GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Offsite Radiological Environmental Monitoring During Emergencies
PROCEDURE TITLE

HNP-4827
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	Jno Thomas for	12/3/82
1	Pages 1 thru 15	R W Zavadoski W T Rogers	Jno Thomas for	10/6/83

HNP-9

WR 9/28

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4827 SHEET 1 OF 1

Revision No. 0

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Tim J. Kuhlman	9/22/83	W H Rogers	9/27/83

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

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

PRESENT STATUS: Safety Related (X) Non-Safety Related ( )

The above Safety/Non-Safety Status has changed ( ) Yes to _____

Attach marked up copy of procedure to this form.

REASON FOR REQUEST: To integrate requests of the State into our offsite procedures.

DESCRIPTION OF CHANGES: General revision

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No _____
PRB Secretary

83-185
PRB Number

9-30-83
Date

HNP-9

BT

8311010301

SAFETY EVALUATION

This revision 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 this revision because the revision does not change the purpose or performance of the ~~system~~ emergency plan or procedures.

T.J.K.

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

T.J.K.

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 allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

T.J.K.

OFFSITE RADIOLOGICAL ENVIRONMENTAL MONITORING DURING EMERGENCIES

NOTE

This procedure supercedes HNP-4625 Rev. 5 and HNP-4725 Rev 5.

A. PURPOSE

To provide a method for the determination of radiological conditions in the plant environs, due to the release of radioactive materials from the plant under accident conditions. Also, this procedure will provide instructions for integrated offsite survey teams consisting of some combination of state, local, and GPC personnel.

B. DEFINITIONS AND TERMS

1. EOF - Emergency Operations Facility
2. REC - State Radiological Emergency Coordinator
3. RET - Radiological Emergency Team
4. Dose Assessment Management - Integrated state, local, and GPC personnel collectively consisting of the Dose Assessment Manager, the REC, and lead personnel from local civil defense organizations.

C. SCOPE

1. The activities of the offsite monitoring teams will generally be performed in the Emergency Planning Zones (EPZ), from the plant to distance of approximately (but not limited to) 10 miles.
2. Offsite monitoring teams will be under the direction of the Dose Assessment Management in the EOF.

NOTE

It is understood that the ultimate responsibility for offsite radiological environmental monitoring rests with the State.

D. REFERENCES

1. HNP-4620 "Site Area Emergency"
2. HNP-8142 "Stabilized Assay Meter SAM-2 Operation and Calibration"

E. ORGANIZATION

1. Team Composition

a. The teams are expected to generally consist of 3 of 4 persons, depending upon the avilability of personnel and the nature of the mission to be performed. Functions to be performed may include:

(1) Driver
(2) Navigator
(3) Data Recorder
(4) In-transit Instrument Reader
(5) Field Sampler
(6) Communicator
(7) Sample Taker
(8) Sample Analyzer

b. The Dose Assessment Management shall designate a team captain for each monitoring team. The team captain shall assign responsibility for each of the above functions (as applicable) to individual team members. Team members may be assigned responsibility for multiple functions. The team captain is responsible for assuring that all necessary actions are performed.

2. Team Responsibilities

a. Collect environmental media.

b. Conduct radiological field measurements (plume monitoring) with readings by location.

c. Conduct air monitoring by location.

d. Communicate sample analysis data, dose rate information, and personnel dosimetry to the EOF.

F. ACTIONS

1. Radiological Emergency Team personnel should meet in the EOF to get instructions, find out the events that have taken place, and to be assigned to a monitoring team.

2. The Dose Assessment Management is to divide personnel into teams using combinations of state, local, and GPC personnel. Teams should consist of a max of 4 people (avg. 3).

3. Offsite teams may use vehicles equipped with two-way communication devices belonging to GPC, the state, or the locals as appropriate. In addition, portable radios and antennas obtained from the EOF will be used as alternative communications. If personal vehicles are used, the portable radios and antennas will be the primary communication system and the Bell system as an alternative.

4. The Dose Assessment Management shall designate a team captain for each team.

5. Once the teams and team captains have been designated, each team captain will be responsible for assigning each member of his team certain tasks, ie, driver of the vehicle, navigator, data recorder, in-transit instrument reader, field sampler, communicator, sample taker, and sample analyzer.

6. Upon the classification of an ALERT level emergency, the offsite teams may be activated at the discretion of the Dose Assessment Management. If the classification is a SITE AREA or GENERAL Emergency, teams shall be activated. The Dose Assessment Management directs the staffing and deployment.

7. Obtain a survey team kit at the EOF.

8. Complete the checklist in Data Package 1, Data Sheet 1.

9. After the equipment is checked for operability, the monitoring team will establish communications with the EOF.

10. Turn on survey instruments, allow them to warm up, and verify response with the check source provided.

11. Install glass fiber filter and silver zeolite cartridge in sample holder of air sampler. Turn on sampler and confirm proper operation. Turn off.

12. Proceed to area specified by Dose Assessment Management.

13. While in transit, survey meter for measuring dose is turned on. The instrument is positioned for continuous viewing and ready access for recording readings. If readings above background are detected, record appropriate information on Data Package 2, Data Sheet 1.

    a. Indicate observed readings on survey map. (Report any indication of a plume to the EOF). Record on Data Package 2, Data Sheet 1.

    b. Record time entering the plume as indicated by the survey meter reading on Data Package 2, Data Sheet 2.

c. If dose rate is in excess of 5 mr/hr, report reading to the EOF.

NOTE

Minimize traversing of the plume as much as practical to maintain exposures ALARA. Contact the EOF prior to exceeding any administrative exposure guidelines. Provide periodic personnel exposure updates to the EOF when exposures are considered significant. Record personnel exposure data in Data Package 2, Data Sheet 1.

14. Upon arrival at the sampling location, perform a dose rate survey in the following manner:

a. At waist level, hold GM probe HP-210 or GM survey meter (or equivalent) with the window facing up, read meter, and record results on Data Package 2, Data Sheet 2.

b. At 2" above the ground, hold GM probe with detector window facing the ground, read meter, and record results on Data Package 2, Data Sheet 2.

c. At waist level, hold high range survey meter horizontal, read and record dose rate on Data Package 2, Data Sheet 2.

d. Repeat step c above, but at 2" from the ground.

15. Take air sample at designated area when requested by Dose Assessment Management as follows:

a. Place a silver zeolite (AgX) cartridge in the sample head, and mark the cartridge to specify the inlet side of the cartridge. Place a particulate filter upstream of the AgX cartridge, and place the sample head in the air sampler.

b. With the engine running, connect the air sampler power leads to the vehicle battery, taking care to connect the positive and negative cables to the positive and negative battery terminals respectively.

c. Start air sampler and record time of Data Package 2, Data Sheet 2.

d. Check air flow indication and record flow rate.

e. Run air sampler 10 minutes, record flow rate from calibration sticker on Data Package 2, Data Sheet 2.

NOTE

Dose Assessment Management may request other sample times.

f. Make radiation survey as in step 14 above while running the air sampler.

NOTE

If levels are greater than 10 mr/hr report reading to the EOF and await instruction from the Dose Assessment Management.

g. Remove the AgX cartridge and particulate filter from the sampler head, and place in separate plastic bags.

h. Air samples should be labeled and a log entry made in the log book of the following information:

Date and start time of sample
Duration of sample
Flow rate of sample
Location of sample point (map location, landmarks, etc.)
Survey team name
Air sampler number
SAM-2 Analyzer serial number (if used)

NOTE

During air sampling, monitoring teams should observe the dose rate instrument for significant changes in dose rates. Report any significant changes to the EOF. Record personnel doses on Data Package 2, Data Sheet 2 while sampling.

i. Insert GM survey meter probe (HP-210) into sample holder (SH-4A) and record background reading.

j. Place glass fiber filter in SH-4A holder and obtain reading (CPM). Calculate airborne concentration per Data Package 2, Data Sheet 3.

k. Place silver zeolite cartridge (which has been placed in plastic bags) directly against probe (HP-210). Obtain reading (cpm) and calculate airborne concentration per Data Package 2, Data Sheet 3. (µci/cc)

NOTE

If SAM-2 Counters are available, cartridges may be counted using HNP-8142 and HNP-4826. Record data on Data Package 2, Data Sheet 2 as CPM (net).

1. Place sample filters in envelopes and record on envelopes time, location, flow, sample time, cpm, background, and air activity. Hold for further analysis at place EOF.

16. Collect soil, vegetation and water samples when requested by the Dose Assessment Management, as follows:

    a. Take bag (mark it soil) and small scoop, fill with surface soil from a bare spot, tape closed, and tag with the date, time, and location.

    b. Take bag (mark it vegetation) and scissors. Cut vegetation approximately two (2) inches above ground, fill bag, tape closed, and tag with the date, time and location. (If possible, choose vegetation that might be ingested by animals).

    c. Fill poly bottle with surface water, close and tag with date, time and location.

17. Record time out of the plume on Data Package 2, Data Sheet 2, and determine total stay time.

18. Report all results to EOF and await further instructions. Document all results in Data Package 2.

19. When directed by the Dose Assessment Management, proceed to environmental TLD and air sample cabinet locations. Change out TLD and filters at the stations noting time and date of change out. Return samples to the EOF.

20. Return all data sheets fo the EOF for review, analysis and temporary storage. These data sheets shall be permanently stored in Document Control upon termination of the emergency condition.

FIGURE 1

GROSS AIRBORNE DETERMINATION

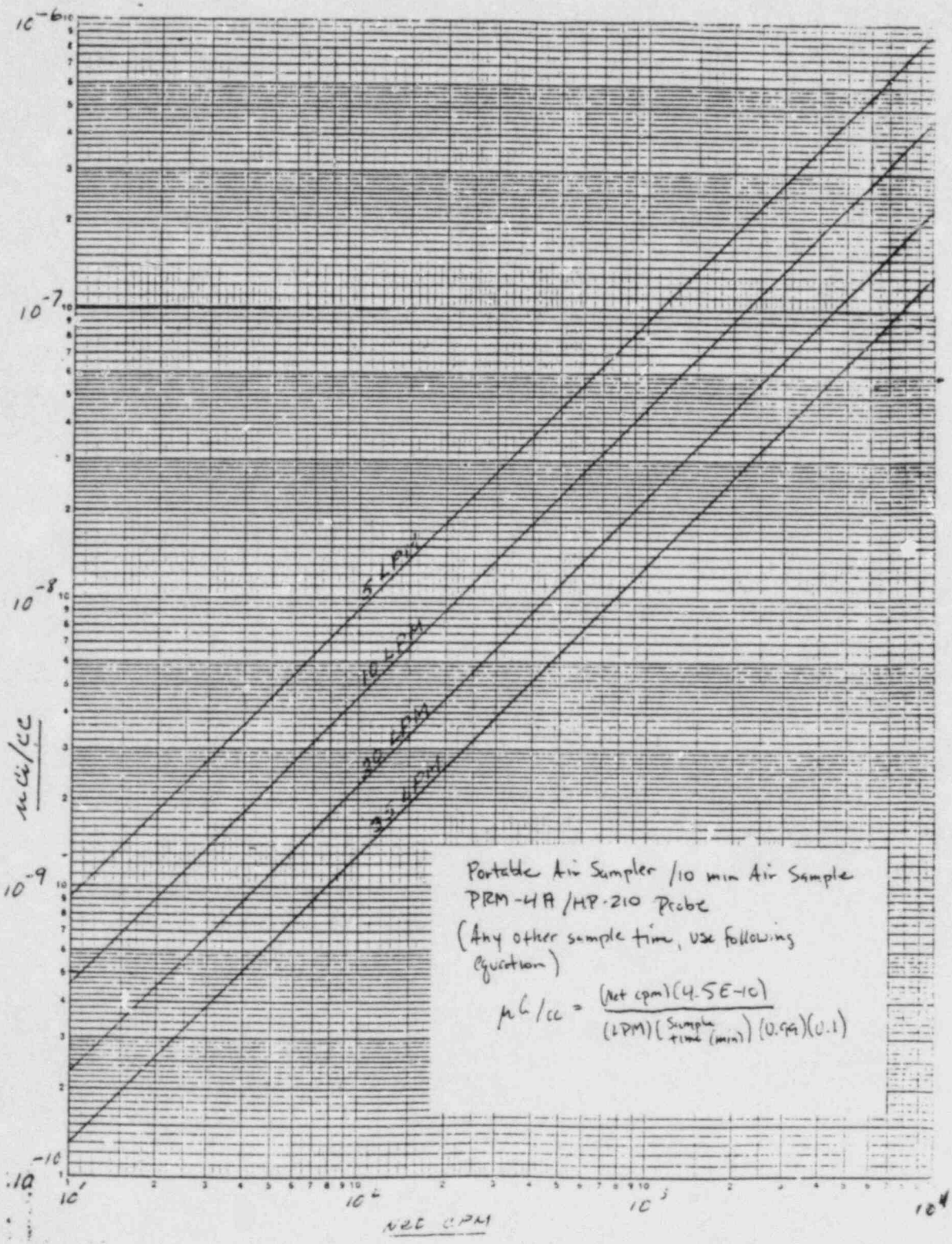
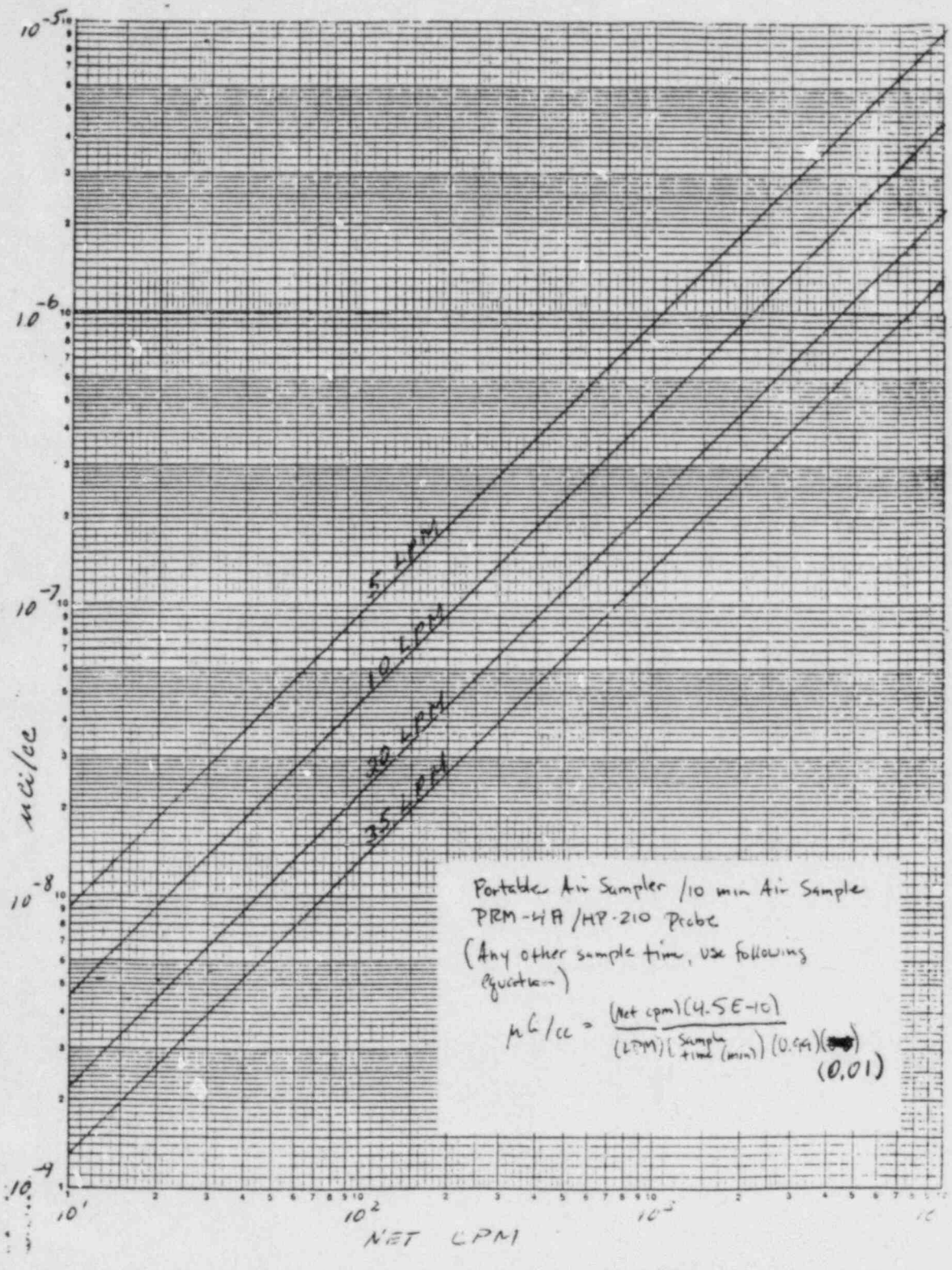


FIGURE 2

IODINE DETERMINATION



PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4827-1

SERIAL NO: R01-

MPL NO: _____

RTYPE: G15.03

XREF: _____

TOTAL SHEETS: 2

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: _____

FIGURE 3
Page 1 of 2

DATA PACKAGE 1
MONITORING TEAM CHECKLIST
Data Sheet 1

A. Inventory Kit and Verify Necessary Items

1. SAM-2 Analyzer (optional) _____
   a. Battery and source check _____
2. Survey Instruments _____
   a. Battery and source check _____
3. AgX Cartridges _____
4. Particulate Filters _____
5. Calculator _____
6. Stop Watch _____
7. Log Book _____
8. Sample Bags _____
9. Pocket dosimeters _____
10. TLDs _____
11. EOF Telephone Numbers (in log book) _____
12. Airborne Activity Calculation Form _____
13. Gloves _____
14. Tweezers _____
15. Labeling Materials (labels, pens, etc) _____
16. Maps and Procedures _____
17. Spare Batteries _____
18. Blank Smears _____
19. Portable Air Sampler _____
20. Sample Bottles _____
21. HP 210 Probe/Holder _____

B. Prior to departing the EOF, verify the following:

1. Survey instrument in cab and on lowest scale _____
2. Team members equipped with dosimetry _____
3. Maps in cab _____
4. Vehicle radio check completed _____

FIGURE 3
Page 2 of 2

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4827-2

SERIAL NO: R01-

MPL NO: _____

RTYPE: G15.03

XREF: _____

TOTAL SHEETS: 5

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: _____

FIGURE 4
Page 1 of 5

DATA PACKAGE 2

Data Sheet 1

Monitoring Team_____ Page _____ of _____ Date_____

EXPOSURE RATE AND EXPOSURE MEASUREMENT DATA FORM

** LOCATION				TIME	SURVEY INSTRUMENT	GROUND LEVEL EXPOSURE RATES1			PERSONNEL DIRECT READING DOSIMETRY2			TIME RE-PORTED
S	M	P	OTHER			2 meter (mR/hr)	1 meter (mR/hr)	Contact (mR/hr)	Name_____ (mR)	Name_____ (mR)	Name_____ (mR)	

CONDITION

1a. Exposure rate 25 mR/hr and radioiodine (^{131}I) air is not known.

2a. Total exposure 100 mR.

b. Total exposure 3 R.

c. Total exposure 25 R.

ACTION

1a. Potassium iodide (KI) recommended, unless directed otherwise by Dose Accessment Management.

2a. Contact Dose Assessment Management and advise.

b. Evacuation recommended, unless directed otherwise by Dose Assessment Management.

c. Evacuation mandatory, contact Dose Assessment Management.

**Location-ie, sector, mile marker, direction, distance, road signs, landmarks, Hwy #'s, etc.

NOTE: Anytime exposure rate greater or equal to 25 mR/hr (regardless of air activity), Dose Assessment Management must be contacted.

S = Sector
M = Mile
P = Sample Point (1,2)

FIGURE 4
Page 2 of 5

DATA PACKAGE 2
Data Sheet 2

OFFSITE EMERGENCY MONITORING TEAM

Team_____ Date_____

Time entering plume_____ Time Exiting Plume_____ Plume Stay Time_____

Sample: Location_____ Sample Time On_____Sample Time Off_____

Flow Rate:_____LPM

Sampler Type _____ Serial Number_____

GROSS AIRBORNE ACTIVITY (Glass Fiber Filter)

(Sample + background CPM)_____CPM (Background CPM)_____CPM

(Sample + background CPM)-(background CPM)=Corrected CPM____CPM (net)*

From Figure 1 particulate airborne concentration=_____µci/cc**

Instrument Type_____ Serial Number_____

IODINE AIRBORNE ACTIVITY (AgX Filter)

(Sample + background CPM)_____CPM (Background CPM)_____

(Sample + background CPM)-(Background CPM)=Corrected CPM____CPM (net)*

From Figure 2 Iodine Airborne concentration=_____µci/cc**

From Data Sheet 3 Thyroid Dose Rate _____mr/hr

Instrument Type_____ Serial Number_____

COUNT/DOSE RATE SURVEY

Count/dose rate while in transit_____CPM_____Mr/hr

Count rate @ waist level (window facing down)_____CPM

Count rate @ 2" from ground (window facing ground)_____CPM

Dose rate @ waist level_____Mr/hr

Dose rate @ 2" from ground_____Mr/hr

Instrument type_____ Serial Number_____

Instrument type_____ Serial Number_____

FIGURE 4
Page 3 of 5

DATA PACKAGE 2 (CONT)
Data Sheet 2

OFFSITE EMERGENCY MONITORING TEAM

PERSONNEL DOSIMETRY*** Time_____

Team member_____Dose_____mr
Team member_____Dose_____mr
Team member_____Dose_____mr
Team member_____Dose_____mr

SAMPLES COLLECTED

_____Direct radiation TLD's _____Milk

_____Vegetation _____Well Water

_____Soil _____Drinking Water from surface source

_____Other (specify) _____Other (specify)

* Note: If SAM-2 used record CPM (net) as instrument reading.

** Note: If activity (CPM), flow rate (LPM), or sample times (min) are different from information on Figures 1 & 2, use Data Sheet 3 for calculations and record results on Data Sheet 2 (μci/cc).

*** Note: Read and record personnel doseimtry at least one time while at each sample location. (More frequently if does rates are high).

FIGURE 4
Page 4 of 5

DATA PACKAGE 2
Data Sheet 3

ENVIRONMENTAL AIRBORNE ACTIVITY CALCULATION FORM

1. Net Particulate (CPM)_____(from Data Sheet 2)

2. Net Iodine (CPM)_____(from Data Sheet 2)

3. Sample time_____ min. (from Data Sheet 2)

4. Flow rate_____ LPM (from Data Sheet 2)

Particulate

5. Gross Airborne Concentration =

Particulate

$$\frac{(\quad \text{CPM (net)} \quad (4.5E\text{-}9)}{(\_\_\_\_\_\text{LPM})\ (\_\_\_\_\_\text{min.})} = \_\_\_\_\_\ \mu\text{ci/cc}$$

Iodine

6. Airborne Concentration=

Iodine

$$\frac{(\quad \text{CPM (net)} \quad (4.5E\text{-}8)}{(\_\_\_\_\_\text{LPM})\ (\_\_\_\_\_\text{min.})} = \_\_\_\_\_\ \mu\text{ci/cc}$$

7. Thyroid Dose Rate=

(line 5 µci/cc) x (1.85E+9 mr/hr/µci/cc) = _____mr/hr

*If a SAM-2 is used the graphs are not usable. The formula following must be used:

$$\frac{\text{(Net CPM) (1.5 E-9)}}{\text{(volume in liters)}}$$ for charcoal cartridge

$$\frac{\text{(Net CPM) (1.58 E-9)}}{\text{(volume in liters)}}$$ for silver zeolite

FIGURE 4
Page 5 of 5

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Radiation and Contamination Control
PROCEDURE TITLE

HNP-8005
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
12	General Revision	W H Rozen	Jim Greene	1/14/82
13	Pages 2, 4, 14 & 16	W H Rozen	Harvey Rix	8/30/82
14	General Revision	W H Rozen	Harvey Rix	10/29/82
15	Pages 8 & 9	R W Zapadka W H Rozen	Jim Greene Jr	10/3/83

DE 8/30

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-8005 SHEET 1 OF 2

Revision No. 15 14

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature	Date:
Dwaine Brown	8 8 83	[signature]	8/30/83
		[signature]	8/14/83

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

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

PRESENT STATUS: Safety Related (X) Non-Safety Related ( )

The above Safety/Non-Safety Status has changed ( ) Yes to _____

Attach marked up copy of procedure to this form.

REASON FOR REQUEST: To incorporate protective headgear requirements when working in Radiation Controlled Areas.

DESCRIPTION OF CHANGES: Change I.2. to Read: "Hardhats, coveralls, sleeveless, hoods and gloves are available for use. This apparel is distinctively colored (yellow for clothing, magenta for hardhats) and should be used only as anti-contamination clothing."

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No Pierre E. Fornel
PRB Secretary

83-176
PRB Number

9-9-83
Date

HNP-9

manual set

SAFETY EVALUATION

This revision 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 this revision 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 revision because the system responds and is operated as before the revision.

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 allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

Manual Set

PROCEDURE REVISION REQUEST SHEET 2 OF 2

PROCEDURE NO. HNP-8605
REVISION NO. 15

REASON FOR REQUEST: See Page 1

DESCRIPTION OF CHANGES: 3.a.(1) Add between obtain and coveralls: "hardhat,"

After 5.a. Add:

NOTE

Hard hats will be worn with all respiratory protection devices with the exception of supplied air hoods.

Manual set

RADIATION AND CONTAMINATION CONTROL

A. PURPOSE

To outline the procedures which will be used by Health Physics personnel and by all plant personnel to ensure that potential radiation hazards are adequately defined, that adequate controls are instituted so that radiation exposure to personnel working in Radiation Control Areas or working with radioactive materials is minimized, and that each person carries out his work in a radiologically safe and economical manner.

B. REFERENCES

1. 10 CFR 20
2. HNP-8000 and 8100 Series Procedures

C. SAFETY

1. Observe radiation protection procedures.

D. GENERAL MONITORING

1. External Radiation Measurement

   a. All individuals entering a Radiation Control Area are required to wear a TLD badge and pocket dosimeter at all times. A record of accumulated external radiation exposure received is obtained principally from the interpretation of the TLD badge. Direct reading pocket dosimeters provide an "on-the-spot" reading for the individual.

   b. Radiation Control Areas within the Primary Protective Area are classified and identified as to levels of radiation and for contamination. Strict procedures will be enforced for access to these areas.

   c. There are numerous area radiation monitors located throughout the plant which alert personnel to abnormal radiation levels.

   d. In addition to the measurements made by the area radiation monitors, the measurement of external dose rates is accomplished by portable survey instruments. The operation of survey instruments will be in accordance with the operating instructions outlined in each particular instrument procedure. Instruments covering high, intermediate, and low ranges are available in the plant and in emergency kits.

2. Loose Surface Contamination Measurement

a. In Radiation Control Areas loose surface contamination is normally determined by wiping a disc smear over a 100 square centimeter area of the surface being monitored. Detailed procedures for contamination surveys are found in HNP-8012, SURFACE RADIOACTIVE CONTAMINATION SURVEYS. The smear is then counted using a beta-gamma (G-M) count rate meter. Alpha activity of a smear is determined by means of a gas proportional detector.

b. In areas not normally expected to be contaminated, the loose surface contamination will be determined by wiping a disc smear over a 100 square centimeter area and counting the smear with a proportional or G-M counter for gross beta-gamma.

3. Airborne Contamination Measurement

In addition to the area radiation monitors particulate airborne activity will be determined as needed by utilizing portable air samplers with filter paper and mobile continuous air monitors (C.A.M.'s). Filter samples from portable air samplers are counted for gross beta activity using a gas-flow proportional or G-M counter. Alpha activity of a sample is determined by means of a gas-flow proportional counter. The continuous air monitors are self contained and therefore record air activity continuously on a strip chart recorder. Operation of these air samplers will be in accordance with HNP-8013, 8109, and 8128.

E. ROUTINE AREA MONITORING

1. Health Physics personnel will perform surveys that are necessary for the designation of Radiation Control Areas. Surveys will include routine checking of areas for external radiation hazards and contamination, as well as for airborne radioactivity.

2. Routine surveys will be conducted in the plant to establish radiation, airborne, and contamination levels throughout the facility. Whenever practical, Health Physics personnel will make the first entry into areas of unknown radiation levels. Otherwise, licensed operating personnel entering areas of unknown radiation levels will carry survey meters to determine radiation levels.

