0.2956	0.2408	0.2018	0.1729	0.1505
37	3.3815	1.2811	0.7329	0.4957	0.3670	0.2876	0.2343	0.1964	0.1681	0.1464
38	3.2935	1.2474	0.7136	0.4826	0.3574	0.2800	0.2282	0.1912	0.1637	0.1425
39	3.2092	1.2154	0.6953	0.4703	0.3482	0.2729	0.2223	0.1863	0.1595	0.1389
40	3.1289	1.1850	0.6780	0.4585	0.3395	0.2660	0.2167	0.1816	0.1555	0.1354
41	3.0525	1.1561	0.6614	0.4473	0.3312	0.2596	0.2115	0.1772	0.1517	0.1321
42	2.9798	1.1286	0.6457	0.4367	0.3233	0.2534	0.2064	0.1729	0.1481	0.1290
43	2.9105	1.1023	0.6307	0.4265	0.3158	0.2475	0.2016	0.1690	0.1447	0.1260
44	2.8444	1.0773	0.6163	0.4169	0.3086	0.2419	0.1970	0.1651	0.1414	0.1231
45	2.7812	1.0533	0.6026	0.4076	0.3018	0.2365	0.1927	0.1615	0.1382	0.1204
46	2.7207	1.0304	0.5895	0.3987	0.2952	0.2313	0.1885	0.1579	0.1352	0.1177
47	2.6629	1.0085	0.5770	0.3902	0.2889	0.2264	0.1845	0.1546	0.1324	0.1152
48	2.6073	0.9875	0.5650	0.3821	0.2829	0.2217	0.1806	0.1514	0.1296	0.1128
49	2.5541	0.9673	0.5534	0.3743	0.2771	0.2172	0.1769	0.1483	0.1270	0.1105
50	2.5030	0.9479	0.5424	0.3669	0.2716	0.2128	0.1734	0.1453	0.1244	0.1083

APPROVAL	
DATE	

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	
	HNP-4552
REVISION NO	
	4
PAGE NO	
	39 of 39

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS F

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

WIND SPEED (MPH)	DOWNWIND DISTANCE FROM PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	117.9820	63.4057	48.5222	30.2639	24.0261	19.8365	16.8357	14.5855	12.8788	11.4459
2	58.9878	30.2848	23.2511	15.1319	12.0131	9.9183	8.4179	7.2928	6.4394	5.7229
3	39.3255	20.1366	15.5227	10.0879	8.0087	6.6122	5.6119	4.8618	4.2929	3.8153
4	29.4949	15.1024	10.1955	7.5659	6.0065	4.9591	4.2089	3.6464	3.2197	2.8615
5	26.4299	13.1369	8.6602	6.4027	5.0442	4.1409	3.4989	3.0324	2.6509	2.3576
6	26.3463	12.4276	7.9733	5.7759	4.5099	3.6720	3.0823	2.6450	2.3114	2.0482
7	26.0750	11.7401	7.3683	5.2742	4.0892	3.2885	2.7482	2.3467	2.0450	1.8081
8	25.6917	11.0370	6.8192	4.8321	3.6997	2.9758	2.4746	2.1099	1.8334	1.6171
9	25.2269	10.4039	6.3424	4.4526	3.3878	2.7137	2.2581	1.9139	1.6599	1.4617
10	24.7133	9.9261	5.9214	4.1251	3.1241	2.4938	2.0619	1.7504	1.5157	1.3333
11	22.6526	9.3916	5.5482	3.8369	2.8961	2.3145	1.9210	1.6121	1.3941	1.2248
12	20.7658	8.8280	5.1210	3.5555	2.6839	2.1343	1.7689	1.4918	1.2895	1.1324
13	19.1654	7.9467	4.7338	3.2820	2.4764	1.9702	1.6354	1.3770	1.1923	1.0453
14	17.7992	7.3791	4.3929	3.0476	2.2995	1.8294	1.5193	1.2787	1.1053	0.9737
15	16.6126	6.8872	4.1023	2.8444	2.1462	1.7075	1.4087	1.1924	1.0316	0.9060
16	15.5743	6.4567	3.8458	2.6666	2.0121	1.6007	1.3207	1.1183	0.9671	0.8493
17	14.6552	6.0769	3.6177	2.5098	1.8937	1.5066	1.2433	1.0530	0.9122	0.7994
18	13.8439	5.7393	3.4167	2.3703	1.7885	1.4229	1.1739	0.9945	0.8597	0.7550
19	13.1152	5.4302	3.2369	2.2456	1.6944	1.3480	1.1121	0.9422	0.8144	0.7152
20	12.4595	5.1454	3.0750	2.1333	1.6097	1.2806	1.0565	0.8951	0.7737	0.6795
21	11.8662	4.9154	2.9286	2.0317	1.5330	1.2196	1.0062	0.8524	0.7369	0.6471
22	11.3268	4.6958	2.7955	1.9394	1.4633	1.1642	0.9605	0.8137	0.7034	0.6177
23	10.8343	4.4916	2.6739	1.8551	1.3997	1.1136	0.9187	0.7783	0.6728	0.5908
24	10.3829	4.3045	2.5625	1.7778	1.3414	1.0672	0.8804	0.7459	0.6447	0.5662
25	9.9676	4.1320	2.4600	1.7066	1.2877	1.0245	0.8452	0.7160	0.6190	0.5436
26	9.5842	3.9734	2.3654	1.6410	1.2382	0.9851	0.8127	0.6885	0.5950	0.5227
27	9.2292	3.8282	2.2778	1.5802	1.1924	0.9486	0.7826	0.6630	0.5731	0.5033
28	8.8996	3.6956	2.1964	1.5239	1.1498	0.9147	0.7547	0.6393	0.5526	0.4853
29	8.5927	3.5743	2.1207	1.4712	1.1101	0.8832	0.7286	0.6173	0.5336	0.4686
30	8.3063	3.4635	2.0503	1.4222	1.0731	0.8537	0.7044	0.5967	0.5158	0.4530
31	8.0384	3.3625	1.9839	1.3763	1.0385	0.8262	0.6816	0.5775	0.4992	0.4384
32	7.7872	3.2694	1.9219	1.3333	1.0060	0.8004	0.6603	0.5594	0.4836	0.4247
33	7.5512	3.1835	1.8636	1.2929	0.9756	0.7761	0.6403	0.5425	0.4689	0.4118
34	7.3291	3.1039	1.8088	1.2549	0.9469	0.7533	0.6215	0.5265	0.4551	0.3997
35	7.1197	2.9516	1.7571	1.2190	0.9198	0.7318	0.6037	0.5115	0.4421	0.3883
36	6.9219	2.8697	1.7083	1.1852	0.8943	0.7114	0.5870	0.4973	0.4298	0.3775
37	6.7348	2.7921	1.6622	1.1531	0.8701	0.6922	0.5711	0.4839	0.4182	0.3673
38	6.5576	2.7185	1.6184	1.1228	0.8472	0.6743	0.5561	0.4711	0.4072	0.3576
39	6.3895	2.6487	1.5769	1.0940	0.8255	0.6567	0.5418	0.4590	0.3968	0.3484
40	6.2297	2.5827	1.5375	1.0667	0.8048	0.6403	0.5283	0.4475	0.3868	0.3397
41	6.0778	2.5197	1.5000	1.0406	0.7852	0.6247	0.5154	0.4366	0.3774	0.3314
42	5.9331	2.4597	1.4643	1.0159	0.7665	0.6099	0.5031	0.4262	0.3684	0.3236
43	5.7951	2.4025	1.4302	0.9922	0.7487	0.5956	0.4914	0.4163	0.3597	0.3160
44	5.6634	2.3479	1.3977	0.9697	0.7317	0.5821	0.4802	0.4068	0.3517	0.3088
45	5.5375	2.2957	1.3667	0.9481	0.7154	0.5692	0.4696	0.3978	0.3439	0.3020
46	5.4172	2.2458	1.3372	0.9275	0.6999	0.5568	0.4594	0.3892	0.3364	0.2954
47	5.3019	2.1980	1.3090	0.9078	0.6850	0.5449	0.4496	0.3809	0.3292	0.2891
48	5.1914	2.1522	1.2819	0.8889	0.6707	0.5336	0.4402	0.3729	0.3224	0.2831
49	5.0855	2.1083	1.2561	0.8709	0.6570	0.5227	0.4312	0.3653	0.3158	0.2773
50	4.9838	2.0662	1.2313	0.8535	0.6439	0.5122	0.4226	0.3580	0.3095	0.2718

MANUAL SET

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Emergency Equipment Inventory
PROCEDURE TITLE

HNP-4892
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X)   NON-SAFETY RELATED (   )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	General Revision	W.H. Rogers	Tim Greene for	9/23/80
3	Pages 1, 2, 4, 5, 7, 8, & 11 - 19	W.H. Rogers	[illegible]	5/10/82
4	General Revision	CT Jones 12/7/82	CT Jones for HCN	12/7/82

Reference Only

MANUAL SET

PROCEDURE REVISION REQUEST

Need by 12-7-82

PROCEDURE NO. HNP-4892

Revision No. 3

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Wm M Lee	12-3-82	W A Rogers	12-6-82

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 To Specify item on inventory Data Packages which are not essential to emergency facility. Page 1, D Delete Locations, Page 2, 02 Delete radio check from procedure; 3 Delete Visitor Center Phone check 4. Specify documentation of missing or inoperable item, and Specify equipment which will be inventoried after drills Page 3 March 18 General Revision; To update Data Packages with new locations of equipment and the addition of new equipment

Ref: INPO item 5-3

PRB RECOMMENDED APPROVAL: (Yes ( ) No Steve Tipps
PRB Secretary

82-217
PRB Number

12-7-82
Date

HNP-3

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

TYPED COPY TO FOLLOW!

Georgia Power

EMERGENCY EQUIPMENT INVENTORY

NOTE

This procedure supercedes HNP-4400 Revision 6.

A. PURPOSE

To assure that all equipment in emergency kits is properly inventoried on a periodic basis and maintained in operating condition.

B. REFERENCE

Emergency Plan

C. GENERAL

Two classifications of equipment are represented; Equipment essential to the emergency facilities and supplemental equipment and supplies. Essential equipment must be maintained in the inventory at all times. Supplemental equipment and supplies denoted by an asterisk * on the inventory list should be replaced as soon as possible, however these items are not essential and would not have an adverse effect upon emergency response if they were not available.

The equipment listed in the procedure reflects those items in inventory as of the latest revision date of the procedure. Equipment may be added to the listing as necessary; the procedure will then be revised on the next annual review date to show the additional items. Equipment may not be removed from inventory without a procedure revision prior to the removal.

D. LOCATIONS

1. EOF Kits - This kit consists of several metal containers stored in a trailer outside Building 17.
2. Three Survey Team Kits - These kits consist of one metal container each and are located as in paragraph D.1.
3. Decon Kits - The two decon kits are found outside the Operations Support Center in the Fan Room and the Visitors Center.
4. Control Room Kits - These are in the Control Room.
5. Other Equipment - Other equipment supporting the emergency may be found @ the Visitors Center, EOF Trailer, Appling General Hospital, Technical Support Center, and outside the Operations Support Center in the Fan Room.
6. Interim Technical Support Center - Located in the Unit 1 Service Building.
7. Operational Support Center - Located in the Unit 2 Conference Room (trailer).

7. Radios are assigned to the following:

   Two - Plant Chemistry Office
   Two - Counting Room Office
   Two - Health Physics Office
   Two - Supt. of Plant Engineering Services
   Two - Security Headquarters

8. MSA Model 401 air pack spare breathing cylinders - will be at key locations as appropriate (see log sheet 13) to support other emergency items.

9. Visitor's Center telephone - Ext. 2204, 2205.

D E. PROCEDURE - QUARTERLY

1. Open all trunks and suitcases and inventory each item. Check portable survey instruments for broken detectors, bad cables, calibration date and battery condition, record data on proper data sheet. Check flashlights for operation and low volume air samplers for operation. Record inventory results on the appropriate attached log sheets.

~~2. When inventorying radios, check for proper operation by transmitting and receiving signals with another radio at least 100 yards away. Record results on the attached log sheet.~~

~~3. Check visitor center telephone Ext. 2204 or 2205 by dialing the control room number 2244 or 2444 from the Visitor Center.~~

2. All missing or inoperable items must be replaced or repaired and noted in the REMARKS section or "ADDED" column before the log sheets are considered complete. The completed log sheets will be permanently filed in documentation.

NOTE

In addition to a quarterly check and inventory, this procedure shall be implemented following usage of the emergency equipment, e.g. following an emergency drill. This should be done within one week following use. This requirement applies at the facilities involved in the drill or exercise only.

E. I, Hatch Nuclear Plant

Georgia Power

PROCEDURE DATA PACKAGE

DOCUMENT NO: 1HP-4832-1

SERIAL NO: R03- 4

NPL NO: _____

RTYPE: G15.03

XREF: _____

TOTAL SHEETS: 3

FREQUENCY: _____

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 1
Page 1 of 3

APPROVAL	
See Title Page	
DATE	
See Title Page	

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	
HNP 4592	
REVISION NO	
4	
PAGE NO	
4 of 18	

DATA PACKAGE 1
EXTERNAL SURVEY KIT # ____

ITEM	DESCRIPTION	QUANTITY REQUIRED	QUANTITY FOUND	QUANTITY ADDED
1	Yellow Tape 2" *	1		
2	Surgeons gloves (PAIR)	25		
3	Large Yellow Poly Bags	3		
4	Medium Poly Bags *	25		
5	Small Ziplock poly bags (box)	1		
6	Poly sample bottles *	2		
7	Spade *	1		
8	Pocket Knife	1		
9	lead Pens	3		
10	Pencils	3		
11	Pens	3		
12	Magic Markers	2		
13	Clipboard *	1		
14	Pad rate book paper *	1		
15	white stick on labels	40		
16	Envelopes	20		
17	Log book (includes EOF Phone numbers)	1		
18	Scissors *	1		
19	Quarters	10		
20	Forceps	1		
21	Pocket calculater	1		
22	Spare batteries for calculater (Replace in Dec & June)	2		
23	Spare 9 volt transistor batteries (Replace in Dec & June)	2		
24	Spare D size batteries (Replace in Dec. & June)	6		
25	Flash light	2		
26	Flash light bulbs	6		
27	Stop watch	1		
28	Keys to environmental stations	2		
29	First Aid Kit	1		
30	Cs. 137 8 uCi source	1		
31	Ba. 133 cartridge source	1		
32	PRM4A and Probe S.N. Calibration Due BATTERY	1		
33	PIC-6A S.N Calibration Due BATTERY	1		
34	Ludlum 125 MICRO R, SN Calibration Due BATTERY	1		
35	210 GM Probe	1		
36	SH-4 SAMPLER Holder	1		
37	Air SAMPLER and Heat (12 Volt) SN Calibration Dr	1		
38	Silver Zeolite cartridges for Air Sampler	10		

APPROVAL: See Title Sheet
DATE: See Title Sheet

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO: HNP-4827
REVISION NO: 4
PAGE NO: 5 of 18

DATA PACKAGE 1 (continued)

External Survey Kit # ___

ITEM	DESCRIPTION	QUANTITY REQUIRED	QUANTITY FOUND	QUANTITY ADDED
39	47mm Particulate Filters (box)	1		
40	Mersorb Chemical cartridges (for Environmental Stations)	10		
41	SAM-2, BD-22 detector and shield, SN: ____ Calibration Due ____	1		
42	Battery Pack for SAM-2	2		
43	Dosimeters 10 REM (Calibration Exchange Dec & June)	1		
44	Dosimeter charger (check operation)	1		
45	TLD's	20		
46	Envelopes with smears	20		
47	Radioactive Material Tags	10		
48	HNP 4827	1		
49	HNP 4827 Data Packages (each)	10		
50	HNP 8100	1		
51	HNP 8102	1		
52	HNP 8108	1		
53	HNP 8125	1		
54	HNP 8142	1		
55	HNP 8142 Data Packages (each)	10		
56	Area Map Showing Environmental Stations & Site Boundary	1		
57	Dosimeter 0-200 mrem (Calibration Exchange Dec & June)	10		

REMARKS: ____

INVENTORIED BY: ____ Date: ____

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4832-2

SERIAL NO: 803- P011-

MPL NO:

RTYPE: C15.03

XREF:

TOTAL SHEETS: 14

FREQUENCY: Quarterly

COMPLETED BY:

DATE COMPLETED:

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

ACCEPTANCE ____ UNACCEPTABLE ____

REVIEWED BY:

DATE REVIEWED:

REMARKS:

FIGURE 2
Page 1 of 14

DATA PACKAGE 2
EMERGENCY OPERATION FACILITY

ITEM	DESCRIPTION	QUANTITY REQUIRED	FOUND	ADDED
1	SURGEONS GLOVES (box)	1		
2	LARGE YELLOW POLY BAGS	5		
3	POLY sheeting	1		
4	Yellow Tape 2"	2		
5	Plastic Insert signs (PERMA SIGNS)	12		
6	Inserts for item#5 (RADIATION AREA, HIGH RADIATION AREA, CONTAMINATED AREA, AIRBORNE AREA, RADIOACTIVE MATERIAL AREA)	12 sets		
7	Ziplock Poly Bags (box)	1		
8	Poly sample bottle *	1		
9	Smears (box)	1		
10	Radiation Rope (roll)	1		
11	Envelopes	20		
12	Medium Poly Bags *	25		
13	FIRST AID KIT	1		
14	Flashlights	5		
15	Flashlight bulbs	6		
16	D size batteries (Replace in Dec + June)	20		
17	9 volt transistor batteries (Replace in Dec + June)	2		
18	Pocket Knife	1		
19	Potassium Iodide Tablets Expiration date:	250		
20	Cs-137 8 uCi source	1		
21	Ba-133 Cartridge source	1		
22	Tc-99 source	1		
23	PRM4A and Probe, SN Calibration Due BATTERY	1		
24	PRM4A and Probe, SN Calibration Due BATTERY	1		
25	PIC-6A SN Calibration Due BATTERY	1		
26	PIC-6A, SN Calibration Due BATTERY	1		
27	RO-1 SN Calibration Due BATTERY	1		
28	RM-14 SN Calibration Due BATTERY	1		
29	SAM-2 SN Calibration Due	1		
30	RD-22 detector and RD-15 shield for SAM-2	1		
31	HP 210 GM Probe	4		
32	190 GM Probe	1		
33	SH 3 Sample Holder	1		
34	SH 4 Sample Holder	2		
35	Spare Coaxial Cables for instruments	3		
36	12 Volt Air Sampler SN Calibration due	1		
37	12 Volt Air Sampler SN Calibration due	1		
38	115 Volt Air Sampler SN Calibration due	1		