F. SPECIAL AREA MONITORING

1. Special radiation, airborne and contamination surveys in addition to routine surveys, will be made when necessary. Examples of situations requiring special surveys are.

   a. During any test or work items involving:

      (1) Installation or removal of in-core fission chambers.

      (2) Installation or removal of core startup sources.

      (3) Installation or removal of reactor components.

      (4) Loading and unloading fuel elements.

      (5) The opening of a primary coolant system (conducting a special survey of the surrounding area for contamination after the opening or removal operation has been completed and before other work is resumed).

      (6) The removal of any material which has been in contact with the primary coolant (i.e., valves, pumps, sections of piping, demineralizer resin, etc.).

      (7) During reactor operation after the initial installation of, and after repairs or modifications to, radiation shielding.

   b. Following any situation which may result in radioactive contamination.

   c. Before and after any decontamination operation.

   d. Checking shop areas in which contaminated equipment is being worked on.

   e. When rupture of a radioactive - material container occurs, or when spills are reported.

   f. When handling spent fuel.

   g. Unconditional release of items to unrestricted areas.

G. CONTAMINATION LIMITS

1. Personnel, material and equipment released from Radiation Control Areas shall be free of significant radioactive contamination. Release surveys will be made and will include alpha, beta and gamma radiation detection unless it is known that a given type is not present. Release surveys must be performed where the background does not exceed 200 cpm on beta-gamma detection meters or 50 dpm on alpha detection meters. The procedure for surveys is found in HNP-8012 SURFACE RADIOACTIVE CONTAMINATION SURVEYS.

2. Surface Contamination Limits

a. Clean Areas

For areas outside the boundary of a Contaminated Area, surface contamination will be kept at a minimum and maintained below the limits set for Contaminated Areas in HNP-8003 RADIATION CONTROL AREA CLASSIFICATIONS.

b. Contaminated Areas - Frequent Access

For areas which become contaminated and which require frequent access, efforts will be made to clean up the contamination as soon as possible, provided the clean-up operation will not result in unnecessary exposure to clean-up personnel.

For frequent access areas in which it is impractical to decontaminate immediately, contamination levels will be maintained below the following:

(1) Smearable surface radioactive contamination

Beta-Gamma	50,000 dpm/100 cm^2
Alpha	50 dpm/100 cm^2

(2) Fixed surface radioactive contamination

Beta-Gamma	10 mR/hr at 1" using a RO-2A or RO-3A
Alpha	50 dpm per detector area

c. Contaminated Areas - Occasional Access

For contaminated areas which may require occasional access, the values in E.2.b may be increased by a factor of 10-100.

NOTE

When the above values in G.2.b. and G.2.c. are exceeded, the areas involved should be decontaminated as soon as possible.

d. Regulated Equipment

Equipment of a portable nature, such as hand tools, small pumps and motors, of such design which makes decontamination impractical, will be considered regulated equipment and stored in a designated area, which will be labeled as a Radioactive Material Area. The department using this equipment will be responsible for proper storage of this equipment.

Regulated equipment may have smearable contamination on exposed surfaces up to 50,000 dpm/GM probe area beta-gamma and 50 dpm/detector probe area alpha, and may have radiation levels up to 10 mR/hr at one inch. This equipment must remain in a designated storage area within a Radiation Control Area, and can be used only in Radiation Control Areas by workers wearing protective clothing. Workers requesting to remove regulated equipment from a designated storage area must first notify Health Physics. Health Physics will determine the radiation and contamination levels on the regulated equipment and determine if it is acceptable for this equipment to be used in the requested work area. Equipment having radiation levels higher than 10 mR/hr may be used after consideration of all factors involved, i.e., the nature of the equipment, the frequency of use, and the length of time it may be in use. Movement of regulated equipment will be controlled such that highly contaminated equipment will not be used in relatively clean areas.

e. Personnel Contamination Limits

(1) Personnel contamination levels shall be kept as low as possible at all times, therefore the following limits may be used as a guide to release personnel to clean areas:

Beta-Gamma

SKIN OR CLOTHING		INTERNAL
Fixed	Removeable	
≤ 1000 DPM/ Probe Area	No Detectable Activity	5% MPBB

Alpha

SKIN OR CLOTHING		INTERNAL
Fixed	Removeable	
≤ 50 DPM/ Probe Area	No Detectable Activity	N/A

Manual set

NOTES

All Beta, Gamma measurements are made using a pancake probe G.M. detector with count rate instrument or equivalent.

All Alpha measurements are made using a PAC-4G and a MS-2 Counter set up for alpha detection.

An Alpha Survey is performed if there is reason to suspect alpha contamination such as when handling fuel assemblies.

(2) Personnel with contamination levels greater than the above values shall notify Health Physics and decontamination shall be attempted. If contamination levels cannot be reduced below the above values a Health Physics Supervisor or his designated alternate will determine the release.

(3) Movement of Material and Equipment from a Radiation Control Area

Any component, item of equipment, or tools having been used in a Radiation Control Area, will require, as much as practical, a beta-gamma dose rate and contamination survey prior to or after coming out of a Radiation Control Area. All released items will be classified by Health Physics personnel as either an unconditional release or conditional release.

(a) Unconditional Release Item:

Material and equipment will be given an unconditional release by Health Physics personnel for use outside the boundary of a Radiation Control Area if no smearable beta-gamma or alpha contamination is found using a smear technique and radiation levels at one inch are less than 100 CPM above background using a GM count rate meter with HP-210 Probe or equivalent.

NOTE

Material and equipment which contain inaccessible and/or porous surfaces will not be released until the material or equipment is known not to be contaminated.

(b) Special Releases:

An assistant Plant Manager may authorize the unconditional release of certain radioactive material when it has been determined that the total activity of the material is less than that specified in 10 CFR Part 20 Appendix "C".

(c) Conditional Release Item:

Removal of material and equipment from Radiation Control Area with radiation and contamination levels in excess of those limits specified for unconditional release must be approved for conditional release by Health Physics personnel. Contaminated material and equipment will be placed in containers, when practical, prior to removal from a Radiation Control Area and tagged with Figure 1 tag or labeled with a radioactive material label. These labels will contain the levels of radioactivity, description of material, initials of individual performing the survey and date.

When it is not practical to place contaminated material and equipment in containers, movement out of an RCA will be controlled to prevent contamination spread.

No conditional release item will be allowed to leave the Primary Protected Area without the express approval of the Health Physics staff.

(d) Contaminated Equipment Control:

Certain items of material and equipment used during maintenance activities may, from time to time, become contaminated, and prior to return to the Maintenance Shop Tool Room, must be stored until decontamination can be performed. In this event, Figure 3 may be completed by Health Physics, if requested by Maintenance, and may be forwarded to the Maintenance Department and the equipment will be stored under lock and key until such time decontamination can be performed.

(4) Laundered Protective Clothing:

(a) Returned laundered protective clothing shall be surveyed by Health Physics personnel for acceptable limits of contamination as described in HNP-8007, LAUNDERING OF PROTECTIVE CLOTHING.

(b) Procedures for handling and surveying protective clothing is detailed in HNP-8007, LAUNDERING OF PROTECTIVE CLOTHING.

H. RADIATION WORK PERMIT

1. The Radiation Work Permit (RWP) (HNP-8008) is a procedure used to provide radiation safety and an awareness of significant exposure radiation levels in areas where personnel will be working.

2. Procedures for issuing and using an RWP are found in HNP-8008, RADIATION WORK PERMIT.

I. PROTECTIVE APPAREL AND EQUIPMENT

1. Location

Protective apparel and equipment are kept in the warehouse and in other areas as judged necessary by the Health Physics Supervisor. A minimum supply of clothing and equipment is kept in the Radwaste Building 132' elevation, Reactor Building 228' elevation, Turbine Building 112', Reactor Building 130' elevation and Reactor Building 158' elevation.

2. Protective Apparel

Hard hats, coveralls, shoe covers, hoods and gloves are available for use. This apparel is distinctively colored (yellow for clothing, magenta for hard hats) and should be used only as anti-contamination clothing.

3. Use of Protective Clothing

The following procedure will be used by personnel required to wear full protective clothing in Radiation Control areas.

a. Entry Procedures

(1) Obtain hard hat, coveralls, gloves, head covers, shoe covers, rubbers, and other equipment as required by the Radiation Work Permit.

(2) Follow HNP-8011, PROTECTIVE CLOTHING DRESSING AND UNDRESSING.

NOTE

When working in contaminated areas, personnel should periodically check levels of contamination on protective clothing with a G.M. survey meter or count rate meter. If gross contamination is detected, i.e., radiation levels in excess of 5 mR/hr at one inch, the protective clothing should be removed and clean protective clothing put on.

b. Radiation Control Area Exit Procedure

(1) Follow HNP-8011, PROTECTIVE CLOTHING DRESSING AND UNDRESSING, to remove clothing to prevent contamination of the skin or articles of clothing underneath.

(2) Place protective clothing in the proper containers as they are removed.

(3) Monitor self and personal clothing with count rate meter before leaving the access of the Radiation Control Area.

(4) If no contamination exists, exit the Radiation Control Area.

(5) If contamination is present, notify Health Physics personnel immediately.

4. Additional Protective Clothing Requirements

As the conditions warrant, additional protective clothing may be required for operations involving high levels of contamination or in situations where a splash hazard from contaminated liquid may exist.

5. Respiratory Protection

a. Respiratory protection devices may be required in any situation arising from plant operations where the potential for airborne radioactivity exists.

NOTE

Hard hats will be worn with all respiratory protection devices with the exception of supplied air hoods.

Manual set

b. In such cases, the air will be sampled by Health Physics personnel and the necessary protective devices specified according to the concentration and type of airborne contaminants present. It is the responsibility of the individual and his supervisor to notify Health Physics personnel when working with radioactive materials that are likely to become airborne. Every precaution should be taken to keep the air contamination to a minimum through use of proper ventilation and prior decontamination of equipment or work areas.

c. Issuance and use of all respiratory protection equipment is described in HNP-8010.

J. TEMPORARY SHIELDING

1. General Criteria for Installing Temporary Shielding

Prior to installing shielding on a seismically analyzed system, an evaluation of the loading effects of the shielding material on the system must be completed.

All temporary shielding installations involving a seismically analyzed system must be performed under a Maintenance Request. For temporary shielding involving equipment or areas other than seismically analyzed systems, an H.P./Lab foreman or supervisor will determine the necessity for a loading evaluation and Maintenance Request, and will request assistance as necessary from the appropriate department(s). A Design Change Request (DCR), in addition to an MR, is required if shielding is to be made permanent.

Temporary shielding is defined as shielding installed to reduce personnel exposure during job performance, to reduce background radiation levels in frisking areas, or to bring radiation levels in an area into compliance with NRC regulations. This type shielding should only be installed for a specific time period, i.e. for the duration of a job, to the next scheduled outage when corrective measures may be taken, or as directed by plant management.

2. Installation on a Seismically Analyzed System

a. The person requesting the shielding on the safety-related system will first contact the Engineering Department.

b. The Engineering Department will make or have made an evaluation as to how the shielding will affect the seismic or design loading of the piping or the equipment to which it is applied. Engineering will coordinate the evaluation with the Health Physics staff for specifications of the shield, i.e. size, shape, material, thickness, etc. All evaluations will be documented.

c. Upon the completion and acceptance of the evaluation, an MR will be initiated for placement of the shielding. A copy of the evaluation will be attached to the MR.

d. The Temporary Shielding Log will be completed per Section J.4. below.

3. Installation on a Non-Seismically Analyzed System

a. The person requesting the shielding will contact a Health Physics foreman or supervisor.

b. The H.P. foreman or supervisor will determine, using assistance from other departments as necessary, if the shielding installation is of such magnitude to warrant a loading evaluation and if an MR should be issued. If so, step J.2.b. and/or J.2.c. will be completed.

c. The Temporary Shielding Log will be completed per Section J.4. below.

4. Temporary Shielding Log

Information concerning the installation will be logged in a Temporary Shielding Log maintained at the Health Physics office. The log will include a description of the type shielding, the location where the shielding is to be installed, Maintenance Request number, RWP number (if RWP is required), when shielding is to be removed and any remarks deemed necessary.

5. Removal of Shielding

a. The person who requested the shielding is responsible for its removal at the time designated in the Temporary Shielding Log. Reasons for time extensions should be documented in the log.

b. Health Physics will review the log on a monthly basis to assure temporary shielding installations are removed in a reasonable time frame after the removal date specified.

6. Discrepancies

If unauthorized temporary shielding is observed, a Deviation Report will be completed and corrective action taken as deemed necessary by plant management.

7. Types of Shielding

a. Alpha and Beta Radiation

Alpha and beta radiation can be stopped or shielded with a sheet of paper and a small piece of steel, respectively. Gamma and Neutron radiation require considerably more material for shielding.

b. Gamma Radiation

(1) For gamma radiation, various thicknesses of dense material such as steel, lead, or concrete can be used to reduce the radiation to desired levels.

(2) A convenient concept to use for rough gamma shielding estimates is the tenth value thickness. This value is that thickness of material which will reduce the radiation level by a factor of ten (10). As shown in the following table, the tenth value thickness differs with different shield materials and with gamma energy. The tenth value thickness for 6 Mev should be used for lines and equipment containing steam or reactor water. The 1 Mev Values should be used for irradiated fuel, for isolated equipment and for all equipment during plant shutdown.

TABLE 2

TENTH VALUE THICKNESSES

MATERIAL	APPROXIMATE TENTH VALUE THICKNESS	
	1 MEV GAMMA	6 MEV GAMMA
Lead	1.5 inches	2 inches
Steel	4 inches	5 inches
Concrete	12 inches	20 inches
Water	24 inches	40 inches

NOTE

The half value thickness for the listed materials is one-third of the tenth value thickness.

Manual set

c. Neutron Radiation

Neutron radiation can be shielded best by using a hydrogenous material such as water, plastic, or paraffin to thermalize the neutrons and by surrounding or impregnating this hydrogenous material with boron, cadmium or lithium to absorb the thermal neutrons. An approximate half value thickness for 1 Mev neutrons is 1.3 inches of paraffin and approximately 2.7 inches for 5 Mev neutrons.

K. RADIATION OCCURRENCE REPORTS (ROR)

1. The purpose of an ROR is to assure that conditions of a serious nature which are adverse to radiological safety are properly identified, corrected and reported to management.

NOTE

The requirement for the use of this report will be determined by a Health Physics Supervisor or designated alternate.

2. Radiation occurrences should be reported to plant management for corrective action and should be documented by use of Figure 2, REPORT OF RADIATION OCCURRENCE. Types of radiation occurrences are described as follows:

a. External exposure:

Includes:

(1) Uncontrolled personnel exposure from external sources.

(2) Uncontrolled personnel exposure from contamination on protective clothing.

(3) Uncontrolled dose rates existing outside of Radiation Control Areas.

(4) Dose rates inside a Radiation Control Area greatly exceeding normal levels.

(5) Exposure of personnel to dose rates such that a weekly permissible dose of radiation could be received in less than 6 minutes.

Manual set

b. Personnel contamination control:

Includes:

(1) Any contaminated injury.

(2) Any significant personnel exposure to contaminated air without adequate protection.

c. Surface contamination control:

Includes:

(1) Any contamination transported outside of GPC controlled boundaries.

(2) Spread of significant contamination outside of Radiation Control Areas.

(3) Spread of significant contamination in the immediate work area beyond that which was planned or might normally be expected.

(4) Any fire or explosion in a Radiation Control Area.

(5) Release of contamination to the air, ground, or water which greatly exceeded normal conditions.

d. Administration control:

Includes:

(1) Employee working in a Radiation Control Area without required or adequate monitoring.

(2) Employee failing to take corrective action requested by H.P. personnel on a radiological problem.

(3) Employee working in a Radiation Control Area without personnel dosimetry.

(4) Employee working in a controlled area beyond the time estimated to result in permissible weekly exposure.

3. Procedures for completion of the report is as follows:

a. The individual initiating the Radiation Occurrence will complete Figure 2. Figure 4 will be used as a monthly tabulation for the Occurrences. He will complete the report through the section, "Action taken At Time of Occurrence". He will then forward the report to a Laboratory Foreman or Supervisor.

b. The Laboratory Foreman or Supervisor will review the report, and, if further action is required, will forward the report to the appropriate supervisor, keeping the pink copy for a temporary suspense file. If no further action is required, he will complete the form, sign at the bottom, and distribute the copies to the Plant Manager, appropriate supervisor and Health Physics file. The pink copy will be placed in the individual's exposure record file.

c. If further action is required, the appropriate supervisor will review the report and specify what specific action is being, or was taken to prevent a similar occurrence, when the action will be completed and by whom. He will then return the report to the Health Physics Supervisor or his designated alternate.

d. The Health Physics Supervisor will review the report, and sign at the bottom. He will then distribute the copies to the Plant Manager, appropriate supervisor and Health Physics file. The pink copy will be placed in the individual's exposure record file.

L. RADIOLOGICAL DEFICIENCY REPORTS (RDR)

1. The purpose of a Radiological Deficiency Report (RDR) is to provide a simple means that any employee can use to identify an unsatisfactory radiological condition to the appropriate person so that the deficiency will be corrected in a timely manner.

2. The Radiological Deficiency Report is to be used for radiological deficiencies and radiological procedure non-compliances which are less severe than those requiring a Radiation Occurrence Report provided the deficiency reported can be properly corrected at the foreman or supervisory level and do not, individually, need to be brought to the attention of senior plant management.

3. A Radiological Deficiency Report (RDR) is appropriate whenever the radiological deficiency observed cannot be corrected as part of the normal duties of the person finding the problem or whenever the deficiency cannot be corrected during the shift when the problem was found.

4. In addition, an RDR should be used to identify to the appropriate supervision deficiencies of a recurring nature.

5. The types of deficiencies that should be identified on an RDR include:

a. Minor steam or water leaks which could contaminate an area.

Manual set

b. Contaminated material not properly bagged or marked.

c. Improper wearing of Anti Cs.

d. Failure to follow the radiological requirements in a work procedure or RWP.

e. Unsatisfactory work practices that could result in a spread of contamination.

f. Equipment deficiencies such as a defective high radiation area door lock or problems in the operation of a CAM.

g. Unsatisfactory radiological housekeeping conditions such as resin or water on the floor.

h. Re-occurring type radiological deficiencies.

6. The person finding a radiological deficiency should fill out a radiological deficiency report form (Figure 6) including the date, time, location, nature of the deficiency and, if possible, the persons involved. The RDR should state what immediate action was taken and, if necessary, what additional action should be taken and by whom. The radiation technician or other person initiating the RDR should deliver the RDR promptly to his supervisor who should review the problem. The RDR should be logged at the HP office and copy 2 filed in the RDR suspense file. Copy 1 of the RDR should be forwarded to the appropriate supervisor for action. The supervisor should take corrective action, complete Copy 1 of the RDR and return it to the HP office. The HP office will match Copy 2 and Copy 1 of the RDR, note completion in the RDR log and file Copy 1 in the completed RDR file. Copy 2 may then be destroyed.

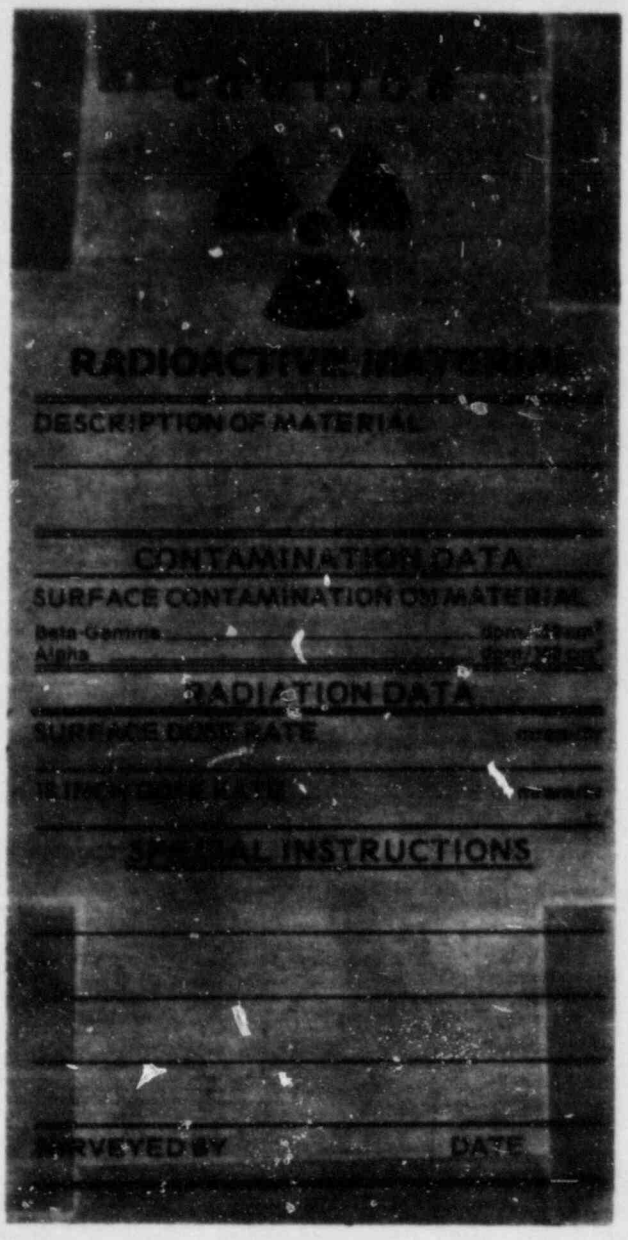
NOTE

Nothing in this procedure relieves the person finding a problem from the responsibility of immediately notifying the appropriate supervision if immediate action is necessary.

Manual Set

FIGURE 1

RADIOACTIVE MATERIAL TAG



Manual set

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8005-1

SERIAL NO: R15-

MPL NO: _____

RTYPE: G15.14

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

Manual set

DATA PACKAGE 1
REPORT OF RADIATION OCCURRENCE

PLANT E. I. HATCH
REPORT OF RADIATION OCCURRENCE

NUMBER

DATE OF ISSUANCE

TYPE OF OCCURRENCE	LOCATION	REFERENCES RWP'S, SURVEYS, ETC.
ACTUAL ☐ POTENTIAL ☐	DATE & TIME OF OCCURRENCE	REPORT REVIEWED BY: HEALTH PHYSICS SUPERVISOR

PERSONNEL INVOLVED		LENGTH OF SERVICE ON PRESENT JOB	EXTERNAL EXPOSURE MREM	INTERNAL EXPOSURE		
NAME	DEPARTMENT			YES	NO	POSSIBLE

DESCRIPTION OF OCCURRENCE (INCLUDE ALL PRINCIPLE CAUSES AND SIGNIFICANT MEASUREMENTS)

INITIALED BY: DEPT:

ACTION TAKEN AT TIME OF OCCURRENCE

BY WHOM: DEPT:

☐ REFERRED TO INDIVIDUAL'S SUPERVISOR FOR ACTION DATE: SUPERVISOR:

WHAT SPECIFIC ACTION IS BEING, OR WAS, TAKEN TO PREVENT A SIMILAR OCCURRENCE?

WHEN WILL THIS ACTION BE COMPLETED? BY WHOM?

CORRECTIVE ACTION REVIEWED AND APPROVED
HEALTH PHYSICS SUPERVISOR

☐ HEALTH PHYSICS FILE (ORIG & PINK) ☐ PLANT MGR (BLUE) ☐ EMPLOYEE'S SUPERVISOR (GREEN)

FIGURE 2
Page 2 of 2

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PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8005-2

SERIAL NO: R15-

MPL NO: _____

RTYPE: G15.14

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 3
Page 1 of 2

manual set

DATA PACKAGE 2

CONTAMINATED EQUIPMENT CONTROL

TO MAINTENANCE SHOP STORE ROOM:

THE FOLLOWING NAMED INDIVIDUAL HAS LEFT THIS EQUIPMENT AT HEALTH PHYSICS DUE TO RADIOACTIVE CONTAMINATION:

NAME _____ DATE _____

ITEM

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

THE EQUIPMENT LISTED ABOVE WILL BE STORED UNDER LOCK AND KEY IN A DESIGNATED AREA UNTIL THE EQUIPMENT HAS BEEN DECONTAMINATED AND RELEASED FOR NORMAL USE.

_____
HEALTH PHYSICS DATE

FIGURE 3
Page 2 of 2

Manual set

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8005-3

SERIAL NO: R15-

MPL NO: _____

RTYPE: G15.14

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 4
Page 1 of 2

Manual set

DATA PACKAGE 3

REPORT OF RADIATION OCCURRENCES

MONTH _____ YEAR ____

TYPE OF OCCURRENCE

PERSONNEL CONTAMINATION	_____
CONTAMINATION IN UNCONTROLLED AREAS	_____
UNEXPECTED HIGH RADIATION	_____
MINOR INJURY	_____
CONTAMINATED ITEMS IN UNCONTROLLED AREAS	_____
HIGH AIRBORNE ACTIVITY	_____
OTHER	_____
TOTAL ____ ____ ____ ____ ____ ____ ____	_____

MOST PROBABLE CAUSE

IMPROPER DRESS	_____
IMPROPER CLOTHING REMOVAL	_____
NOT FOLLOWING PROCEDURE	_____
INSUFFICIENT PLANNING	_____
INADEQUATE OR NO MONITORING	_____
EQUIPMENT FAILURE	_____
INADEQUATE CLEAN-UP OF CONTAMINATION	_____
UNKNOWN	_____
OTHER	_____
TOTAL ____ ____ ____ ____ ____ ____ ____	_____
NUMBER OF OCURRENCES ISSUED ____ ____ ____	_____

COMPLETED BY _____

DATE: _____

FIGURE 4
Page 2 of 2

Manual set

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8005-4

SERIAL NO: R15-

MPL NO: _____

RTYPE: G15.14

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 5
Page 1 of 2

manual set

DATA PACKAGE 4

RADIATION OCCURRANCE ISSUANCE LOG

DATE	OCCURRENCE NUMBER	ISSUED BY	OCCURRENCE ON

FIGURE 5
Page 2 of 2

Manual set

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8005-5

SERIAL NO: R15-

MPL NO: _____

RTYPE: G15.14

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 6
Page 1 of 2

Manual set

DATA PACKAGE 5

RADIOLOGICAL DEFICIENCY REPORT

RADIOLOGICAL DEFICIENCY REPORT

NO: _____

DATE: _____ TIME: _____ LOCATION: _____

TYPE OF DEFICIENCY: PERSONNEL ☐ EQUIP/FACILITY ☐ PROCEDURE ☐ OTHER ☐ (EXPLAIN)

DESCRIPTION OF DEFICIENCY: _____

IMMEDIATE ACTION TAKEN: _____

FURTHER ACTION NECESSARY: YES ☐ NO ☐ DESCRIPTION: _____

FORWARD TO _____ FOR ACTION

_____
SIGNATURE OF ORIGINATOR

_____
SIGNATURE OF REVIEWER

FINAL ACTION TAKEN: _____

_____
SIGNATURE OF ACTIONEE

DATE: _____

FIGURE 6
Page 2 of 2

Manual set

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Decontamination of Protective Clothing and Hard Hats
PROCEDURE TITLE

HNP-8007
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
7	Page 2	R W Zavadoski		5/29/83
8	Pages 1 and 2	R W Zavadoski		10/5/83

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DE 8/30/83

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-8007 SHEET 1 OF 2

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Dwaine Brown	8-9-83	KW Zeradeglia	8/10/83

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

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

PRESENT STATUS: Safety Related (✓) Non-Safety Related ( )

The above Safety/Non-Safety Status has changed ( ) Yes to _____

Attach marked up copy of procedure to this form.

REASON FOR REQUEST: To clarify requirements for handling and decontamination of hard hats utilized in contaminated areas.

DESCRIPTION OF CHANGES: Change: "2." to "3."
Change: "3." to "4."
Change: "4." to "5."
Change Title to Read: "Decontamination of Protective Clothing and Hard hats"

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No Pierre E Fornel
PRB Secretary

83-176
PRB Number

9-9-83
Date

HNP-9

Manual sst

SAFETY EVALUATION

This revision 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 this revision 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 revision because the system responds and is operated as before the revision.

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 allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

4. The purpose of this procedure is to clarify the method of hand hot decontamination after use in a contaminated area.

PROCEDURE REVISION REQUEST SHEET 2 OF 2

PROCEDURE NO. HNP- 8001
REVISION NO. 8

REASON FOR REQUEST: See Page 1

DESCRIPTION OF CHANGES:

Insert new "2." to read:

"2. Handling hard hats used in Contaminated Areas

a. As contaminated hard hat racks are filled, the assigned personnel will collect the used hard hats and seal them inside a purple plastic bag.

b. Health Physics will survey the bag and affix a Radioactive Material tag to the bag.

c. The contaminated hard hats will then be delivered to the respirator issue room for decontamination or re-use at control points."