Reference Only

MANUAL SET

APPROVAL	E. I. Hatch Nuclear Plant	PROCEDURE NO.
See Title Page	Georgia Power	HNP- [illegible]
DATE		REVISION NO. 4
See Title Page		PAGE NO. 8 of 18

DATA PACKAGE 2 (cont.)
EMERGENCY OPERATION FACILITY

	ITEM	DESCRIPTION	QUANTITY REQUIRED	FOUND	ADDED
	39	U.S. Vall Air Sampler set. Calibration Due	1		
	40	47 mm Particulate Filters (box)	1		
	41	Silver Zeolite Cartridges for Air Samplers	50		
	~~42~~	~~Dosimeters 0-200 mrem (Calibration Exchange Dec + June)~~	~~50~~		
42	43	Dosimeters 0-10 Rem (Calibration Exchange Dec + June)	15		
43	44	Dosimeter Charger (check operation)	1		
44	45	TLD's	30		
45	46	Area Map	1		
46	47	U I + U II Floor Plans	1		
47	48	HNP 4000 Series Manual set excluding Security Procedures	1		
48	49	HNP 5000 Series Manual Set	1		
49	50	HNP 2012 Fig 3	25		
50	51	HNP 4927	1		
51	52	HNP 4827 Data Packages (each)	10		
52	53	HNP 8182	1		
53	54	HNP 8182 Data Packages (each)	10		
54	55	Portable Radios and chargers	5		
55	56	NOAA weather Radio	1		
56	57	DNR Radio + license	1		
57	58	Plant Radio + license	1		
58	59	Local civil defense Radio + license	1		
59	60	Emergency Call list	1		
60	61	Stationary Supplies (pens, paper, state markers, tape ect)	1		

MANUAL SET

Pol…

DATA PACKAGE 2 (cont)
Emergency Operation Facility
Tool Kit

ITEM	DESCRIPTION	QUANTITY REQUIRED	FOUND	ADDED
1	½" Rope (feet)	100		
2	Extension cord	1		
3	Hack saw	1		
4	Ball Peen Hammer	1		
5	Pipe wrench	1		
6	Crescent wrench	4		
7	Hack saw Blades	9		
8	First Aid Kit	2		
9	Needle Nose Pliers	1		
10	Channel locks	1		
11	Pliers	1		
12	Dikes	1		
13	Hip waders	1		
14	Nails (box)	1		
15	Pencils	6		
16	Pens	6		
17	Claw Hammer	1		
18	Roll of wire	1		
19	D size batteries	10		
20	Screw drivers	4		
21	Electrical TAPE	2		

Remarks:

Inventoried By: ________ Date ________

MANUAL SET

APPROVAL	DATE
See Title Page	See Title Page

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO	REVISION NO	PAGE NO
HNP 4892	4	10 of 18

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4892-3

SERIAL NO: R04-

MPL NO: N/A

RTYPE: G15.03

XREF: N/A

TOTAL SHEETS: 3

FREQUENCY: Quarterly

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: ________

HNP-9

 4892 R04

APPROVAL		HNP- 4592
See Title Page	E. I. Hatch Nuclear Plant	REVISION NO 4
DATE See Title Page	Georgia Power	PAGE NO 11 of 18

DATA PACKAGE 3
OPERATIONS SUPPORT CENTER

ITEM	DESCRIPTION	QUANTITY REQUIRED	FOUND	ADDED
		1		
1	Mobile Cart	1		
2	SAM-2 SN Calibration Due	1		
3	RD-22 detector and RD15 Shield for SAM 2	1		
4	PS-1 SN Calibration Due	1		
5	PIC-6A SN Calibration Due: BATTERY:	1		
6	RM-14 SN Calibration Due: BATTERY:	1		
7	E-120 SN Calibration Due BATTERY	1		
8	CJM CAM SN Calibration Due	1		
9	L.V. Air Sampler SN Calibration Due	1		
10	115 Volt Air Sampler SN Calibration Due	2		
11	HP 210 GM Probes	8		
12	Lead Bricks	2		
13	47 mm Particulate Filters (box)	100		
14	Silver Zeolite cartridges for Air sampler	10		
15	Dosimeters 200 mrem (Calibration exchange Dec + June)	10		
16	Dosimeters 20 Rem (Calibration exchange Dec + June)	6		
17	Digital Alarm Dosimeter Calibration Due	1		
18	Dosimeter Charger (Check operation)	25		
19	TLD's	4		
20	Smears + Folders (box)	2		
21	Rad Ribbon (roll)	10		
22	Insert Person Signs	10		
23	Inserts for Person Signs (RAD AREA, HIGH RAD AREA, RAD MAT AREA, AIRBORNE RAD AREA, Contaminated AREA)	[illegible]		
24	Step off Pads (set)	20		
25	Complete set of PC's	20		
26	Ultravue or Ultra twin Respirator with Particulate Filters	10		
27	401 Air Pack (SCBA)	10		
28	Spare Air Cylinders	10		
29	Plastic Rain Suits	1		
30	Regulator Assembly for SAM-2	1		
31	SH-4 Sample holder	1		
32	Ba-133 Cartridge source	1		
33	Tc-99 Source	25		
34	Plastic Petri dishes	25		
35	small envelopes	5		
36	Yellow Tape (rolls)	1		
37	Handiwrap (roll)	2		
38	Extension cords			

MANUAL SET

Reference Only

DATA PACKAGE 3 (cont.)
OPERATIONS SUPPORT CENTER

ITEM	DESCRIPTION	QUANTITY REQUIRED	QUANTITY FOUND	QUANTITY ADDED
39	Extension Cord Adapter	1		
40	Multi-Outlet Adapter	1		
41	Large Yellow Poly Bags	10		
42	Disposable Blankets	4		
43	Log Book	1		
44	HNP 8102	1		
45	HNP 8120	1		
46	HNP 8121	1		
47	HNP 8121 Data Package 1	1		
48	HNP 8121 Data Package 2	2		
49	HNP 8142	1		
50	HNP 8142 Data Packages (EACH)	10		
51	HNP 8013 Data Sheet 2	20		
52	HNP 8004 Form 3	10		
53	HNP 8153	1		
54	Radio License	1		
55	Potassium Iodide(ea) Expiration Date	250		
	DECON KIT			
1	Radcon	2		
2	Paper Towels	2		
3	Soap Powder	1		
4	Lava Soap, Ivory Soap (each)	2		
5	Scrub brushes	2		
6	Paper Coveralls (case)	1		
7	Paper Booties (case)	1		
8	Large Yellow Poly Bags	5		
9	HNP 8005	1		
10	HNP 8006	1		

REMARKS: ______________________________

INVENTORIED BY: ____________________ Date: __________

Page 3 of 3

MANUAL SET

Reference ...

APPROVAL: See Title Page
DATE: See Title Page

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO: HNP 4892
REVISION NO: 4
PAGE NO: 13 of 18

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4892-4

SERIAL NO: R04

MPL NO: N/A

RTYPE: G15.03

XREF: N/A

TOTAL SHEETS: 2

FREQUENCY: Quarterly

COMPLETED BY: _____

DATE COMPLETED: _____

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

ACCEPTABLE ____ UNACCEPTABLE ____

REVIEWED BY: _____

DATE REVIEWED: _____

REMARKS: _____

HNP-9

MANUAL SET R04

E.I. Hatch Nuclear Plant

See Title Page	
DATE	
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Georgia Power

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Data Package 4
Technical Support Center

ITEM	DESCRIPTION	QUANTITY REQUIRED	QUANTITY FOUND	QUANTITY ADDED
1	RM-14 SN: Calibration Doc BATTERY	1		
2	INPO Emergency Resources Manual	1		
3	Radio License	2		
4	401 Air Pack (SCBA)	250		
5	Potassium Iodide (pot.) Expiration date	1		
6	Stationary - Supplies (pens, paper, markers, ect.)	1		
7	HNP 4000 Series Procedures Manual Set			

REMARKS:

INVENTORIED BY: Date

MANUAL SET

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4892-5

SERIAL NO: R04

MPL NO: N/A

RTYPE: G15.03

XREF: N/A

TOTAL SHEETS: 4

FREQUENCY: Quarterly

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: _____

DATA PACKAGE 5
ADDITIONAL LOCATIONS

ITEM	DESCRIPTION	QUANTITY REQUIRED	QUANTITY FOUND	QUANTITY ADDED
	Control Room			
1	Complete set of P.C.'s	6		
2	E-4000 Pocket SN: Calibration Due Battery	1		
3	PIC-1-A SN: Calibration Due Battery	1		
4	D-size batteries (Replace in Dec + June)	5		
5	9 volt transistor batteries (Replace in Dec + June)	2		
6	Potassium Iodide ea: Expiration Date	250		
7	401 Air Pack (SCBA)	10		
8	SPARE Air Cylinders	32		
9	O_2 Resuscitator	1		
10	HNP-8107	1		
11	HNP-8100	1		
	Building 10 Decontamination Area			
1	Radcon	2		
2	Towels	2		
3	Soap Powder	1		
4	Lava Soap	2		
5	Ivory Soap	2		
6	Sterile Bottles	2		
7	Paper Coveralls (case)	1		
8	Paper Booties (case)	1		
9	Red Ribbon (Roll)	1		
10	Yellow Tape (Roll)	1		
11	HNP-5005	1		
12	HNO-5006	1		
13	Large Yellow Poly BAGS	5		

DRIM PACKAGE 5 (CONTINUED)

ADDITIONAL LOCATIONS

ITEM	DESCRIPTION	QUANTITY REQUIRED	QUANTITY FOUND	QUANTITY ADDED
	ENVIRONMENTAL BLDG DECON AREA			
1	Radcon	2		
2	Towels	2		
3	Soap Powder	1		
4	Lava Soap	2		
5	Ivory Soap	2		
6	Scrub brushes	2		
7	Paper Coveralls (case)	1		
8	Paper Booties (case)	1		
9	Rad Ribbon (Roll)	1		
10	Yellow Tape (roll)	1		
11	Large Yellow Poly Bags	5		
12	HNP-8105	1		
13	HNP-8006	1		
	APPLING COUNTY HOSPITAL			
1	RM-14 S/N Calibration Due Battery	1		
2	RM-14 S/N Calibration Due Battery	1		
3	PIC-6A S/N Calibration Due Battery	1		
4	Dosimeters 1 Rem (Calibration exchange Dec and June)	6		
5	Dosimeters 20 Rem (Calibration exchange Dec and June)	6		
6	TLD's	20		
7	Finger Ring TLD's	6		
8	Dosimeter Charger (CHECK OPERATION)	1		
9	STEP OFF PADS	10		
10	Plastic Insert signs	7		
11	Inserts for Signs (complete set)	7		
12	Radiation Rope (ft)	200		
13	Shield	1		
14	Garbage Bags (Box)	1		
15	Pressure Tape (Roll)	2		
16	Lead Pig	1		
17	Hoses (Sets)	2		
18	Wash down Table	1		
19	Cotton Towels	1		
20	2 Gal. Plastic Buckets	1		

APPROVAL	PROCEDURE NO
See Title Page	HNP 4892
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	18 of 18

E. I. HATCH NUCLEAR PLANT

Georgia Power

DATA PACKAGE 5 (continued)

Additional Locations

ITEM	DESCRIPTION	QUANTITY REQUIRED	QUANTITY FOUND	INITIAL
	APPLING COUNTY HOSPITAL (continued)			
21	Plastic Garbage Cans	3		
22	20 Gal. Plastic Jug	3		
23	55 Gal. Drums	2		
24	Log Book	1		
25	Poly vinyl Gloves (box)	3		
26	Magic Markers	2		
27	Masslin	10		
28	Ink Pens	2		
29	Radiation Ribbon (roll)	2		
30	Yellow Tape (roll)	1		
31	E-120 SN ____ Calibration Due ____ BATTERY	1		
32	Spare batteries for dosimeter charger (Replace Once a Year)	2		
33	HNP 8114	1		
34	HNP 8004 Item 3	10		
35	HNP 8100	1		
36	HNP 8120	1		

REMARKS:

INVENTORIED BY: _____

Reference Only

MANUAL SET

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Notification of Unusual Event
PROCEDURE TITLE

HNP-4420
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
3	Page 1	W R Rogers	G F Jones	3/1/82
4	Page 3 & 5	W R Rogers	[illegible]	12/3/82

Needby 11-30-82

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4420

Revision No. 3

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name: Tim Carney	Date:	Signature:	Date:
Rich Titla	11/23/82	W H Rogers	11/24/82

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

① Pg 5 of 7 - Table 1 - add changes to Table as shown on attached

② Pg 4 Table 1 section 2 - Change hi To hi-hi

Reference NEC item 81-30-22

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No Steve Jap
PRB Secretary

82-213
PRB Number

11-30-82
Date

Reference Only

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.

NOTIFICATION OF UNUSUAL EVENT

A. CLASS DESCRIPTION

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 Table 1. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

B. PURPOSE

Purpose of offsite notification is to (1) assure that the first step in any response later found to be necessary has been carried out, (2) bring the operating staff to a state of readiness, and (3) provide systematic handling of unusual events information and decision making.

C. PLANT ACTIONS

NOTE

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 Unusual Event Class. The Shift Supervisor assumes the role of Emergency Director until relieved by the Plant Manager or his designee.

1. Inform State and/or local offsite authorites of the nature of the unusual condition within 15 minutes following recognition.
2. Augment on-shift resources as needed.
3. Assess and respond.
4. Escalate to a more severe class, if appropriate.

OR

5. Close out with verbal summary to offsite authorities; followed by written summary within 24 hours.

D. STATE AND/OR LOCAL OFFSITE AUTHORITY ACTIONS

1. Provide fire or security assistance, if requested.
2. Escalate to a more severe class, if appropriate.
3. Stand by until verbal closeout.

TABLE 1
NOTIFICATION OF UNUSUAL EVENT

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
1. ECCS initiated and discharged to vessel	Auto initiation of: Core spray, or	-146.5 inches or 2 psig drywell pressure
	RHR (LPCI mode)	-146.5 inches or 2 psig drywell pressure
2. Radiological effluent technical specification limits exceeded	Main Stack and Reactor Bldg Vent monitors Hi-Hi alarm plus monitor readings	Exceeding ETS 2.1.3a
	Liquid Radwaste Effluent Hi alarm plus monitor readings	Exceeding ETS 2.1.1a
3. Fuel damage indication		
a. High off gas at pretreat monitor	Pretreat Monitor Hi Hi alarm plus monitor readings	500,000 μ Ci/sec corresponding to 16 isotopes decayed to 30 minutes; or an increase of 100,000 μ Ci/sec within a 30 minute period.
b. High coolant activity sample	Lab sample significantly greater than limit for normal operating I-131 equivalent	$>$ 100 μ Ci/gm of I-131 equivalent
4. Abnormal reactor pressure	Reactor Vessel High Pressure	$\geq$ 1200 psig

MANUAL SET

TABLE 1 (CONT.)
NOTIFICATION OF UNUSUAL EVENT

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
5. Failure of a main steam line relief valve to close following a reduction of applicable pressure	Failure of valve to close	Torus and/or DW pressure increase Torus Temp > 110°F Torus Level High >153 in. Safety Relief Vlv Tail Pipe Temp. High > 230°F
6. Loss of offsite power or loss of onsite AC power capability	500 and 230 KV system failure or Loss of all emergency diesel generators	Zero voltage on all incoming outside lines zero voltage indicated on all 4.16 kV buses
7. Loss of containment integrity requiring shutdown by technical specifications	Loss of Primary or Secondary Containment Integrity	See Table 1a
8. Fire within the plant lasting more than 10 minutes	Fire alarm and observation	Shift Supervisor's judgement
9. Security threat or attempted entry or attempted sabatage	Observation or valid initiation of security alarms	Shift Supervisor's judgement based on advise of Security Shift Supervisor
10. Natural phenomenon being experienced or projected beyond usual levels.	Observation or notification	Shift Supervisor's judgement

TABLE 1 (CONT.)
NOTIFICATION OF UNUSUAL EVENT

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
a. Any earthquake felt inplant or detected on plant seismic instrumentation	Observation or - "Seismic Instrumentation Triggered" Alarm on Unit I Control panel. This starts the Time/History Recorders for Units I & II	Alarm setpoint is .005 G
b. Any tornado onsite causing significant damage affecting plant operations	Observation	
c. Any hurricane onsite causing significant damage affecting plant operations	Observation	>75 mph
d. 50 year flood causing significant damage affecting plant operations	Observation	≥88.6 ft. MSL
e. Low river water	Unit 1: Intake Screen or Low Water alarm plus observation of level indicators Unit 2: Plant Service Water Intake Structure Low Level alarm plus observation of level indicators	≤62/4 ft. MSL
11. Other hazards being experienced or projected		Shift Supervisor's judgement
a. Aircraft crash onsite or unusual aircraft activity over facility	Observation	
b. Onsite explosion	Observation	

TABLE 1 (CONT.)
NOTIFICATION OF UNUSUAL EVENT

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
c. Significant onsite toxic gas release	Chlorine alarm in Chlorine Bldg. Rupture of chlorine cylinder or chlorine system piping or observation	
Significant onsite flammable gas release	Observation	
d. Turbine rotating component failure causing rapid plant shutdown	Turbine trip, turbine internal damage	
12. Other plant conditions exist which warrant increased awareness on the part of the plant operating staff or State and/or local offsite authorities	Exceeding any safety limit as required in technical specifications	Shift Supervisor's judgement
13. Transportation of contaminated injured individual from site to offsite hospital	High contamination to injured individual	>10,000 dpm/100cm^2

TABLE 1a
HNP-EP

PARAMETER VALUE FOR LOSS OF CONTAINMENT INTEGRITY REQUIRING SHUTDOWN BY TECHNICAL SPECIFICATIONS

Unable to meet one of the following requirements within time limit set forth by technical specifications:

1. All non-automatic containment isolation valves on lines connected to the reactor coolant system or containment which are not required to be open during accident conditions are closed. These valves may be opened to perform operational activities.