5.a. Insert "hard hats," before coveralls

HNP-9

Manual set

BT

DECONTAMINATION OF PROTECTIVE CLOTHING AND HARD HATS

A. PURPOSE

To establish a standard procedure for handling radioactively contaminated protective clothing.

B. SAFETY

Observe radiation protection procedures.

C. GENERAL

Radioactive contaminated protective clothing requires special handling to insure that such clothing is not inadvertently sent to an unlicensed commercial laundry or that contamination on the dirty clothing is not spread to an uncontrolled area. Clean laundry returned for re-use by a licensed facility requires special monitoring to insure that it presents no significant hazard to personnel. It is the responsibility of the Health Physics staff to insure that all protective clothing used in Radiation Control Areas is properly monitored, packaged, and shipped to a licensed laundry for decontamination. When clean laundry is returned to the station, the staff insures that it is properly monitored and made available for use by personnel entering Radiation Control Areas requiring protective clothing.

D. HANDLING PROTECTIVE CLOTHING

1. Preparation of contaminated protective clothing for shipment to laundry.

   a. As contaminated laundry containers are filled, the assigned personnel will close and seal the inner plastic bag and close and seal the shipping container.

   b. Health Physics will survey the outside of the container in accordance with Procedure HNP-8016, SHIPMENT OF RADIOACTIVE MATERIAL.

   c. Each drum lid should have the words "Radioactive LSA" or a Radioactive Materials tag (Figure 1) affixed.

   d. Store filled containers awaiting shipment in designated storage area(s). Areas should be posted or roped off.

   e. Refer to HNP-8016, SHIPMENT OF RADIOACTIVE MATERIALS for shipping information.

Manual Set

f. When loading of the laundry containers is completed for return shipment, the door to the truck will be sealed with a lead seal by the HP technician.

2. Handling Hard Hats Used in Contaminated Areas

a. As contaminated hard hat racks are filled, the assigned personnel will collect the used hard hats and seal them inside a purple plastic bag.

b. Health Physics will survey the bag and affix a Radioactive Material tag to the bag.

c. The contaminated hard hats will then be delivered to the respirator decon room for decontamination and re-use at control points/dress out areas.

d. All hard hats will be surveyed after decontamination to ensure they are within the limits of 5.a below.

NOTE

The foam sweat band in these hard hats is unnecessary and may be removed if decontamination is not possible.

3. Receipt of Decontaminated Protective Clothing

Survey the outer surface of the containers containing the decontaminated laundry as it is unloaded from the truck with a rate instrument (E-400 or teletector). Any drum reading greater than 2.0 mr/hr at the surface will be set aside and checked. The drum will be opened and the protective clothing will be surveyed to insure it meets the limits for decontaminated protective clothing.

4. Surveying Decontaminated Protective Clothing

All protective clothing will be surveyed after decontamination. The commercial laundry is responsible for surveying each piece of protective clothing after decontamination. This responsibility is written into the purchase order by GPC, and the commercial laundry has also insured Georgia Power Company they will meet the radiation levels for protective clothing for reuse in a Q.A. program. This written Q.A. program is kept on file at Plant Hatch.

5. Radiation Limits on Protective Clothing

a. Hard hats, coveralls, hoods, cloth booties, rubber shoes less than 1.0 mr/hr beta, gamma, and no smearable contamination.

Manual set

b. Rubber gloves less than 2000 cpm above background per probe area with an HP-210 probe, fixed radioactive material and no smearable contamination. All rubber gloves will be air tested for leaks by the laundry. Rubber gloves greater than 2000 cpm or failing the leak test will be disposed of in radwaste.

c. Protective clothing greater than 1.0 mr/hr but less than 5.0 mr/hr will not be reused but placed in storage at the plant until a convenient time exists to send it back to the laundry for rewashing to reduce levels to less than 1.0 mr/hr. All protective clothing greater than 5.0 mr/hr will be disposed of as radwaste.

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Operation of the Model B-100 Compactor
PROCEDURE TITLE

HNP-8431
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED ( ) NON-SAFETY RELATED (X)

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
0	New	W. K. Rogers	J. T. Beckham Jr.	2/19/82
1	Pages 2 & 3	R. V. Vaidoshi W. K. Rogers	J. T. Beckham Jr.	10/3/83

Manual set

RECEIVED
SEP 21 1983

Need 10/7/83
Per R. Tracy

WE 9/21/83

PROCEDURE REVISION REQUEST

PROCEDURE SECTION

PROCEDURE NO. HNP-8431 SHEET 1 OF 1

Revision No. 0

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Michael C. Deepe	9/13/83	RW Zawadzki W H Rogers	9/13/83

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

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

PRESENT STATUS: Safety Related (✓) Non-Safety Related ( ) with 9/19/83

The above Safety/Non-Safety Status has changed (✓) Yes to ~~NOTE~~ Non Safety with 9/14/83. Returned

Attach marked up copy of procedure to this form.

REASON FOR REQUEST: Equipment has been modified changing the mode of operation.

DESCRIPTION OF CHANGES: Change E.4. to "Manually close the loading door." Change E.7. to "Manually open the loading door." Change E.14. to "Remove the container from the compaction chamber." Delete E.15.

PRB RECOMMENDS APPROVAL: ( )Yes ( )No

PRB Secretary

PRB Number

Date

HNP-9

Manual set

SAFETY EVALUATION

This revision 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 this revision 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 revision because the system responds and is operated as before the revision.

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 allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

OPERATION OF THE MODEL B-100 COMPACTOR

A. PURPOSE

The purpose of this procedure is to provide instructions in the operation of the Model B-100 Compactor.

B. SAFETY

1. Observe safety rules outlined in Georgia Power Company, SAFETY, Section "O".

2. Observe radiation protection procedures.

WARNING

3. Special hazards exist while operating the compactor.

   a. Both doors on the compactor must be closed prior to compaction. Do not avoid this precautionary measure. If a plastic bag contains dust it may become airborne if the door is left open.

   b. Be sure all power to compactor is turned off prior to cleaning or working inside the compactor, especially when cleaning the push bar which will automatically retract when the power is turned on.

   c. Special care should be taken when handling bags of trash to avoid sharpe objects.

C. REFERENCES

Model B-100 operations and maintenance manual and parts list.

D. INITIAL CONDITIONS

1. CPC B-25 reinforced containers are available.

2. Compactor dust evacuator filter is in a clean condition.

3. Hydraulic fluid level is acceptable.

NOTE

All trash must be sorted and segregated prior to compacting.

Manual set

E. TO COMPACT TRASH FOLLOW THE SEQUENCE BELOW

1. With ram in full up position and both doors open, insert container completely into compaction chamber. (NOTE: use only CPC B-25 reinforced containers specifically designed for this application.

2. Close and secure lower door and depress start switch.

3. Load material into chamber to full capacity of compaction chamber.

4. Manually close the loading door.

5. Simultaneously depress 2 DOWN switches until full compaction light is illuminated, indicating ram has reached maximum downward travel.

6. Simultaneously depress 2 UP/EJECT switches until ram is returned to full up position.

7. Manually open the loading door.

8. Repeat steps 3 through 7 until material level is approximately 12 inches below top of container.

9. Insert anti-spring back retainer and repeat steps 4 through 7 locking retainer at lowest travel of ram.

10. Repeat step 7 and add additional material.

11. Repeat steps 3 through 10 until such time as additional anti-spring back retainer(s) are not forced less than 12 inches into container under FULL COMPACTION.

12. Place additional material on top of last anti-spring back retainer to fill container.

13. Repeat step 7 and manually open lower door.

14. Remove the container from the compaction chamber.

CAUTION

To prevent overheating of fluid, do not allow hydraulic power unit to operate more than 10 minutes with lower door open.

15. Inspect container for any damage during compacting, place lid on container and secure with metal clips.

manual set

16. Assure appropriate labeling is on the container and that it has been logged on the appropriate log sheet.

17. Store the container in a designated area for future shipment offsite.

F. OPERATION OF THE PURGE SYSTEM

The purge system can be initialized by depressing simultaneously 2 PURGE buttons on the control panel.

CAUTION

The purge buttons on the control panel are used as an override system for the operation sequence and should not be used unless an individual qualified in the use of this system is present.

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 P Rogers	Jim Greene Jr	1/22/82
2	General Revision	W P Rogers	C T Jones	3/1/82
3	Pages 1-8, 11, 13, 21-23	W P Rogers	Harvey Mix	11/1/82
4	General Revision	C T Jones 12/7/82	C T Jones for HCN	12/7/82
5	General Revision	R W Sweet	Jim Greene Jr	12/7/83

Received 10-6-83

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-4852 SHEET 1 OF 2

Revision No. 4

REQUESTED BY	DEPARTMENT HEAD APPROVAL
Name: Tim J. Kirkham Date:	Signature: Roger D. Zavadoski Date: 10/3/83

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

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

PRESENT STATUS: Safety Related (X) Non-Safety Related ( )

The above Safety/Non-Safety Status has changed ( ) Yes to _____

Attach marked up copy of procedure to this form.

REASON FOR REQUEST: To change the loading procedure of the "DOSE" program into the TRS 80 and also to correct errors found in the verification tables pertaining to iodine releases

DESCRIPTION OF CHANGES:
Page 4 # 7 (ii) - change to "Press 2" ENTER
(iv) - change "HATCH/PAG" to "DOSE"

Page 5 thru 10 - delete old pages and replace with new

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No JT Elt
PRB Secretary

83-187
PRB Number

10-6-83
Date

HNP-9

EC manual set

PROCEDURE REVISION REQUEST SHEET 2 OF 2

PROCEDURE NO. HNP-4852
REVISION NO. 4

REASON FOR REQUEST: To change the loading procedure of the "DOSE" program into the TRS-80 and also to correct errors found in the verification tables pertaining to the Iodine releases

DESCRIPTION OF CHANGES:
Page 17 thru 22 - delete old page and replace with new
Page 29 thru 34 - delete old pages and replace with new

HNP-9

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SAFETY EVALUATION

This revision 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 this revision because the revision does not change the purpose or performance of the ~~system~~. emergency plan or procedures.

T.J.K.

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

plan and procedure T.J.K.

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 allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

T.J.K.

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 estimates of thyroid doses are expected to be approximately 3 to 300 times higher due to the differences in iodine/noble gas ratio.

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 on a 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 meterological 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 μCi/cc (I-131)

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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.

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

_____ 7. Type in the following sequence:

(i) Basic (Enter key)
(ii) Press "2" Enter
(iii) (Enter key)
(iv) LOAD "DOSE" (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.

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS A
FUMIGATION
MILLIREM/HR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	4.55E+03	2.44E+03	1.69E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03
2	2.28E+03	1.22E+03	8.44E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02
3	1.52E+03	8.12E+02	5.63E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02
4	1.14E+03	6.09E+02	4.22E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02
5	9.11E+02	4.87E+02	3.38E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02
6	7.59E+02	4.06E+02	2.81E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02
7	6.51E+02	3.48E+02	2.41E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02
8	5.69E+02	3.04E+02	2.11E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02
9	5.06E+02	2.71E+02	1.88E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02
10	4.55E+02	2.44E+02	1.69E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02
11	4.14E+02	2.21E+02	1.54E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02
12	3.80E+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
13	3.50E+02	1.87E+02	1.30E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
14	3.25E+02	1.74E+02	1.21E+02	9.36E+01	9.36E+01	9.36E+01	9.36E+01	9.36E+01	9.36E+01	9.36E+01
15	3.04E+02	1.62E+02	1.13E+02	8.74E+01	8.74E+01	8.74E+01	8.74E+01	8.74E+01	8.74E+01	8.74E+01
16	2.85E+02	1.52E+02	1.06E+02	8.19E+01	8.19E+01	8.19E+01	8.19E+01	8.19E+01	8.19E+01	8.19E+01
17	2.68E+02	1.43E+02	9.93E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01
18	2.53E+02	1.35E+02	9.38E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01
19	2.40E+02	1.28E+02	8.89E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01
20	2.28E+02	1.22E+02	8.44E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01
21	2.17E+02	1.16E+02	8.04E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01
22	2.07E+02	1.11E+02	7.68E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01
23	1.98E+02	1.06E+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
24	1.90E+02	1.01E+02	7.04E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01
25	1.82E+02	9.74E+01	6.75E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01
26	1.75E+02	9.37E+01	6.49E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01
27	1.69E+02	9.02E+01	6.25E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01
28	1.63E+02	8.70E+01	6.03E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01
29	1.57E+02	8.40E+01	5.82E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01
30	1.52E+02	8.12E+01	5.63E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
31	1.47E+02	7.86E+01	5.45E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01
32	1.42E+02	7.61E+01	5.28E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
33	1.38E+02	7.38E+01	5.12E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01
34	1.34E+02	7.16E+01	4.97E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01
35	1.30E+02	6.96E+01	4.82E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01
36	1.27E+02	6.76E+01	4.69E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01
37	1.23E+02	6.58E+01	4.56E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01
38	1.20E+02	6.41E+01	4.44E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01
39	1.17E+02	6.24E+01	4.33E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01
40	1.14E+02	6.09E+01	4.22E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01
41	1.11E+02	5.94E+01	4.12E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01
42	1.08E+02	5.80E+01	4.02E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01
43	1.06E+02	5.66E+01	3.93E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01
44	1.04E+02	5.53E+01	3.84E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01
45	1.01E+02	5.41E+01	3.75E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01
46	9.90E+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
47	9.69E+01	5.18E+01	3.59E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01
48	9.49E+01	5.07E+01	3.52E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01
49	9.29E+01	4.97E+01	3.45E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01
50	9.11E+01	4.87E+01	3.38E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

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

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	2.68E+04	7.93E+03	3.63E+03	2.06E+03	1.42E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03
2	1.34E+04	3.96E+03	1.81E+03	1.03E+03	7.08E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02
3	8.92E+03	2.64E+03	1.21E+03	6.87E+02	4.72E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02
4	6.69E+03	1.98E+03	9.07E+02	5.15E+02	3.54E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02
5	5.35E+03	1.59E+03	7.[illegible]E+02	4.12E+02	2.83E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02
6	4.46E+03	1.32E+03	6.0[illegible]E+02	3.43E+02	2.36E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02
7	3.82E+03	1.13E+03	5.18E+02	2.94E+02	2.02E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02
8	3.34E+03	9.91E+02	4.53E+02	2.57E+02	1.77E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02
9	2.97E+03	8.81E+02	4.03E+02	2.29E+02	1.57E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02
10	2.68E+03	7.93E+02	3.63E+02	2.06E+02	1.42E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02
11	2.43E+03	7.21E+02	3.30E+02	1.87E+02	1.29E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02
12	2.23E+03	6.61E+02	3.02E+02	1.72E+02	1.18E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02
13	2.06E+03	6.10E+02	2.79E+02	1.58E+02	1.09E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
14	1.91E+03	5.66E+02	2.59E+02	1.47E+02	1.01E+02	9.36E+01	9.36E+01	9.36E+01	9.36E+01	9.36E+01
15	1.78E+03	5.29E+02	2.42E+02	1.37E+02	9.44E+01	8.74E+01	8.74E+01	8.74E+01	8.74E+01	8.74E+01
16	1.67E+03	4.95E+02	2.27E+02	1.29E+02	8.85E+01	8.19E+01	8.19E+01	8.19E+01	8.19E+01	8.19E+01
17	1.57E+03	4.66E+02	2.13E+02	1.21E+02	8.33E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01
18	1.49E+03	4.40E+02	2.01E+02	1.14E+02	7.86E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01
19	1.41E+03	4.17E+02	1.91E+02	1.08E+02	7.45E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01
20	1.34E+03	3.96E+02	1.81E+02	1.03E+02	7.08E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01
21	1.27E+03	3.78E+02	1.73E+02	9.81E+01	6.74E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01
22	1.22E+03	3.60E+02	1.65E+02	9.36E+01	6.43E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01
23	1.16E+03	3.45E+02	1.58E+02	8.95E+01	6.15E+01	5.70E+01	5.70E+01	5.70E+01	5.70E+01	5.70E+01
24	1.11E+03	3.30E+02	1.51E+02	8.58E+01	5.90E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01
25	1.07E+03	3.17E+02	1.45E+02	8.24E+01	5.66E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01
26	1.03E+03	3.05E+02	1.39E+02	7.92E+01	5.44E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01
27	9.91E+02	2.94E+02	1.34E+02	7.63E+01	5.24E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01
28	9.56E+02	2.83E+02	1.30E+02	7.36E+01	5.05E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01
29	9.23E+02	2.73E+02	1.25E+02	7.10E+01	4.88E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01
30	8.92E+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
31	8.63E+02	2.56E+02	1.17E+02	6.64E+01	4.57E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01
32	8.36E+02	2.48E+02	1.13E+02	6.44E+01	4.42E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
33	8.11E+02	2.40E+02	1.10E+02	6.24E+01	4.29E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01
34	7.87E+02	2.33E+02	1.07E+02	6.06E+01	4.16E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01
35	7.65E+02	2.27E+02	1.04E+02	5.88E+01	4.04E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01
36	7.43E+02	2.22E+02	1.01E+02	5.72E+01	3.93E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01
37	7.23E+02	2.14E+02	9.80E+01	5.57E+01	3.83E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01
38	7.04E+02	2.09E+02	9.54E+01	5.42E+01	3.73E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01
39	6.86E+02	2.03E+02	9.30E+01	5.28E+01	3.63E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01
40	6.69E+02	1.98E+02	9.07E+01	5.15E+01	3.54E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01
41	6.53E+02	1.93E+02	8.85E+01	5.02E+01	3.45E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01
42	6.37E+02	1.89E+02	8.63E+01	4.90E+01	3.37E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01
43	6.22E+02	1.84E+02	8.43E+01	4.79E+01	3.29E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01
44	6.08E+02	1.80E+02	8.24E+01	4.68E+01	3.22E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01
45	5.95E+02	1.76E+02	8.06E+01	4.58E+01	3.15E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01
46	5.82E+02	1.72E+02	7.88E+01	4.48E+01	3.08E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01
47	5.69E+02	1.69E+02	7.72E+01	4.38E+01	3.01E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01
48	5.57E+02	1.65E+02	7.56E+01	4.29E+01	2.95E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01
49	5.46E+02	1.62E+02	7.40E+01	4.20E+01	2.89E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01
50	5.35E+02	1.59E+02	7.25E+01	4.12E+01	2.83E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

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

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	4.83E+04	1.75E+04	9.12E+03	5.59E+03	3.79E+03	2.74E+03	2.09E+03	1.77E+03	1.59E+03	1.45E+03
2	2.82E+04	8.73E+03	4.56E+03	2.79E+03	1.89E+03	1.37E+03	1.04E+03	8.83E+02	7.95E+02	7.24E+02
3	1.34E+04	5.82E+03	3.04E+03	1.86E+03	1.26E+03	9.15E+02	6.95E+02	5.87E+02	5.30E+02	4.83E+02
4	1.01E+04	4.36E+03	2.28E+03	1.40E+03	9.47E+02	6.86E+02	5.22E+02	4.42E+02	3.98E+02	3.62E+02
5	8.07E+03	3.49E+03	1.82E+03	1.12E+03	7.57E+02	5.49E+02	4.17E+02	3.53E+02	3.18E+02	2.98E+02
6	6.72E+03	2.91E+03	1.52E+03	9.31E+02	6.31E+02	4.57E+02	3.48E+02	2.94E+02	2.65E+02	2.41E+02
7	5.76E+03	2.49E+03	1.30E+03	7.98E+02	5.41E+02	3.92E+02	2.98E+02	2.52E+02	2.27E+02	2.07E+02
8	5.04E+03	2.18E+03	1.14E+03	6.98E+02	4.73E+02	3.43E+02	2.61E+02	2.21E+02	1.99E+02	1.81E+02
9	4.48E+03	1.94E+03	1.01E+03	6.21E+02	4.21E+02	3.05E+02	2.32E+02	1.96E+02	1.77E+02	1.61E+02
10	4.03E+03	1.75E+03	9.12E+02	5.59E+02	3.79E+02	2.74E+02	2.09E+02	1.77E+02	1.59E+02	1.45E+02
11	3.67E+03	1.59E+03	8.29E+02	5.08E+02	3.44E+02	2.49E+02	1.90E+02	1.61E+02	1.45E+02	1.32E+02
12	3.36E+03	1.45E+03	7.60E+02	4.66E+02	3.16E+02	2.29E+02	1.74E+02	1.47E+02	1.33E+02	1.21E+02
13	3.10E+03	1.34E+03	7.01E+02	4.30E+02	2.91E+02	2.11E+02	1.60E+02	1.36E+02	1.22E+02	1.11E+02
14	2.88E+03	1.25E+03	6.51E+02	3.99E+02	2.70E+02	1.96E+02	1.49E+02	1.26E+02	1.14E+02	1.03E+02
15	2.69E+03	1.16E+03	6.08E+02	3.73E+02	2.52E+02	1.83E+02	1.39E+02	1.18E+02	1.06E+02	9.65E+01
16	2.52E+03	1.09E+03	5.70E+02	3.49E+02	2.37E+02	1.72E+02	1.30E+02	1.10E+02	9.94E+01	9.05E+01
17	2.37E+03	1.03E+03	5.36E+02	3.29E+02	2.23E+02	1.61E+02	1.23E+02	1.04E+02	9.36E+01	8.52E+01
18	2.24E+03	9.69E+02	5.07E+02	3.10E+02	2.10E+02	1.52E+02	1.16E+02	9.81E+01	8.84E+01	8.04E+01
19	2.12E+03	9.18E+02	4.80E+02	2.94E+02	1.99E+02	1.44E+02	1.10E+02	9.30E+01	8.37E+01	7.62E+01
20	2.02E+03	8.73E+02	4.56E+02	2.79E+02	1.89E+02	1.37E+02	1.04E+02	8.83E+01	7.95E+01	7.24E+01
21	1.92E+03	8.31E+02	4.34E+02	2.66E+02	1.80E+02	1.31E+02	9.93E+01	8.41E+01	7.58E+01	6.90E+01
22	1.83E+03	7.93E+02	4.14E+02	2.54E+02	1.72E+02	1.25E+02	9.48E+01	8.03E+01	7.23E+01	6.58E+01
23	1.75E+03	7.59E+02	3.96E+02	2.43E+02	1.65E+02	1.19E+02	9.07E+01	7.68E+01	6.92E+01	6.30E+01
24	1.68E+03	7.27E+02	3.80E+02	2.33E+02	1.58E+02	1.14E+02	8.69E+01	7.36E+01	6.63E+01	6.03E+01
25	1.61E+03	6.98E+02	3.65E+02	2.24E+02	1.51E+02	1.12E+02	8.34E+01	7.07E+01	6.36E+01	5.79E+01
26	1.55E+03	6.71E+02	3.51E+02	2.15E+02	1.46E+02	1.06E+02	8.02E+01	6.79E+01	6.12E+01	5.57E+01
27	1.49E+03	6.46E+02	3.38E+02	2.07E+02	1.40E+02	1.02E+02	7.73E+01	6.54E+01	5.89E+01	5.36E+01
28	1.44E+03	6.23E+02	3.26E+02	2.00E+02	1.35E+02	9.80E+01	7.45E+01	6.31E+01	5.68E+01	5.17E+01
29	1.39E+03	6.02E+02	3.14E+02	1.93E+02	1.31E+02	9.46E+01	7.19E+01	6.09E+01	5.49E+01	4.99E+01
30	1.34E+03	5.82E+02	3.04E+02	1.86E+02	1.26E+02	9.15E+01	6.95E+01	5.89E+01	5.30E+01	4.83E+01
31	1.30E+03	5.63E+02	2.94E+02	1.80E+02	1.22E+02	8.85E+01	6.73E+01	5.70E+01	5.13E+01	4.67E+01
32	1.26E+03	5.45E+02	2.85E+02	1.75E+02	1.18E+02	8.58E+01	6.52E+01	5.52E+01	4.97E+01	4.53E+01
33	1.22E+03	5.29E+02	2.76E+02	1.69E+02	1.15E+02	8.32E+01	6.32E+01	5.35E+01	4.82E+01	4.39E+01
34	1.19E+03	5.13E+02	2.68E+02	1.64E+02	1.11E+02	8.07E+01	6.14E+01	5.20E+01	4.68E+01	4.26E+01
35	1.15E+03	4.99E+02	2.61E+02	1.60E+02	1.08E+02	7.84E+01	5.96E+01	5.05E+01	4.55E+01	4.14E+01
36	1.12E+03	4.85E+02	2.53E+02	1.55E+02	1.05E+02	7.62E+01	5.79E+01	4.91E+01	4.42E+01	4.02E+01
37	1.09E+03	4.72E+02	2.46E+02	1.51E+02	1.02E+02	7.42E+01	5.64E+01	4.77E+01	4.30E+01	3.91E+01
38	1.06E+03	4.59E+02	2.40E+02	1.47E+02	9.96E+01	7.22E+01	5.49E+01	4.65E+01	4.19E+01	3.81E+01
39	1.03E+03	4.47E+02	2.34E+02	1.43E+02	9.71E+01	7.04E+01	5.35E+01	4.53E+01	4.08E+01	3.71E+01
40	1.01E+03	4.36E+02	2.28E+02	1.40E+02	9.47E+01	6.86E+01	5.22E+01	4.42E+01	3.98E+01	3.62E+01
41	9.84E+02	4.26E+02	2.22E+02	1.36E+02	9.24E+01	6.69E+01	5.09E+01	4.31E+01	3.88E+01	3.53E+01
42	9.60E+02	4.15E+02	2.17E+02	1.33E+02	9.02E+01	6.53E+01	4.97E+01	4.21E+01	3.79E+01	3.45E+01
43	9.38E+02	4.06E+02	2.12E+02	1.30E+02	8.81E+01	6.38E+01	4.85E+01	4.11E+01	3.70E+01	3.37E+01
44	9.17E+02	3.97E+02	2.07E+02	1.27E+02	8.61E+01	6.24E+01	4.74E+01	4.02E+01	3.62E+01	3.29E+01
45	8.96E+02	3.88E+02	2.03E+02	1.24E+02	8.41E+01	6.10E+01	4.64E+01	3.93E+01	3.54E+01	3.22E+01
46	8.77E+02	3.79E+02	1.98E+02	1.21E+02	8.23E+01	5.97E+01	4.53E+01	3.84E+01	3.46E+01	3.15E+01
47	8.58E+02	3.71E+02	1.94E+02	1.19E+02	8.06E+01	5.84E+01	4.44E+01	3.76E+01	3.39E+01	3.08E+01
48	8.40E+02	3.64E+02	1.90E+02	1.16E+02	7.89E+01	5.72E+01	4.35E+01	3.68E+01	3.31E+01	3.02E+01
49	8.23E+02	3.56E+02	1.86E+02	1.14E+02	7.73E+01	5.60E+01	4.26E+01	3.61E+01	3.25E+01	2.96E+01
50	8.07E+02	3.49E+02	1.82E+02	1.12E+02	7.57E+01	5.49E+01	4.17E+01	3.53E+01	3.18E+01	2.90E+01