2. At least one door in the personnel airlock is closed and sealed.

3. All automatic containment isolation valves are operable or deactivated in the isolated position.

4. All blind flange and man ways are closed.

5. At least one door in each access opening is closed.

6. The standby gas treatment system is operable.

7. All automatic ventilation system isolation valves are operable and are secured in the isolated position.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

ALERT
PROCEDURE TITLE

HNP-4520
PROCEDURE NUMBER

LAB
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Page 1	W K Rogers	[illegible]	3/1/82
3	Page 5	W K Rogers	[illegible]	12/3/82

Ncd by 11-30

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-[illegible]

Revision No. [illegible]

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name: [illegible]	Date: [illegible]	Signature: W.H. Rogers	Date: 11/29/82

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

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

Safety Related (✓) Non-Safety Related ( )

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

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

① [illegible] changes as shown

(Reference NRC item 81-32-22)

PRB RECOMMENDS APPROVAL: (✓)Yes ( )No Steve [illegible]
PRB Secretary

82-213
PRB Number

11-30-82
Date

HNP-3

Reference Only

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.

ALERT

A. CLASS DESCRIPTION

Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant such as those noted in Table 1. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline (PAG) exposure levels.

B. PURPOSE

Purpose of offsite alert is to (1) assure that emergency personnel are readily available to respond if situation becomes more serious or to perform confirmatory radiation monitoring if required, and (2) provide offsite authorities with current status information.

C. PLANT ACTIONS

NOTE

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 Alert Class. The person declaring the emergency assumes the role of Emergency Director until relieved.

1. Inform State and/or local authorities of alert status and reason for alert within about 15 minutes.

2. Augment resources and activate Technical Support Center (TSC) and Operations Support Center (OSC). Bring Emergency Operations Facility (EOF) and other key emergency personnel to standby status.

3. Assess and respond.

4. Mobilize onsite monitoring teams with associated communications.

5. Provide periodic plant status updates to offsite authorities (at least every 15 minutes).

6. Provide periodic meteorological assessments to offsite authorities and, if any releases are occurring, dose estimates for actual releases.

7. Escalate to a more severe class, if appropriate.

8. Close out or reduce emergency class by verbal summary to offsite authorities followed by written summary within 8 hours of closeout or class reduction.

D. STATE AND/OR LOCAL OFFSITE AUTHORITY ACTIONS

1. Provide fire or security assistance if requested.

2. Augment resources and bring primary response centers, NOAA weather radio and EBS to standby status.

3. Alert to standby status key emergency personnel including monitoring teams with associated communications.

4. Provide confirmatory offsite radiation monitoring and ingestion pathway dose projections if actual release substantially exceed technical specification limits.

5. Escalate to a more severe class, if appropriate.

6. Maintain alert status until verbal closeout or reduction of emergency class.

TABLE 1 ALERT

	INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
1.	Severe loss of fuel cladding:		
	a. High off gas at pre-treat monitor	Pretreat Monitor Hi Hi alarm plus monitor readings	>5 Ci/sec corresponding to 16 isotopes decayed 30 minutes
	b. Very high coolant activity sample	Lab sample substantially greater than limit for normal operating I-131 equivalent	>300 μ Ci/gm of I-131 equivalent
2.	Steam line break outside containment with significant MSIV leakage	Reactor Bldg. ARM Hi alarm Turbine Bldg. ARM Hi alarm High MSL Tunnel Temperature	>15 mr/hr >15 mr/hr $\geq 200^{o}F$
3.	Primary coolant leak greater than 50 gpm	Drywell equipment and/or Floor Drain Sump Hi Hi alarm	>50 gpm
4.	High radiation levels or high airborne contamination which indicate a severe degradation in control of radioactive materials	ARM's are off scale on high end and readings confirmed	$>10^{4}$ mr/hr
5.	Loss of offsite power and loss of all onsite AC power (see Table D-3 for extended loss)	Undervoltage alarms on all 4.16 kV buses and loss of control room normal lighting and inability to energize 4.16 kV buses with Diesel Generators	4.16 kV buses voltmeter reading zero and failure of Diesel Generators output breaker to close into 4.16 kV buses.
6.	Loss of all onsite DC power (see Table D-3 for extended loss)	Loss of all DC buses	
7.	Complete loss of any function needed for plant cold shutdown	Loss of Shutdown Cooling Mode of RHR and all emergency core cooling systems	
		Inability to shutdown with Control Rods	

TABLE 1 ALERT (Continued)

	INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
8.	Failure of the reactor protection system to initiate and complete a scram which brings the reactor subcritical	Valid scram signal and neutron count rate indicates reactor is critical	Reactor is indicated critical by at least one of the following neutron monitoring systems: SRM, IRMs, or APRMs
9.	Fuel handling accident with release of radioactivity to reactor building	Any of the following plus confirmation by analysis of air sample:	
		Refueling Floor ARM Hi alarm	>15 mr/hr
		Refueling Floor Vent Exhaust Hi Hi Radiation alarm	>20 mr/hr
		Refueling Floor Vent Filter Hi Radiation alarm	>15 mr/hr
10.	Fire potentially affecting ECCS	Fire alarm and observation	Shift Supervisor's judgement
11.	Most or all alarms (annunciators) lost	Observation or failure in alarm check or transient noticed without alarm	
12.	Radiological gaseous effluents greater than 10 times technical specification instantaneous limits	Main Stack or Reactor Bldg. Vent monitors Hi Hi alarm plus monitor readings	Exceeding 10 times ETS 2.1.3a
13.	On going security compromise	Observation	Shift Supervisor's judgement based on advice of Security Shift Supervisor

TABLE 1
ALERT (CONTINUED)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
14. Severe natural phenomena being experienced or projected:		Shift Supervisor's judgement
a. Earthquake greater than OBE level	1. "Seismic Instrumentation Triggered" alarm 2. Units I and II recorders start 3. "Seismic Switch Tripped" alarm which is set at OBE 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% OBE have been actuated. NOTE: If any one of the situations in 3-6 above occur, the operator should play back the Time History Recorder Tapes to determine the actual maximum g acceleration.	Annunciators are set at 100% OBE level (.08g vertical has been exceeded)

TABLE 1 ALERT (Continued)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
b. Flood near design level	High river water elevation	≥100 ft MSL
c. Hurricane winds near design basis level (300 mph)	High winds	
d. Tornado striking facility incurring damage affecting safety systems	Observation	
e. Low river water	Unit 1: Intake Screen or Low Water alarm plus observation of level indicators	≤61.7 ft MSL
	Unit 2: Plant Service Water Intake Structure Low Level alarm plus observation of level indicators	
15. Other hazards being experienced or projected:		Shift Supervisor's judgement
a. Aircraft crash on facility	Observation	
b. Missile impacts from whatever source on facility incurring damage affecting safety systems	Observation	

TABLE 1 ALERT (Continued)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
c. Known explosive damage to facility affecting plant operation	Observation	
d. Entry into facility environs of toxic or flammable gases	Control Room Outside Air Inlet alarm	
e. Turbine failure causing casing penetration	Turbine components penetrating casing	
16. Other plant conditions exist that warrant precautionary activation of TSC and placing EOF and other key emergency personnel on standby.	Observation	Shift Supervisor's judgement
17. Evacuation of control room anticipated or required with control of shutdown systems established from local stations	Observation	Shift Supervisor's judgement
18. Control rod drop accident	MSL High Radiation alarm	>3000 mr/hr
	APRM Upscale Trip of Channels A and/or B	>120% full power

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

ALERT EMERGENCY - RALLY POINT LEADER
PROCEDURE TITLE

HNP-4526
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	W H Rogers	C T Jones	3/1/82
3	Page 1 & 2	W H Rogers	[illegible]	12/3/82

PROCEDURE REVISION REQUEST

Need by 11/27/82

PROCEDURE NO. HNP- 4526

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Titolo	11/10/82	Peggy Smith	11/12/82

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 Reference QA Trace # 82-48
p 1 & 2 section C. 1, 2, 3 a & b: Replace with insert as shown. This change was made to correct the procedure in that personnel do not evacuate the site until a "SITE-AREA" emergency is reached. Therefore, the rally point should be designated only in this procedure.
p 3 - renumber as shown & make editorial changes specified.
p 1 section B: add HNP-4521

TCH 11-15-82

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No

Steve Jones
PRB Secretary

82-211
PRB Number

11-23-82
Date

Reference Only 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- 4526
REVISION NO
3
PAGE NO
1 of 2

ALERT EMERGENCY - RALLY POINT LEADER

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

HNP-4521

C. ACTION

1. Once the Rally Point Leader is designated by the OSC manager, he should appoint approximately three RET members to report with him to gate 16, which is the primary rally point.

2. Determine if the rally point is habitable using survey meters and the following criteria:

   a. Area dose rate less than 0.5 mr/hr, and

   b. contamination less than 100 CPM above background.

3. If conditions at the primary rally point (gate 16) do not satisfy the criteria in C.2, then proceed to an alternate rally point. The alternate rally point is The Skills Training Building or The Environmental Building.

4. Determine if the alternate rally point satisfies the criteria in step C.2.

5. Return to gate 16.

6. Notify the Control Room of results.

7. Prepare for evacuation of plant personnel if the emergency class should escalate, periodically confirming that conditions at the rally point are still acceptable.

8. Do not release members of the Radiological Emergency Team, except to report to the EOF, until directed to do so by the Emergency Director or Shift Supervisor if the Emergency Director cannot be contacted.

9. Assist in routing ambulance to pick up any injured personnel. Assure ambulance driver and attendant are provided with TLD badge and pocket dosimeter on entry.

10. Assist Emergency Director in bringing emergency under control.

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 R Rogers	C Jones	3/1/82
2	Pages 1 & 3 thru 7	W R Rogers	[illegible]	12/3/82

Need by 11-30-92

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4420

Revision No. 1

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name: Tim Carney	Date:	Signature:	Date:
Rick Tidd	11/23/92	W A Rogers	11/24/92

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

(1) Pg 1-C, Add Note as shown on attached

(2) Pg. E Table 1 - all changes as shown on attached

(3) Table 1 - Fix Correct "Valve" to "Value" on all Tables as shown

(Reference NRC item 91-30-22)

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No Steve Lynn
PRB Secretary

92-213
PRB Number

11-30-92
Date

Reference Only

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

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 Shift Supervisor assumes the role of emergency director until relieved by the Plant Manager or his designee.

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 about 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 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 MSL Hi Flow alarm	Greater than 15 mr/hr 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

APPROVAL	See Title Page
DATE	See Title Page

PROCEDURE NO	HNP- 4620
REVISION NO	2
PAGE NO	4 of 7

TABLE 1
SITE AREA EMERGENCY (CONTINUED)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
5. Loss of all vital onsite DC power for more than 15 minutes	Loss of DC Busses for more than 15 minutes	
6. 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.	
8. 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
9. 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

TABLE 1
SITE AREA EMERGENCY (CONTINUED)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
11c. 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. PAGs 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	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 than DBE levels (0.15g)	

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 (CONTINUED)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
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	Shift Supervisor's judgement
16. Evacuation of control room and control of shutdown systems not established from local stations in 15 minutes	Observation	

TABLE 1
SITE AREA EMERGENCY (CONT)

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Site Area Emergency - Rally Point Leader
PROCEDURE TITLE

HNP- 4626
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 & 3	W H Rogers	C T Jones	3/1/82
3	Page 1	W H Rogers	C T Jones	7/2/82
4	Page 1 thru 3	W H Rogers	[illegible]	12/3/82

Need by 11/27/82

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4626

Revision No. 3

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Tifdo	11/13/82	W H Rogers	11/13/82

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 Reference QA Tracer 82-420
pl section B.: add reference to HNP-4621
pl section C: Insert new section C entitled "General Information & Instructions"
pl section C: reletter as section D, ACTION and replace with text as shown on following pages.

TSH 11-15-82

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No Steve Jaggers
PRB Secretary

82-211
PRB Number

11-23-82
Date

Reference Only HNP-3

MANUAL SET tc

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- 4626
REVISION NO
4
PAGE NO
1 of 3

SITE AREA EMERGENCY - RALLY POINT LEADER

NOTE

This procedure supercedes HNP-4605 Revision 6 dated 1-2-81.

A. CONDITION

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

B. REFERENCE

HNP-4620

HNP-4621

C. GENERAL INFORMATION & INSTRUCTIONS

1. The primary rally point for personnel inside the primary protected area is gate 16.

2. The primary rally point for personnel outside the primary protected area is gate 1.

3. The alternate rally points are:

   a. Environmental Building

   b. Skills Training Building or The Outage Training Building.

4. The criteria for rally point habitability are:

   a. Area dose rate less than 0.5 mr/hr, and

   b. contamination level less than 100 cpm above rally point background.

5. The locations of decontaminatiqn showers outside the primary protected area are:

   a. Environmental Building

   b. Outage Training Building

6. Do not release any person who has received greater than 25 rem whole body dose or is suspected to have ingested significant amounts of radioactive materials. Such persons are to be taken to the hospital for examination and further evaluation of exposure.

7. Confer with the Emergency Director before releasing any personnel involved in the incident.

8. Check with the Security Force, general contractors, and Georgia Power Construction Department to determine those persons remaining in the plant. If any person(s) is (are) unaccounted for, report this to the Shift Foreman. If the Shift Foreman cannot account for the missing person(s), form a rescue team(s) and initiate HNP-4628, Site Area Emergency - Rescue Team.

D. ACTION

1. After the RET assembles in the OSC, the OSC manager will appoint a Rally Point Leader to take charge of the rally point.

2. The Rally Point Leader should instruct all RET members not assigned a specific function to report with him to gate 16.

NOTE

Leave enough RET members in the OSC to comprise an internal survey team and a rescue team (approximately seven individuals).

3. Determine if the primary rally points are habitable using the criteria in Section C.4

4. If conditions at the primary rally points do not satisfy the criteria in Section C.4, proceed to an alternate rally point. Determine if the alternate rally point is habitable using the criteria in Section C.4.

5. Dispatch an appropriate number of RET members to the selected rally points to monitor personnel for contamination.

6. Assure personnel gather at the designated rally points for frisking by RET members and collect all personnel dosimetry.

   a. Attempt to separate those individuals who were involved in the incident, who were working in contaminated areas, and those wearing protective clothing from other personnel at the rally point.

b. Attempt to survey those individuals with emergency response assignments as soon as practical.

c. Instruct individuals who were involved in the incident, those found contaminated (greater than 100 cpm above the Rally Point background), and those with personnel dosimeters off scale to remain at the rally point, separated from the others, and notify the Health Physics Supervisor in the TSC.

d. Forward these individuals personnel dosimetry to the EOF and instruct these personnel to report to the EOF (after checking through the rally point) for further evaluation of dose received.

e. Dispatch an RET member(s) to accompany contaminated individuals to a decontamination shower (see C.5) and supervise the decontamination procedure.

f. Release uncontaminated individuals to evacuate the site on U.S. Hwy. 1 in the direction specified by the Control Room.

g. Report status of the evacuation to the Emergency Operations Facility.

h. Do not release members of the Radiological Emergency Team, except to go to the EOF, unless directed to do so by the Emrgency Director or Shift Foreman if the Emergency Director cannot be contacted.

i. Assist in routing ambulance to pick up any injured personnel. Assure ambulance driver and attendant are provided with TLD badge and pocket dosimeter on entry.

j. Assist Emergency Director in bringing emergency under control.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

General Emergency
PROCEDURE TITLE

HNP-4720
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Page 2 & 4	W.H. Rogers	C.T. Jones	3/1/82
2	Page 1	W.H. Rogers	[illegible]	12/7/82

Reference Only

HNP-9

MANUAL SET

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-4720

Revision No. 1

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Title:	11/23/82	W H Rogers	11/24/82

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 ( ) Non-Safety Related ( )

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

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

D. P. I. C. Add Note as shown on attached

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No Steve Ingor
PRB Secretary

82-213
PRB Number

11-30-82
Date

Reference Only 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.

HNP-9

GENERAL EMERGENCY

A. CLASS DESCRIPTION

Events are in process or have occurred which involved actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Refer to Table 1. Release can be reasonably expected to exceed PAG exposure levels offsite for more than the immediate site area.

B. PURPOSE

Purpose of the general emergency declaration is to (1) initiate predetermined protective actions for the public, (2) provide continuous assessment of information from licensee and offsite organization measurements, (3) initiate additional measures as indicated by actual or potential releases, (4) provide consultation with offsite authorities and (5) provide updates for the public through offsite authorities.

C. PLANT ACTIONS

NOTE

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 general clasification. The Shift Supervisor assumes the role of emergency director until relieved by the Plant Manager or his designee.

1. Promptly inform State and local offsite authorities of general emergency status and reason for emergency (parallel notification of State/local).

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 joint with offsite authorities).

6. Make senior technical 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. 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. Activate public notification system promptly, inform public of emergency status and provide updates periodically.

3. Consider sheltering for 2 mile radius and 5 miles downwind and assess need to extend distances. Consider advisability of evacuation (projected time available vs. estimated evacuation times).

4. Augment resources by activating primary respond centers.

5. Dispatch key emergency personnel including monitoring teams with associated communications.

6. Dispatch other emergency personnel to duty stations within 5 mile radius and alert all others to standby status.

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 10 miles on stored feed and assess need to extend distance.

10. Provide press briefings, perhaps with GPC.

11. Maintain general emergency status until closeout or reduction of emergency class.

TABLE 1 GENERAL EMERGENCY

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
1.a. Effluent monitors detect levels corresponding to 1 rem/hr W.B. or 5 rem/hr thyroid at the site boundary under actual meteorological conditions.	Main Stack and/or Reactor Bldg. Vent monitors Hi Hi alarms plus monitor reading plus dose rate projection calculations. Dose measurements off-site using portable instruments or environmental monitoring stations.	
1.b. Projected dose rates as above based on other plant parameters.	Dose rate projections will be based on the following: Containment Post LOCA Radiation monitors, analysis of drywell air sample, ARM monitors in Reactor Building, plus possible confirmation from effluent monitors or offsite measurements.	
2.a. Failure of cladding and containment with potential loss of primary coolant boundary.	See Table 1-a.	Reactor pressure >1325 psig with failure of safety relief valves to open. 4160 volts undervoltage, 600 volts undervoltage. Analysis of activity in steam and coolant. Reactor water level <352.5 inches. Failure of ECCS to auto or manual initiate. Indicated loss of primary containment.