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS D
FUMIGATION
MILLIREM/HR PER CURIE/SEC OF ICDINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.19E+05	6.37E+04	4.42E+04	1.61E+04	1.35E+04	1.14E+04	9.69E+03	8.37E+03	7.32E+03	6.47E+03
2	5.96E+04	3.19E+04	2.21E+04	8.04E+03	6.74E+03	5.68E+03	4.85E+03	4.19E+03	3.66E+03	3.23E+03
3	3.97E+04	2.12E+04	1.47E+04	5.36E+03	4.49E+03	3.79E+03	3.23E+03	2.79E+03	2.44E+03	2.16E+03
4	2.98E+04	1.59E+04	1.10E+04	4.02E+03	3.37E+03	2.84E+03	2.42E+03	2.09E+03	1.83E+03	1.62E+03
5	2.38E+04	1.27E+04	8.83E+03	3.22E+03	2.69E+03	2.27E+03	1.94E+03	1.67E+03	1.46E+03	1.29E+03
6	1.99E+04	1.06E+04	7.36E+03	2.68E+03	2.25E+03	1.89E+03	1.62E+03	1.40E+03	1.22E+03	1.08E+03
7	1.70E+04	9.10E+03	6.31E+03	2.30E+03	1.92E+03	1.62E+03	1.38E+03	1.20E+03	1.05E+03	9.24E+02
8	1.49E+04	7.96E+03	5.52E+03	2.01E+03	1.68E+03	1.42E+03	1.21E+03	1.05E+03	9.15E+02	8.08E+02
9	1.32E+04	7.08E+03	4.91E+03	1.79E+03	1.50E+03	1.26E+03	1.08E+03	9.31E+02	8.13E+02	7.19E+02
10	1.19E+04	6.37E+03	4.42E+03	1.61E+03	1.35E+03	1.14E+03	9.69E+02	8.37E+02	7.32E+02	6.47E+02
11	1.08E+04	5.79E+03	4.02E+03	1.46E+03	1.22E+03	1.03E+03	8.81E+02	7.61E+02	6.66E+02	5.88E+02
12	9.93E+03	5.31E+03	3.68E+03	1.34E+03	1.12E+03	9.46E+02	8.08E+02	6.98E+02	6.10E+02	5.39E+02
13	9.16E+03	4.90E+03	3.40E+03	1.24E+03	1.04E+03	8.74E+02	7.45E+02	6.44E+02	5.63E+02	4.97E+02
14	8.51E+03	4.55E+03	3.16E+03	1.15E+03	9.62E+02	8.11E+02	6.92E+02	5.98E+02	5.23E+02	4.62E+02
15	7.94E+03	4.25E+03	2.94E+03	1.07E+03	8.98E+02	7.57E+02	6.46E+02	5.58E+02	4.88E+02	4.31E+02
16	7.45E+03	3.98E+03	2.76E+03	1.01E+03	8.42E+02	7.10E+02	6.06E+02	5.23E+02	4.58E+02	4.04E+02
17	7.01E+03	3.75E+03	2.60E+03	9.46E+02	7.92E+02	6.68E+02	5.70E+02	4.93E+02	4.31E+02	3.80E+02
18	6.62E+03	3.54E+03	2.45E+03	8.93E+02	7.48E+02	6.31E+02	5.38E+02	4.65E+02	4.07E+02	3.59E+02
19	6.27E+03	3.35E+03	2.32E+03	8.46E+02	7.09E+02	5.98E+02	5.10E+02	4.41E+02	3.85E+02	3.40E+02
20	5.96E+03	3.19E+03	2.21E+03	8.04E+02	6.74E+02	5.68E+02	4.85E+02	4.19E+02	3.66E+02	3.23E+02
21	5.67E+03	3.03E+03	2.10E+03	7.66E+02	6.42E+02	5.41E+02	4.61E+02	3.99E+02	3.49E+02	3.08E+02
22	5.42E+03	2.90E+03	2.01E+03	7.31E+02	6.12E+02	5.16E+02	4.41E+02	3.81E+02	3.33E+02	2.94E+02
23	5.18E+03	2.77E+03	1.92E+03	6.99E+02	5.86E+02	4.94E+02	4.21E+02	3.64E+02	3.18E+02	2.81E+02
24	4.98E+03	2.65E+03	1.84E+03	6.70E+02	5.61E+02	4.73E+02	4.04E+02	3.49E+02	3.05E+02	2.69E+02
25	4.77E+03	2.55E+03	1.77E+03	6.43E+02	5.39E+02	4.54E+02	3.87E+02	3.35E+02	2.93E+02	2.59E+02
26	4.58E+03	2.45E+03	1.70E+03	6.19E+02	5.19E+02	4.37E+02	3.73E+02	3.22E+02	2.82E+02	2.49E+02
27	4.41E+03	2.36E+03	1.64E+03	5.96E+02	4.99E+02	4.21E+02	3.59E+02	3.10E+02	2.71E+02	2.40E+02
28	4.26E+03	2.28E+03	1.58E+03	5.74E+02	4.81E+02	4.06E+02	3.46E+02	2.99E+02	2.61E+02	2.31E+02
29	4.11E+03	2.20E+03	1.52E+03	5.55E+02	4.65E+02	3.92E+02	3.34E+02	2.89E+02	2.52E+02	2.23E+02
30	3.97E+03	2.12E+03	1.47E+03	5.36E+02	4.49E+02	3.79E+02	3.23E+02	2.79E+02	2.44E+02	2.16E+02
31	3.84E+03	2.06E+03	1.42E+03	5.19E+02	4.35E+02	3.66E+02	3.13E+02	2.70E+02	2.36E+02	2.09E+02
32	3.72E+03	1.99E+03	1.38E+03	5.03E+02	4.21E+02	3.55E+02	3.03E+02	2.62E+02	2.29E+02	2.02E+02
33	3.61E+03	1.93E+03	1.34E+03	4.87E+02	4.08E+02	3.44E+02	2.94E+02	2.54E+02	2.22E+02	1.96E+02
34	3.50E+03	1.87E+03	1.30E+03	4.73E+02	3.96E+02	3.34E+02	2.85E+02	2.46E+02	2.15E+02	1.90E+02
35	3.40E+03	1.82E+03	1.26E+03	4.60E+02	3.85E+02	3.24E+02	2.77E+02	2.39E+02	2.09E+02	1.85E+02
36	3.31E+03	1.77E+03	1.23E+03	4.47E+02	3.74E+02	3.15E+02	2.69E+02	2.33E+02	2.03E+02	1.80E+02
37	3.22E+03	1.72E+03	1.19E+03	4.35E+02	3.64E+02	3.07E+02	2.62E+02	2.26E+02	1.98E+02	1.75E+02
38	3.14E+03	1.68E+03	1.16E+03	4.23E+02	3.55E+02	2.99E+02	2.55E+02	2.20E+02	1.93E+02	1.70E+02
39	3.05E+03	1.63E+03	1.13E+03	4.12E+02	3.45E+02	2.91E+02	2.48E+02	2.15E+02	1.88E+02	1.66E+02
40	2.98E+03	1.59E+03	1.10E+03	4.02E+02	3.37E+02	2.84E+02	2.42E+02	2.09E+02	1.83E+02	1.62E+02
41	2.91E+03	1.55E+03	1.09E+03	3.92E+02	3.29E+02	2.77E+02	2.36E+02	2.04E+02	1.79E+02	1.58E+02
42	2.84E+03	1.52E+03	1.05E+03	3.83E+02	3.21E+02	2.70E+02	2.31E+02	1.99E+02	1.74E+02	1.54E+02
43	2.77E+03	1.48E+03	1.03E+03	3.74E+02	3.13E+02	2.64E+02	2.25E+02	1.95E+02	1.70E+02	1.50E+02
44	2.71E+03	1.45E+03	1.00E+03	3.66E+02	3.06E+02	2.58E+02	2.20E+02	1.90E+02	1.66E+02	1.47E+02
45	2.65E+03	1.42E+03	9.82E+02	3.57E+02	2.99E+02	2.52E+02	2.15E+02	1.86E+02	1.63E+02	1.44E+02
46	2.59E+03	1.38E+03	9.62E+02	3.50E+02	2.93E+02	2.47E+02	2.11E+02	1.82E+02	1.59E+02	1.41E+02
47	2.53E+03	1.36E+03	9.40E+02	3.42E+02	2.87E+02	2.42E+02	2.06E+02	1.78E+02	1.56E+02	1.38E+02
48	2.48E+03	1.33E+03	9.20E+02	3.35E+02	2.81E+02	2.37E+02	2.02E+02	1.74E+02	1.53E+02	1.35E+02
49	2.43E+03	1.30E+03	9.02E+02	3.28E+02	2.75E+02	2.32E+02	1.98E+02	1.71E+02	1.49E+02	1.32E+02
50	2.38E+03	1.27E+03	8.83E+02	3.22E+02	2.69E+02	2.27E+02	1.94E+02	1.67E+02	1.46E+02	1.29E+02

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

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

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.68E+05	8.96E+04	6.21E+04	4.79E+04	3.92E+04	3.32E+04	2.89E+04	2.56E+04	2.30E+04	2.09E+04
2	8.38E+04	4.48E+04	3.11E+04	2.40E+04	1.96E+04	1.66E+04	1.45E+04	1.28E+04	1.15E+04	1.05E+04
3	5.58E+04	2.99E+04	2.07E+04	1.60E+04	1.31E+04	1.11E+04	9.63E+03	8.54E+03	7.68E+03	6.98E+03
4	4.19E+04	2.24E+04	1.55E+04	1.20E+04	9.79E+03	8.30E+03	7.23E+03	6.40E+03	5.76E+03	5.24E+03
5	3.35E+04	1.79E+04	1.24E+04	9.58E+03	7.83E+03	6.64E+03	5.78E+03	5.12E+03	4.61E+03	4.19E+03
6	2.79E+04	1.49E+04	1.04E+04	7.98E+03	6.53E+03	5.54E+03	4.82E+03	4.27E+03	3.84E+03	3.49E+03
7	2.39E+04	1.28E+04	8.87E+03	6.84E+03	5.60E+03	4.75E+03	4.13E+03	3.66E+03	3.29E+03	2.99E+03
8	2.09E+04	1.12E+04	7.77E+03	5.99E+03	4.92E+03	4.15E+03	3.61E+03	3.20E+03	2.88E+03	2.62E+03
9	1.86E+04	9.95E+03	6.98E+03	5.32E+03	4.35E+03	3.69E+03	3.21E+03	2.85E+03	2.56E+03	2.33E+03
10	1.68E+04	8.96E+03	6.21E+03	4.79E+03	3.92E+03	3.32E+03	2.89E+03	2.56E+03	2.30E+03	2.09E+03
11	1.52E+04	8.14E+03	5.65E+03	4.36E+03	3.56E+03	3.02E+03	2.62E+03	2.33E+03	2.09E+03	1.90E+03
12	1.40E+04	7.47E+03	5.18E+03	3.99E+03	3.26E+03	2.77E+03	2.41E+03	2.13E+03	1.92E+03	1.75E+03
13	1.29E+04	6.89E+03	4.78E+03	3.69E+03	3.01E+03	2.56E+03	2.22E+03	1.97E+03	1.77E+03	1.61E+03
14	1.20E+04	6.40E+03	4.44E+03	3.42E+03	2.80E+03	2.37E+03	2.06E+03	1.83E+03	1.65E+03	1.50E+03
15	1.12E+04	5.97E+03	4.14E+03	3.19E+03	2.61E+03	2.21E+03	1.93E+03	1.71E+03	1.54E+03	1.40E+03
16	1.05E+04	5.60E+03	3.88E+03	2.99E+03	2.45E+03	2.08E+03	1.81E+03	1.60E+03	1.44E+03	1.31E+03
17	9.86E+03	5.27E+03	3.65E+03	2.82E+03	2.30E+03	1.95E+03	1.70E+03	1.51E+03	1.35E+03	1.23E+03
18	9.31E+03	4.98E+03	3.45E+03	2.66E+03	2.18E+03	1.85E+03	1.61E+03	1.42E+03	1.28E+03	1.16E+03
19	8.82E+03	4.72E+03	3.27E+03	2.52E+03	2.06E+03	1.75E+03	1.52E+03	1.35E+03	1.21E+03	1.10E+03
20	8.38E+03	4.48E+03	3.11E+03	2.40E+03	1.96E+03	1.66E+03	1.45E+03	1.28E+03	1.15E+03	1.05E+03
21	7.98E+03	4.27E+03	2.96E+03	2.28E+03	1.87E+03	1.58E+03	1.38E+03	1.22E+03	1.10E+03	9.97E+02
22	7.62E+03	4.07E+03	2.82E+03	2.18E+03	1.78E+03	1.51E+03	1.31E+03	1.16E+03	1.05E+03	9.52E+02
23	7.28E+03	3.90E+03	2.70E+03	2.08E+03	1.70E+03	1.44E+03	1.26E+03	1.11E+03	1.00E+03	9.11E+02
24	6.98E+03	3.73E+03	2.59E+03	2.00E+03	1.63E+03	1.38E+03	1.20E+03	1.07E+03	9.60E+02	8.73E+02
25	6.70E+03	3.58E+03	2.48E+03	1.92E+03	1.57E+03	1.33E+03	1.16E+03	1.02E+03	9.21E+02	8.38E+02
26	6.44E+03	3.45E+03	2.39E+03	1.84E+03	1.51E+03	1.28E+03	1.11E+03	9.85E+02	8.86E+02	8.06E+02
27	6.21E+03	3.32E+03	2.30E+03	1.77E+03	1.45E+03	1.23E+03	1.07E+03	9.49E+02	8.53E+02	7.76E+02
28	5.99E+03	3.20E+03	2.22E+03	1.71E+03	1.40E+03	1.19E+03	1.03E+03	9.15E+02	8.23E+02	7.48E+02
29	5.78E+03	3.09E+03	2.14E+03	1.65E+03	1.35E+03	1.15E+03	9.97E+02	8.83E+02	7.94E+02	7.22E+02
30	5.58E+03	2.99E+03	2.07E+03	1.60E+03	1.31E+03	1.11E+03	9.63E+02	8.54E+02	7.68E+02	6.98E+02
31	5.40E+03	2.89E+03	2.00E+03	1.55E+03	1.26E+03	1.07E+03	9.32E+02	8.26E+02	7.43E+02	6.76E+02
32	5.24E+03	2.80E+03	1.94E+03	1.50E+03	1.22E+03	1.04E+03	9.03E+02	8.01E+02	7.20E+02	6.54E+02
33	5.09E+03	2.71E+03	1.88E+03	1.45E+03	1.19E+03	1.01E+03	8.76E+02	7.76E+02	6.98E+02	6.35E+02
34	4.93E+03	2.64E+03	1.83E+03	1.41E+03	1.15E+03	9.77E+02	8.50E+02	7.53E+02	6.77E+02	6.16E+02
35	4.79E+03	2.56E+03	1.77E+03	1.37E+03	1.12E+03	9.49E+02	8.26E+02	7.32E+02	6.58E+02	5.98E+02
36	4.65E+03	2.49E+03	1.73E+03	1.33E+03	1.09E+03	9.23E+02	8.03E+02	7.12E+02	6.40E+02	5.82E+02
37	4.53E+03	2.42E+03	1.68E+03	1.29E+03	1.05E+03	8.98E+02	7.81E+02	6.92E+02	6.23E+02	5.66E+02
38	4.41E+03	2.36E+03	1.63E+03	1.26E+03	1.03E+03	8.74E+02	7.61E+02	6.74E+02	6.06E+02	5.51E+02
39	4.30E+03	2.30E+03	1.59E+03	1.23E+03	1.00E+03	8.52E+02	7.41E+02	6.57E+02	5.91E+02	5.37E+02
40	4.19E+03	2.24E+03	1.55E+03	1.20E+03	9.79E+02	8.32E+02	7.23E+02	6.40E+02	5.76E+02	5.24E+02
41	4.09E+03	2.19E+03	1.52E+03	1.17E+03	9.55E+02	8.10E+02	7.05E+02	6.25E+02	5.62E+02	5.11E+02
42	3.99E+03	2.13E+03	1.48E+03	1.14E+03	9.33E+02	7.91E+02	6.88E+02	6.10E+02	5.48E+02	4.99E+02
43	3.90E+03	2.09E+03	1.44E+03	1.11E+03	9.11E+02	7.73E+02	6.72E+02	5.96E+02	5.36E+02	4.87E+02
44	3.81E+03	2.04E+03	1.41E+03	1.09E+03	8.90E+02	7.55E+02	6.57E+02	5.82E+02	5.23E+02	4.76E+02
45	3.72E+03	1.99E+03	1.38E+03	1.06E+03	8.72E+02	7.38E+02	6.42E+02	5.69E+02	5.12E+02	4.65E+02
46	3.64E+03	1.95E+03	1.35E+03	1.04E+03	8.51E+02	7.22E+02	6.28E+02	5.57E+02	5.01E+02	4.55E+02
47	3.56E+03	1.91E+03	1.32E+03	1.02E+03	8.33E+02	7.07E+02	6.15E+02	5.45E+02	4.90E+02	4.46E+02
48	3.49E+03	1.87E+03	1.29E+03	9.98E+02	8.16E+02	6.92E+02	6.02E+02	5.34E+02	4.80E+02	4.36E+02
49	3.42E+03	1.83E+03	1.27E+03	9.78E+02	7.99E+02	6.78E+02	5.90E+02	5.23E+02	4.70E+02	4.27E+02
50	3.35E+03	1.79E+03	1.24E+03	9.59E+02	7.83E+02	6.64E+02	5.73E+02	5.12E+02	4.61E+02	4.19E+02

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

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

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	2.43E+05	1.38E+05	9.82E+04	6.94E+04	5.67E+04	4.81E+04	4.19E+04	3.71E+04	3.34E+04	3.03E+04
2	1.21E+05	6.49E+04	4.58E+04	3.47E+04	2.84E+04	2.41E+04	2.09E+04	1.86E+04	1.67E+04	1.52E+04
3	8.09E+04	4.33E+04	3.08E+04	2.31E+04	1.89E+04	1.60E+04	1.40E+04	1.24E+04	1.11E+04	1.01E+04
4	6.07E+04	3.24E+04	2.25E+04	1.74E+04	1.42E+04	1.20E+04	1.05E+04	9.28E+03	8.34E+03	7.59E+03
5	4.85E+04	2.60E+04	1.80E+04	1.39E+04	1.13E+04	9.63E+03	8.37E+03	7.42E+03	6.67E+03	6.07E+03
6	4.05E+04	2.16E+04	1.50E+04	1.16E+04	9.46E+03	8.02E+03	6.98E+03	6.19E+03	5.56E+03	5.06E+03
7	3.47E+04	1.85E+04	1.29E+04	9.92E+03	8.11E+03	6.88E+03	5.98E+03	5.30E+03	4.77E+03	4.33E+03
8	3.03E+04	1.62E+04	1.13E+04	8.68E+03	7.09E+03	6.02E+03	5.23E+03	4.64E+03	4.17E+03	3.79E+03
9	2.70E+04	1.44E+04	1.00E+04	7.71E+03	6.30E+03	5.35E+03	4.65E+03	4.12E+03	3.71E+03	3.37E+03
10	2.43E+04	1.30E+04	9.08E+03	6.94E+03	5.67E+03	4.81E+03	4.19E+03	3.71E+03	3.34E+03	3.03E+03
11	2.21E+04	1.18E+04	8.18E+03	6.31E+03	5.16E+03	4.38E+03	3.81E+03	3.37E+03	3.03E+03	2.76E+03
12	2.02E+04	1.08E+04	7.50E+03	5.78E+03	4.73E+03	4.01E+03	3.49E+03	3.09E+03	2.78E+03	2.53E+03
13	1.87E+04	9.98E+03	6.92E+03	5.34E+03	4.36E+03	3.70E+03	3.22E+03	2.86E+03	2.57E+03	2.33E+03
14	1.73E+04	9.27E+03	6.43E+03	4.96E+03	4.05E+03	3.44E+03	2.99E+03	2.65E+03	2.38E+03	2.17E+03
15	1.62E+04	8.65E+03	6.00E+03	4.63E+03	3.78E+03	3.21E+03	2.79E+03	2.47E+03	2.22E+03	2.02E+03
16	1.52E+04	8.11E+03	5.63E+03	4.34E+03	3.55E+03	3.01E+03	2.62E+03	2.32E+03	2.09E+03	1.90E+03
17	1.43E+04	7.64E+03	5.29E+03	4.08E+03	3.34E+03	2.83E+03	2.46E+03	2.18E+03	1.96E+03	1.78E+03
18	1.35E+04	7.21E+03	5.00E+03	3.86E+03	3.15E+03	2.67E+03	2.33E+03	2.06E+03	1.85E+03	1.69E+03
19	1.28E+04	6.83E+03	4.74E+03	3.65E+03	2.99E+03	2.53E+03	2.20E+03	1.95E+03	1.76E+03	1.60E+03
20	1.21E+04	6.49E+03	4.50E+03	3.47E+03	2.84E+03	2.41E+03	2.09E+03	1.86E+03	1.67E+03	1.52E+03
21	1.16E+04	6.18E+03	4.29E+03	3.31E+03	2.70E+03	2.29E+03	1.99E+03	1.77E+03	1.59E+03	1.44E+03
22	1.10E+04	5.90E+03	4.09E+03	3.15E+03	2.58E+03	2.19E+03	1.90E+03	1.69E+03	1.52E+03	1.38E+03
23	1.06E+04	5.64E+03	3.91E+03	3.02E+03	2.47E+03	2.09E+03	1.82E+03	1.62E+03	1.45E+03	1.32E+03
24	1.01E+04	5.41E+03	3.75E+03	2.89E+03	2.36E+03	2.01E+03	1.74E+03	1.55E+03	1.39E+03	1.26E+03
25	9.71E+03	5.19E+03	3.60E+03	2.78E+03	2.27E+03	1.93E+03	1.67E+03	1.48E+03	1.33E+03	1.21E+03
26	9.34E+03	4.99E+03	3.46E+03	2.67E+03	2.18E+03	1.85E+03	1.61E+03	1.43E+03	1.28E+03	1.17E+03
27	8.99E+03	4.81E+03	3.33E+03	2.57E+03	2.10E+03	1.78E+03	1.55E+03	1.37E+03	1.24E+03	1.12E+03
28	8.67E+03	4.64E+03	3.21E+03	2.48E+03	2.03E+03	1.72E+03	1.50E+03	1.33E+03	1.19E+03	1.09E+03
29	8.37E+03	4.48E+03	3.10E+03	2.39E+03	1.96E+03	1.66E+03	1.44E+03	1.28E+03	1.15E+03	1.05E+03
30	8.09E+03	4.33E+03	3.00E+03	2.31E+03	1.89E+03	1.60E+03	1.40E+03	1.24E+03	1.11E+03	1.01E+03
31	7.83E+03	4.19E+03	2.90E+03	2.24E+03	1.83E+03	1.55E+03	1.35E+03	1.20E+03	1.08E+03	9.79E+02
32	7.59E+03	4.06E+03	2.81E+03	2.17E+03	1.77E+03	1.50E+03	1.31E+03	1.16E+03	1.04E+03	9.48E+02
33	7.36E+03	3.93E+03	2.73E+03	2.10E+03	1.72E+03	1.46E+03	1.27E+03	1.12E+03	1.01E+03	9.19E+02
34	7.14E+03	3.82E+03	2.65E+03	2.04E+03	1.67E+03	1.42E+03	1.23E+03	1.09E+03	9.81E+02	8.92E+02
35	6.94E+03	3.71E+03	2.57E+03	1.98E+03	1.62E+03	1.38E+03	1.20E+03	1.06E+03	9.53E+02	8.67E+02
36	6.74E+03	3.61E+03	2.50E+03	1.93E+03	1.58E+03	1.34E+03	1.16E+03	1.03E+03	9.27E+02	8.43E+02
37	6.56E+03	3.51E+03	2.43E+03	1.88E+03	1.53E+03	1.30E+03	1.13E+03	1.00E+03	9.02E+02	8.20E+02
38	6.39E+03	3.42E+03	2.37E+03	1.83E+03	1.49E+03	1.27E+03	1.10E+03	9.77E+02	8.78E+02	7.98E+02
39	6.22E+03	3.33E+03	2.31E+03	1.78E+03	1.45E+03	1.23E+03	1.07E+03	9.52E+02	8.56E+02	7.78E+02
40	6.07E+03	3.24E+03	2.25E+03	1.74E+03	1.42E+03	1.20E+03	1.05E+03	9.28E+02	8.34E+02	7.59E+02
41	5.92E+03	3.17E+03	2.20E+03	1.69E+03	1.38E+03	1.17E+03	1.02E+03	9.05E+02	8.14E+02	7.40E+02
42	5.78E+03	3.09E+03	2.14E+03	1.65E+03	1.35E+03	1.15E+03	9.97E+02	8.84E+02	7.95E+02	7.22E+02
43	5.65E+03	3.02E+03	2.09E+03	1.61E+03	1.32E+03	1.12E+03	9.74E+02	8.63E+02	7.76E+02	7.06E+02
44	5.52E+03	2.95E+03	2.05E+03	1.58E+03	1.29E+03	1.09E+03	9.52E+02	8.44E+02	7.58E+02	6.90E+02
45	5.39E+03	2.88E+03	2.00E+03	1.54E+03	1.26E+03	1.07E+03	9.33E+02	8.25E+02	7.42E+02	6.74E+02
46	5.28E+03	2.82E+03	1.96E+03	1.51E+03	1.23E+03	1.05E+03	9.18E+02	8.07E+02	7.25E+02	6.60E+02
47	5.16E+03	2.76E+03	1.91E+03	1.48E+03	1.21E+03	1.02E+03	8.91E+02	7.90E+02	7.10E+02	6.46E+02
48	5.06E+03	2.70E+03	1.88E+03	1.45E+03	1.18E+03	1.00E+03	8.72E+02	7.73E+02	6.95E+02	6.32E+02
49	4.95E+03	2.65E+03	1.84E+03	1.42E+03	1.16E+03	9.83E+02	8.55E+02	7.57E+02	6.81E+02	6.19E+02
50	4.85E+03	2.60E+03	1.80E+03	1.39E+03	1.13E+03	9.63E+02	8.37E+02	7.42E+02	6.67E+02	6.07E+02

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APPENDIX A
VERIFICATION TABLES

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+00	6.25E-01	4.36E-01	3.35E-01	3.35E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
2	5.88E-01	3.14E-01	2.18E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01
3	3.92E-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	5.43E-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	6.29E-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	2.42E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02
15	7.83E-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	3.70E-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	6.19E-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	4.90E-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	4.70E-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	4.52E-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	4.35E-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	4.20E-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	4.05E-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	3.92E-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	1.96E-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	1.90E-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	3.36E-02	1.80E-02	1.24E-02	9.65E-03	9.65E-03	9.65E-03	9.65E-03	9.65E-03	9.65E-03	9.65E-03
36	3.26E-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	3.18E-02	1.70E-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	1.65E-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	2.94E-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	2.73E-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	9.90E-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	7.52E-03	7.52E-03	7.52E-03	7.52E-03	7.52E-03	7.52E-03	7.52E-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	9.08E-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	8.89E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-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

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APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS B
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	6.9[illegible]E-[illegible]	2.[illegible]E-02	9.3[illegible]E-01	5.3[illegible]E-01	3.65E-01	3.38E-01	3.3[illegible]E-01	3.3[illegible]E-01	3.3[illegible] 01	3.3[illegible]E-01
2	3.4[illegible]E-[illegible]	1.8[illegible]E-[illegible]	4.6[illegible]E-01	2.6[illegible]E-01	1.83E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01
3	2.2[illegible]E-[illegible]	6.8[illegible]E-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	1.7[illegible]E-[illegible]	5.11E-01	2.34E-01	1.33E-01	9.13E-02	8.44E-02	8.44E-02	8.44E-02	8.44E-02	8.44E-02
5	1.3[illegible]E-[illegible]	4.2[illegible]E-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	1.13E-[illegible]	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	9.6[illegible]E-01	2.9[illegible]E-01	1.34E-01	7.59E-02	5.2[illegible]E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02	4.83E-02
8	8.[illegible]E-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.[illegible]E-01	2.27E-01	1.04E-01	5.9[illegible]E-02	4.06E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02	3.76E-02
10	6.98E-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.[illegible]E-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	5.7[illegible]E-01	1.7[illegible]E-01	7.8[illegible]E-02	4.43E-02	3.04E-02	2.8[illegible]E-02	2.8[illegible]E-02	2.82E-02	2.8[illegible]E-02	2.8[illegible]E-02
13	5.3[illegible]E-01	1.57E-01	7.2[illegible]E-02	4.09[illegible]E-02	2.81E-02	2.60E-02	2.60E-02	2.60E-02	2.60E-02	2.60E-02
14	4.9[illegible]E-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	4.6[illegible]E-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	4.3[illegible]E-01	1.2[illegible]E-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	4.0[illegible]E-01	1.2[illegible]E-01	5.5[illegible]E-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	5.23E-02	2.95E-02	2.03E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02	1.88E-02
19	3.6[illegible]E-01	1.08E-01	4.9[illegible]E-02	2.82E-02	1.9[illegible]E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-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	9.3[illegible]E-02	4.2[illegible]E-02	2.42[illegible]E-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	1.47E-02	1.47E-02
24	2.89E-01	8.5[illegible]E-02	3.93E-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	2.13E-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	2.24E-02	1.42E-02	1.32E-02	1.32E-02	1.32E-02	1.32E-02	1.32E-02
27	2.56E-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	2.38E-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	6.82E-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	2.23E-01	6.60E-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	1.66E-02	1.14E-02	1.06E-02	1.06E-02	1.06E-02	1.06E-02	1.06E-02
33	2.09E-01	6.22E-02	2.84E-02	1.61E-02	1.11E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-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	1.51E-02	1.04E-02	9.66E-03	9.66E-03	9.66E-03	9.66E-03	9.66E-03
36	1.92E-01	5.68E-02	2.60E-02	1.46E-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	9.87E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03	9.14E-03
38	1.82E-01	5.38E-02	2.46E-02	1.42E-02	9.61E-03	8.93E-03	8.92E-03	8.92E-03	8.92E-03	8.92E-03
39	1.77E-01	5.25E-02	2.42E-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	8.73E-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	8.30E-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	6.98E-03	6.98E-03	6.98E-03	6.98E-03
50	1.3[illegible]E-01	4.09E-02	1.87E-02	1.06E-02	7.30E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03