TABLE 1 GENERAL EMERGENCY (Continued)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
2.b. Failure of cladding and primary coolant boundary with potential loss of containment	See Table 1-b.	Containment pressure ≥25 psig Containment temperature >300°F Analysis of activity in steam and reactor coolant Reactor water levels ≤ -164.5 inches Containment Post LOCA Monitor Readings Containment High Range Radiation Monitor Readings Main Steam Line Flow >120 psid Containment atmospheric analysis
2.c. Failure of primary coolant boundary and containment with potential loss of cladding	See Table 1-c.	Containment pressure ≥25 psig Containment temperature >300°F Main Steam Line Flow >120 psid Indicated loss of primary containment Failure of ECCS to auto or manual initiate 4160 volt undervoltage 600 volt undervoltage Reactor water level ≤ -164.5 inches and decreasing
3. Loss of physical control of the plant	Observation	Shift Supervisor's judgement based on advice of Security Shift Supervisor

MANUAL SET

TABLE 1 GENERAL EMERGENCY (Continued)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
4. Other plant conditions exist from whatever source that make release of large amounts of radioactivity in a short time period possible (e.g., any core melt situation). Example of sequences:		Judgement of Shift Supervisor and STA
a. Transient (e.g., loss of offsite power) plus failure of requisite core shutdown systems (e.g., scram). Could lead to core melt in several hours with containment failure likely. More severe consequences if pumps trip does not function.		
b. Small or large LOCA's with failure of ECCS to perform leading to core melt degradation or melt in minutes to hours. Loss of containment integrity may be imminent.		
c. Small or large LOCA occurs and containment performance is unsuccessful affecting longer term success of the ECCS. Could lead to core degradation or melt in several hours without containment boundary.		
d. Shutdown occurs but requisite decay heat removal systems (e.g., RHR) or nonsafety systems heat removal means are rendered unavailable. Core degradation or melt could occur in about ten hours with subsequent containment failure.		

TABLE 1 GENERAL EMERGENCY (Continued)

INITIATING CONDITION	EQUIPMENT STATUS	PARAMETER VALUE
5. Any major internal or external events which could cause massive common damage to plant systems resulting in any of the above.		
Fires	Massive damage to ECCS System	Loss of ECCS System
Earthquake	Massive damage to ECCS System	Loss of ECCS System

TABLE 1-a

EQUIPMENT STATUS FOR FAILURE OF CLADDING AND CONTAINMENT WITH POTENTIAL LOSS OF PRIMARY COOLANT BOUNDARY

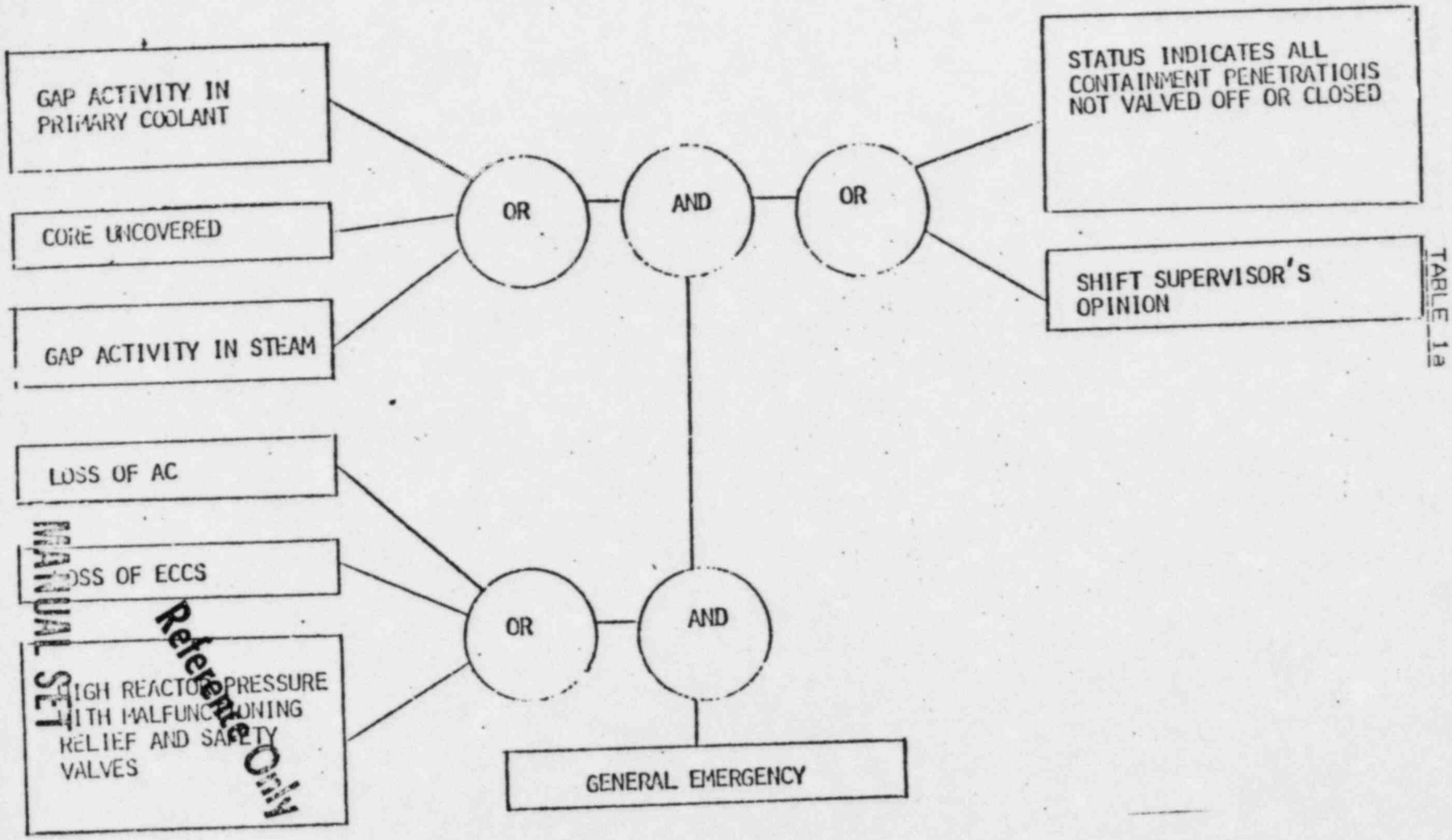
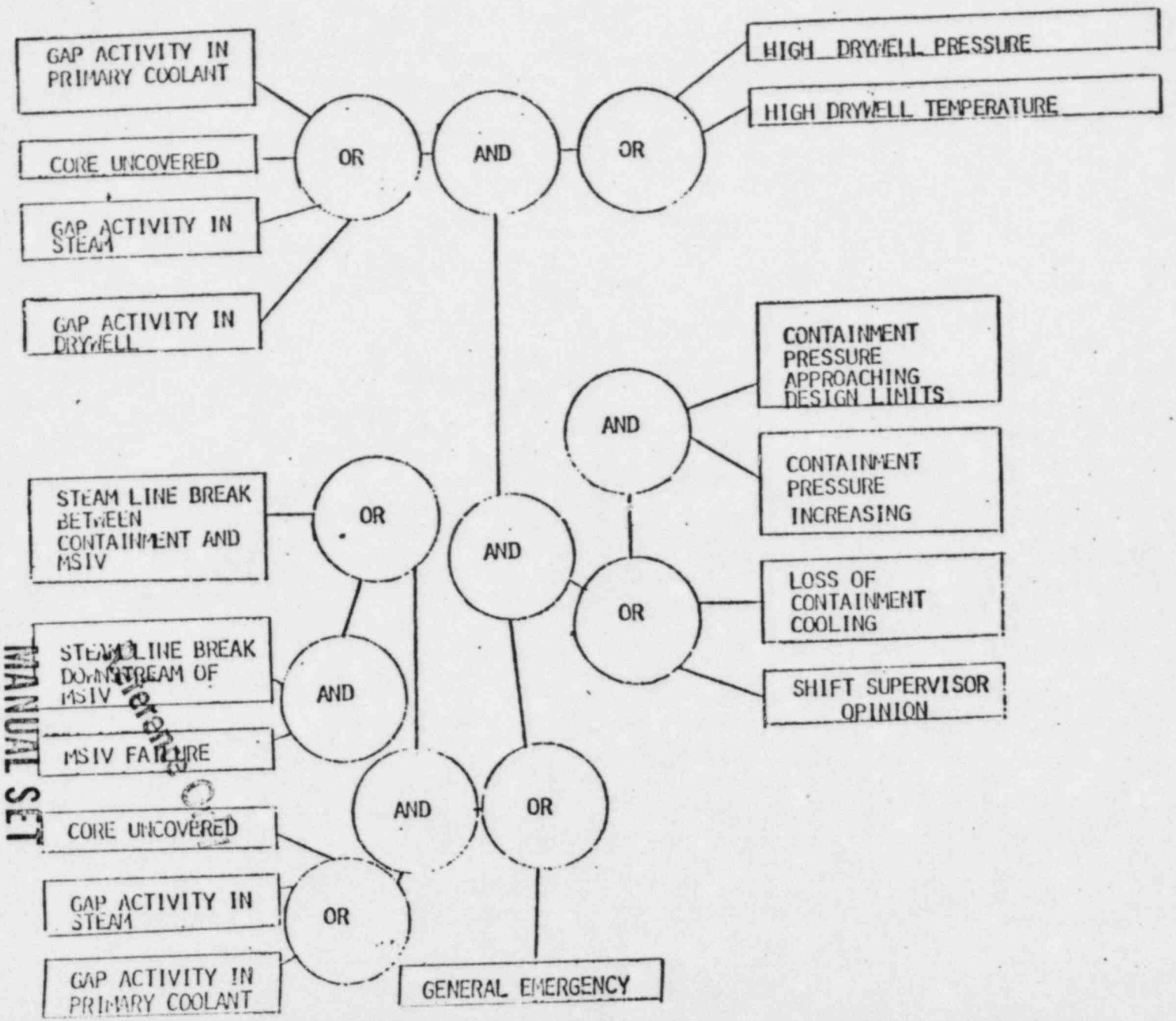


TABLE 1-b

EQUIPMENT STATUS FOR FAILURE OF CLADDING AND PRIMARY COOLANT BOUNDARY WITH POTENTIAL LOSS OF CONTAINMENT



MANUAL SET

E. I. Hatch Nuclear Plant

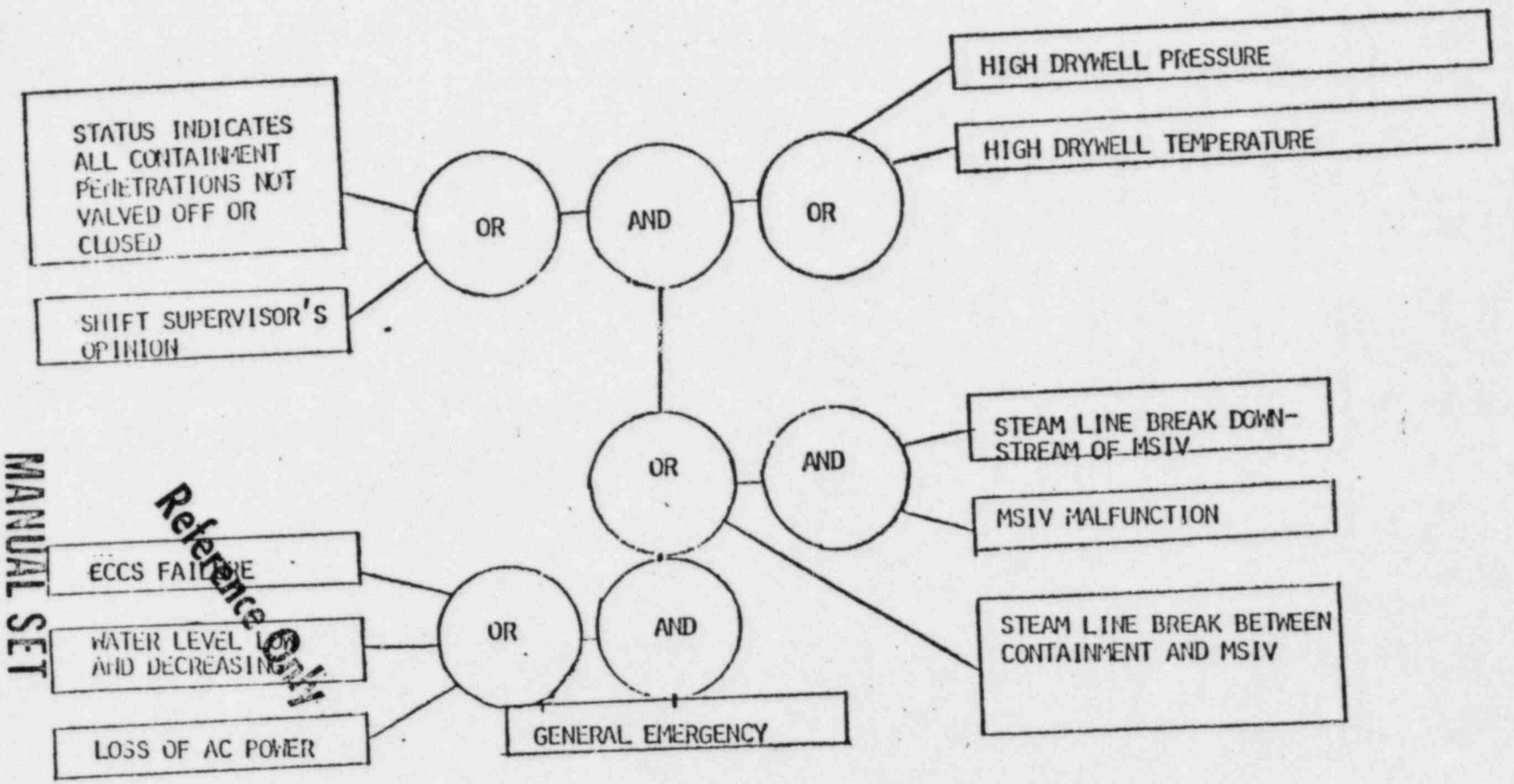
Georgia Power

TABLE 1b

APPROVAL	PROCEDURE NO
See Title Page	HNP- 4720
DATE	REVISION NO
See Title Page	2
	PAGE NO
	8 of 9

TABLE 1-c

EQUIPMENT STATUS FOR FAILURE OF PRIMARY COOLANT BOUNDARY AND CONTAINMENT WITH POTENTIAL LOSS OF CLADDING



GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

General Emergency - Rally Point Leader
PROCEDURE TITLE

HNP- 4726
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Page 1,2, & 3 Deletions 1 & 3	W T Rogers	C T Jones	3/1/82
3	Page 1	W T Rogers	C T Jones	7/2/82
4	Pages 1 thru 3	W T Rogers	[illegible]	12/3/82

Reference Only

MANUAL SET

PROCEDURE REVISION REQUEST   need by 11/27/82

PROCEDURE NO. HNP- 4726

Revision No. 3

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Titolo	11/13/82	W H Rogers	11/13/82

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 Reference QA Tracer 82-421
pg. 1 Section B: add reference to HNP-4721
pg 1: "section C" add new section C entitled "General Information & Instructions"
p1 Reletter section C as section D and replace with text as shown on proceeding pages

TH 11-15-82

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No   Steve B. [illegible]
PRB Secretary

82-211   11-23-82
PRB Number   Date

HNP-3

CH

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- 4726	
REVISION NO	
4	
PAGE NO	
1 of 3	

GENERAL EMERGENCY - RALLY POINT LEADER

NOTE

This procedure supercedes HNP-4705, Rev. 5 dated 1-2-81.

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

HNP-4721

C. GENERAL INFORMATION & INSTRUCTIONS

1. The primary rally point for personnel inside the primary protected area is Gate 16.

2. The primary rally point for personnel outside the primary protected area is Gate 1.

3. The alternate rally points are:

   a. Environmental Building

   b. Skills Training Building or the Outage Training Building

4. The criteria for rally point habitability are:

   a. Area dose rate less than 0.5 MR/HR and

   b. contamination level less than 100 CPM above rally point background.

5. The locations of decontamination showers outside the primary protected area are:

   a. Environmental Building

   b. Outage Training Building

6. Do not release any person who has received greater than 25 rem whole body dose or is suspected to have ingested significant amounts of radioactive materials. Such persons are to be taken to the hospital for examination and further evaluation of exposure.

7. Confer with the Emergency Director before releasing any personnel involved in the incident.

8. Check with the Security Force, general contractors and Georgia Power Construction Department to determine those persons remaining in the plant. If any person(s) is (are) unaccounted for, report this to the Shift Foreman. If the Shift Foreman cannot account for the missing person(s), form a rescue team(s) and initiate HNP-4728, GENERAL EMERGENCY - RESCUE TEAM.

D. ACTION

1. After the RET assembles in the OSC, the OSC manager will appoint a Rally Point Leader to take charge of the rally point.

2. The Rally Point Leader should instruct all RET members not assigned a specific function to report with him to Gate 16.

NOTE

Leave enough RET members in the OSC to comprise an internal survey team and a rescue team (approximately seven individuals).

3. Determine if the primary rally points are habitable using the criteria in section C.4.

4. If conditions at the primary rally points do not satisfy the criteria in section C.4, proceed to an alternate rally point. Determine if the alternate rally point is habitable using the criteria in section C.4.