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APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS C
FUMIGATION
MILLIREM/YEAR 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	1.24E-01	4.50E+00	2.35E+00	1.44E+00	9.77E-01	7.00E-01	5.30E-01	4.5cE-01	4.12E-01	3.74E-01
2	5.23E+00	2.25E+00	1.18E+00	7.21E-01	4.88E-01	3.54E-01	2.69E-01	2.29E-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	2.63E+00	1.13E+00	5.88E-01	3.62E-01	2.44E-01	1.77E-01	1.35E-01	1.14E-01	1.03E-01	9.34E-02
5	2.26E+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	4.52E-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	9.46E-01	4.09E-01	2.14E-01	1.31E-01	8.89E-02	6.44E-02	4.89E-02	4.14E-02	3.73E-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	1.69E-01	1.03E-01	6.99E-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	6.53E-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	8.48E-02	5.75E-02	4.16E-02	3.17E-02	2.68E-02	2.41E-02	2.20E-02
18	5.79E-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	3.73E-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	4.96E-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	1.72E-02
23	4.53E-01	1.96E-01	1.02E-01	6.27E-02	4.25E-02	3.09E-02	2.34E-02	1.98E-02	1.78E-02	1.63E-02
24	4.34E-01	1.88E-01	9.82E-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	4.03E-01	1.73E-01	9.05E-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	3.63E-02	2.62E-02	1.99E-02	1.69E-02	1.52E-02	1.39E-02
28	3.72E-01	1.61E-01	8.40E-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	3.25E-02	2.36E-02	1.79E-02	1.52E-02	1.37E-02	1.25E-02
31	3.36E-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	3.25E-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	2.02E-02	1.54E-02	1.30E-02	1.17E-02	1.07E-02
36	2.89E-01	1.25E-01	6.53E-02	4.02E-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	1.19E-01	6.19E-02	3.79E-02	2.57E-02	1.85E-02	1.42E-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	1.82E-02	1.38E-02	1.17E-02	1.05E-02	9.58E-03
40	2.60E-01	1.13E-01	5.89E-02	3.60E-02	2.44E-02	1.77E-02	1.35E-02	1.14E-02	1.02E-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	2.49E-01	1.07E-01	5.62E-02	3.43E-02	2.33E-02	1.69E-02	1.29E-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	8.67E-03
44	2.37E-01	1.03E-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	1.20E-02	1.01E-02	9.12E-03	8.32E-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	8.92E-03	8.12E-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	8.73E-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	9.53E-03	8.55E-03	7.78E-03
49	2.13E-01	9.19E-02	4.80E-02	2.94E-02	1.99E-02	1.44E-02	1.10E-02	9.32E-03	8.36E-03	7.62E-03
50	2.09E-01	9.01E-02	4.71E-02	2.88E-02	1.95E-02	1.42E-02	1.08E-02	9.12E-03	8.21E-03	7.47E-03

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APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS D
FUMIGATION
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	3.87E+01	1.64E+01	1.14E+01	4.15E+00	3.48E+00	2.93E+00	2.53E+00	2.16E+00	1.89E+00	1.67E+00
2	1.54E+01	8.22E+00	5.73E+00	2.07E+00	1.74E+00	1.47E+00	1.25E+00	1.23E+00	9.45E-01	8.34E-01
3	1.02E+01	5.48E+00	3.82E+00	1.38E+00	1.16E+00	9.77E-01	8.34E-01	7.28E-01	6.30E-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	5.42E-01	4.72E-01	4.17E-01
5	6.15E+00	3.29E+00	2.28E+00	8.32E-01	6.95E-01	5.86E-01	5.00E-01	4.33E-01	3.78E-01	3.34E-01
6	5.12E+00	2.74E+00	1.92E+00	6.92E-01	5.79E-01	4.88E-01	4.17E-01	3.62E-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	2.38E-01
8	3.84E+00	2.05E+00	1.42E+00	5.19E-01	4.34E-01	3.66E-01	3.13E-01	2.72E-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	2.42E-01	2.12E-01	1.85E-01
10	3.07E+00	1.64E+00	1.14E+00	4.15E-01	3.48E-01	2.93E-01	2.53E-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	3.46E-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	2.19E+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	7.63E-01	2.77E-01	2.32E-01	1.95E-01	1.67E-01	1.44E-01	1.26E-01	1.11E-01
16	1.92E+00	1.03E+00	7.15E-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	6.78E-01	2.44E-01	2.04E-01	1.72E-01	1.47E-01	1.27E-01	1.11E-01	9.82E-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	6.00E-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	5.70E-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	1.42E+00	7.47E-01	5.18E-01	1.89E-01	1.58E-01	1.33E-01	1.14E-01	9.82E-02	8.57E-02	7.58E-02
23	1.34E+00	7.15E-01	4.96E-01	1.80E-01	1.51E-01	1.27E-01	1.07E-01	9.39E-02	8.21E-02	7.26E-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	1.23E+00	6.58E-01	4.56E-01	1.66E-01	1.39E-01	1.17E-01	1.00E-01	8.64E-02	7.56E-02	6.67E-02
26	1.18E+00	6.32E-01	4.39E-01	1.60E-01	1.34E-01	1.13E-01	9.62E-02	8.31E-02	7.27E-02	6.42E-02
27	1.14E+00	6.29E-01	4.22E-01	1.54E-01	1.29E-01	1.09E-01	9.26E-02	8.00E-02	7.00E-02	6.18E-02
28	1.10E+00	5.97E-01	4.07E-01	1.48E-01	1.24E-01	1.05E-01	8.93E-02	7.72E-02	6.75E-02	5.96E-02
29	1.06E+00	5.67E-01	3.93E-01	1.43E-01	1.20E-01	1.01E-01	8.62E-02	7.45E-02	6.51E-02	5.75E-02
30	1.02E+00	5.48E-01	3.80E-01	1.38E-01	1.16E-01	9.77E-02	8.34E-02	7.20E-02	6.30E-02	5.56E-02
31	9.92E-01	5.30E-01	3.68E-01	1.34E-01	1.12E-01	9.45E-02	8.07E-02	6.97E-02	6.09E-02	5.38E-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	9.32E-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	6.36E-02	5.56E-02	4.91E-02
35	8.76E-01	4.78E-01	3.26E-01	1.19E-01	9.93E-02	8.37E-02	7.14E-02	6.17E-02	5.40E-02	4.77E-02
36	8.54E-01	4.57E-01	3.17E-01	1.15E-01	9.66E-02	8.14E-02	6.95E-02	6.00E-02	5.25E-02	4.64E-02
37	8.31E-01	4.44E-01	3.08E-01	1.12E-01	9.39E-02	7.92E-02	6.76E-02	5.84E-02	5.11E-02	4.51E-02
38	8.29E-01	4.33E-01	3.00E-01	1.09E-01	9.15E-02	7.71E-02	6.58E-02	5.69E-02	4.97E-02	4.39E-02
39	7.89E-01	4.21E-01	2.92E-01	1.06E-01	8.91E-02	7.51E-02	6.41E-02	5.54E-02	4.84E-02	4.28E-02
40	7.69E-01	4.11E-01	2.85E-01	1.04E-01	8.69E-02	7.33E-02	6.25E-02	5.40E-02	4.72E-02	4.17E-02
41	7.53E-01	4.01E-01	2.78E-01	1.01E-01	8.48E-02	7.15E-02	6.10E-02	5.27E-02	4.61E-02	4.07E-02
42	7.32E-01	3.91E-01	2.71E-01	9.83E-02	8.28E-02	6.98E-02	5.95E-02	5.14E-02	4.50E-02	3.97E-02
43	7.15E-01	3.82E-01	2.65E-01	9.65E-02	8.09E-02	6.81E-02	5.82E-02	5.03E-02	4.39E-02	3.89E-02
44	6.99E-01	3.74E-01	2.59E-01	9.43E-02	7.92E-02	6.66E-02	5.69E-02	4.91E-02	4.29E-02	3.79E-02
45	6.83E-01	3.65E-01	2.53E-01	9.22E-02	7.73E-02	6.51E-02	5.56E-02	4.80E-02	4.22E-02	3.71E-02
46	6.68E-01	3.57E-01	2.48E-01	9.02E-02	7.56E-02	6.37E-02	5.44E-02	4.70E-02	4.11E-02	3.63E-02
47	6.54E-01	3.52E-01	2.43E-01	8.83E-02	7.40E-02	6.23E-02	5.32E-02	4.60E-02	4.02E-02	3.55E-02
48	6.42E-01	3.42E-01	2.37E-01	8.65E-02	7.24E-02	6.10E-02	5.21E-02	4.50E-02	3.94E-02	3.48E-02
49	6.27E-01	3.35E-01	2.33E-01	8.47E-02	7.09E-02	5.96E-02	5.10E-02	4.41E-02	3.86E-02	3.41E-02
50	6.15E-01	3.29E-01	2.28E-01	8.33E-02	6.95E-02	5.86E-02	5.00E-02	4.32E-02	3.79E-02	3.34E-02

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APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS E
(UNIRRIGATED)
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	4.33E+01	2.31E+01	1.68E+01	1.24E+01	1.01E+01	8.57E+02	7.46E+00	6.61E+00	5.94E+00	5.40E+00
2	2.16E+01	1.16E+01	8.31E+00	6.18E+00	5.05E+00	4.29E+00	3.73E+00	3.31E+00	2.97E+00	2.70E+00
3	1.44E+01	7.71E+00	5.54E+00	4.12E+00	3.37E+00	2.86E+00	2.49E+00	2.20E+00	1.98E+00	1.80E+00
4	1.08E+01	5.78E+00	4.01E+00	3.09E+00	2.53E+00	2.14E+00	1.86E+00	1.65E+00	1.49E+00	1.35E+00
5	8.65E+00	4.62E+00	3.21E+00	2.47E+00	2.02E+00	1.71E+00	1.49E+00	1.32E+00	1.19E+00	1.08E+00
6	7.21E+00	3.85E+00	2.67E+00	2.25E+00	1.68E+00	1.43E+00	1.24E+00	1.10E+00	9.91E-01	9.01E-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	5.40E+00	2.89E+00	2.00E+00	1.55E+00	1.26E+00	1.07E+00	9.32E-01	8.26E-01	7.43E-01	6.75E-01
9	4.80E+00	2.57E+00	1.78E+00	1.37E+00	1.12E+00	9.52E-01	8.29E-01	7.34E-01	6.60E-01	6.00E-01
10	4.32E+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	5.40E-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	5.09E-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	3.92E-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	4.09E-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	2.46E-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	1.80E+00	9.63E-01	6.68E-01	5.15E-01	4.21E-01	3.57E-01	3.11E-01	2.75E-01	2.47E-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	3.05E-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	7.46E-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	6.82E-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	6.68E-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	1.22E+00	6.42E-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	6.09E-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	5.77E-01	4.01E-01	3.09E-01	2.53E-01	2.14E-01	1.86E-01	1.65E-01	1.48E-01	1.35E-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	1.02E+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	5.22E-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	4.92E-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	9.01E-01	4.81E-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	8.80E-01	4.72E-01	3.27E-01	2.53E-01	2.06E-01	1.75E-01	1.52E-01	1.35E-01	1.21E-01	1.10E-01
50	8.63E-01	4.63E-01	3.21E-01	2.47E-01	2.02E-01	1.71E-01	1.49E-01	1.32E-01	1.18E-01	1.08E-01

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APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS F
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	6.2EE+01	3.35E-01	2.33E+01	1.79E+01	1.46E+01	1.24E+01	1.08E+01	9.59E-02	8.61E-02	7.83E-02
2	3.13E-01	1.67E-01	1.16E+01	8.95E+02	7.33E+03	6.21E+02	5.42E+00	4.79E+03	4.31E-03	3.91E+03
3	2.09E+01	1.12E+01	7.74E+02	5.97E+02	4.89E+02	4.14E-00	3.62E+03	3.19E+03	2.87E-03	2.61E-00
4	1.57E+01	8.37E-02	5.81E+02	4.48E+02	3.66E+03	3.10E+03	2.72E-02	2.39E+02	2.15E-03	1.96E-00
5	1.25E+01	6.70E+00	4.64E-00	3.55E-02	2.93E-02	2.48E-00	2.16F+00	1.91E+02	1.72E-03	1.57E+02
6	1.04E+01	5.53E-03	3.87E+00	2.98E-00	2.44E+00	2.07E+03	1.80E+03	1.60E+02	1.44E+03	1.30E-00
7	8.91E-00	4.78E-02	3.31E+03	2.56E-02	2.09E+00	1.77E+00	1.54E+02	1.37E-02	1.23E-03	1.11E-00
8	7.81E+00	4.19E+00	2.90E+02	2.24E+03	1.83E+00	1.55E-00	1.35E+03	1.20E-03	1.08E-03	9.79E-01
9	6.94E+03	3.72E+00	2.58E-02	1.99E+02	1.63E-00	1.38E-00	1.20E+03	1.06E-03	9.57E-01	8.70E-01
10	6.26E-00	3.35E+00	2.32E+03	1.79E+00	1.46E+00	1.24E+03	1.08E+00	9.58E-01	8.61E-01	7.83E-01
11	5.69E+03	3.04E+02	2.11E-02	1.62E+02	1.33E+00	1.13E+00	9.82E-01	8.71E-01	7.83E-01	7.12E-01
12	5.22E+00	2.79E-03	1.94E+03	1.49E-00	1.22E+00	1.03E+00	9.02E-01	7.99E-01	7.18E-01	6.53E-01
13	4.82E+02	2.58E-02	1.79E+02	1.38E+03	1.13E+02	9.55E-01	8.31E-01	7.37E-01	6.62E-01	6.02E-01
14	4.47E+03	2.39E+00	1.66E+02	1.28E+03	1.04E+00	8.87E-01	7.72E-01	6.84E-01	6.15E-01	5.59E-01
15	4.18E-02	2.23E-02	1.55E-02	1.19E+02	9.76E-01	8.28E-01	7.20E-01	6.38E-01	5.74E-01	5.22E-01
16	3.91E+03	2.09E+00	1.45E-02	1.12E-03	9.15E-01	7.75E-01	6.75E-01	5.99E-01	5.38E-01	4.89E-01
17	3.68E-02	1.97E-02	1.37E+00	1.05E+03	8.61E-01	7.30E-01	6.36E-01	5.63E-01	5.06E-01	4.61E-01
18	3.48E+03	1.86E+03	1.29E+03	9.95E-01	8.13E-01	6.90E-01	6.00E-01	5.32E-01	4.78E-01	4.35E-01
19	3.30E-02	1.76E-02	1.22E+02	9.43E-01	7.71E-01	6.54E-01	5.69E-01	5.04E-01	4.53E-01	4.12E-01
20	3.13E+03	1.67E-03	1.16E+00	8.95E-01	7.31E-01	6.21E-01	5.40E-01	4.79E-01	4.31E-01	3.91E-01
21	2.98E-02	1.59E+02	1.11E-02	8.53E-01	6.97E-01	5.91E-01	5.14E-01	4.56E-01	4.10E-01	3.73E-01
22	2.85E+02	1.52E-03	1.06E+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+02	1.46E-02	1.01E+03	7.79E-01	6.37E-01	5.40E-01	4.70E-01	4.16E-01	3.74E-01	3.40E-01
24	2.61E+02	1.40E-03	9.68E-01	7.46E-01	6.10E-01	5.17E-01	4.50E-01	3.99E-01	3.57E-01	3.26E-01
25	2.51E+02	1.34E+02	9.29E-01	7.16E-01	5.86E-01	4.97E-01	4.32E-01	3.83E-01	3.44E-01	3.13E-01
26	2.41E+02	1.29E+03	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-02	1.24E+02	9.60E-01	6.63E-01	5.42E-01	4.60E-01	4.00E-01	3.55E-01	3.19E-01	2.90E-01
28	2.24E+02	1.20E-03	8.29E-01	6.40E-01	5.23E-01	4.43E-01	3.86E-01	3.42E-01	3.08E-01	2.80E-01
29	2.16E-02	1.15E+02	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+03	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+02	1.08E+02	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+03	1.05E+03	7.26E-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+02	1.01E+03	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+02	9.81E-01	6.83E-01	5.27E-01	4.31E-01	3.65E-01	3.18E-01	2.82E-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	9.30E-01	6.45E-01	4.97E-01	4.07E-01	3.45E-01	3.00E-01	2.66E-01	2.39E-01	2.17E-01
37	1.69E+02	9.03E-01	6.28E-01	4.84E-01	3.96E-01	3.36E-01	2.92E-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	2.06F-01
39	1.61E-02	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-02	8.17E-01	5.66E-01	4.37E-01	3.57E-01	3.02E-01	2.64E-01	2.34E-01	2.12E-01	1.91E-01
42	1.49E+00	7.97E-01	5.53E-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-02	7.79E-01	5.40E-01	4.16E-01	3.40E-01	2.89E-01	2.51E-01	2.23E-01	2.00E-01	1.82E-01
44	1.42E+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	1.79E-01
45	1.39E-02	7.44E-01	5.16E-01	3.98E-01	3.25E-01	2.76E-01	2.40E-01	2.13E-01	1.91E-01	1.74E-01
46	1.36E+00	7.28E-01	5.05E-01	3.89E-01	3.18E-01	2.70E-01	2.35E-01	2.08E-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-02	6.83E-01	4.74E-01	3.65E-01	2.99E-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

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

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

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	4.55E+03	2.44E+03	1.69E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03
2	2.28E+03	1.22E+03	8.44E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02
3	1.52E+03	8.12E+02	5.63E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02
4	1.14E+03	6.09E+02	4.22E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02
5	9.11E+02	4.87E+02	3.38E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02
6	7.59E+02	4.06E+02	2.81E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02
7	6.51E+02	3.48E+02	2.41E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02
8	5.69E+02	3.04E+02	2.11E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02
9	5.06E+02	2.71E+02	1.88E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02
10	4.55E+02	2.44E+02	1.69E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02
11	4.14E+02	2.21E+02	1.54E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02
12	3.80E+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
13	3.50E+02	1.87E+02	1.30E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
14	3.25E+02	1.74E+02	1.21E+02	9.36E+01	9.36E+01	9.36E+01	9.36E+01	9.36E+01	9.36E+01	9.36E+01
15	3.04E+02	1.62E+02	1.13E+02	8.74E+01	8.74E+01	8.74E+01	8.74E+01	8.74E+01	8.74E+01	8.74E+01
16	2.85E+02	1.52E+02	1.06E+02	8.19E+01	8.19E+01	8.19E+01	8.19E+01	8.19E+01	8.19E+01	8.19E+01
17	2.68E+02	1.43E+02	9.93E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01
18	2.53E+02	1.35E+02	9.38E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01
19	2.40E+02	1.28E+02	8.89E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01
20	2.28E+02	1.22E+02	8.44E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01
21	2.17E+02	1.16E+02	8.04E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01
22	2.07E+02	1.11E+02	7.68E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01
23	1.98E+02	1.06E+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
24	1.90E+02	1.01E+02	7.04E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01
25	1.82E+02	9.74E+01	6.75E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01
26	1.75E+02	9.37E+01	6.49E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01
27	1.69E+02	9.02E+01	6.25E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01
28	1.63E+02	8.70E+01	6.03E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01
29	1.57E+02	8.40E+01	5.82E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01
30	1.52E+02	8.12E+01	5.63E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
31	1.47E+02	7.86E+01	5.45E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01
32	1.42E+02	7.61E+01	5.28E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
33	1.38E+02	7.38E+01	5.12E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01
34	1.34E+02	7.16E+01	4.97E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01
35	1.30E+02	6.96E+01	4.82E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01
36	1.27E+02	6.76E+01	4.69E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01
37	1.23E+02	6.59E+01	4.56E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01
38	1.20E+02	6.41E+01	4.44E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01
39	1.17E+02	6.24E+01	4.33E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01
40	1.14E+02	6.09E+01	4.22E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01
41	1.11E+02	5.94E+01	4.12E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01
42	1.08E+02	5.80E+01	4.02E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01
43	1.06E+02	5.66E+01	3.93E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01
44	1.04E+02	5.53E+01	[illegible]E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01
45	1.01E+02	5.41E+01	[illegible]+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01
46	9.90E+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
47	9.69E+01	5.18E+01	3.59E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01
48	9.49E+01	5.07E+01	3.52E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01
49	9.29E+01	4.97E+01	3.45E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01
50	9.11E+01	4.87E+01	3.38E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

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

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	2.68E+04	7.93E+03	3.63E+03	2.06E+03	1.42E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03	1.31E+03
2	1.34E+04	3.96E+03	1.81E+03	1.03E+03	7.08E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02	6.55E+02
3	8.92E+03	2.64E+03	1.21E+03	6.87E+02	4.72E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02	4.37E+02
4	6.69E+03	1.98E+03	9.07E+02	5.15E+02	3.54E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02	3.28E+02
5	5.35E+03	1.59E+03	7.25E+02	4.12E+02	2.83E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02	2.62E+02
6	4.46E+03	1.32E+03	6.04E+02	3.43E+02	2.36E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02	2.18E+02
7	3.82E+03	1.13E+03	5.18E+02	2.94E+02	2.02E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02	1.87E+02
8	3.34E+03	9.91E+02	4.53E+02	2.57E+02	1.77E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02
9	2.97E+03	8.81E+02	4.03E+02	2.29E+02	1.57E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02	1.46E+02
10	2.68E+03	7.93E+02	3.63E+02	2.06E+02	1.42E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02	1.31E+02
11	2.43E+03	7.21E+02	3.30E+02	1.87E+02	1.29E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02	1.19E+02
12	2.23E+03	6.61E+02	3.02E+02	1.72E+02	1.18E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02
13	2.06E+03	6.10E+02	2.79E+02	1.58E+02	1.09E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
14	1.91E+03	5.66E+02	2.59E+02	1.47E+02	1.01E+02	9.36E+01	9.36E+01	9.36E+01	9.36E+01	9.36E+01
15	1.78E+03	5.29E+02	2.42E+02	1.37E+02	9.44E+01	8.74E+01	8.74E+01	8.74E+01	8.74E+01	8.74E+01
16	1.67E+03	4.95E+02	2.27E+02	1.29E+02	8.85E+01	8.19E+01	8.19E+01	8.19E+01	8.19E+01	8.19E+01
17	1.57E+03	4.66E+02	2.13E+02	1.21E+02	8.33E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01	7.71E+01
18	1.49E+03	4.40E+02	2.01E+02	1.14E+02	7.86E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01
19	1.41E+03	4.17E+02	1.91E+02	1.08E+02	7.45E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01	6.90E+01
20	1.34E+03	3.96E+02	1.81E+02	1.03E+02	7.08E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01	6.55E+01
21	1.27E+03	3.78E+02	1.73E+02	9.81E+01	6.74E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01	6.24E+01
22	1.22E+03	3.62E+02	1.65E+02	9.36E+01	6.43E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01	5.96E+01
23	1.16E+03	3.45E+02	1.58E+02	8.95E+01	6.15E+01	5.70E+01	5.70E+01	5.70E+01	5.70E+01	5.70E+01
24	1.11E+03	3.30E+02	1.51E+02	8.58E+01	5.90E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01	5.46E+01
25	1.07E+03	3.17E+02	1.45E+02	8.24E+01	5.66E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01	5.24E+01
26	1.03E+03	3.05E+02	1.39E+02	7.92E+01	5.44E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01
27	9.91E+02	2.94E+02	1.34E+02	7.63E+01	5.24E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01	4.86E+01
28	9.56E+02	2.83E+02	1.30E+02	7.36E+01	5.06E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01	4.68E+01
29	9.23E+02	2.73E+02	1.25E+02	7.10E+01	4.88E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01	4.52E+01
30	8.92E+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
31	8.63E+02	2.56E+02	1.17E+02	6.64E+01	4.57E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01	4.23E+01
32	8.36E+02	2.48E+02	1.13E+02	6.44E+01	4.42E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
33	8.11E+02	2.40E+02	1.10E+02	6.24E+01	4.29E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01
34	7.87E+02	2.33E+02	1.07E+02	6.06E+01	4.16E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01	3.86E+01
35	7.65E+02	2.27E+02	1.04E+02	5.88E+01	4.04E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01
36	7.43E+02	2.20E+02	1.01E+02	5.72E+01	3.93E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01
37	7.23E+02	2.14E+02	9.82E+01	5.57E+01	3.83E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01
38	7.04E+02	2.09E+02	9.54E+01	5.42E+01	3.73E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01
39	6.86E+02	2.03E+02	9.30E+01	5.28E+01	3.63E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01
40	6.69E+02	1.98E+02	9.07E+01	5.15E+01	3.54E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01
41	6.53E+02	1.93E+02	8.85E+01	5.02E+01	3.45E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01	3.20E+01
42	6.37E+02	1.89E+02	8.63E+01	4.90E+01	3.37E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01	3.12E+01
43	6.22E+02	1.84E+02	8.43E+01	4.79E+01	3.29E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01	3.05E+01
44	6.08E+02	1.80E+02	8.24E+01	4.68E+01	3.22E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01
45	5.95E+02	1.76E+02	8.06E+01	4.58E+01	3.15E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01	2.91E+01
46	5.82E+02	1.72E+02	7.88E+01	4.48E+01	3.08E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01
47	5.69E+02	1.69E+02	7.72E+01	4.38E+01	3.01E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01
48	5.57E+02	1.65E+02	7.56E+01	4.29E+01	2.95E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01
49	5.46E+02	1.62E+02	7.40E+01	4.20E+01	2.89E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01
50	5.35E+02	1.59E+02	7.25E+01	4.12E+01	2.83E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

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

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	[illegible]	1.75E+04	9.12E+03	5.59E+03	3.79E+03	2.74E+03	2.09E+03	1.77E+03	1.59E+03	1.45E+03
2	2.02E+04	8.73E+03	4.56E+03	2.79E+03	1.89E+03	1.37E+03	1.04E+03	8.83E+02	7.95E+02	7.24E+02
3	1.34E+04	5.82E+03	3.04E+03	1.86E+03	1.26E+03	9.15E+02	6.95E+02	5.89E+02	5.30E+02	4.83E+02
4	1.01E+04	4.36E+03	2.28E+03	1.40E+03	9.47E+02	6.86E+02	5.22E+02	4.42E+02	3.98E+02	3.62E+02
5	8.07E+03	3.49E+03	1.82E+03	1.12E+03	7.57E+02	5.49E+02	4.17E+02	3.53E+02	3.18E+02	2.90E+02
6	6.72E+03	2.91E+03	1.52E+03	9.31E+02	6.31E+02	4.57E+02	3.48E+02	2.94E+02	2.65E+02	2.41E+02
7	5.76E+03	2.49E+03	1.30E+03	7.98E+02	5.41E+02	3.92E+02	2.98E+02	2.52E+02	2.27E+02	2.07E+02
8	5.04E+03	2.18E+03	1.14E+03	6.98E+02	4.73E+02	3.43E+02	2.61E+02	2.21E+02	1.99E+02	1.81E+02
9	4.48E+03	1.94E+03	1.01E+03	6.21E+02	4.21E+02	3.05E+02	2.32E+02	1.96E+02	1.77E+02	1.61E+02
10	4.03E+03	1.75E+03	9.12E+02	5.59E+02	3.79E+02	2.74E+02	2.09E+02	1.77E+02	1.59E+02	1.45E+02
11	3.67E+03	1.59E+03	8.29E+02	5.08E+02	3.44E+02	2.49E+02	1.90E+02	1.61E+02	1.45E+02	1.32E+02
12	3.36E+03	1.45E+03	7.60E+02	4.66E+02	3.16E+02	2.29E+02	1.74E+02	1.47E+02	1.33E+02	1.21E+02
13	3.10E+03	1.34E+03	7.01E+02	4.30E+02	2.91E+02	2.11E+02	1.60E+02	1.36E+02	1.22E+02	1.11E+02
14	2.88E+03	1.25E+03	6.51E+02	3.99E+02	2.70E+02	1.96E+02	1.49E+02	1.26E+02	1.14E+02	1.03E+02
15	2.69E+03	1.16E+03	6.08E+02	3.73E+02	2.52E+02	1.83E+02	1.39E+02	1.18E+02	1.06E+02	9.65E+01
16	2.52E+03	1.09E+03	5.70E+02	3.49E+02	2.37E+02	1.72E+02	1.30E+02	1.10E+02	9.94E+01	9.05E+01
17	2.37E+03	1.03E+03	5.36E+02	3.29E+02	2.23E+02	1.61E+02	1.23E+02	1.04E+02	9.36E+01	8.52E+01
18	2.24E+03	9.69E+02	5.07E+02	3.10E+02	2.10E+02	1.52E+02	1.16E+02	9.81E+01	8.84E+01	8.04E+01
19	2.12E+03	9.18E+02	4.80E+02	2.94E+02	1.99E+02	1.44E+02	1.10E+02	9.30E+01	8.37E+01	7.62E+01
20	2.02E+03	8.73E+02	4.56E+02	2.79E+02	1.89E+02	1.37E+02	1.04E+02	8.83E+01	7.95E+01	7.24E+01
21	1.92E+03	8.31E+02	4.34E+02	2.66E+02	1.80E+02	1.31E+02	9.93E+01	8.41E+01	7.58E+01	6.90E+01
22	1.83E+03	7.93E+02	4.14E+02	2.54E+02	1.72E+02	1.25E+02	9.48E+01	8.03E+01	7.23E+01	6.58E+01
23	1.75E+03	7.59E+02	3.96E+02	2.43E+02	1.65E+02	1.19E+02	9.07E+01	7.68E+01	6.92E+01	6.30E+01
24	1.68E+03	7.27E+02	3.80E+02	2.33E+02	1.58E+02	1.14E+02	8.69E+01	7.36E+01	6.63E+01	6.03E+01
25	1.61E+03	6.98E+02	3.65E+02	2.24E+02	1.51E+02	1.10E+02	8.34E+01	7.07E+01	6.36E+01	5.79E+01
26	1.55E+03	6.71E+02	3.51E+02	2.15E+02	1.46E+02	1.06E+02	8.02E+01	6.79E+01	6.12E+01	5.57E+01
27	1.49E+03	6.46E+02	3.38E+02	2.07E+02	1.40E+02	1.02E+02	7.73E+01	6.54E+01	5.89E+01	5.36E+01
28	1.44E+03	6.23E+02	3.26E+02	2.00E+02	1.35E+02	9.80E+01	7.45E+01	6.31E+01	5.68E+01	5.17E+01
29	1.39E+03	6.02E+02	3.14E+02	1.93E+02	1.31E+02	9.46E+01	7.19E+01	6.09E+01	5.49E+01	4.99E+01
30	1.34E+03	5.82E+02	3.04E+02	1.86E+02	1.26E+02	9.15E+01	6.95E+01	5.89E+01	5.30E+01	4.83E+01
31	1.30E+03	5.63E+02	2.94E+02	1.80E+02	1.22E+02	8.85E+01	6.73E+01	5.70E+01	5.13E+01	4.67E+01
32	1.26E+03	5.45E+02	2.85E+02	1.75E+02	1.18E+02	8.58E+01	6.52E+01	5.52E+01	4.97E+01	4.53E+01
33	1.22E+03	5.29E+02	2.76E+02	1.69E+02	1.15E+02	8.32E+01	6.32E+01	5.35E+01	4.82E+01	4.39E+01
34	1.19E+03	5.13E+02	2.68E+02	1.64E+02	1.11E+02	8.07E+01	6.14E+01	5.20E+01	4.68E+01	4.26E+01
35	1.15E+03	4.99E+02	2.61E+02	1.60E+02	1.08E+02	7.84E+01	5.96E+01	5.05E+01	4.55E+01	4.14E+01
36	1.12E+03	4.85E+02	2.53E+02	1.55E+02	1.05E+02	7.62E+01	5.79E+01	4.91E+01	4.42E+01	4.02E+01
37	1.09E+03	4.72E+02	2.46E+02	1.51E+02	1.02E+02	7.42E+01	5.64E+01	4.77E+01	4.30E+01	3.91E+01
38	1.06E+03	4.59E+02	2.40E+02	1.47E+02	9.96E+01	7.22E+01	5.49E+01	4.65E+01	4.19E+01	3.81E+01
39	1.03E+03	4.47E+02	2.34E+02	1.43E+02	9.71E+01	7.04E+01	5.35E+01	4.53E+01	4.08E+01	3.71E+01
40	1.01E+03	4.36E+02	2.28E+02	1.40E+02	9.47E+01	6.86E+01	5.22E+01	4.42E+01	3.98E+01	3.62E+01
41	9.84E+02	4.26E+02	2.22E+02	1.36E+02	9.24E+01	6.69E+01	5.09E+01	4.31E+01	3.88E+01	3.53E+01
42	9.68E+02	4.15E+02	2.17E+02	1.33E+02	9.02E+01	6.53E+01	4.97E+01	4.21E+01	3.79E+01	3.45E+01
43	9.38E+02	4.06E+02	2.12E+02	1.30E+02	8.81E+01	6.38E+01	4.85E+01	4.11E+01	3.70E+01	3.37E+01
44	9.17E+02	3.97E+02	2.07E+02	1.27E+02	8.61E+01	6.24E+01	4.74E+01	4.02E+01	3.62E+01	3.29E+01
45	8.96E+02	3.88E+02	2.03E+02	1.24E+02	8.41E+01	6.10E+01	4.64E+01	3.93E+01	3.54E+01	3.22E+01
46	8.77E+02	3.79E+02	1.98E+02	1.21E+02	8.23E+01	5.97E+01	4.53E+01	3.84E+01	3.46E+01	3.15E+01
47	8.58E+02	3.71E+02	1.94E+02	1.19E+02	8.06E+01	5.84E+01	4.44E+01	3.76E+01	3.39E+01	3.08E+01
48	8.40E+02	3.64E+02	1.90E+02	1.16E+02	7.89E+01	5.72E+01	4.35E+01	3.68E+01	3.31E+01	3.02E+01
49	8.23E+02	3.56E+02	1.86E+02	1.14E+02	7.73E+01	5.60E+01	4.26E+01	3.61E+01	3.25E+01	2.96E+01
50	8.07E+02	3.49E+02	1.82E+02	1.12E+02	7.57E+01	5.49E+01	4.17E+01	3.53E+01	3.18E+01	2.90E+01

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

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

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	6.18E+03	1.91E+04	1.08E+04	1.61E+04	1.35E+04	1.14E+04	9.69E+03	8.37E+03	7.32E+03	6.47E+03
2	3.09E+03	9.55E+03	9.42E+03	8.04E+03	6.74E+03	5.68E+03	4.85E+03	4.19E+03	3.66E+03	3.23E+03
3	2.06E+03	6.37E+03	6.28E+03	5.36E+03	4.49E+03	3.79E+03	3.23E+03	2.79E+03	2.44E+03	2.15E+03
4	1.55E+03	4.78E+03	4.71E+03	4.02E+03	3.37E+03	2.84E+03	2.42E+03	2.09E+03	1.83E+03	1.62E+03
5	1.24E+03	3.82E+03	3.77E+03	3.22E+03	2.69E+03	2.27E+03	1.94E+03	1.67E+03	1.46E+03	1.29E+03
6	1.03E+03	3.18E+03	3.14E+03	2.68E+03	2.25E+03	1.89E+03	1.62E+03	1.40E+03	1.22E+03	1.08E+03
7	8.83E+02	2.73E+03	2.69E+03	2.30E+03	1.92E+03	1.62E+03	1.38E+03	1.20E+03	1.05E+03	9.24E+02
8	7.73E+02	2.39E+03	2.35E+03	2.01E+03	1.68E+03	1.42E+03	1.21E+03	1.05E+03	9.15E+02	8.08E+02
9	6.87E+02	2.12E+03	2.09E+03	1.79E+03	1.50E+03	1.26E+03	1.08E+03	9.31E+02	8.13E+02	7.19E+02
10	6.18E+02	1.91E+03	1.88E+03	1.61E+03	1.35E+03	1.14E+03	9.69E+02	8.37E+02	7.32E+02	6.47E+02
11	5.62E+02	1.74E+03	1.71E+03	1.46E+03	1.22E+03	1.03E+03	8.81E+02	7.61E+02	6.66E+02	5.88E+02
12	5.15E+02	1.59E+03	1.57E+03	1.34E+03	1.12E+03	9.46E+02	8.08E+02	6.98E+02	6.10E+02	5.39E+02
13	4.76E+02	1.47E+03	1.45E+03	1.24E+03	1.04E+03	8.74E+02	7.45E+02	6.44E+02	5.63E+02	4.97E+02
14	4.42E+02	1.36E+03	1.35E+03	1.15E+03	9.62E+02	9.11E+02	6.92E+02	5.98E+02	5.23E+02	4.62E+02
15	4.12E+02	1.27E+03	1.26E+03	1.07E+03	8.98E+02	7.57E+02	6.46E+02	5.58E+02	4.88E+02	4.31E+02
16	3.86E+02	1.19E+03	1.18E+03	1.01E+03	8.42E+02	7.10E+02	6.06E+02	5.23E+02	4.58E+02	4.04E+02
17	3.64E+02	1.12E+03	1.11E+03	9.46E+02	7.92E+02	6.68E+02	5.70E+02	4.93E+02	4.31E+02	3.80E+02
18	3.44E+02	1.06E+03	1.05E+03	8.93E+02	7.48E+02	6.31E+02	5.38E+02	4.65E+02	4.07E+02	3.59E+02
19	3.25E+02	1.01E+03	9.91E+02	8.46E+02	7.09E+02	5.98E+02	5.10E+02	4.41E+02	3.85E+02	3.40E+02
20	3.09E+02	9.55E+02	9.42E+02	8.04E+02	6.74E+02	5.68E+02	4.85E+02	4.19E+02	3.66E+02	3.23E+02
21	2.94E+02	9.10E+02	8.97E+02	7.66E+02	6.42E+02	5.41E+02	4.61E+02	3.99E+02	3.49E+02	3.08E+02
22	2.81E+02	8.68E+02	8.56E+02	7.31E+02	6.12E+02	5.16E+02	4.41E+02	3.81E+02	3.33E+02	2.94E+02
23	2.69E+02	8.31E+02	8.19E+02	6.99E+02	5.86E+02	4.94E+02	4.21E+02	3.64E+02	3.18E+02	2.81E+02
24	2.58E+02	7.96E+02	7.85E+02	6.70E+02	5.61E+02	4.73E+02	4.04E+02	3.49E+02	3.05E+02	2.69E+02
25	2.47E+02	7.64E+02	7.53E+02	6.43E+02	5.39E+02	4.54E+02	3.88E+02	3.35E+02	2.93E+02	2.59E+02
26	2.38E+02	7.35E+02	7.24E+02	6.19E+02	5.18E+02	4.37E+02	3.73E+02	3.22E+02	2.82E+02	2.49E+02
27	2.29E+02	7.08E+02	6.97E+02	5.96E+02	4.99E+02	4.21E+02	3.59E+02	3.10E+02	2.71E+02	2.40E+02
28	2.21E+02	6.82E+02	6.73E+02	5.74E+02	4.81E+02	4.06E+02	3.46E+02	2.99E+02	2.61E+02	2.31E+02
29	2.13E+02	6.59E+02	6.49E+02	5.55E+02	4.65E+02	3.92E+02	3.34E+02	2.89E+02	2.52E+02	2.23E+02
30	2.06E+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
31	1.99E+02	6.16E+02	6.07E+02	5.19E+02	4.35E+02	3.66E+02	3.13E+02	2.70E+02	2.36E+02	2.09E+02
32	1.93E+02	5.97E+02	5.88E+02	5.03E+02	4.21E+02	3.55E+02	3.03E+02	2.62E+02	2.29E+02	2.02E+02
33	1.87E+02	5.79E+02	5.71E+02	4.87E+02	4.08E+02	3.44E+02	2.94E+02	2.54E+02	2.22E+02	1.96E+02
34	1.82E+02	5.62E+02	5.54E+02	4.73E+02	3.96E+02	3.34E+02	2.85E+02	2.46E+02	2.15E+02	1.90E+02
35	1.77E+02	5.46E+02	5.38E+02	4.60E+02	3.85E+02	3.24E+02	2.77E+02	2.39E+02	2.09E+02	1.85E+02
36	1.72E+02	5.31E+02	5.23E+02	4.47E+02	3.74E+02	3.15E+02	2.69E+02	2.33E+02	2.03E+02	1.80E+02
37	1.67E+02	5.16E+02	5.09E+02	4.35E+02	3.64E+02	3.07E+02	2.62E+02	2.26E+02	1.98E+02	1.75E+02
38	1.63E+02	5.03E+02	4.95E+02	4.23E+02	3.55E+02	2.99E+02	2.55E+02	2.20E+02	1.93E+02	1.70E+02
39	1.59E+02	4.90E+02	4.83E+02	4.12E+02	3.45E+02	2.91E+02	2.48E+02	2.15E+02	1.88E+02	1.66E+02
40	1.55E+02	4.78E+02	4.71E+02	4.02E+02	3.37E+02	2.84E+02	2.42E+02	2.09E+02	1.83E+02	1.62E+02
41	1.51E+02	4.66E+02	4.59E+02	3.92E+02	3.29E+02	2.77E+02	2.36E+02	2.04E+02	1.79E+02	1.58E+02
42	1.47E+02	4.55E+02	4.48E+02	3.83E+02	3.21E+02	2.70E+02	2.31E+02	1.99E+02	1.74E+02	1.54E+02
43	1.44E+02	4.44E+02	4.38E+02	3.74E+02	3.13E+02	2.64E+02	2.25E+02	1.95E+02	1.70E+02	1.50E+02
44	1.41E+02	4.34E+02	4.28E+02	3.66E+02	3.06E+02	2.58E+02	2.20E+02	1.90E+02	1.66E+02	1.47E+02
45	1.37E+02	4.25E+02	4.18E+02	3.57E+02	2.99E+02	2.52E+02	2.15E+02	1.86E+02	1.63E+02	1.44E+02
46	1.34E+02	4.15E+02	4.09E+02	3.50E+02	2.93E+02	2.47E+02	2.11E+02	1.82E+02	1.59E+02	1.41E+02
47	1.32E+02	4.07E+02	4.01E+02	3.42E+02	2.87E+02	2.42E+02	2.06E+02	1.78E+02	1.56E+02	1.38E+02
48	1.29E+02	3.98E+02	3.92E+02	3.35E+02	2.81E+02	2.37E+02	2.02E+02	1.74E+02	1.53E+02	1.35E+02
49	1.26E+02	3.90E+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
50	1.24E+02	3.82E+02	3.77E+02	3.22E+02	2.69E+02	2.27E+02	1.94E+02	1.67E+02	1.46E+02	1.29E+02

manual set

APPENDIX A
VERIFICATION TABLES

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

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.78E+02	5.48E+03	1.03E+04	1.22E+04	1.25E+04	1.21E+04	1.15E+04	1.08E+04	1.02E+04	9.51E+03
2	8.88E+01	2.74E+03	5.16E+03	6.09E+03	6.25E+03	6.07E+03	5.77E+03	5.42E+03	5.08E+03	4.76E+03
3	5.92E+01	1.83E+03	3.44E+03	4.06E+03	4.17E+03	4.05E+03	3.85E+03	3.62E+03	3.39E+03	3.17E+03
4	4.44E+01	1.37E+03	2.58E+03	3.05E+03	3.13E+03	3.04E+03	2.88E+03	2.71E+03	2.54E+03	2.38E+03
5	3.55E+01	1.10E+03	2.06E+03	2.44E+03	2.50E+03	2.43E+03	2.31E+03	2.17E+03	2.03E+03	1.90E+03
6	2.96E+01	9.13E+02	1.72E+03	2.03E+03	2.08E+03	2.02E+03	1.92E+03	1.81E+03	1.69E+03	1.59E+03
7	2.54E+01	7.82E+02	1.47E+03	1.74E+03	1.79E+03	1.74E+03	1.65E+03	1.55E+03	1.45E+03	1.36E+03
8	2.22E+01	6.84E+02	1.29E+03	1.52E+03	1.56E+03	1.52E+03	1.44E+03	1.36E+03	1.27E+03	1.19E+03
9	1.97E+01	6.08E+02	1.15E+03	1.35E+03	1.39E+03	1.35E+03	1.28E+03	1.21E+03	1.13E+03	1.06E+03
10	1.78E+01	5.48E+02	1.03E+03	1.22E+03	1.25E+03	1.21E+03	1.15E+03	1.08E+03	1.02E+03	9.51E+02
11	1.61E+01	4.98E+02	9.38E+02	1.11E+03	1.14E+03	1.10E+03	1.05E+03	9.86E+02	9.24E+02	8.65E+02
12	1.48E+01	4.56E+02	8.59E+02	1.02E+03	1.04E+03	1.01E+03	9.61E+02	9.04E+02	8.47E+02	7.93E+02
13	1.37E+01	4.21E+02	7.93E+02	9.37E+02	9.62E+02	9.35E+02	8.88E+02	8.35E+02	7.82E+02	7.32E+02
14	1.27E+01	3.91E+02	7.37E+02	8.71E+02	8.93E+02	8.68E+02	8.24E+02	7.75E+02	7.26E+02	6.80E+02
15	1.18E+01	3.65E+02	6.88E+02	8.12E+02	8.34E+02	8.10E+02	7.69E+02	7.23E+02	6.78E+02	6.34E+02
16	1.11E+01	3.42E+02	6.45E+02	7.62E+02	7.81E+02	7.59E+02	7.21E+02	6.78E+02	6.35E+02	5.95E+02
17	1.04E+01	3.22E+02	6.07E+02	7.17E+02	7.35E+02	7.15E+02	6.79E+02	6.38E+02	5.98E+02	5.60E+02
18	9.86E+00	3.04E+02	5.73E+02	6.77E+02	6.95E+02	6.75E+02	6.41E+02	6.03E+02	5.65E+02	5.29E+02
19	9.34E+00	2.88E+02	5.43E+02	6.41E+02	6.58E+02	6.39E+02	6.07E+02	5.71E+02	5.35E+02	5.01E+02
20	8.88E+00	2.74E+02	5.16E+02	6.09E+02	6.25E+02	6.07E+02	5.77E+02	5.42E+02	5.08E+02	4.76E+02
21	8.45E+00	2.61E+02	4.91E+02	5.80E+02	5.95E+02	5.79E+02	5.49E+02	5.17E+02	4.84E+02	4.53E+02
22	8.07E+00	2.49E+02	4.69E+02	5.54E+02	5.68E+02	5.52E+02	5.24E+02	4.93E+02	4.62E+02	4.32E+02
23	7.72E+00	2.38E+02	4.48E+02	5.30E+02	5.44E+02	5.28E+02	5.02E+02	4.72E+02	4.42E+02	4.14E+02
24	7.40E+00	2.28E+02	4.30E+02	5.08E+02	5.21E+02	5.06E+02	4.81E+02	4.52E+02	4.23E+02	3.96E+02
25	7.10E+00	2.19E+02	4.13E+02	4.87E+02	5.00E+02	4.86E+02	4.62E+02	4.34E+02	4.07E+02	3.81E+02
26	6.83E+00	2.11E+02	3.97E+02	4.69E+02	4.81E+02	4.67E+02	4.44E+02	4.17E+02	3.91E+02	3.66E+02
27	6.58E+00	2.03E+02	3.82E+02	4.51E+02	4.63E+02	4.50E+02	4.27E+02	4.02E+02	3.76E+02	3.52E+02
28	6.34E+00	1.96E+02	3.68E+02	4.35E+02	4.47E+02	4.34E+02	4.12E+02	3.87E+02	3.63E+02	3.40E+02
29	6.12E+00	1.89E+02	3.56E+02	4.20E+02	4.31E+02	4.19E+02	3.98E+02	3.74E+02	3.50E+02	3.28E+02
30	5.92E+00	1.83E+02	3.44E+02	4.06E+02	4.17E+02	4.05E+02	3.85E+02	3.62E+02	3.39E+02	3.17E+02
31	5.73E+00	1.77E+02	3.33E+02	3.93E+02	4.03E+02	3.92E+02	3.72E+02	3.50E+02	3.28E+02	3.07E+02
32	5.55E+00	1.71E+02	3.22E+02	3.81E+02	3.91E+02	3.80E+02	3.61E+02	3.39E+02	3.18E+02	2.97E+02
33	5.38E+00	1.66E+02	3.13E+02	3.69E+02	3.79E+02	3.68E+02	3.50E+02	3.29E+02	3.08E+02	2.88E+02
34	5.22E+00	1.61E+02	3.03E+02	3.58E+02	3.68E+02	3.57E+02	3.39E+02	3.19E+02	2.99E+02	2.80E+02
35	5.07E+00	1.56E+02	2.95E+02	3.48E+02	3.57E+02	3.47E+02	3.30E+02	3.10E+02	2.90E+02	2.72E+02
36	4.93E+00	1.52E+02	2.86E+02	3.39E+02	3.47E+02	3.37E+02	3.20E+02	3.01E+02	2.82E+02	2.64E+02
37	4.80E+00	1.48E+02	2.79E+02	3.29E+02	3.38E+02	3.28E+02	3.12E+02	2.93E+02	2.75E+02	2.57E+02
38	4.67E+00	1.44E+02	2.71E+02	3.21E+02	3.29E+02	3.20E+02	3.04E+02	2.85E+02	2.67E+02	2.50E+02
39	4.55E+00	1.40E+02	2.64E+02	3.12E+02	3.21E+02	3.12E+02	2.96E+02	2.78E+02	2.61E+02	2.44E+02
40	4.44E+00	1.37E+02	2.58E+02	3.05E+02	3.13E+02	3.04E+02	2.89E+02	2.71E+02	2.54E+02	2.38E+02
41	4.33E+00	1.34E+02	2.52E+02	2.97E+02	3.05E+02	2.96E+02	2.81E+02	2.65E+02	2.48E+02	2.32E+02
42	4.23E+00	1.30E+02	2.46E+02	2.90E+02	2.98E+02	2.89E+02	2.75E+02	2.58E+02	2.42E+02	2.27E+02
43	4.13E+00	1.27E+02	2.40E+02	2.83E+02	2.91E+02	2.83E+02	2.68E+02	2.52E+02	2.36E+02	2.21E+02
44	4.03E+00	1.24E+02	2.34E+02	2.77E+02	2.84E+02	2.76E+02	2.62E+02	2.47E+02	2.31E+02	2.16E+02
45	3.95E+00	1.22E+02	2.29E+02	2.71E+02	2.78E+02	2.70E+02	2.56E+02	2.41E+02	2.26E+02	2.11E+02
46	3.86E+00	1.19E+02	2.24E+02	2.65E+02	2.72E+02	2.64E+02	2.51E+02	2.36E+02	2.21E+02	2.07E+02
47	3.78E+00	1.17E+02	2.19E+02	2.59E+02	2.66E+02	2.59E+02	2.45E+02	2.31E+02	2.16E+02	2.02E+02
48	3.70E+00	1.14E+02	2.15E+02	2.54E+02	2.60E+02	2.53E+02	2.40E+02	2.26E+02	2.12E+02	1.99E+02
49	3.62E+00	1.12E+02	2.10E+02	2.49E+02	2.55E+02	2.48E+02	2.35E+02	2.21E+02	2.07E+02	1.94E+02
50	3.55E+00	1.10E+02	2.06E+02	2.44E+02	2.50E+02	2.43E+02	2.31E+02	2.17E+02	2.03E+02	1.90E+02

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

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

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	8.32E-03	6.78E+01	5.89E+02	[illegible]47E+03	2.37E+03	3.14E+03	3.74E+03	4.19E+03	4.52E+03	4.75E+03
2	4.16E-03	3.35E+01	2.94E+02	[illegible]3AE+02	1.19E+03	1.57E+03	1.87E+03	2.10E+03	2.26E+03	2.38E+03
3	2.77E-03	2.23E+01	1.96E+02	[illegible]89E+02	7.90E+02	1.05E+03	1.25E+03	1.40E+03	1.51E+03	1.58E+03
4	2.08E-03	1.67E+01	1.47E+02	3.67E+02	5.93E+02	7.85E+02	9.36E+02	1.05E+03	1.13E+03	1.19E+03
5	1.66E-03	1.34E+01	1.18E+02	2.94E+02	4.74E+02	6.28E+02	7.49E+02	8.39E+02	9.05E+02	9.51E+02
6	1.39E-03	1.12E+01	9.88E+01	2.45E+02	3.95E+02	5.23E+02	6.24E+02	6.99E+02	7.54E+02	7.92E+02
7	1.19E-03	9.57E+03	8.48E+01	2.10E+02	3.39E+02	4.49E+02	5.35E+02	5.99E+02	6.46E+02	6.79E+02
8	1.04E-03	8.37E+00	7.35E+01	1.84E+02	2.96E+02	3.92E+02	4.68E+02	5.24E+02	5.65E+02	5.94E+02
9	9.24E-04	7.44E+00	6.53E+01	1.63E+02	2.63E+02	3.49E+02	4.16E+02	4.66E+02	5.03E+02	5.28E+02
10	8.32E-04	6.70E+00	5.88E+01	1.47E+02	2.37E+02	3.14E+02	3.74E+02	4.19E+02	4.52E+02	4.75E+02
11	7.56E-04	6.09E+00	5.34E+01	1.33E+02	2.16E+02	2.85E+02	3.40E+02	3.81E+02	4.11E+02	4.32E+02
12	6.93E-04	5.58E+00	4.90E+01	1.22E+02	1.98E+02	2.62E+02	3.12E+02	3.50E+02	3.77E+02	3.96E+02
13	6.40E-04	5.15E+00	4.52E+01	1.13E+02	1.82E+02	2.42E+02	2.88E+02	3.23E+02	3.48E+02	3.66E+02
14	5.94E-04	4.78E+00	4.20E+01	1.05E+02	1.69E+02	2.24E+02	2.67E+02	3.00E+02	3.23E+02	3.40E+02
15	5.55E-04	4.47E+00	3.92E+01	9.79E+01	1.58E+02	2.09E+02	2.50E+02	2.80E+02	3.02E+02	3.17E+02
16	5.20E-04	4.19E+00	3.67E+01	9.18E+01	1.48E+02	1.96E+02	2.34E+02	2.62E+02	2.83E+02	2.97E+02
17	4.89E-04	3.94E+00	3.46E+01	8.64E+01	1.39E+02	1.85E+02	2.20E+02	2.47E+02	2.66E+02	2.80E+02
18	4.62E-04	3.72E+00	3.27E+01	8.16E+01	1.32E+02	1.74E+02	2.08E+02	2.33E+02	2.51E+02	2.64E+02
19	4.38E-04	3.53E+00	3.09E+01	7.73E+01	1.25E+02	1.65E+02	1.97E+02	2.21E+02	2.38E+02	2.50E+02
20	4.16E-04	3.35E+00	2.94E+01	7.34E+01	1.19E+02	1.57E+02	1.87E+02	2.10E+02	2.26E+02	2.38E+02
21	3.96E-04	3.19E+00	2.80E+01	6.99E+01	1.13E+02	1.50E+02	1.78E+02	2.00E+02	2.15E+02	2.26E+02
22	3.78E-04	3.04E+00	2.67E+01	6.67E+01	1.08E+02	1.43E+02	1.70E+02	1.91E+02	2.06E+02	2.16E+02
23	3.62E-04	2.91E+00	2.56E+01	6.38E+01	1.03E+02	1.37E+02	1.63E+02	1.82E+02	1.97E+02	2.07E+02
24	3.47E-04	2.79E+00	2.45E+01	6.12E+01	9.88E+01	1.31E+02	1.56E+02	1.75E+02	1.88E+02	1.98E+02
25	3.33E-04	2.68E+00	2.35E+01	5.87E+01	9.49E+01	1.26E+02	1.50E+02	1.68E+02	1.81E+02	1.90E+02
26	3.20E-04	2.58E+00	2.26E+01	5.65E+01	9.12E+01	1.21E+02	1.44E+02	1.61E+02	1.74E+02	1.83E+02
27	3.08E-04	2.48E+00	2.18E+01	5.44E+01	8.78E+01	1.16E+02	1.39E+02	1.55E+02	1.68E+02	1.76E+02
28	2.97E-04	2.39E+00	2.10E+01	5.24E+01	8.47E+01	1.12E+02	1.34E+02	1.50E+02	1.62E+02	1.70E+02
29	2.87E-04	2.31E+00	2.03E+01	5.06E+01	8.18E+01	1.08E+02	1.29E+02	1.45E+02	1.56E+02	1.64E+02
30	2.77E-04	2.23E+00	1.96E+01	4.89E+01	7.90E+01	1.05E+02	1.25E+02	1.40E+02	1.51E+02	1.58E+02
31	2.68E-04	2.16E+00	1.90E+01	4.74E+01	7.65E+01	1.01E+02	1.21E+02	1.35E+02	1.46E+02	1.53E+02
32	2.60E-04	2.09E+00	1.84E+01	4.59E+01	7.41E+01	9.81E+01	1.17E+02	1.31E+02	1.41E+02	1.49E+02
33	2.52E-04	2.03E+00	1.78E+01	4.45E+01	7.19E+01	9.52E+01	1.13E+02	1.27E+02	1.37E+02	1.44E+02
34	2.45E-04	1.97E+00	1.73E+01	4.32E+01	6.97E+01	9.24E+01	1.10E+02	1.23E+02	1.33E+02	1.40E+02
35	2.38E-04	1.91E+00	1.68E+01	4.20E+01	6.78E+01	8.97E+01	1.07E+02	1.20E+02	1.29E+02	1.36E+02
36	2.31E-04	1.86E+00	1.63E+01	4.08E+01	6.59E+01	8.72E+01	1.04E+02	1.17E+02	1.26E+02	1.32E+02
37	2.25E-04	1.81E+00	1.59E+01	3.97E+01	6.41E+01	8.49E+01	1.01E+02	1.13E+02	1.22E+02	1.28E+02
38	2.19E-04	1.76E+00	1.55E+01	3.86E+01	6.24E+01	8.26E+01	9.85E+01	1.10E+02	1.19E+02	1.25E+02
39	2.13E-04	1.72E+00	1.51E+01	3.77E+01	6.08E+01	8.05E+01	9.60E+01	1.08E+02	1.16E+02	1.22E+02
40	2.08E-04	1.67E+00	1.47E+01	3.67E+01	5.93E+01	7.85E+01	9.36E+01	1.05E+02	1.13E+02	1.19E+02
41	2.03E-04	1.63E+00	1.43E+01	3.58E+01	5.78E+01	7.66E+01	9.13E+01	1.02E+02	1.10E+02	1.16E+02
42	1.98E-04	1.59E+00	1.40E+01	3.50E+01	5.65E+01	7.48E+01	8.91E+01	9.99E+01	1.08E+02	1.13E+02
43	1.93E-04	1.56E+00	1.37E+01	3.41E+01	5.51E+01	7.30E+01	8.70E+01	9.75E+01	1.05E+02	1.11E+02
44	1.89E-04	1.52E+00	1.34E+01	3.34E+01	5.39E+01	7.14E+01	8.51E+01	9.53E+01	1.03E+02	1.08E+02
45	1.85E-04	1.49E+00	1.31E+01	3.26E+01	5.27E+01	6.98E+01	8.32E+01	9.32E+01	1.01E+02	1.06E+02
46	1.81E-04	1.46E+00	1.28E+01	3.19E+01	5.15E+01	6.83E+01	[illegible]14E+01	9.12E+01	9.83E+01	1.03E+02
47	1.77E-04	1.43E+00	1.25E+01	3.12E+01	5.05E+01	6.68E+01	7.96E+01	8.92E+01	9.62E+01	1.01E+02
48	1.73E-04	1.40E+00	1.22E+01	3.06E+01	4.94E+01	6.54E+01	7.80E+01	8.74E+01	9.42E+01	9.90E+01
49	1.70E-04	1.37E+00	1.20E+01	3.00E+01	4.84E+01	6.41E+01	7.64E+01	8.56E+01	9.23E+01	9.70E+01
50	1.66E-04	1.34E+00	1.18E+01	2.94E+01	4.74E+01	6.28E+01	7.49E+01	8.39E+01	9.05E+01	9.51E+01