5. Dispatch an appropriate number of RET members to the selected rally points to monitor personnel for contamination.

6. Assure personnel gather at the designated rally points for frisking by RET members and collect all personnel dosimetry.

   a. Attempt to separate those individuals who were involved in the incident, who were working in contaminated areas, and those wearing protective clothing from other personnel at the rally point.

b. Attempt to survey those individuals with emergency response assignments as soon as practical.

c. Instruct individuals who were involved in the incident, those found contaminated (greater than 100 CPM above the rally point background), and those with personnel dosimeters offscale to remain at the rally point, separated from the others and notify the Health Physics Supervisor in the TSC.

d. Forward these individuals personnel dosimetry to the EOF and instruct these personnel to report to the EOF (after checking through the rally point) for further evaluation of dose received.

e. Dispatch an RET member(s) to accompany contaminated individuals to a decontamination shower (see C.5) and supervise the decontamination procedure.

f. Release uncontaminated individuals to evacuate the site on U.S. Hwy. 1 in the direction specified by the Control Room.

g. Report status of the evacuation to the Emergency Operations Facility.

h. Do not release members of the Radiological Emergency Team, except to go to the EOF unless directed to do so by the Emergency Director or Shift Foreman if the Emergency Director cannot be contacted.

i. Assist in routing ambulance to pick up any injured personnel. Assure ambulance driver and attendant are provided with TLD badge and pocket dosimeter on entry.

j. Assist Emergency Director in bringing emergency under control.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Emergency Sampling Of Primary Coolant
PROCEDURE TITLE

HNP-4825
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
5	Page 1,4, & 5	RCHand for WHR	[illegible] for	3/8/82
6	Page 3 thru 7	[illegible] for WHR	Harvey Nix	8/6/82
7	Pages 1 thru 6	WHRogers	[illegible]	12/3/82

Reference Only

MANUAL SET

Draft

PROCEDURE REVISION REQUEST

Need by 11-30-82

PROCEDURE NO. HNP-4025

Revision No. 6

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Tabb	11/15/82	[signature]	11/22/82

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

(1) Pg 1 8.2 Add "1." and "2." Observe guidelines in HNP-4066

(2) D.5. add "- two pair gloves"

(3) Pg 2 D.12 Add "found in H.P. office"

(4) Pg 2 D. Note Delete last paragraph of note

(5) Pg 3.F.1 Delete a. b. and c. - Add as shown

(6) Pg 3 F 2 Delete a. b. and c. Add as shown

(7) Pg 4.3 Add cm letters 2.b & 3c as shown

(8) Pg 4.3.c Delete as shown

(9) Pg 5.G.1 Delete a, b, c. Add as shown

(10) Pg 5.G.2.b Add " with reactor water"

(11) Pg 5.G.3.b Add Note as shown

(12) Pg 6.G.3.e delete as shown

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No Steve Lyon
PRB Secretary

82-213
PRB Number

11-30-82
Date

Reference Only

HNP-9

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.

EMERGENCY SAMPLING OF PRIMARY COOLANT

A. PURPOSE

To provide a procedure for sampling primary coolant using the Jet Pump instrument rack as sample location for Units I and II. Sampling will be done with the assumptions of a fuel cladding failure accident of the worse degree possible.

B. SAFETY

1. Observe Radiation Protection Procedures.

2. Observe Guidelines in HNP-4866

C. PRECAUTIONS

Due to the high dose rates and contamination levels which are to be expected with this kind of an accident, extreme care and good sampling techniques must be adhered to and followed.

Laboratory supervision shall be consulted on all activities associated with sampling and counting any material obtained for post-accident analysis.

All attempts to get samples will be followed with the most restrictive H.P. practices. Constant H.P. monitoring will be provided and adhered to. A minimum of two persons will be required while getting the sample.

NOTE

At no time during sampling will personnel be allowed to receive more than 1.25 R unless a lab Supervisor or his designee signs FORM 2 of HNP-8002, Authorization to Exceed Administrative Exposure Guides.

D. EQUIPMENT

1. High range survey meter (PIC-6A, Teletector, or equivalent)

2. Count rate instrument (E-120, or equivalent)

3. High range dosimeter (10R) and TLD's

4. Assorted poly bags and bottles

5. Full PC's - two pair gloves

6. Lead shield on wheels

7. Remote handling tools with various attachments

8. Self-contained breathing air (SCBA)

9. Finger ring T.L.D.'s

10. 75 ml sample bomb

11. Remote sampling equipment control panel

12. Key 1P33 P300 (For Unit 1 Control Box) or 2P33 P300 (For Unit 2 Control Box) from "Remote Emergency Handling Tool" Box, found in H.P. office.

13. Absorbant material to be used in case of spill.

NOTE

The equipment referenced in Section D may not be adequate to perform the sampling requirements. All considerations must be given though prior to actual sampling. A.R.M. read outs located in either control room will be read prior to entry into the Reactor Building.

Dose rates will be taken while enroute to the sampling station. Air samples will also be taken while getting samples.

E. LOCATION

Unit I

Sample will be taken off the jet pump instrument rack located on the 130' elevation southside of the reactor building.

The temporary sampling system will be used until the permanent sampling system is installed and operable.

Reference Only

MANUAL SET

NOTE

The control panels for the emergency sampling system(s) are located on the reactor building 164' elevation on the westside by the stairway.

Unit II

Sample will be taken off the jet pump instrument rack located on the 130' elevation northside of the reactor building.

NOTE

The control panels for the emergency sampling system(s) are located on the reactor building 164' elevation on the westside by the stairway.

F. SAMPLING (PRESSURIZED VESSEL)

An R.W.P. will be initiated to get a sample. While sample is being gotten the dose rates will be taken continuously on the sample bomb and other associated equipment.

NOTE

Call Control Room to check and assure that valves B31-F019 and B31-F020 are open before proceeding.

1. Connections

a. One team will go to the sampling station to insure that the stem valves (two valves) on the sample bomb are in the Open position, and that the flex tubing connections (two quick disconnects) are connected to the sample bomb.

NOTE

Verification of the above information should be communicated via the Control Room to the second team which is positioned to activate the valves at the valving control box.

2. Flushing Through Bomb

a. Open valve F306 (chiller water demin.) on Control Box. Chiller Water will return to CRW. Refer to Fig 1.

b. Open valves F300, 302 and 304 on Control box and flush system with Reactor Water for 10 min.

3. Taking Sample

a. Close valve F300, F302, and F304 on control box.

b. Purge sample lines using demin water using Section H.

NOTE

When purge is complete, communicate this information via the Control Room to the team standing by at the sampling station.

c. Close manual valves on sample bomb (two valves to be closed) using remote handling tools if dose rates require it.

d. Disconnect flex tubing from sample bomb (two disconnections to be made).

NOTE

Any water which may have been dripped when the disconnection was made must be covered up or cleaned up as soon as possible.

e. After survey of the lead cask has been done, the sample is returned to the lab or other area as required by Lab Supervisor.

NOTE

Upon the discretion of a lab Supervisor, the sample may be analyzed in the Hatch Lab if dose rates are low enough.

G. SAMPLING (DEPRESSURIZED VESSEL)

NOTE

An R.W.P. will be initiated to get a sample. While sample is being gotten, the dose rates will be taken continuously on the sample bomb and other associated equipment.

NOTE

Call Control Room to check and assure valves B31-F019 and B31-F020 are open before proceeding.

1. Connections

   a. One team should go to the sampling station to insure that the stem valves (two valves) on the sample bomb are in the open position, and the flex tubing connections (two quick disconnects) are connected to the sample bomb.

NOTE

Verification of the above information should be communicated via the Control Room to the second team which is standing by to activate the valves from the Control Station.

2. Flushing Through Bomb

   a. Open manual valve (1B21 N033C TVI for Unit 1 or 2B21 N033C TVI for Unit 2) on jet pump rack. The valves are painted red and are usually in the open position. Must check to make sure the valve is open.

   b. Open valve F306 (chiller water), F300, F301, F302 and F304 on control panel. Flush system for 10 minutes with reactor water, sample may now be taken. Refer to Figure 1.

3. Taking Sample

   a. Close valves F300, F301, F302, and F304 on control box.

   b. Purge sample lines with demin water using Section H.

NOTE

When purge is complete, communicate this information via the Control Room to the team standing by at the sample station.

c. Close manual valves on sample bomb (two valves to be closed) using remote handling tool is required by dose rate.

d. Disconnect flex tubing from sample bomb (two disconnections to be made)

NOTE

Any water which may have been dripped when the disconnection was made must be cleaned up or covered as soon as possible.

e. After survey of the lead cask has been done, the sample and cask are returned to the lab or other area as required by Lab Supervisor.

NOTE

Upon the discretion of a lab Supervisor, the sample may be analyzed in the Hatch Lab if dose rates are low enough.

H. SYSTEMS FLUSHING

Systems will be flushed upon taking a sample to lower the dose rates in the local area. Flushing time will depend upon the amount of crud stuck in the tubing lines and valves and dose rate in the area (Background).

1. Open valve F305, F301, and F303 and flush for 15 minutes or until Lab Supervision specifies otherwise.

2. Close valves F301 and flush through pressure regulator for 30 minutes or until Lab Supervision specifies otherwise.

3. Close valve F305 and F303; this returns system to a ready-to-sample system.

NOTE

Systems flushing (Section H above) may be used to demonstrate skills in sample taking.

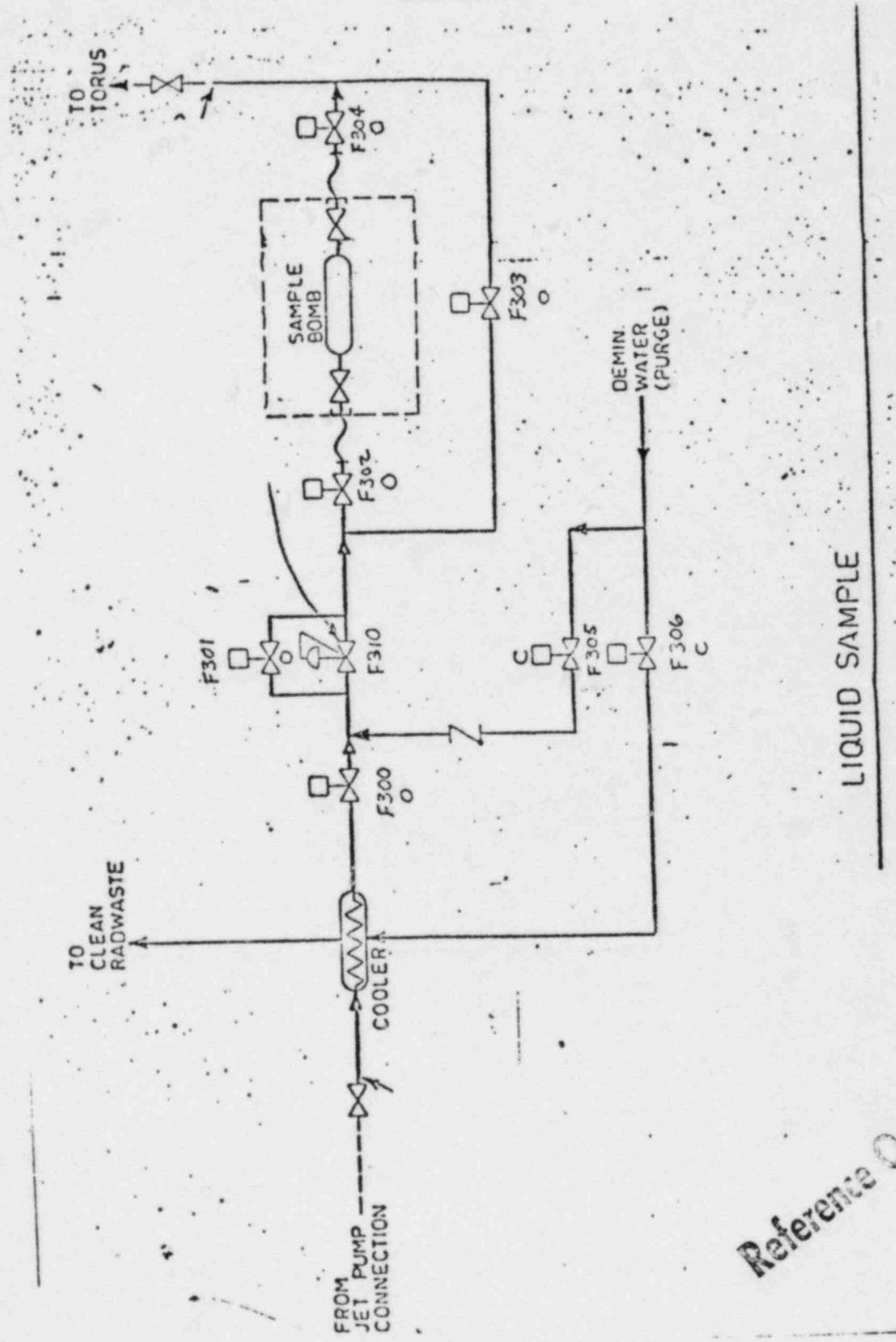
NOTE

Recommended route is through the railroad airlock, around the CSTs and in through T-16.

NOTE

After obtaining the sample, refer to HNP-4828 "Transferring Primary Coolant from 75 ml Bomb" and HNP-4829 "Analysis of Primary Coolant."

FIGURE 1



GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Airborne Radioactivity Concentration Determination for Abnormal or Accident Conditions
PROCEDURE TITLE

HNP-4826
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Pages 1,3,5 & 9	W H Rogers	Jon Shiver	1/20/82
3	Pages 1, 4, 5, 6, & 9	W H Rogers	Jon Shiver	4/23/82
4	Page 2	W H Rogers	Jon Shiver	12/3/82

PROCEDURE REVISION REQUEST

Issued by 11/30/82

PROCEDURE NO. HNP-4866

Revision No. 3

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Titch Rick	11/29/82	W H Rogers	11/29/82

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

① pg 2 section E : add sentance shown to "Caution" section

② Pg 2 E 3 Delete "If dose rate reaches 10 R/hr retreat and inform Health Physics Supervision..." (or) required approvals "(as shown)

Add Follow, at all Times, guidelines in HNP-4866

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No Steve Jones
PRB Secretary

82-213
PRB Number

11-30-82
Date

Reference Only

HNP-3

C#

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.

AIRBORNE RADIOACTIVITY CONCENTRATION DETERMINATION FOR ABNORMAL OR ACCIDENT CONDITIONS

A. PURPOSE

To establish guidelines for an air sampling program for abnormal conditions based on dose rates and sampling conditions.

B. SAFETY

Observe Radiation Protection Procedures and Plant Hatch Emergency Procedures.

C. GENERAL

It is recognized that for normal plant operations and maintenance work the air sampling program outlined in HNP-8013 is adequate. This procedure is intended to supplement HNP-8013 and to specify some suggested additional instrumentation and steps to be used during abnormal conditions.

D. EQUIPMENT

1. CIM-CAM located in Technical Support Center.
2. Lab cart supplied with the following equipment either dedicated (i.e., taken out of regular service and reserved for emergency use) or readily available for use near the OSC.
   a. One SAM 2/RD-22 calibrated and set at the Iodine peak, with detector and sample holder.
   b. One low-volume air sampler with cartridges and filters.
   c. One high-volume air sampler with cartridges and filters.
   d. One high range survey meter (PIC-6A, teletector or equivalent.)
   e. One box of extra charcoal cartridges for the low-volume and high volume samplers (i.e., two inch Cesco and IC-1 and four inch Mersorb cartridges).
   f. Extra filter papers for samplers.
   g. At least two silver zeolite cartridges each to fit low-volume and high volume samplers.
   h. One complete set of protective coveralls.
   i. One M.S.A. Model 401 Air Pack Respirator.

Reference Only

MANUAL SET

j. One high range dosimeter.

k. One E-120 Low range instrument.

l. 50 feet of extension cord (two 25 foot cords).

m. Purging apparatus.

E. PROCEDURE

CAUTION

During the initial few minutes or perhaps hours following an abnormal event, the exposure rates and airborne activity levels may not be known and therefore extra precautions may need to be taken. After the conditions become known and have stabilized the extra precautions may be reduced or minimized. Refer to HNP-4866 for specific exposure control guidelines and limits as well as ALARA considerations.

NOTE

Air samples will normally be taken on directions from the Health Physics Foreman or Supervisor or other responsible individual as the situation permits. The location and type of sample will usually be specified in the directions.

1. Initially, don the protective clothing and respirator. Be sure to get the high range dosimeter. Call the Control Room and obtain A.R.M. readings for the area if you can.

2. Take the low volume air sampler with the charcoal and particulate filter installed, the high range survey meter and one twenty five foot extension cord to designated area.

3. As you proceed to area, observe dose rates taking note of conditions. Try to determine if dose rates are due to piping and equipment or if it is from airborne activity. This can be done by taking several quick measurements in different places near equipment and in open areas. Follow, at all times, guidelines in HNP-4866.

4. When in the designated area take air sample as described in HNP-8013. Place sampler at waist height to shoulder height for best sample. If dose rate permits, collect sample for thirty minutes. If it is necessary to reduce sampling time then care should be taken in data interpretation and a limit of sensitivity determined by HNP-8013 D and G.

5. After sampling is complete, turn off sampler and take all equipment back to location of Lab cart. If the H.P. Office and Counting Room are habitable, then bring all equipment to Counting Room and count samples as is normally done. All equipment should be handled with rubber gloves and wipe tested before it is carried outside the operating buildings. If the equipment is contaminated it is to be left in a controlled area. Remove the charcoal and particulate filters and place in plastic bag. Take the filters to the location of Lab cart for counting and analysis.

6. Be sure to follow correct step-off pad undressing procedure to remove protective clothing before leaving the operating buildings.

7. The above sequence may be repeated until conditions are known and stabilized and any trends established. Thereafter it may be decided that it is unnecessary to dress out for subsequent air sampling.

F. PURGING OF CHARCOAL AND SILVER ZEOLITE CARTRIDGES

1. After sampling is complete, obtain a breathing air bottle from the Gas Storage Building.

2. Connect the purging apparatus found to the breathing air bottle and set the regulator pressure to 5 (five) P.S.I.G.

3. Extend 50 feet tygon discharge hose to the outside of the building so as not to contaminate room with Xenon.

4. Place radioactive sample (silver zeolite or charcoal) into holder on purging apparatus.

5. Check gamma dose rate level on outside of sample holder and note radiation levels.

6. Open inlet valve and adjust flow to 80 L.P.M. or less on purging apparatus. (95% retention for I-131).

7. While sample is being purged, keep checking gamma radiation levels on sample holder. When radiation levels drop to plateau or drop low enough to allow sample to be counted, stop purging of sample.

8. Remove sample from holder, wrap in saran wrap and analyze for I-131 as per section G.

G. COUNTING AND ANALYSIS

Normally counting may be done per HNP-8013. Record all data on HNP-4826 Data Package 1 (Data Sheet 1). Iodine concentrations may be determined by placing the two inch Cesco cartridge in the CIM-CAM cartridge holder and reading counts per minute. This number then would be used in the formula on Figure 2 (HNP-8013) for a two inch charcoal cartridge:

$$\frac{(\text{NET CPM})\ (4.5 \times 10^{-10})}{(\text{Volume in liters})\ (0.999)\ (\text{Det. efficiency})}$$

Iodine concentrations may be determined using the SAM-2/RD-22 set up by the instructions that follow.

1. Operation of Instrument.

   a. Verify that the RD-22 detector is properly connected to the SAM-2 detector connector.

   b. Connect SAM-2/RD-22 to power supply and turn POWER switch ON (rear panel).

   c. Operate STABILIZER switch to ON (rear panel) and set CH1 switches to "IN" and "+".

   d. Set Ch1 THRESHOLD and H.V. ADJUST to settings determined from last calibration. See label on top of instrument.

   e. Set CH1 WINDOW to ".72".

   f. Turn CH2 THRESHOLD to "4.0" and place CH2 WINDOW to setting determined on Data Package 2 (Data Sheet 2).

   g. Place CH2 switches to "IN" and "-" for background subtraction.

   h. Set desired count time and TIME-STOP-MAN switch to TIME.

   i. Place the sample, enclosed in plastic, in the proper geometry to the detector and press the RESET-START switch. Note the shelf number on Data Package 1 (Data Sheet 1).

   j. When counting is complete, the value in the display is "net" counts for the Iodine activity.

NOTE

If negative counts are obtained when counting a sample, CH2 switches must be set to "OUT" and "OFF" causing gross counts to be observed in the display. Recount sample and then subtract background found on Data Package 2 (Data Sheet 2) manually to obtain net counts.

k. Using Data Package 1 (Data Sheet 1), calculate the Iodine concentration of the counted sample using the following formulas:

(1) Silver Zeolite Cartridges:

$$\text{Iodine Activity (uci/cc)} = \frac{(\text{NET CPM})(4.5 \times E\text{-}10)}{(\text{Volume in Liters})(.95)(\text{D.E.})}$$

(2) Charcoal Cartridges:

$$\text{Iodine Activity (uci/cc)} = \frac{(\text{NET CPM})(4.5 \times E\text{-}10)}{(\text{Volume in Liters})(.999)(\text{D.E.})}$$

NOTE

a. 4.5×10^{-10} = conversion factor to get from disintegrations per minute to microcuries.

b. .95 = filter media collection efficiency for silver zeolite cartridges.

c. .999 = filter media collection efficiency for charcoal cartridge.

d. Volume in liters of sample = sampling time (min) x flow rate of air sample (LPM).

e. D.E. = detector efficiency at specific shelf height.

f. Net CPM = Net counts per minute of sample; net counts divided by count time.

---

1. Operational calibration must be performed DAILY when instrument is in use, see Section F.2.

2. Daily Operational Calibration

a. Verify that the RD-22 detector is properly connected to the SAM-2 DETECTOR connector.

b. Connect SAM-2/RD-22 to power supply and turn POWER switch ON (rear panel).

c. Operate STABILIZER switch to ON (rear panel) and set CH1 switches to "IN" and "+".

d. Set CH1 THRESHOLD and HV ADJUST to settings determined from last calibration. See label on top of instrument.

e. Place CH1 WINDOW to ".72". Set CH2 window to "OFF" and "OUT".

f. Set count time to 1.0 minute and TIMED-STOP-MAN switch to TIMED.

g. Record a 1.0 minute count of CH1 background at these settings on Data Package 2 (Data Sheet 2).

h. Set CH1 switch to "OUT" and "OFF" and place the CH2 switches to "IN" and "+".

i. Place the CH2 THRESHOLD TO 4.0 and adjust the CH2 WINDOW until the same background count found with CH1 is obtained. Note this WINDOW setting on Data Package 2 (Data Sheet 2).

j. Set CH1 switches to "IN" and "+" and CH2 switches to "IN" and "-".

k. Place a Ba-133 source in proper geometry to the detector on Shelf # 3 and count for 5 minutes. Counts observed in the display window represents the NET counts of the source with the background subtracted. Record in counts per minute on Data Package 2 (Data Sheet 2).

NOTE

If negative counts are obtained when counting a sample, CH2 switches must be set to "OUT" and "OFF" causing gross counts to be observed in the display. Recount sample and then subtract background found on Data Package 2 (Data Sheet 2) manually to obtain net counts.

l. Divide the NET counts per minutes of the source by the known disintegrations per minute of the source and multiply by 1.19 to get the efficiency of the detector (D.E.).

NOTE

The 1.19 factor accounts for the difference in yield of the Ba-133 and the I-131 gammas.

m. Repeat steps k and l with shelves 4 and 5 to obtain a detector efficiency for each of the three shelves.

n. Complete Data Package 2 (Data Sheet 2) on a daily basis, only when SAM-2/RD-22 is in use.

3. Use of Silver Zeolite Cartridges.

It may be desired to run two concurrent samples, one with a IC-1 activated charcoal cartridge and one with a silver zeolite cartridge, (when available) and determine both total noble gases and separate Iodine gases.

A Staplex or similar high volume sampler may also be used by removing the filter head and inserting the 4" silver zeolite cartridge into the suction opening of the sampler.

H. USE OF OTHER SOURCES OF INFORMATION

While in the plant, observe CAM's and CIM-CAM's in the areas traversed. Also be alert for A.R.M. local readouts and alarms.

At times it may be desired to roll the entire cart and all equipment to the designated areas and take the samples and do initial counts before returning to the T.S.C. It is intended that the cart be completely equipped to sample any area and do complete analysis report back to the T.S.C. what the findings are.

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4826-1

SERIAL NO: R04-

MPL NO: _____

RTYPE: G15.03

XREF: _____

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.

ACCEPTABLE ____ UNACCEPTABLE ____

REVIEWED BY: _____

DATE REVIEWED: _____

REMARKS: _____

FIGURE 1
Page 1 of 2

DATA PACKAGE 1
(Data Sheet 1)

PORTABLE AIR SAMPLE LOG

DATE: ____________ NO.: ____________

COLLECTION DATA

SMPL NO.	SAMPLE LOCATION SAMPLE POINT	AIR SMPL	TIME (CST) ON	TIME (CST) OFF	SAMPLE TIME (MIN)	FLOW RATE LPM	VOLUME IN LITERS	COLLECTED BY	REMARKS

COUNTING DATA	SHELF NO.	TIME (CST)	TOTAL COUNT	MIN CTD	NET CPM	EFF.	ACTIVITY (uCi/cc)	DECAY ACTIVITY 4 HR 24 HR	INITIALS
GROSS IODINE									

COLLECTION DATA

SMPL NO.	SAMPLE LOCATION SAMPLE POINT	AIR SMPL	TIME (CST) ON	TIME (CST) OFF	SAMPLE TIME (MIN)	FLOW RATE LPM	VOLUME IN LITERS	COLLECTED BY	REMARKS

COUNTING DATA	SHELF NO.	TIME (CST)	TOTAL COUNT	MIN CTD	NET CPM	EFF.	ACTIVITY (uCi/cc)	DECAY ACTIVITY 4 HR 24 HR	INITIALS
GROSS IODINE									

COLLECTION DATA

SMPL NO.	SAMPLE LOCATION SAMPLE POINT	AIR SMPL	TIME (CST) ON	TIME (CST) OFF	SAMPLE TIME (MIN)	FLOW RATE LPM	VOLUME IN LITERS	COLLECTED BY	REMARKS

COUNTING DATA	SHELF NO.	TIME (CST)	TOTAL COUNT	MIN CTD	NET CPM	EFF.	ACTIVITY (uCi/cc)	DECAY ACTIVITY 4 HR 24 HR	INITIALS
GROSS IODINE									

IODINE ACTIVITY: 1) SILVER ZEOLITE = $\frac{(\text{NET CPM})(4.5 \times 10^{-10})}{(\text{VOLUME IN LITERS})(0.95)(\text{D.E.})}$

2) CHARCOAL CARTRIDGE = $\frac{(\text{NET CPM})(4.5 \times 10^{-10})}{(\text{VOLUME IN LITERS})(0.99)(\text{D.E.})}$

Reference Only

FIGURE 1
Page 2 of 2

MANUAL SET

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4826-2

SERIAL NO: R04-

MPL NO: _____

RTYPE: G15.03

XREF: _____

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.

ACCEPTABLE _____ UNACCEPTABLE _____

REVIEWED BY: _____

DATE REVIEWED: _____

REMARKS: _____

FIGURE 2
Page 1 of 2

DATA PACKAGE 2
(Data Sheet 2)

DAM-2 DAILY CALIBRATION

SOURCE: _____ SERIAL NO.: _____ MONTH_____19__

ACTIVITY_____DPM INSTRUMENT MPL NO.: D21-N____

(1) DETECTOR EFFICIENCY (D.E.) = Net Counts per minute / Disintegration/minute x 1.19

DAY DATE	CH2 WINDOW SETTING	BKG COUNTS /MIN	SOURCE NET CPM	D.E. SHELF 3	D.E. SHELF 4	D.E. SHELF 5	REMARKS	COMPLETED BY
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								

FIGURE 2
Page 2 of 2

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Drywell Containment Sampling Under Emergency Conditions
PROCEDURE TITLE

HNP-4831
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Page 1	W H Rogers	Jno T Greene Jr	4/1/82
2	Pages 1 & 2	W H Rogers	Jno T Greene Jr	7/21/82
3	Pages 2, 3, 4 & 5	W H Rogers	Jno T Greene Jr	12/3/82

Need by 11-30-...

10 14

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4831

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Titcle	11/15/82	W.H. Riggan	11/22/82

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

① Pg 2 E.3.d Delete "Evacuate vial"

② Pg 2 E.4 Delete "if dose rate is above 10R/hr, retreat"
Add "Use exposure limit guidelines in HNP-4016"

③ Pg 3 E. - Re-letter to "F"

④ Pg 3 E.9 Add ", on data sheet 1"

⑤ Pg 3 E.11 Delete "Return System to Normal"
Add "Leave sample system allignment as is, to facilitate additional samples if needed. At termination of emergency, return system to normal."

⑥ Pg 3. F.2 Delete

⑦ Pg 3. F.2 Add "Place sample in plastic bag labeled with date Time activity, and location of sample was Tak

⑧ Pg 3. F.3 Add "Dispose of sample in accordanse with HNP-4831"

⑨ Add Data sheet 1

PRB RECOMMENDS APPROVAL: (✓)Yes ( )No Steve Tipps
PRB Secretary

82-213
PRB Number

11-30-82
Date

Reference Copy

HNP-0

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- 4831
REVISION NO
3
PAGE NO
1 of 5

DRYWELL CONTAINMENT SAMPLING UNDER EMERGENCY CONDITIONS

A. PURPOSE

To provide a detailed procedure for sampling Drywell Containment during a Site Area or General Emergency.

B. REFERENCES

1. HNP-7215, "Gamma Spectrometer System Ge(Li)"
2. HNP-7407, "Gas vial Sampler"

C. SPECIAL EQUIPMENT

1. Sample shield stored in the emergency sample cabinet.
2. Hood in lab with shielding behind which to unload sample.
3. Special counting shield for 14 ml vial.
4. High range dosimeter, TLDs, Finger Rings, Protective Clothing, Polybags, and air packs.
5. Remote tools to handle sample.
6. Radiation work permit.

D. PRECAUTIONS

1. Due to the high dose rates and contamination levels which may be encountered, dry runs of sampling techniques should be performed before doing actual sampling.
2. Laboratory supervision shall be consulted on all activities associated with sampling and counting any material obtained for post-accident analysis.
3. All attempts to get samples shall be executed with the most restrictive H. P. practices. Constant H. P. monitoring shall be provided and adhered to. A minimum of two persons is required to obtain a sample.

4. Be aware of the time it would take to retreat and the fastest way to exit high radiation areas.

NOTE

At no time during analysis will personnel be allowed to receive more than 1.25 R unless a Lab Supervisor or his designee signs Form 2 of HNP-8002, Authorization to Exceed Administrative Exposure Guides.

E. SAMPLING DRYWELL CONTAINMENT

1. Obtain a 14 ml vial with rubber stopper, precision sampling needle, and 3/8" male-to-male swagelock connector. Also have a portable lead pig shield ready for transporting sample when obtained.

2. Notify Health Physics you are ready and need a person to provide radiation monitoring services for you. Put on protective clothing required on RWP.

3. Prior to taking containment sample, the 14 ml vial must be evacuated. This must be done at any of the following locations: Unit 1 147' mezzanine, Unit 1 or Unit 2 Pretreatment Sample station. Evacuation is done by:

   a. Checking that the inlet and outlet valves to the vial sampler are open per Table 1 of HNP-7407.

   b. Install a sample bottle using the vial handler into the sample positioner. Check that the vial is seated so that the limit switch closes.

   c. Turn power switch to "ON."

   d. Turn the vacuum pump on.

   e. Verify the lights for valves and vacuum pumps are illuminated.

   f. Turn function switch to SAMPLE PURGE EVACUATE VIAL.

   g. Check that the vacuum gauge indicator is approaching 29.5.

   h. After the vacuum gauge indication of approximately 29.5 is attained, and remains at the level at least 2 minutes, turn the function switch to PURGE SAMPLE LINE.

i. Check that Valve 1 and Valve 2 lights are lit and Valve 3 is closed. Check that the vacuum reading is remaining constant.

j. Remove vial.

k. Turn the power switch to OFF and the function switch to OFF. Close inlet and outlet valves.

4. Proceed immediately to drywell containment sample point taking radiation surveys as you go. Use exposure limit guidelines in HNP-4866.

5. Using 3/8" male-to-male swagelock connector, connect the tygon sample line directly below V3 to the flexible steel line extending from V5 or on Unit 2 to the tygon tubing directly below V4.

6. Open valve V3 and V4 (V4 is not on Unit 1).

7. Turn grab sampler mode switch located on panel above to OPEN.

8. Close V6 and V8. Allow 2 minutes to flush line.

NOTE

While waiting for 2 minute flush, move away to area with lowest dose rate until you are ready to start sampling.

9. With precision sampling needle, (push green button in and plunger down to expel air) insert into rubber sample cover end located next to V5. Now pull plunger handle to 5 ml mark on syringe. After approximately 30 seconds press red button to IN position. Press syringe plunger to compress gas contained in syringe. Allow plunger position to stabilize. Record volume and time of sample on Data Sheet 1.

10. Insert syringe needle into stopper of 14 ml vial. Push green button to IN position. Press plunger to evacuate syringe. Now push red button back to IN position. Remove syringe.

11. Load 14 ml sample vial into emergency pig. Leave sample system allignment as is, to facilitate additional samples, if needed. At termination of emergency, return system to Normal.

Reference

MANUAL SET

12. Transport to fume hood in lab.

13. Remove sample from lead pig and prepare for counting.

14. Refer to HNP-7215 for counting.

NOTE

If sample is too hot (20% Dead Time), use emergency sample holder and lead brick with collomator hole to count 14 ml vial.

F. DISPOSAL OF DRYWELL CONTAINMENT SAMPLE

1. Remove from Ge(Li) Detector.

2. Place sample in plastic bag labeled with date, time, activity, and location sample was taken.

3. Dispose of sample in accordance with HNP-4832.

DATA SHEET 1

Name: _____

Date: _____

TIME	SAMPLE VOL. (ml)	SAMPLE ACTIVITY	SAMPLE LOCATION

Remarks: _____

_____

_____

_____

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Naturally Occurring Phenomenon
PROCEDURE TITLE

HNP-4858
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X)   NON-SAFETY RELATED (   )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Page 1,2,6,9 & 10	W H Rogers	[illegible] for	12/3/[illegible]

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- [illegible]4859

Revision No. REV 0

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name: Tim [illegible] (Rick Titolo)	Date: 11/12[illegible]	Signature: W.H. Rogers	Date: 11-24-82

REVISION CHANGES MODE OF OPERATION OR INTENT AS DESCRIBED IN FSAR: ( ) Yes (X) 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 Ref NRC 81-30-22 / Resolve inconsistencies between procedure, equipment, and emergency classification guidance. Also to clarify [illegible]'s for seismic instrumentation. Replace Section B and figure 1 with the enclosed pages (Pages 1 and 5). The following pages have typo errors: page 1 section A, page 2 section C.1, page 6 section F.4, and page 9 section M-3.

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No [illegible signature] PRB Secretary

82-213 PRB Number

11-30-82 Date

Reference Only

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.

NATURALLY OCCURRING PHENOMENON

NOTE

(This procedure supersedes: HNP-4300, Revision 4 approved 7/25/80; HNP-4301, Revision 4 approved 9/18/79; HNP-4302, Revision 1 approved 9/18/79.)

A. CONDITION: EARTHQUAKE

The plant accelerographs indicate: seismic activity, and ground motion is felt, or outside sources report ground motion.

B. OPERATOR ACTIONS

1. For a seismic shock with only annunciator D076 (Seismic Instrumentation Triggered) in panel H11-P657 and the RED INDICATOR LIGHT (L51-DS001) on the TIME HISTORY ACCELERGRAPH (L51-R600) in panel H11-P701 which is less than OBE (0.08g), continue to operate and proceed with plant inspection. Follow Figure 1. Declare a NOTIFICATION OF UNUSUAL EVENT EMERGENCY and refer to the applicable HNP-4400 series procedures for the appropriate response.

2. For a seismic shock with annunciation as stated in B-1 and any of the following:

   a. Unit I

      (1) Seismic peak shock recorder high G level alarms. (D070 in panel H11-P657 is set to actuate when 100% OBE of 0.08g vertical has been exceeded).

      NOTE

      One or more amber lights on peak shock annunciator panel (L51-R620 on panel H11-P701) will be on. These annunciator lights are set for 100% OBE level at 4 frequencies and 3 directions (North/South, East/West, Vertical). This info will be recorded in C.1.A.

   b. Unit II

      (1) Seismic peak shock recorder high G level alarms. (D068 in panel 2H11-P657 is set to actuate when 100% OBE (.08g) vertical has been exceeded.