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS A
NO 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	12 MI
1	1.13E-00	6.28E-01	4.36E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
2	5.93E-01	3.14E-01	2.18E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01	1.69E-01
3	3.92E-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	6.99E-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	2.42E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02	2.42E-02
15	7.83E-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	3.70E-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	5.87E-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	5.59E-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	4.23E-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	4.09E-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	3.93E-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	1.96E-02	1.36E-02	1.06E-02	1.06E-02	1.06E-02	1.06E-02	1.06E-02	1.06E-02	1.06E-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	3.36E-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	3.25E-02	1.75E-02	1.21E-02	9.48E-03	9.48E-03	9.48E-03	9.48E-03	9.48E-03	9.48E-03	9.48E-03
37	3.19E-02	1.70E-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	3.27E-02	1.65E-02	1.15E-02	8.98E-03	8.98E-03	8.98E-03	8.98E-03	8.98E-03	8.98E-03	8.98E-03
39	3.81E-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	1.09E-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	2.73E-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	7.51E-03	7.51E-03	7.51E-03	7.51E-03	7.51E-03	7.51E-03	7.51E-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	8.89E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-03	6.90E-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

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APPENDIX A
VERIFICATION TABLES

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+00	2.85E-00	9.36E-01	5.31E-01	3.65E-01	3.78E-01	3.32E-01	3.39E-01	3.33E-01	3.32E-01
2	3.45E+00	1.82E+00	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-00	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-00	5.11E-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	4.09E-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+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	5.90E-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	6.28E-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	7.88E-02	4.47E-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	6.68E-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	4.32E-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	3.64E-01	1.08E-01	4.92E-02	2.80E-02	1.92E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-02	1.78E-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	3.02E-01	8.89E-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	2.88E-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	2.13E-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	2.56E-01	7.58E-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	6.82E-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	6.35E-02	2.91E-02	1.66E-02	1.14E-02	1.06E-02	1.06E-02	1.06E-02	1.06E-02	1.06E-02
33	2.09E-01	6.12E-02	2.84E-02	1.61E-02	1.11E-02	1.02E-02	1.02E-02	1.02E-02	1.02E-02	1.02E-02
34	2.03E-01	5.92E-02	2.73E-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	5.66E-02	2.62E-02	1.49E-02	1.01E-02	9.42E-03	9.42E-03	9.42E-03	9.42E-03	9.42E-03
37	1.87E-01	5.52E-02	2.57E-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	5.38E-02	2.46E-02	1.40E-02	9.[illegible]E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03	8.93E-03
39	1.77E-01	5.25E-02	2.42E-02	1.36E-02	9.47E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03	8.67E-03
40	1.73E-01	5.11E-02	2.37E-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	1.32E-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	2.09E-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	4.46E-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	6.90E-03	6.90E-03	6.90E-03	6.90E-03
50	1.38E-01	4.09E-02	1.87E-02	1.05E-02	7.30E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03	6.76E-03

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APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS C
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	1.84E-01	4.58E-02	2.35E-02	1.44E+02	9.77E-01	7.02E-01	5.36E-01	4.56E-01	4.12E-01	3.74E-01
2	5.22E+02	2.25E-02	1.18E+02	7.21E-01	4.88E-01	3.54E-01	2.69E-01	2.28E-01	2.05E-01	1.87E-01
3	3.47E+02	1.50E+02	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+02	1.13E+02	5.88E-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+02	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+02	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+02	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+02	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+02	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+02	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	9.46E-01	4.09E-01	2.14E-01	1.31E-01	8.89E-02	6.44E-02	4.89E-02	4.14E-02	3.73E-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	5.06E-02	3.84E-02	3.26E-02	2.93E-02	2.67E-02
15	6.94E-01	3.00E-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	1.39E-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	2.29E-02	2.08E-02
19	5.48E-01	2.37E-01	1.24E-01	7.59E-02	5.14E-02	3.73E-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	1.12E-01	6.87E-02	4.65E-02	3.37E-02	2.56E-02	2.17E-02	1.95E-02	1.78E-02
22	4.77E-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	4.58E-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	1.62E-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	9.05E-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	3.36E-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	3.26E-01	1.33E-01	6.92E-02	4.24E-02	2.87E-02	2.08E-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	2.02E-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	3.90E-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	6.17E-02	3.79E-02	2.57E-02	1.86E-02	1.42E-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	1.82E-02	1.38E-02	1.17E-02	1.05E-02	9.53E-03
40	2.62E-01	1.13E-01	5.85E-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	5.62E-02	3.43E-02	2.33E-02	1.69E-02	1.28E-02	1.09E-02	9.77E-03	8.90E-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	1.20E-02	1.01E-02	9.12E-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	8.92E-03	8.12E-03
47	2.21E-01	9.58E-02	5.01E-02	3.07E-02	2.08E-02	1.51E-02	1.15E-02	9.70E-03	8.73E-03	7.95E-03
48	2.17E-01	9.38E-02	4.90E-02	3.00E-02	2.04E-02	1.48E-02	1.12E-02	9.50E-03	8.55E-03	7.78E-03
49	2.12E-01	9.19E-02	4.80E-02	2.94E-02	1.99E-02	1.44E-02	1.10E-02	9.30E-03	8.37E-03	7.62E-03
50	2.08E-01	9.01E-02	4.71E-02	2.88E-02	1.95E-02	1.42E-02	1.08E-02	9.12E-03	8.21E-03	7.47E-03

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APPENDIX A
VERIFICATION TABLES

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-22	4.93E-23	4.86E+23	4.15E+23	3.46E-23	2.93E+23	2.53E+23	2.16E-23	1.89E+22	1.67E+23
2	7.98E-21	2.46E+23	2.43E+23	2.07E+23	1.74E+23	1.47E+23	1.25E+23	1.08E-23	9.45E-21	8.34E-21
3	5.32E-21	1.64E+23	1.62E+23	1.38E+23	1.15E+23	9.77E-21	8.34E-21	7.20E-21	6.30E-21	5.56E-21
4	3.99E-21	1.23E+23	1.21E+23	1.04E+23	8.69E-21	7.33E-21	6.25E-21	5.40E-21	4.72E-21	4.17E-21
5	3.19E-21	9.86E-21	9.72E-21	8.33E-21	6.95E-21	5.86E-21	5.00E-21	4.33E-21	3.79E-21	3.34E-21
6	2.66E-21	8.22E-21	8.10E-21	6.92E-21	5.79E-21	4.88E-21	4.17E-21	3.60E-21	3.15E-21	2.78E-21
7	2.28E-21	7.24E-21	6.94E-21	5.93E-21	4.97E-21	4.19E-21	3.57E-21	3.29E-21	2.72E-21	2.38E-21
8	1.99E-21	6.16E-21	6.27E-21	5.19E-21	4.34E-21	3.66E-21	3.13E-21	2.73E-21	2.36E-21	2.09E-21
9	1.77E-21	5.48E-21	5.43E-21	4.61E-21	3.86E-21	3.26E-21	2.78E-21	2.42E-21	2.10E-21	1.85E-21
10	1.60E-21	4.93E-21	4.86E-21	4.15E-21	3.48E-21	2.93E-21	2.50E-21	2.16E-21	1.89E-21	1.67E-21
11	1.45E-21	4.48E-21	4.42E-21	3.77E-21	3.16E-21	2.66E-21	2.27E-21	1.96E-21	1.72E-21	1.52E-21
12	1.33E-21	4.11E-21	4.05E-21	3.46E-21	2.92E-21	2.44E-21	2.08E-21	1.80E-21	1.57E-21	1.39E-21
13	1.23E-21	3.79E-21	3.74E-21	3.19E-21	2.67E-21	2.25E-21	1.92E-21	1.66E-21	1.45E-21	1.29E-21
14	1.14E-21	3.52E-21	3.47E-21	2.96E-21	2.48E-21	2.09E-21	1.79E-21	1.54E-21	1.35E-21	1.19E-21
15	1.06E-21	3.29E-21	3.24E-21	2.77E-21	2.32E-21	1.95E-21	1.67E-21	1.44E-21	1.26E-21	1.11E-21
16	9.97E-22	3.09E-21	3.04E-21	2.59E-21	2.17E-21	1.83E-21	1.56E-21	1.35E-21	1.18E-21	1.04E-21
17	9.38E-22	2.92E-21	2.86E-21	2.44E-21	2.04E-21	1.72E-21	1.47E-21	1.27E-21	1.11E-21	9.82E-22
18	8.86E-22	2.76E-21	2.72E-21	2.31E-21	1.93E-21	1.63E-21	1.39E-21	1.20E-21	1.05E-21	9.27E-22
19	8.42E-22	2.59E-21	2.58E-21	2.19E-21	1.83E-21	1.54E-21	1.32E-21	1.14E-21	9.94E-22	8.78E-22
20	7.98E-22	2.48E-21	2.43E-21	2.07E-21	1.74E-21	1.47E-21	1.25E-21	1.08E-21	9.45E-22	8.34E-22
21	7.62E-22	2.35E-21	2.31E-21	1.98E-21	1.66E-21	1.40E-21	1.19E-21	1.03E-21	9.00E-22	7.95E-22
22	7.25E-22	2.24E-21	2.21E-21	1.89E-21	1.58E-21	1.33E-21	1.14E-21	9.82E-22	8.57E-22	7.58E-22
23	6.94E-22	2.14E-21	2.11E-21	1.80E-21	1.51E-21	1.27E-21	1.09E-21	9.39E-22	8.21E-22	7.26E-22
24	6.65E-22	2.05E-21	2.02E-21	1.73E-21	1.45E-21	1.22E-21	1.04E-21	9.02E-22	7.87E-22	6.95E-22
25	6.39E-22	1.97E-21	1.94E-21	1.66E-21	1.39E-21	1.17E-21	1.00E-21	8.64E-22	7.56E-22	6.67E-22
26	6.14E-22	1.90E-21	1.87E-21	1.60E-21	1.34E-21	1.13E-21	9.62E-22	8.31E-22	7.27E-22	6.42E-22
27	5.91E-22	1.83E-21	1.80E-21	1.54E-21	1.29E-21	1.09E-21	9.26E-22	8.00E-22	7.00E-22	6.18E-22
28	5.70E-22	1.76E-21	1.74E-21	1.49E-21	1.24E-21	1.05E-21	8.93E-22	7.72E-22	6.75E-22	5.96E-22
29	5.50E-22	1.70E-21	1.68E-21	1.43E-21	1.20E-21	1.01E-21	8.62E-22	7.45E-22	6.51E-22	5.75E-22
30	5.32E-22	1.64E-21	1.62E-21	1.38E-21	1.16E-21	9.77E-22	8.34E-22	7.20E-22	6.30E-22	5.56E-22
31	5.15E-22	1.59E-21	1.57E-21	1.34E-21	1.12E-21	9.45E-22	8.07E-22	6.97E-22	6.09E-22	5.38E-22
32	4.99E-22	1.54E-21	1.52E-21	1.30E-21	1.09E-21	9.16E-22	7.81E-22	6.75E-22	5.90E-22	5.21E-22
33	4.83E-22	1.49E-21	1.47E-21	1.26E-21	1.05E-21	8.88E-22	7.58E-22	6.55E-22	5.72E-22	5.06E-22
34	4.69E-22	1.45E-21	1.43E-21	1.22E-21	1.02E-21	8.62E-22	7.35E-22	6.36E-22	5.56E-22	4.91E-22
35	4.56E-22	1.41E-21	1.39E-21	1.19E-21	9.93E-22	8.37E-22	7.14E-22	6.17E-22	5.40E-22	4.77E-22
36	4.43E-22	1.37E-21	1.35E-21	1.15E-21	9.66E-22	8.14E-22	6.95E-22	6.02E-22	5.25E-22	4.64E-22
37	4.31E-22	1.33E-21	1.31E-21	1.12E-21	9.39E-22	7.92E-22	6.76E-22	5.84E-22	5.11E-22	4.51E-22
38	4.20E-22	1.30E-21	1.28E-21	1.09E-21	9.15E-22	7.71E-22	6.58E-22	5.69E-22	4.97E-22	4.39E-22
39	4.09E-22	1.26E-21	1.25E-21	1.06E-21	8.91E-22	7.51E-22	6.41E-22	5.54E-22	4.84E-22	4.28E-22
40	3.99E-22	1.23E-21	1.21E-21	1.04E-21	8.69E-22	7.33E-22	6.25E-22	5.40E-22	4.72E-22	4.17E-22
41	3.89E-22	1.20E-21	1.19E-21	1.01E-21	8.48E-22	7.15E-22	6.10E-22	5.27E-22	4.61E-22	4.07E-22
42	3.80E-22	1.17E-21	1.16E-21	9.88E-22	8.29E-22	6.98E-22	5.95E-22	5.14E-22	4.50E-22	3.97E-22
43	3.71E-22	1.15E-21	1.13E-21	9.65E-22	8.09E-22	6.81E-22	5.81E-22	5.03E-22	4.39E-22	3.88E-22
44	3.63E-22	1.12E-21	1.10E-21	9.43E-22	7.90E-22	6.66E-22	5.68E-22	4.91E-22	4.29E-22	3.79E-22
45	3.55E-22	1.10E-21	1.08E-21	9.22E-22	7.72E-22	6.51E-22	5.56E-22	4.80E-22	4.20E-22	3.71E-22
46	3.47E-22	1.07E-21	1.06E-21	9.02E-22	7.56E-22	6.37E-22	5.44E-22	4.70E-22	4.11E-22	3.63E-22
47	3.39E-22	1.05E-21	1.03E-21	8.83E-22	7.40E-22	6.23E-22	5.32E-22	4.60E-22	4.02E-22	3.55E-22
48	3.32E-22	1.03E-21	1.01E-21	8.65E-22	7.24E-22	6.10E-22	5.21E-22	4.50E-22	3.94E-22	3.48E-22
49	3.26E-22	1.01E-21	9.92E-22	8.47E-22	7.09E-22	5.98E-22	5.10E-22	4.41E-22	3.86E-22	3.41E-22
50	3.19E-22	9.86E-22	9.73E-22	8.30E-22	6.95E-22	5.86E-22	5.00E-22	4.32E-22	3.78E-22	3.34E-22

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APPENDIX A
VERIFICATION TABLES

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	4.58E-02	1.41E+22	2.66E+00	3.14E+22	3.23E+00	3.13E+02	2.98E-22	2.80E+22	2.62E-22	2.45E+02
2	2.29E-02	7.06E-01	1.33E-00	1.57E+20	1.61E+02	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	7.84E-01	8.05E-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	5.62E-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	4.96E-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	5.73E-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	3.23E-01	3.13E-01	2.98E-01	2.80E-01	2.62E-01	2.45E-01
11	4.16E-03	1.28E-01	2.42E-01	2.86E-01	2.92E-01	2.85E-01	2.71E-01	2.54E-01	2.38E-01	2.22E-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	1.09E-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	6.73E-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	6.43E-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	5.23E-02	9.86E-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	5.05E-02	9.52E-02	1.12E-01	1.15E-01	1.12E-01	1.06E-01	10.00E-02	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	4.56E-02	8.59E-02	1.01E-01	1.04E-01	1.01E-01	9.62E-02	9.03E-02	8.46E-02	7.92E-02
32	1.43E-03	4.42E-02	8.33E-02	9.83E-02	1.01E-01	9.80E-02	9.33E-02	8.75E-02	8.19E-02	7.67E-02
33	1.39E-03	4.28E-02	8.06E-02	9.53E-02	9.78E-02	9.50E-02	9.03E-02	8.48E-02	7.95E-02	7.44E-02
34	1.35E-03	4.16E-02	7.83E-02	9.25E-02	9.49E-02	9.22E-02	8.76E-02	8.23E-02	7.71E-02	7.22E-02
35	1.31E-03	4.04E-02	7.60E-02	8.98E-02	9.22E-02	8.95E-02	8.51E-02	8.00E-02	7.49E-02	7.01E-02
36	1.27E-03	3.93E-02	7.39E-02	8.73E-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	6.72E-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	6.46E-02
39	1.17E-03	3.63E-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	6.42E-02	5.99E-02
42	1.09E-03	3.36E-02	6.34E-02	7.49E-02	7.68E-02	7.46E-02	7.09E-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	6.99E-02	7.17E-02	6.97E-02	6.62E-02	6.22E-02	5.83E-02	5.45E-02
46	9.96E-04	3.07E-02	5.78E-02	6.84E-02	7.01E-02	6.81E-02	6.47E-02	6.09E-02	5.70E-02	5.34E-02
47	9.75E-04	3.01E-02	5.66E-02	6.69E-02	6.86E-02	6.67E-02	6.33E-02	5.96E-02	5.58E-02	5.22E-02
48	9.54E-04	2.94E-02	5.54E-02	6.55E-02	6.72E-02	6.53E-02	6.20E-02	5.83E-02	5.46E-02	5.11E-02
49	9.35E-04	2.88E-02	5.43E-02	6.42E-02	6.58E-02	6.40E-02	6.08E-02	5.71E-02	5.35E-02	5.01E-02
50	9.16E-04	2.83E-02	5.32E-02	6.29E-02	6.45E-02	6.27E-02	5.95E-02	5.60E-02	5.24E-02	4.91E-02

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APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

STACK LEVEL RELEASE
STABILITY CLASS F
NO PRECIPITATION
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	1.52E-01	3.79E-01	6.12E-01	8.18E-01	9.66E-01	1.22E+00	1.17E+00	1.23E-00
2	1.07E-06	9.64E-03	7.59E-02	1.89E-01	3.26E-01	4.82E-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	2.78E-01	3.22E-01	3.61E-01	3.89E-01	4.09E-01
4	5.37E-07	4.32E-03	3.79E-02	9.47E-02	1.53E-01	2.83E-01	2.41E-01	2.71E-01	2.92E-01	3.07E-01
5	4.29E-07	3.46E-03	3.03E-02	7.59E-02	1.22E-01	1.62E-01	1.93E-01	2.16E-01	2.33E-01	2.45E-01
6	3.58E-07	2.89E-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	9.02E-02	1.07E-01	1.20E-01	1.30E-01	1.36E-01
10	2.15E-07	1.73E-03	1.52E-02	3.79E-02	6.12E-02	8.18E-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	3.15E-02	5.10E-02	6.75E-02	8.03E-02	9.02E-02	9.72E-02	1.02E-01
13	1.65E-07	1.33E-03	1.17E-02	2.91E-02	4.71E-02	6.23E-02	7.43E-02	8.32E-02	8.98E-02	9.43E-02
14	1.53E-07	1.23E-03	1.08E-02	2.71E-02	4.37E-02	5.79E-02	6.90E-02	7.73E-02	8.33E-02	8.76E-02
15	1.43E-07	1.15E-03	1.01E-02	2.53E-02	4.08E-02	5.42E-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	2.23E-02	3.60E-02	4.77E-02	5.69E-02	6.37E-02	6.86E-02	7.21E-02
18	1.19E-07	9.63E-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	7.98E-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	8.23E-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	6.89E-03	1.72E-02	2.79E-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	5.33E-02
24	8.94E-08	7.20E-04	6.32E-03	1.58E-02	2.55E-02	3.38E-02	4.02E-02	4.51E-02	4.86E-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	8.26E-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	1.40E-02	2.27E-02	3.00E-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	4.02E-02	4.23E-02
30	7.15E-08	5.76E-04	5.05E-03	1.26E-02	2.04E-02	2.70E-02	3.22E-02	3.61E-02	3.89E-02	4.09E-02
31	6.92E-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	3.96E-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	3.65E-02	3.83E-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	3.54E-02	3.72E-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	5.96E-08	4.80E-04	4.21E-03	1.05E-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	2.92E-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	5.52E-08	4.43E-04	3.89E-03	9.71E-03	1.57E-02	2.08E-02	2.48E-02	2.77E-02	2.99E-02	3.14E-02
40	5.37E-08	4.33E-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	9.02E-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	1.89E-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	2.79E-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	3.76E-04	3.30E-03	8.24E-03	1.33E-02	1.76E-02	2.10E-02	2.35E-02	2.54E-02	2.67E-02
47	4.57E-08	3.68E-04	3.23E-03	8.06E-03	1.30E-02	1.72E-02	2.05E-02	2.30E-02	2.48E-02	2.61E-02
48	4.47E-08	3.62E-04	3.16E-03	7.89E-03	1.27E-02	1.69E-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	1.22E-02	1.62E-02	1.93E-02	2.16E-02	2.33E-02	2.45E-02