NOTE

One or more red lights on peak shock annunciator panel (L51-R620 on panel H11-P701) will be on. These annunciators are set for 100% OBE level for 4 frequencies by 3 directions (12 total) (North/South, East/West, Vertical) This info will be recorded in C.1.A.

(2) "Seismic switch tripped" alarm (D069 on panel 2H11-P657) which is set at OBE level of .08g.

Shut down the affected unit(s) and declare an "Alert" emergency. Follow Figure 1. Refer to the applicable HNP-4500 series procedures for appropriate response.

NOTE

If any of the situations in section 2 occur, the operator should play back the Time History Recorder tapes to determine the actual maximum g acceleration magnitude. (For instructions on retrieval of seismic data, see HNP-1-3380 M - section G.2.)

(3) For a seismic shock with annunciation as stated in B.1 and B.2 above and the maximum g level measured by the time/history accellograph recorders is greater than OBE levels (0.15g), shut down the affected unit(s) and declare a site area emergency. Follow Figure 1. Refer to the applicable HNP-4600 series procedure for appropriate response.

(4) For a seismic shock resulting in massive damage to the ECCS system, refer to the applicable HNP-4700 series procedures for appropriate response.

(5) Notify Plant Management.

C. SUBSEQUENT OPERATOR ACTION

1. A post earthquake instrumentation review will be conducted as follows:

a. Record the Peak Acceleration recorder lights (Red and Yellow) on Data Package 1. Have three qualified operators verify the lights before resetting the panel.

b. Check the feedwater to steam flow for a mismatch.

c. Check the applicable neutron range monitors for abnormal readings.

d. Check all systems for abnormal power changes.

e. Check the drywell for temperatures, humidity, pressure and the sample system for abnormal activity levels.

f. Check the drywell sumps for high level and/or flow.

g. Check all other equipment drains and sumps for high level and/or high flow rates.

h. Check the torus water level recorder for high or low level.

i. Check all area radiation monitors for excessive activity levels.

j. Check the 4160 volt and 600 volt auxilliary equipment for trips.

k. Check the turbine generator instrumentation.

2. Notify the Test Shop to do each of the following as required by Figure 1.

a. Retrieve record plates from the Peak Shock Recorder (L51-N105) per HNP-1-5631 and record data. Install new record plates to record after shocks.

b. Retrieve record plates and tapes from the Teledyne PRA-103 Peak Recording Accelerometers per HNP-1-5625 and Engdahl PAR400 Peak Acceleration Recorders per HNP-2-5626. Install new record plates and tapes to record after shocks.

c. Retrieve magnetic tapes from the Time History Accelerograph recorder, L51-R600, per HNP-1-3980. Make hard copy records and install new tapes.

d. Restore all instrumentation to operable status with 24 hours. (Unit 2 Tech. Specs. 4.3.6.2.2).

e. Recalibrate all seismic monitoring instruments actuated during a seismic event within 30 days. Notify Kinemetrics, Inc. (telephone 213-795-2220) to perform calibration of the Time-History Accelerograph System and the Peak Shock Annunciator System (Unit 2 Tech. Specs. 4.3.6.2.2).

3. A plant inspection should include but not be limited to the following:

   a. Inspect the main steam lines and turbine extraction steam lines for damage.

   b. Inspect the condensate piping and pumps for leaks and damage.

   c. Inspect the feedwater piping and pumps for leaks and damage.

   d. Inspect the turbine oil system for leaks or damage.

   e. Inspect the RWCCW and service water for external leaks. Check for an internal leak by monitoring the RBCCW surge tank level.

   f. Inspect the intake structure and associated equipment for damage.

   g. Inspect the off-gas stack and equipment for leaks.

   h. Visually inspect the diesel generators and their switchgear to assure the units are intact. Perform the routine surveillance test to prove the system is operable. Tie each diesel generator onto its bus and isolate its bus from the system one at a time. Minimize operation of the diesel generator in parallel with the system because a major transmission line fault, which is probable during this event, could cause damage to a parallel diesel generator.

   i. Inspect the switchyard for damage.

   j. Inspect the turbine pedestal for damage.

   k. Inspect instrument racks and control panels for damage.

   l. Inspect CSCS components for damage.

   m. Inspect fuel pool for damage.

   n. Inspect all plant batteries for damage.

   o. Inspect instrument and service air system.

   p. Inspect plant communications for damage.

4. Evaluate the post earthquate instrumentation review and plant inspection.

5. Completer analysis of seismic data.

NOTE

The results of the plant inspection will immediately be reviewed by the Plant Review Board and appropriate surveillance testing will be specified. A special report must be submitted to the NRC within 10 days.

D. REFERENCES

1.	S-40827	Seismic Instrumentation Earthquake Response Manual
2.	Unit 2	Technical Specifications - para. 3.3.6.2
3.	HNP-1-3980	Seismic Instrumentation F.T.&C., Section G. Restoration of Seismic Instrumentation and Data Retrieval
4.	HNP-1-5625	Calibration of Teledyne-GeoTech PRA-103 Peak-Recording Accelerometers
5.	HNP-1-5631	Peak Shock Recorder Calibration
6.	HNP-2-5626	Calibration of Engdahl PAR400 Peak Acceleration Recorders.

E. CONDITION: TORNADO

The plant shall normally be alerted by outside communications and/or local indications of a tornado condition in the area which may disrupt the transmission system or present a hazard to the station facilities. The plant will remain at full availability unless dictated to be otherwise by deteriorating conditions. As evaluated by supervision.

F. OPERATOR ACTION

1. Thoroughly inspect the plant for loose materials which may be blown about.

2. Instruct contractor personnel of the event and advise them to commence preparations for the securing of construction materials and equipment.

3. Remove or secure all outside scaffolding and swinging stages.

4. Close and secure all Reactor, Turbine Building, Switchyard and Off-Gas Filter Building doors.

5. Plant personnel shall seek refuge within buildings and report to their supervisors for specific instructions.

6. Perform routine surveillance test of the standby Diesel-Generators in anticipation of a potential off site power failure, if a tornado has been sighted in immediate area or known to be headed in direction of site.

7. Arrange for additional assistance to provide continuous inpections of buildings and roofs.

8. Install door braces on all roll-up doors equipped for braces.

9. Notify plant management.

10. For any tornado onsite causing significant damage affecting plant operations, refer to applicable HNP-4400 series procedures for appropriate response.

11. For any tornado striking the facility incurring damage affecting safety systems, refer to applicable HNP-4500 series procedures for appropriate response.

12. For any tornado or sustained winds in excess of design level (300 mph), refer to applicable HNP-4600 series procedures for appropriate response.

G. SUBSEQUENT OPERATION ACTION

1. In the event buildings have been damaged or the reactor power level has become abnormal, internal damage to the process system may be suspected. Proceed with an instrumentation review and plant inspection per HNP-4858 section C.

2. Perform continuous building inspections.

3. If the plant instrumentation review and plant inspection evaluation indicates damage to the process system, follow the applicable annunciator response or emergency procedure.

4. If the plant is not damaged and is operationally intact following an alert, resume normal operations and inform Load Dispatcher.

H. CONDITION: HIGH WINDS (HURRICANE)

The plant shall normally be alerted by outside communications and/or local indication of high wind conditions which may disrupt the transmission system, or present a hazard to the plant facilities. The plant personnel shall prepare for plant load reduction as may be required. In the event winds reach hurricane velocities (sustained wind speed greater than 75 mph) near the plant site and/or a plant load rejection is imminent, notify the load dispatcher and reduct to load as directed.

NOTE

After a hurricane warning is received, dispatch an operator to the plant meteorological station and place the wind speed transmitter speed selector switch in 100 MPH. Note that the control room recorder indication will have to be multiplied by two. Notify the Laboratory personnel of time change is made.

I. OPERATOR ACTIONS

1. Thoroughly inspect the plant for loose materials which may be blown about.

2. Instruct contractor personnel of the event and advise them to commence preparations for the securing of construction equipment and materials.

3. Remove or secure all outside scaffolding and swinging stages.

4. Close and secure all reactor, turbine building, switchyard and off-gas filter building doors.

5. Plant personnel shall seek refuge within the plant buildings and report to their supervisors for specific instructions.

6. Perform the routine surveillance test of the standby emergency diesel generators in anticipation of a potential off-site power failure when winds reach hurricane velocities near the site.

7. Arrange for additional assistance to provide continuous inspection of buildings and roofs.

8. At the direction of plant management or the Shift Supervisor reduce power to 25% rated when winds reach hurricane velocities near the site and a plant load rejection is imminent.

9. Install door braces on all roll-up doors equipped for braces.

10. Notify plant management.

11. For any hurricane (wind speed greater than 75 mph) onsite causing significant damage affecting plant operations, refer to applicable HNP-4400 series procedures for appropriate response.

12. For hurricane winds near design basis level (300 mph), refer to applicable HNP-4500 series procedure for appropriate response.

13. For hurricane winds greater than design level, refer to applicable HNP-4600 series procedures for appropriate response.

J. SUBSEQUENT OPERATOR ACTION

1. In the event buildings have been damaged or the reactor power level has become abnormal, internal damage to the process system may be suspected. Proceed with an instrumentation review and plant inspection per HNP-4858 section C.

2. Perform continuous building inspections.

3. If the plant instrumentation review and plant inspection evaluation indicates damage to the process system, follow the applicable annunciator response or emergency procedure.

4. If the plant is not damaged and is operationally intact following an alert, resume normal operations and inform Load Dispatcher.

K. CONDITION: FLOOD

The plant shall normally be alerted by outside communications and/or local indications of river elevation greater than or equal to 88.6 ft Mean Sea Level which may present a hazard to the plant facilities. The plant personnel shall prepare for plant load reduction as may be required.

L. OPERATOR ACTIONS

1. For (50 year) flood causing significant damage affecting plant operations, refer to applicable HNP-4400 series procedures for appropriate response.

2. For flood near design level (greater than 100 ft. Mean Sea Level), refer to Applicable HNP-4500 series procedures for appropriate response.

3. For flood or hurricane surge greater than design levels (greater than 120 ft. Mean Sea Level), refer to applicable HNP-4600 series procedure for appropriate response.

M. SUBSEQUENT OPERATOR ACTION

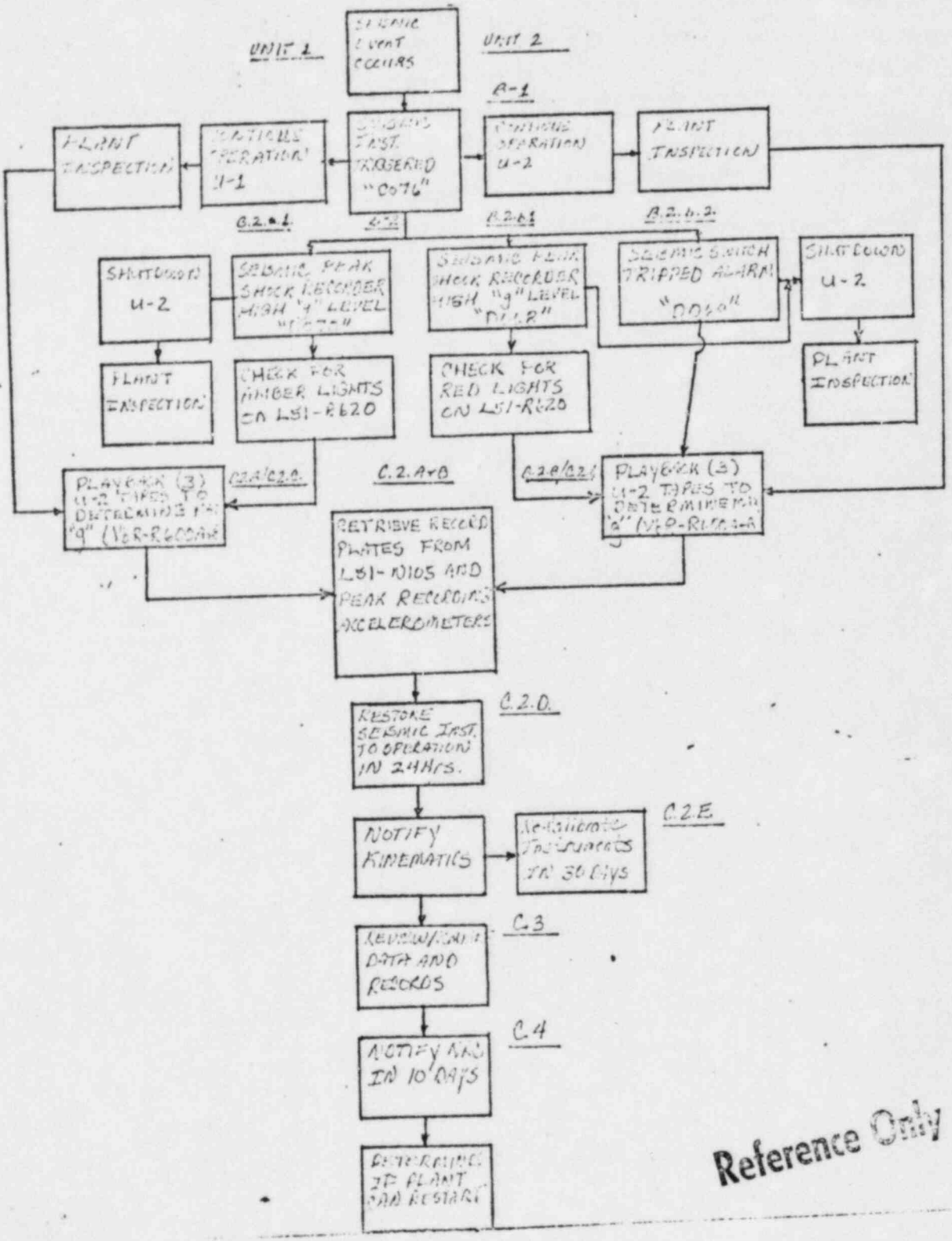
1. In the event buildings have been damaged or the reactor power level has become abnormal, internal damage to the process system may be suspected. Proceed with an instrumentation review and plant inspection per HNP-4858 section C.

2. Perform continuous building inspections.

3. If the plant instrumentation review and plant inspection evaluation indicates damage to the process system, follow the applicable annunciator response or emergency procedure.

4. If the plant is not damaged and is operationally intact following an alert, resume normal operations and inform Load Dispatcher.

FIGURE 1
EARTHQUAKE RESPONSE FLOW CHART



PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4858-1

SERIAL NO: R01:

MPL NO: _____

RTYPE: G15.03

XREF: _____

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.

ACCEPTABLE _____ UNACCEPTABLE _____

REVIEWED BY: _____

DATE REVIEWED: _____

REMARKS: _____

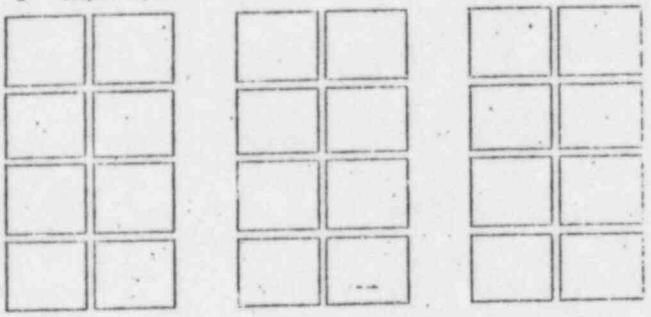
FIGURE 2
Page 1 of 2

DATA PACKAGE 1

PEAK ACCELERATION RECORDER STATUS

Date of Seismic Event _____ Time of Event_____

X = Lamp Is Lighted O = Lamp Is not Lighted



LAMPS RESET BY	DATE/TIME

The undersigned certify that the above indications are correct.

Name	Date	Time
Name	Date	Time
Name	Date	Time

FIGURE 2
Page 2 of 2

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Testing Of Emergency Communication System
PROCEDURE TITLE

HNP-4860
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
3	Pages 1, 3, 4 & 5	W H Rogers	C Jones	6/25/82
4	Pages 1 - 3, 5 & 6	W H Rogers	Stanley Hix	8/23/82
5	Pages 2, 5 & 6	W H Rogers	J T Beckham Jr	6/3/83

WSC

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4860

Revision No. 4

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
M. Wright	9-16-82	W.A. Rogers	10-4-82

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 pg 2 and 5 add NOTE about security radio in the control room being checked by the security department. pg 5 bottom change page 5 to page 7 in the referral date at the bottom of the page.

PRB RECOMMENDS APPROVAL: (√) Yes ( ) No Steve Tipps
PRB Secretary

82-180
PRB Number

10/14/82
Date

Reference Only

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.

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- 4860
REVISION NO
5
PAGE NO
1 of 7

TESTING OF EMERGENCY COMMUNICATION SYSTEM

A. PURPOSE

To provide a procedure for testing emergency communications between the Technical Support Center (TSC), Emergency Operations Facility (EOF), Control Room, State Civil Defense (CD), (ie, Appling County Sheriff's office), H.P. office, and Shift Supervisor's office.

B. TEST SCHEDULE

1. All communication systems will be tested at least once a month. Tests will be conducted in the 2nd week of each month.

C. TEST PROCEDURE

1. H.P. Technician picks up the phone and identifies himself and states "this is a test of the Plant Hatch Communication Systems" Refer to Table 1 for specific test procedure on each phone.

2. The individual answering the phone is requested to identify himself, and his name is recorded on the data package in the "Name" column. H.P. Tech requests the answering party to hang up the phone when H.P. Tech hangs up. (Not required for E.N.N. System. Refer to HNP-4861.)

3. The individual at the other end tests his system by repeating steps 1 and 2. (Not required for E.N.N. System. Refer to HNP-4861.)

4. Each party checks the quality of reception.

5. If any line or phone is noted to be lacking in reception quality, the technician will record the problem in the "Remarks" column next to the appropriate telephone.

6. Test is terminated and results are recorded in Data Package 1. The H.P. Technician performing the test puts his initials on the Data Package in the "Initials" column.

7. Necessary corrective action is initiated through the supervisor in charge of communication as and when necessary.

TABLE 1

EMERGENCY COMMUNICATION SYSTEM OUTLINE

Location	Phone Dedicated As:	Testing Procedure
Control Room	General office Hotline	Press power generation on switchboard
	TSC	*
	System operator	Press on switchboard
		Dial for system operator
	Division operator	Press on switchboard
		Dial for division operator
	Ext.	**
	Ext.	**
	ENN	See HNP-4861
	GEMA	*
Shift Suprv. Office	Ext. Speaker Phone	**
H.P. Office	NRC H.P. Hotline	Dial for headquarters
		Dial for regional office
	Ext.	**
	Ext.	**

NOTE

The security radio to the Appling County Sheriff's office will be tested by the Security Department. This phone is in the Control Room.

* Remove receiver and phone will ring at dedicated location

** Dial any plant ext.

TABLE 1 (CONT)

EMERGENCY COMMUNICATION SYSTEM OUTLINE

Location	Phone Dedicated As:	Testing Procedure
EOF	NRC Hotline	Dial for headquarters Dial for Regional Office
	GEMA	*
	TSC	*
	Control Room	*
	ENN	See HNP-4861
	Baxley emergency line	Test Ext. on communicator A, B and emergency director phone, dial plant's Baxley Ext. to test
	Emergency director	
	Communicator A & B	
	Ext.	**
	Ext.	**
	Atlanta	Dial (Power Generation)
TSC	General Office	*
	Control Room	*
	Emergency Operations Facility	*
	Appling County Sheriff's Office	*
	NRC Hotline E.N.S.	*
	Ext. Speaker phone	**
	Ext. Speaker phone	**
	Ext. Speaker phone	**
	Ext. (Atl)	dial (Power Generation)

* Remove receiver and phone will ring at dedicated location

** Dial any plant ext.

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4860-1

SERIAL NO: 805-

MPL NO: _____

RTYPE: C15.03

XREF: _____

TOTAL SHEETS: 4

FREQUENCY: _____

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: _____

Page 1 of 4 HNP-4860 R05

Reference Only

FIGURE 1
Page 1 of 4

MANUAL SET

DATA PACKAGE 1

EMERGENCY TELEPHONE CHECK

LOCATION: CONTROL ROOM **	DATE	NAME	REMARKS	INIT.
Dedicated General Office Hotline - "Power Gen"				
Dedicated TSC				
System Operator				
Division Operator				
Ext.				
Ext.				
Dedicated State/Local CD (ENN) *				
Dedicated GEMA				

LOCATION: SHIFT SUPVR. OFFICE				
Ext. Speaker Phone				

LOCATION: H.P. OFFICE				
Dedicated NRC H.P. Hotline (HPN)				
Ext. House Phone				
Ext. House Phone				

* Refer to page 7 for remote locations of ENN and alternate phone numbers.

** The security radio to the Appling County Sheriff's Office will be tested by the Security Department.

FIGURE 1
Page 2 of 4

DATA PACKAGE 1 (CONT.)

LOCATION: EMERGENCY OPERATION FACILITY (Visitors' Center)	DATE	NAME	REMARKS	INIT.
Dedicated NRC Hotline (HPN)				
Dedicated GEMA				
Dedicated ISC				
Dedicated Control Room				
Dedicated State/Local CO (ENN) *				
Lanier Emergency Line				
Emergency Director				
Communicator A				
X-2004				
Communicator B				

LOCATION: TECHNICAL SUPPORT CENTER				
Dedicated General Office				
Dedicated Control Room				
Dedicated Emergency Operations Facility				
Dedicated Appling Co. Sheriff's Office				
Dedicated NRC Hotline-E.N.S.				
Ext. Speaker Phone				
Ext. Speaker Phone				
Ext. Speaker Phone				
Ext. (All)				

* Refer to page 7 for remote locations of ENN and alternate phone numbers

FIGURE 1
Page 3 of 4

DATA PACKAGE 1 (CONT.)

EOF to * REMOTE LOCATIONS (IF EIN	DATE	NAME	REMARKS	INIT.
G.E.M.A. (Atlanta) [redacted]*				
Bailey Police Dept. [redacted]*				
Appling County C.D. [redacted]*				
Appling County Sheriff [redacted]				
Toombs County Sheriff [redacted]				
Hazlehurst Police Dept. [redacted]				
Reidsville Police Dept. [redacted]				

CONTROL ROOM TO * REMOTE LOCATIONS (IF EIN	DATE	NAME	REMARKS	INIT.
G.E.M.A. (Atlanta) [redacted]				
Bailey Police Dept. [redacted]				
Appling County C.D. [redacted]				
Appling County Sheriff [redacted]				
Toombs County Sheriff [redacted]				
Hazlehurst Police Dept. [redacted]				
Reidsville Police Dept. [redacted]				

* These Phone Numbers are to be called only if no response is obtained over the EMN.

FIGURE 1
Page 4 of 4

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

MANNING OF OPERATIONAL SUPPORT CENTER
PROCEDURE TITLE

HNP-4865
PROCEDURE NUMBER

LAB
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
0	New Procedure	W H Rogers	Jim Hunt for	2/5/82
1	Page 1	W H Rogers	G T Jones	3/1/82
2	Page 1	W H Rogers	Jim Hunt	9/2/82
3	Page 1 & 2	W H Rogers	Jim Hunt	12/1/82

Reference Only

HNP-29

MANUAL SET

NEED BY 11/30/82

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4865

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Titelo	11/24/82	W R Rogers	11/24/82

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 (Reference 81-30-10)

- section B.1 : delete "operations office and conference room area in the service bld. annex" and replace with "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." — to specify correct OSC & alternate OSC.
- section C.3 : to instruct personnel in the OSC to report to the alternate OSC when the primary is uninhabitable.
- add step C.4 : to instruct the OSC manager to appoint a Rally Point leader : Suggest the RPL be the senior RET member present.
- add step C.5 : to instruct personnel to consult HNP-4856, "Repair and Corrective Action Following a Radiological Emergency.

PRB RECOMMENDS APPROVAL: (✓)Yes ( )No Steve Tipps
PRB Secretary

82-213
PRB Number

11-30-82
Date

Reference Only
HNP-

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- 4865	
REVISION NO	
3	
PAGE NO	
1 of 2	

MANNING OF OPERATIONAL SUPPORT CENTER

NOTE

This procedure supercedes HNP-32, Revision 3, dated 1/5/82.

A. PURPOSE

The purpose of this procedure is to designate the location of and the personnel who shall report to the Operational Support Center (OSC).

B. GENERAL

1. The OSC shall 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. OSC shall be activated for Alert, Site Area Emergency and General Emergency.

C. PROCEDURE

1. Personnel authorized to report to the Operational Support Center are as follows:

   a. The members of the plant operating organization on site as required by HNP-4521, 4621, and 4721.

   b. All oncoming shift personnel.

   c. Off site personnel, other than GPC, requested by the Emergency Director.

   d. GPC plant personnel other than oncoming shift crew who are requested by the Emergency Director to report to site for support.

2. Personnel arriving at the Operational Support Center shall remain in the Center unless directed by the Shift Supervisor or TSC Management to report to specific locations. In the event the Operational Support Center becomes uninhabitable these personnel shall report to the alternate OSC unless directed elsewhere by the TSC manager or Emergency Director.

3. Management of the OSC activities will be assumed by the designated Maintenance Supervisor, or his alternate. In the absence of a designated Maintenance Supervisor, the OSC Manager responsibilities will be assigned by the technical Support Center Manager.

4. The OSC Manager shall appoint a Rally Point Leader to take charge of the rally points. The Rally Point Leader should be the senior RET member present in the OSC.

5. HNP-4866 should be consulted concerning all repair and corrective actions.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

REPAIR AND CORRECTIVE ACTION FOLLOWING A RADIOLOGICAL EMERGENCY
PROCEDURE TITLE

HNP-4866
PROCEDURE NUMBER

LAB
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
0	New Procedure	W T Rogers	C Jones	3/1/82
1	Page 4	W T Rogers	[illegible]	12/6/82

Reference Only

MANUAL SET

PRELIMINARY REVISION REQUEST

PROCEDURE NO. HNP-4866

Revision No. 0

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
T. Tibbs, Rick	11/23/82	W.H. Rogers	11/24/82

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

D. D.4 & G.6 - Change 2.5 to 20.0 to assure proper correlation with HNP-4810 → limit of 30 cm to the thyroid fill when performing assessment actions.

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No

Steve Tipps
PRB Secretary

82-213
PRB Number

11-30-82
Date

Reference Only-3

cc

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.

REPAIR AND CORRECTIVE ACTION FOLLOWING A RADIOLOGICAL EMERGENCY

A. PURPOSE

The purpose of this procedure is to provide guidance to ensure that doses to workers performing repair and corrective action functions during an emergency situation are maintained as low as is reasonably achievable.

B. REFERENCES

1. NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."
2. EPA-520/1-75 001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents."
3. NCRP #39, "Basic Radiation Protection Criteria."
4. HNP-8002, "Radiation Exposure Limits."
5. HNP-4812 "Emergency Exposure Guidelines"

C. ACCESS CONTROL

1. During an emergency, access to the protected area will be controlled. In addition, access to all areas beyond C-52 will require specific authorization and will be limited to personnel who are needed to provide specific functions in the Turbine and/or Reactor Buildings. An example of the personnel who will receive authorized clearance to these areas are: Control Room personnel, personnel on the fire brigade, RET members for the purpose of internal surveys and personnel required for repair and corrective action functions. A list of Control Room personnel requiring access shall be provided by the TSC manager or his designee. All other personnel shall require authorization from the OSC manager or his designee after consultation with the TSC manager.

   Access for personnel to High Radiation Areas shall have more stringent requirements to be discussed in a later section of this procedure.

D. EXPOSURE LIMITS AND AUTHORIZATION

1. All exposures to personnel are to be kept as low as is reasonably achievable. This pertains to all personnel who are required to remain on site during an emergency situation for the purposes of accident recovery.

2. Exposure to the whole body shall be limited to 300 mRem/week. Any expected whole body radiation exposure above 300 mRem in any one week shall necessitate the completion of HNP-8002 Form 2 "Authorization to Exceed Administrative Exposure Guides" by the indicated parties.

3. Exposure to the whole body shall also be limited to 1,250 mRem/quarter. Any expected whole body exposure in excess of 1,250 mRem in any one quarter shall also necessitate the completion of HNP-8002, Form 2 "Authorization to Exceed Administrative Exposure Guides" by the indicated parties.

4. In some instances during emergency conditions it may be necessary to exceed 10CFR20 Exposure limits. In such instances, refer to HNP-4812, "Emergency Exposure Guidelines" for guidance. The Emergency Director, or his designee, are given the authority to permit these exposures.

5. Exposure of emergency workers to any level is justified only if it is determined that benefits to society are being achieved and efforts are being made to keep exposures ALARA.

E. CONDITIONS OF EXPOSURE

1. Persons performing the planned actions should be volunteers broadly familiar with exposure consequences.

2. Women capable of reproduction shall not take part in these actions.

3. Internal exposures shall be minimized by respiratory protection, and contamination controlled by use of protective clothing.

4. Workers that are to perform the required actions should be well trained in the jobs that they will be performing to cut down on the amount of time they need to spend in the area(s).

F. RADIATION WORK PERMITS

1. Whenever practical, an RWP should be initiated before any work is performed.

2. The most current survey information available for the area in which the work is to be performed is to be used unless conditions exist or there are indications that the radiation levels in the area have increased significantly.

3. Area Radiation Monitors (ARM's) are to be used to the extent possible in predicting general area radiation levels.

4. If there is not enough information regarding the radiation levels in the areas(s) to be entered or new up-to-date information is deemed necessary, the TSC Manager, after consultation with HP Supervision, may elect to send an Internal Survey Team, comprised of RET members, into the area to determine the radiation levels.

5. All survey information should be placed on the appropriate Routine or Special Survey Map (See HNP-8012), whenever practical. The use of these maps will aid in the routing of workers in the area, determining stay times and making man-rem estimates.

6. All areas that are surveyed are to be surveyed for Beta dose rates in addition to Gamma dose rates. All smears that are taken are to be counted for Beta activity as well as Gamma activity.

7. It may be necessary, in some instances, that the work needs to be done immediately. In such instances, the TSC manager, after consultation with H. P. Supervision, may elect to appoint an internal survey team, or member, to accompany the repair and corrective action team, to survey the area while the work is being performed. In such instances, it may also be necessary to complete all documentation at a later time.

8. Low volume and/or High volume air samplers are to be used to the extent practical in determining airborne concentrations. In addition to these air samplers, CAM's and CIM CAM's will be used where appropriate in airborne concentration determinations. Isotopic compositions should also be performed to evaluate radioiodine concentrations.

G. EXPOSURE CONTROL

1. No personnel, other than Internal Survey Team members, may enter an area where dose rates are not known, except as stated in F.7 above.

2. Personnel shall not enter areas where dose rates are beyond the range of instruments being used.

3. Personnel shall be equipped with dosimeters capable of measuring anticipated doses. This shall include, but not be limited to:

   a. Two direct reading pencil dosimeters for whole body exposure:

      1. 0-200 mR and/or 0-5 R; and
      2. 0-20 R

   b. A Thermoluminescent Dosimeter (TLD) to permanently record whole body exposure.

   c. Extremity dosimeters when the extremity exposure rate is likely to be four (4) times the whole body exposure rate and the extremity exposure rate is likely to be 400 mRem/hr or greater. The extremity dosimeter(s) is/are to be worn on that part of the body that is likely to receive the exposure.

   d. A digital alarming dosimeter (0-10 R) with a predetermined alarm set point. The digital readout and the alarm will enhance the worker's knowledge of his accrued dose.

4. Protective clothing shall always be worn by workers entering areas for the purposes of repair and corrective action. The minimum dress requirements shall be:

   a. One pair of cotton gloves
   b. One pair of rubber gloves
   c. One pair of cloth booties
   d. One pair of rubber booties

   In the event that more stringent requirements are specified on the RWP, or by H. P. Supervision, then those requirements shall prevail.

5. Respirators shall be worn as appropriate. In all cases where airborne contamination is anticipated, personnel shall be fitted with pressure/demand Self Contained Breathing Apparatus (SCBA) as a minimum.

6. Potassium Iodine (KI) tablets should be administered to all personnel who are likely to inhale 20.0 uCi D.E. I-131 or greater. This decision is to be based on the results of previous Whole Body Counts and the projected exposure. HP Supervision shall make the final determination on whether or not KI should be issued.

7. All workers upon leaving a high airborne radioactivity area will be decontaminated as necessary and then given a whole body count. If indicated, other bioassay methods may be used in addition to the whole body count.

H. ALARA CONSIDERATIONS

1. In order to maintain radiation exposures to personnel performing repair and corrective action functions during emergency conditions as low as is reasonably achievable, the following steps should be performed, whenever practical:

   a. Prebriefing-All workers that are to be sent into High Radiation Areas should be made aware of the dose rates in the area, stay times, and airborne concentrations. All workers should be familiar with exposure consequences. An attempt should be made to estimate the total man-rem exposure of the prescribed action, based on radiation levels and man-hour estimates, and all attempts should be made to keep exposures below this estimate. Some of the methods that may be used to accomplish this are as follows:

      (1) The workers should be informed of the magnitudes and locations of significant radiation sources at the task location or accesses, and should also be informed of low exposure waiting areas, if any, that are to be used when necessary. Using the most current survey information or anticipated levels, the workers should be informed of the best way to reach their destination (i.e., the route that would result in the lowest exposures). Since the workers will most likely be wearing SCBA equipment, consideration should be given to reducing the amount of time needed to reach their destination since they will only have 30 minutes of supplied air.

      The personnel in attendance at the pre-briefing should be: the work crew; a Lab Supervisor or Foreman; a Maintenance Supervisor or Foreman; the OSC Manager; and a Shift Supervisor or Foreman.

      (2) A tool list should be developed prior to entry, such that a worker is well equipped to perform the required actions. Since a lot of time will probably be used in reaching the destination, care should be taken to reduce the number of trips needed.

(3) Consideration should be given to the use of special tools that may reduce the amount of time spent in the area, or that will enable the worker to handle "hot" pipes or valves remotely. These should only be used, however, by workers who are familiar with their operation.

(4) Consideration should be given to the prefabrication of systems outside to the High Radiation Areas which would result in less time being spent for the required action.

(5) Consideration should be given to the removal of systems to be worked on from high exposure rate areas to low exposure rate areas, if practical, to further reduce exposures to workers.

(6) Consideration should be given to the use of communication systems (such as walkie-talkies, headsets, etc.) so that any problems or difficulties that are encountered may be related back to supervisory personnel for discussion or comment.

(7) Workers that are to perform the required actions should be well trained in the job(s) that they will be performing in order to cut down on the amount of time they need to spend in the area(s).

b. Job Execution-Although prebriefing is an essential step in maintaining radiation exposures to station personnel ALARA, implementation of exposure controls during the execution of a job is the primary mechanism for maintaining radiation exposures as low as is reasonably achievable. Some examples of exposure controls methods that should be utilized are as follows:

(1) In order to reduce internal doses, the proper respiratory protection equipment must be worn by all persons who have the potential of inhaling airborne radioactive materials.

(2) Protective clothing needs to be worn to reduce the liklihood of skin contamination.

(3) Time, distance, and shielding are the most effective ways of reducing exposures and must be utilized where- and whenever possible.

Reference Only

MANUAL SET

(4) Proper communication between workers in high radiation areas and supervisory personnel who are monitoring the operations from other locations is essential in identifying problems incurred during execution of the required actions. This will be enhanced through the use of communication systems such as walkie-talkies or headsets.

c. Post-briefing-Performance of this step will help in planning future jobs by using a type of "lessons learned" approach.

The personnel in attendance at the post-briefing should be: the work crew; a Lab Supervisor or Foreman; a Maintenance Supervisor or Foreman; the OSC Manager; and a Shift Supervisor or Foreman.

(1) The importance of this step stems from the possibility that it may become necessary to perform subsequent similar actions during emergency conditions.

(2) Any problem or recommendations that arise should be documented for the purposes of planning and execution of subsequent actions. These recommendations should be expressed by anyone involved in the operation.

(3) The degree of success or failure should be reviewed upon completion of each job and should also be documented for further use.

I. EFFLUENT RELEASES

NOTE

Due to the increased likelihood of fuel failure during an accident condition particular care must be taken in analyzing all releases. In addition to performing isotopics on a GeLi detector, all gaseous effluent filters must be measured for Beta emitters, particularly Sr-90. Refer to appropriate HNP-7000 series procedures for analysis.