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APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS A
MILLIREM/HR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	4.58E+03	2.45E+03	1.72E+03	1.32E+03	1.32E+03	1.32E+03	1.32E+03	1.32E+03	1.32E+03	1.32E+03
2	2.29E+03	1.23E+03	8.58E+02	6.60E+02	6.60E+02	6.60E+02	6.60E+02	6.60E+02	6.60E+02	6.60E+02
3	1.53E+03	8.17E+02	5.67E+02	4.40E+02	4.40E+02	4.40E+02	4.40E+02	4.40E+02	4.40E+02	4.40E+02
4	1.15E+03	6.13E+02	4.25E+02	3.30E+02	3.30E+02	3.30E+02	3.30E+02	3.30E+02	3.30E+02	[illegible]
5	9.17E+02	4.90E+02	3.40E+02	2.64E+02	2.64E+02	2.64E+02	2.64E+02	2.64E+02	2.64E+02	[illegible]
6	7.64E+02	4.09E+02	2.83E+02	2.20E+02	2.20E+02	2.20E+02	2.20E+02	2.20E+02	2.20E+02	2.20E+02
7	6.55E+02	3.50E+02	2.43E+02	1.89E+02	1.89E+02	1.89E+02	1.89E+02	1.89E+02	1.89E+02	1.89E+02
8	5.73E+02	3.06E+02	2.13E+02	1.65E+02	1.65E+02	1.65E+02	1.65E+02	1.65E+02	1.65E+02	1.65E+02
9	5.09E+02	2.72E+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
10	4.58E+02	2.45E+02	1.70E+02	1.32E+02	1.32E+02	1.32E+02	1.32E+02	1.32E+02	1.32E+02	1.32E+02
11	4.17E+02	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
12	3.82E+02	2.04E+02	1.42E+02	1.10E+02	1.10E+02	1.10E+02	1.10E+02	1.10E+02	1.10E+02	1.10E+02
13	3.53E+02	1.89E+02	1.31E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02
14	3.27E+02	1.75E+02	1.21E+02	9.43E+01	9.43E+01	9.43E+01	9.43E+01	9.43E+01	9.43E+01	9.43E+01
15	3.06E+02	1.63E+02	1.13E+02	8.80E+01	8.80E+01	8.80E+01	8.80E+01	8.80E+01	8.80E+01	8.80E+01
16	2.86E+02	1.53E+02	1.06E+02	8.25E+01	8.25E+01	8.25E+01	8.25E+01	8.25E+01	8.25E+01	8.25E+01
17	2.70E+02	1.44E+02	1.00E+02	7.77E+01	7.77E+01	7.77E+01	7.77E+01	7.77E+01	7.77E+01	7.77E+01
18	2.55E+02	1.36E+02	9.45E+01	7.33E+01	7.33E+01	7.33E+01	7.33E+01	7.33E+01	7.33E+01	7.33E+01
19	2.41E+02	1.29E+02	8.95E+01	6.95E+01	6.95E+01	6.95E+01	6.95E+01	6.95E+01	6.95E+01	6.95E+01
20	2.29E+02	1.23E+02	8.50E+01	6.60E+01	6.60E+01	6.60E+01	6.60E+01	6.60E+01	6.60E+01	6.60E+01
21	2.18E+02	1.17E+02	8.10E+01	6.29E+01	6.29E+01	6.29E+01	6.29E+01	6.29E+01	6.29E+01	6.29E+01
22	2.08E+02	1.11E+02	7.73E+01	6.00E+01	6.00E+01	6.00E+01	6.00E+01	6.00E+01	6.00E+01	6.00E+01
23	1.99E+02	1.07E+02	7.39E+01	5.74E+01	5.74E+01	5.74E+01	5.74E+01	5.74E+01	5.74E+01	5.74E+01
24	1.91E+02	1.02E+02	7.08E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01
25	1.83E+02	9.81E+01	6.80E+01	5.28E+01	5.28E+01	5.28E+01	5.28E+01	5.28E+01	5.28E+01	5.28E+01
26	1.76E+02	9.43E+01	6.54E+01	5.08E+01	5.08E+01	5.08E+01	5.08E+01	5.08E+01	5.08E+01	5.08E+01
27	1.70E+02	9.08E+01	6.30E+01	4.89E+01	4.89E+01	4.89E+01	4.89E+01	4.89E+01	4.89E+01	4.89E+01
28	1.64E+02	8.76E+01	6.07E+01	4.71E+01	4.71E+01	4.71E+01	4.71E+01	4.71E+01	4.71E+01	4.71E+01
29	1.58E+02	8.45E+01	5.86E+01	4.55E+01	4.55E+01	4.55E+01	4.55E+01	4.55E+01	4.55E+01	4.55E+01
30	1.53E+02	8.17E+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
31	1.48E+02	7.91E+01	5.48E+01	4.26E+01	4.26E+01	4.26E+01	4.26E+01	4.26E+01	4.26E+01	4.26E+01
32	1.43E+02	7.66E+01	5.31E+01	4.13E+01	4.13E+01	4.13E+01	4.13E+01	4.13E+01	4.13E+01	4.13E+01
33	1.39E+02	7.43E+01	5.15E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01
34	1.35E+02	7.21E+01	5.00E+01	3.88E+01	3.88E+01	3.88E+01	3.88E+01	3.88E+01	3.88E+01	3.88E+01
35	1.31E+02	7.01E+01	4.86E+01	3.77E+01	3.77E+01	3.77E+01	3.77E+01	3.77E+01	3.77E+01	3.77E+01
36	1.27E+02	6.81E+01	4.72E+01	3.67E+01	3.67E+01	3.67E+01	3.67E+01	3.67E+01	3.67E+01	3.67E+01
37	1.24E+02	6.63E+01	4.60E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01
38	1.21E+02	6.45E+01	4.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01
39	1.18E+02	6.29E+01	4.36E+01	3.38E+01	3.38E+01	3.38E+01	3.38E+01	3.38E+01	3.38E+01	3.38E+01
40	1.15E+02	6.13E+01	4.25E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01
41	1.12E+02	5.98E+01	4.15E+01	3.22E+01	3.22E+01	3.22E+01	3.22E+01	3.22E+01	3.22E+01	3.22E+01
42	1.09E+02	5.84E+01	4.05E+01	3.14E+01	3.14E+01	3.14E+01	3.14E+01	3.14E+01	3.14E+01	3.14E+01
43	1.07E+02	5.70E+01	3.95E+01	3.07E+01	3.07E+01	3.07E+01	3.07E+01	3.07E+01	3.07E+01	3.07E+01
44	1.04E+02	5.57E+01	3.86E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01
45	1.02E+02	5.45E+01	3.78E+01	2.93E+01	2.93E+01	2.93E+01	2.93E+01	2.93E+01	2.93E+01	2.93E+01
46	9.96E+01	5.33E+01	3.70E+01	2.87E+01	2.87E+01	2.87E+01	2.87E+01	2.87E+01	2.87E+01	2.87E+01
47	9.75E+01	5.22E+01	3.62E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01
48	9.55E+01	5.11E+01	3.54E+01	2.75E+01	2.75E+01	2.75E+01	2.75E+01	2.75E+01	2.75E+01	2.75E+01
49	9.35E+01	5.00E+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
50	9.17E+01	4.90E+01	3.40E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS B
MILLIREM/HR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	3.29E+04	8.29E+03	3.69E+03	2.08E+03	1.43E+03	1.32E+03	1.32E+03	1.32E+03	1.32E+03	1.32E+03
2	1.64E+04	4.15E+03	1.85E+03	1.04E+03	7.13E+02	6.60E+02	6.60E+02	6.60E+02	6.60E+02	6.60E+02
3	1.10E+04	2.76E+03	1.23E+03	6.93E+02	4.75E+02	4.40E+02	4.40E+02	4.40E+02	4.40E+02	4.40E+02
4	8.21E+03	2.07E+03	9.24E+02	5.20E+02	3.56E+02	3.30E+02	3.30E+02	3.30E+02	3.30E+02	3.30E+02
5	6.57E+03	1.66E+03	7.39E+02	4.16E+02	2.85E+02	2.64E+02	2.64E+02	2.64E+02	2.64E+02	2.64E+02
6	5.48E+03	1.38E+03	6.16E+02	3.47E+02	2.38E+02	2.20E+02	2.20E+02	2.20E+02	2.20E+02	2.20E+02
7	4.69E+03	1.18E+03	5.28E+02	2.97E+02	2.04E+02	1.89E+02	1.89E+02	1.89E+02	1.89E+02	1.89E+02
8	4.11E+03	1.04E+03	4.62E+02	2.60E+02	1.78E+02	1.65E+02	1.65E+02	1.65E+02	1.65E+02	1.65E+02
9	3.65E+03	9.22E+02	4.10E+02	2.31E+02	1.58E+02	1.47E+02	1.47E+02	1.47E+02	1.47E+02	1.47E+02
10	3.29E+03	8.27E+02	3.69E+02	2.08E+02	1.43E+02	1.32E+02	1.32E+02	1.32E+02	1.32E+02	1.32E+02
11	2.99E+03	7.54E+02	3.36E+02	1.89E+02	1.30E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02
12	2.74E+03	6.91E+02	3.08E+02	1.73E+02	1.19E+02	1.10E+02	1.10E+02	1.10E+02	1.10E+02	1.10E+02
13	2.53E+03	6.38E+02	2.84E+02	1.60E+02	1.10E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02
14	2.35E+03	5.92E+02	2.64E+02	1.49E+02	1.02E+02	9.43E+01	9.43E+01	9.43E+01	9.43E+01	9.43E+01
15	2.19E+03	5.53E+02	2.46E+02	1.39E+02	9.50E+01	8.80E+01	8.80E+01	8.80E+01	8.80E+01	8.80E+01
16	2.05E+03	5.18E+02	2.31E+02	1.30E+02	8.91E+01	8.25E+01	8.25E+01	8.25E+01	8.25E+01	8.25E+01
17	1.93E+03	4.88E+02	2.17E+02	1.22E+02	8.38E+01	7.77E+01	7.77E+01	7.77E+01	7.77E+01	7.77E+01
18	1.83E+03	4.61E+02	2.05E+02	1.16E+02	7.92E+01	7.33E+01	7.33E+01	7.33E+01	7.33E+01	7.33E+01
19	1.73E+03	4.37E+02	1.94E+02	1.09E+02	7.50E+01	6.95E+01	6.95E+01	6.95E+01	6.95E+01	6.95E+01
20	1.64E+03	4.15E+02	1.85E+02	1.04E+02	7.13E+01	6.60E+01	6.60E+01	6.60E+01	6.60E+01	6.60E+01
21	1.56E+03	3.95E+02	1.76E+02	9.90E+01	6.79E+01	6.29E+01	6.29E+01	6.29E+01	6.29E+01	6.29E+01
22	1.49E+03	3.77E+02	1.68E+02	9.45E+01	6.48E+01	6.00E+01	6.00E+01	6.00E+01	6.00E+01	6.00E+01
23	1.43E+03	3.61E+02	1.61E+02	9.04E+01	6.20E+01	5.74E+01	5.74E+01	5.74E+01	5.74E+01	5.74E+01
24	1.37E+03	3.46E+02	1.54E+02	8.67E+01	5.94E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01
25	1.31E+03	3.32E+02	1.48E+02	8.32E+01	5.70E+01	5.28E+01	5.28E+01	5.28E+01	5.28E+01	5.28E+01
26	1.26E+03	3.19E+02	1.42E+02	8.00E+01	5.48E+01	5.08E+01	5.08E+01	5.08E+01	5.08E+01	5.08E+01
27	1.22E+03	3.07E+02	1.37E+02	7.70E+01	5.28E+01	4.89E+01	4.89E+01	4.89E+01	4.89E+01	4.89E+01
28	1.17E+03	2.96E+02	1.32E+02	7.43E+01	5.09E+01	4.71E+01	4.71E+01	4.71E+01	4.71E+01	4.71E+01
29	1.13E+03	2.86E+02	1.27E+02	7.17E+01	4.92E+01	4.55E+01	4.55E+01	4.55E+01	4.55E+01	4.55E+01
30	1.10E+03	2.76E+02	1.23E+02	6.93E+01	4.75E+01	4.40E+01	4.40E+01	4.40E+01	4.40E+01	4.40E+01
31	1.06E+03	2.68E+02	1.19E+02	6.71E+01	4.60E+01	4.26E+01	4.26E+01	4.26E+01	4.26E+01	4.26E+01
32	1.03E+03	2.59E+02	1.15E+02	6.50E+01	4.45E+01	4.13E+01	4.13E+01	4.13E+01	4.13E+01	4.13E+01
33	9.96E+02	2.51E+02	1.12E+02	6.30E+01	4.32E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01
34	9.66E+02	2.44E+02	1.09E+02	6.12E+01	4.19E+01	3.88E+01	3.88E+01	3.88E+01	3.88E+01	3.88E+01
35	9.39E+02	2.37E+02	1.06E+02	5.94E+01	4.07E+01	3.77E+01	3.77E+01	3.77E+01	3.77E+01	3.77E+01
36	9.13E+02	2.30E+02	1.03E+02	5.78E+01	3.96E+01	3.67E+01	3.67E+01	3.67E+01	3.67E+01	3.67E+01
37	8.88E+02	2.24E+02	9.99E+01	5.62E+01	3.85E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01
38	8.65E+02	2.18E+02	9.72E+01	5.47E+01	3.75E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01
39	8.42E+02	2.13E+02	9.47E+01	5.33E+01	3.65E+01	3.38E+01	3.38E+01	3.38E+01	3.38E+01	3.38E+01
40	8.21E+02	2.07E+02	9.24E+01	5.20E+01	3.56E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01
41	8.01E+02	2.02E+02	9.01E+01	5.07E+01	3.48E+01	3.22E+01	3.22E+01	3.22E+01	3.22E+01	3.22E+01
42	7.82E+02	1.97E+02	8.80E+01	4.95E+01	3.39E+01	3.14E+01	3.14E+01	3.14E+01	3.14E+01	3.14E+01
43	7.64E+02	1.93E+02	8.59E+01	4.84E+01	3.31E+01	3.07E+01	3.07E+01	3.07E+01	3.07E+01	3.07E+01
44	7.47E+02	1.88E+02	8.40E+01	4.73E+01	3.24E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01
45	7.30E+02	1.84E+02	8.21E+01	4.62E+01	3.17E+01	2.93E+01	2.93E+01	2.93E+01	2.93E+01	2.93E+01
46	7.14E+02	1.80E+02	8.03E+01	4.52E+01	3.10E+01	2.87E+01	2.87E+01	2.87E+01	2.87E+01	2.87E+01
47	6.99E+02	1.76E+02	7.86E+01	4.43E+01	3.03E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01
48	6.84E+02	1.73E+02	7.70E+01	4.33E+01	2.97E+01	2.75E+01	2.75E+01	2.75E+01	2.75E+01	2.75E+01
49	6.70E+02	1.69E+02	7.54E+01	4.24E+01	2.91E+01	2.69E+01	2.69E+01	2.69E+01	2.69E+01	2.69E+01
50	6.57E+02	1.66E+02	7.39E+01	4.16E+01	2.85E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS C
MILLIREM/HR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	7.14E+04	2.05E+04	9.85E+03	5.85E+03	3.98E+03	2.88E+03	2.12E+03	1.79E+03	1.61E+03	1.46E+03
2	3.57E+04	1.03E+04	4.92E+03	2.92E+03	1.95E+03	1.48E+03	1.06E+03	8.95E+02	8.04E+02	7.30E+02
3	2.38E+04	6.84E+03	3.28E+03	1.95E+03	1.30E+03	9.35E+02	7.07E+02	5.97E+02	5.36E+02	4.87E+02
4	1.79E+04	5.13E+03	2.46E+03	1.46E+03	9.76E+02	7.01E+02	5.30E+02	4.47E+02	4.02E+02	3.65E+02
5	1.43E+04	4.10E+03	1.97E+03	1.17E+03	7.81E+02	5.61E+02	4.24E+02	3.58E+02	3.22E+02	2.92E+02
6	1.19E+04	3.42E+03	1.64E+03	9.75E+02	6.51E+02	4.67E+02	3.53E+02	2.98E+02	2.68E+02	2.43E+02
7	1.02E+04	2.93E+03	1.41E+03	8.36E+02	5.58E+02	4.01E+02	3.03E+02	2.56E+02	2.30E+02	2.09E+02
8	8.93E+03	2.56E+03	1.23E+03	7.31E+02	4.88E+02	3.51E+02	2.65E+02	2.24E+02	2.01E+02	1.83E+02
9	7.93E+03	2.28E+03	1.09E+03	6.50E+02	4.34E+02	3.12E+02	2.36E+02	1.99E+02	1.79E+02	1.62E+02
10	7.14E+03	2.05E+03	9.85E+02	5.85E+02	3.90E+02	2.80E+02	2.12E+02	[illegible]	1.61E+02	1.46E+02
11	6.49E+03	1.86E+03	8.95E+02	5.32E+02	3.55E+02	2.55E+02	1.93E+02	1.63E+02	1.46E+02	1.33E+02
12	5.95E+03	1.71E+03	8.21E+02	4.87E+02	3.25E+02	2.34E+02	1.77E+02	1.49E+02	1.34E+02	1.22E+02
13	5.49E+03	1.58E+03	7.58E+02	4.50E+02	3.00E+02	2.16E+02	1.63E+02	1.38E+02	1.24E+02	1.12E+02
14	5.10E+03	1.46E+03	7.03E+02	4.18E+02	2.79E+02	2.00E+02	1.51E+02	1.28E+02	1.15E+02	1.04E+02
15	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
16	4.46E+03	1.28E+03	6.16E+02	3.66E+02	2.44E+02	1.75E+02	1.33E+02	1.12E+02	1.00E+02	9.13E+01
17	4.20E+03	1.21E+03	5.79E+02	3.44E+02	2.30E+02	1.65E+02	1.25E+02	1.05E+02	9.46E+01	8.59E+01
18	3.97E+03	1.14E+03	5.47E+02	3.25E+02	2.17E+02	1.56E+02	1.18E+02	9.94E+01	8.93E+01	8.11E+01
19	3.76E+03	1.08E+03	5.18E+02	3.08E+02	2.05E+02	1.48E+02	1.12E+02	9.42E+01	8.46E+01	7.69E+01
20	3.57E+03	1.03E+03	4.92E+02	2.92E+02	1.95E+02	1.40E+02	1.06E+02	8.95E+01	8.04E+01	7.30E+01
21	3.40E+03	9.77E+02	4.69E+02	2.79E+02	1.86E+02	1.34E+02	1.01E+02	8.52E+01	7.65E+01	6.95E+01
22	3.25E+03	9.32E+02	4.48E+02	2.66E+02	1.77E+02	1.27E+02	9.64E+01	8.13E+01	7.31E+01	6.64E+01
23	3.18E+03	8.92E+02	4.28E+02	2.54E+02	1.70E+02	1.22E+02	9.22E+01	7.78E+01	6.99E+01	6.35E+01
24	2.98E+03	8.55E+02	4.10E+02	2.44E+02	1.63E+02	1.17E+02	8.84E+01	7.46E+01	6.70E+01	6.09E+01
25	2.86E+03	8.20E+02	3.94E+02	2.34E+02	1.56E+02	1.12E+02	8.48E+01	7.16E+01	6.43E+01	5.84E+01
26	2.75E+03	7.89E+02	3.79E+02	2.25E+02	1.50E+02	1.08E+02	8.16E+01	6.88E+01	6.18E+01	5.62E+01
27	2.64E+03	7.60E+02	3.65E+02	2.17E+02	1.45E+02	1.04E+02	7.85E+01	6.63E+01	5.95E+01	5.41E+01
28	2.55E+03	7.32E+02	3.52E+02	2.09E+02	1.39E+02	1.00E+02	7.57E+01	6.39E+01	5.74E+01	5.22E+01
29	2.46E+03	7.07E+02	3.40E+02	2.02E+02	1.35E+02	9.67E+01	7.31E+01	6.17E+01	5.54E+01	5.04E+01
30	2.38E+03	6.84E+02	3.28E+02	1.95E+02	1.30E+02	9.35E+01	7.07E+01	5.97E+01	5.36E+01	4.87E+01
31	2.30E+03	6.62E+02	3.18E+02	1.89E+02	1.26E+02	9.05E+01	6.84E+01	5.77E+01	5.19E+01	4.71E+01
32	2.23E+03	6.41E+02	3.08E+02	1.83E+02	1.22E+02	8.76E+01	6.63E+01	5.59E+01	5.02E+01	4.56E+01
33	2.16E+03	6.21E+02	2.98E+02	1.77E+02	1.18E+02	8.50E+01	6.43E+01	5.42E+01	4.87E+01	4.43E+01
34	2.10E+03	6.03E+02	2.90E+02	1.72E+02	1.15E+02	8.25E+01	6.24E+01	5.26E+01	4.73E+01	4.30E+01
35	2.04E+03	5.86E+02	2.81E+02	1.67E+02	1.12E+02	8.01E+01	6.06E+01	5.11E+01	4.59E+01	4.17E+01
36	1.99E+03	5.70E+02	2.74E+02	1.62E+02	1.08E+02	7.79E+01	5.89E+01	4.97E+01	4.47E+01	4.06E+01
37	1.93E+03	5.54E+02	2.66E+02	1.58E+02	1.05E+02	7.58E+01	5.73E+01	4.84E+01	4.34E+01	3.95E+01
38	1.88E+03	5.40E+02	2.59E+02	1.54E+02	1.03E+02	7.38E+01	5.58E+01	4.71E+01	4.23E+01	3.84E+01
39	1.83E+03	5.26E+02	2.53E+02	1.50E+02	1.00E+02	7.19E+01	5.44E+01	4.59E+01	4.12E+01	3.74E+01
40	1.79E+03	5.13E+02	2.46E+02	1.46E+02	9.76E+01	7.01E+01	5.30E+01	4.47E+01	4.02E+01	3.65E+01
41	1.74E+03	5.02E+02	2.40E+02	1.43E+02	9.52E+01	6.84E+01	5.17E+01	4.36E+01	3.92E+01	3.56E+01
42	1.70E+03	4.88E+02	2.34E+02	1.39E+02	9.29E+01	6.68E+01	5.05E+01	4.26E+01	3.83E+01	3.48E+01
43	1.66E+03	4.77E+02	2.29E+02	1.36E+02	9.08E+01	6.52E+01	4.93E+01	4.16E+01	3.74E+01	3.40E+01
44	1.62E+03	4.66E+02	2.24E+02	1.33E+02	8.87E+01	6.37E+01	4.82E+01	4.07E+01	3.65E+01	3.32E+01
45	1.59E+03	4.56E+02	2.19E+02	1.30E+02	8.67E+01	6.23E+01	4.71E+01	3.98E+01	3.57E+01	3.25E+01
46	1.55E+03	4.46E+02	2.14E+02	1.27E+02	8.49E+01	6.10E+01	4.61E+01	3.89E+01	3.49E+01	3.17E+01
47	1.52E+03	4.36E+02	2.10E+02	1.24E+02	8.30E+01	5.97E+01	4.51E+01	3.81E+01	3.42E+01	3.11E+01
48	1.49E+03	4.27E+02	2.05E+02	1.22E+02	8.13E+01	5.84E+01	4.43E+01	3.73E+01	3.35E+01	3.04E+01
49	1.46E+03	4.19E+02	2.01E+02	1.19E+02	7.97E+01	5.72E+01	4.33E+01	3.65E+01	3.28E+01	2.98E+01
50	1.43E+03	4.10E+02	1.97E+02	1.17E+02	7.81E+01	5.61E+01	4.24E+01	3.58E+01	3.22E+01	2.92E+01

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS D
MILLIREM/HR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.70E+05	6.95E+04	4.05E+04	2.74E+04	2.02E+04	1.57E+04	1.27E+24	1.05E+04	8.92E+03	7.72E+03
2	8.48E+04	3.47E+04	2.02E+04	1.37E+04	1.01E+04	7.85E+03	6.33E+03	5.26E+03	4.46E+03	3.85E+03
3	5.66E+04	2.32E+04	1.35E+04	9.13E+03	6.73E+03	5.23E+03	4.22E+03	3.51E+03	2.97E+03	2.57E+03
4	4.24E+04	1.74E+04	1.01E+04	6.85E+03	5.05E+03	3.92E+03	3.17E+03	2.63E+03	2.23E+03	1.92E+03
5	3.56E+04	1.43E+04	8.28E+03	5.58E+03	4.10E+03	3.18E+03	2.56E+03	2.13E+03	1.80E+03	1.55E+03
6	3.20E+04	1.25E+04	7.14E+03	4.78E+03	3.49E+03	2.70E+03	2.17E+03	1.80E+03	1.52E+03	1.31E+03
7	2.92E+04	1.11E+04	6.29E+03	4.19E+03	3.05E+03	2.35E+03	1.89E+03	1.56E+03	1.32E+03	1.13E+03
8	2.72E+04	1.01E+04	5.63E+03	3.73E+03	2.71E+03	2.08E+03	1.67E+03	1.38E+03	1.16E+03	1.00E+03
9	2.51E+04	9.17E+03	5.12E+03	3.36E+03	2.43E+03	1.87E+03	1.50E+03	1.24E+03	1.04E+03	8.95E+02
10	2.34E+04	8.44E+03	4.74E+03	3.06E+03	2.21E+03	1.70E+03	1.36E+03	1.12E+03	9.44E+02	8.10E+02
11	2.21E+04	7.82E+03	4.29E+03	2.81E+03	2.03E+03	1.55E+03	1.24E+03	1.02E+03	8.62E+02	7.40E+02
12	2.08E+04	7.29E+03	3.98E+03	2.60E+03	1.87E+03	1.43E+03	1.14E+03	9.42E+02	7.94E+02	6.81E+02
13	1.98E+04	6.75E+03	3.69E+03	2.41E+03	1.74E+03	1.33E+03	1.06E+03	8.73E+02	7.35E+02	6.31E+02
14	1.77E+04	6.27E+03	3.43E+03	2.24E+03	1.61E+03	1.23E+03	9.85E+02	8.11E+02	6.83E+02	5.86E+02
15	1.65E+04	5.85E+03	3.20E+03	2.09E+03	1.51E+03	1.15E+03	9.20E+02	7.57E+02	6.37E+02	5.47E+02
16	1.55E+04	5.48E+03	3.00E+03	1.96E+03	1.41E+03	1.08E+03	8.63E+02	7.09E+02	5.97E+02	5.12E+02
17	1.46E+04	5.16E+03	2.82E+03	1.85E+03	1.33E+03	1.02E+03	8.11E+02	6.68E+02	5.62E+02	4.82E+02
18	1.38E+04	4.87E+03	2.67E+03	1.74E+03	1.26E+03	9.62E+02	7.66E+02	6.31E+02	5.31E+02	4.55E+02
19	1.32E+04	4.62E+03	2.53E+03	1.65E+03	1.19E+03	9.10E+02	7.26E+02	5.97E+02	5.03E+02	4.32E+02
20	1.24E+04	4.39E+03	2.40E+03	1.57E+03	1.13E+03	8.64E+02	6.90E+02	5.68E+02	4.78E+02	4.10E+02
21	1.19E+04	4.18E+03	2.29E+03	1.49E+03	1.08E+03	8.23E+02	6.57E+02	5.40E+02	4.55E+02	3.90E+02
22	1.13E+04	3.99E+03	2.18E+03	1.43E+03	1.03E+03	7.86E+02	6.27E+02	5.16E+02	4.34E+02	3.73E+02
23	1.08E+04	3.81E+03	2.09E+03	1.36E+03	9.80E+02	7.52E+02	6.00E+02	4.93E+02	4.16E+02	3.56E+02
24	1.03E+04	3.66E+03	2.00E+03	1.31E+03	9.41E+02	7.22E+02	5.75E+02	4.73E+02	3.99E+02	3.42E+02
25	9.90E+03	3.51E+03	1.92E+03	1.26E+03	9.04E+02	6.92E+02	5.52E+02	4.54E+02	3.82E+02	3.28E+02
26	9.52E+03	3.37E+03	1.85E+03	1.21E+03	8.69E+02	6.65E+02	5.31E+02	4.37E+02	3.68E+02	3.15E+02
27	9.17E+03	3.25E+03	1.78E+03	1.16E+03	8.37E+02	6.42E+02	5.11E+02	4.20E+02	3.54E+02	3.04E+02
28	8.84E+03	3.13E+03	1.71E+03	1.12E+03	8.07E+02	6.17E+02	4.93E+02	4.05E+02	3.41E+02	2.93E+02
29	8.54E+03	3.03E+03	1.66E+03	1.08E+03	7.79E+02	5.96E+02	4.76E+02	3.91E+02	3.30E+02	2.83E+02
30	8.25E+03	2.92E+03	1.60E+03	1.05E+03	7.53E+02	5.76E+02	4.60E+02	3.78E+02	3.19E+02	2.73E+02
31	7.98E+03	2.83E+03	1.55E+03	1.01E+03	7.29E+02	5.58E+02	4.45E+02	3.66E+02	3.08E+02	2.64E+02
32	7.74E+03	2.74E+03	1.50E+03	9.81E+02	7.06E+02	5.40E+02	4.31E+02	3.55E+02	2.99E+02	2.56E+02
33	7.50E+03	2.66E+03	1.45E+03	9.51E+02	6.85E+02	5.24E+02	4.18E+02	3.44E+02	2.90E+02	2.48E+02
34	7.28E+03	2.58E+03	1.41E+03	9.23E+02	6.64E+02	5.08E+02	4.06E+02	3.34E+02	2.81E+02	2.41E+02
35	7.07E+03	2.51E+03	1.37E+03	8.97E+02	6.45E+02	4.94E+02	3.94E+02	3.24E+02	2.73E+02	2.34E+02
36	6.88E+03	2.44E+03	1.33E+03	8.72E+02	6.28E+02	4.80E+02	3.83E+02	3.15E+02	2.66E+02	2.28E+02
37	6.69E+03	2.37E+03	1.32E+03	8.48E+02	6.11E+02	4.67E+02	3.73E+02	3.07E+02	2.58E+02	2.22E+02
38	6.51E+03	2.31E+03	1.26E+03	8.26E+02	5.95E+02	4.55E+02	3.63E+02	2.99E+02	2.52E+02	2.16E+02
39	6.35E+03	2.25E+03	1.23E+03	8.05E+02	5.79E+02	4.43E+02	3.54E+02	2.91E+02	2.45E+02	2.10E+02
40	6.19E+03	2.19E+03	1.20E+03	7.84E+02	5.65E+02	4.32E+02	3.45E+02	2.84E+02	2.39E+02	2.05E+02
41	6.04E+03	2.14E+03	1.17E+03	7.65E+02	5.51E+02	4.22E+02	3.36E+02	2.77E+02	2.33E+02	2.00E+02
42	5.89E+03	2.09E+03	1.14E+03	7.47E+02	5.38E+02	4.12E+02	3.28E+02	2.70E+02	2.28E+02	1.95E+02
43	5.76E+03	2.04E+03	1.12E+03	7.30E+02	5.25E+02	4.02E+02	3.21E+02	2.64E+02	2.22E+02	1.91E+02
44	5.63E+03	1.99E+03	1.09E+03	7.13E+02	5.13E+02	3.93E+02	3.14E+02	2.58E+02	2.17E+02	1.86E+02
45	5.52E+03	1.95E+03	1.07E+03	6.97E+02	5.02E+02	3.84E+02	3.07E+02	2.52E+02	2.12E+02	1.82E+02
46	5.39E+03	1.91E+03	1.04E+03	6.82E+02	4.91E+02	3.76E+02	3.00E+02	2.47E+02	2.08E+02	1.78E+02
47	5.27E+03	1.87E+03	1.02E+03	6.68E+02	4.81E+02	3.68E+02	2.94E+02	2.41E+02	2.03E+02	1.74E+02
48	5.16E+03	1.83E+03	1.00E+03	6.54E+02	4.71E+02	3.60E+02	2.87E+02	2.36E+02	1.99E+02	1.71E+02
49	5.05E+03	1.79E+03	9.80E+02	6.40E+02	4.61E+02	3.53E+02	2.82E+02	2.32E+02	1.95E+02	1.67E+02
50	4.95E+03	1.75E+03	9.60E+02	6.28E+02	4.52E+02	3.46E+02	2.76E+02	2.27E+02	1.91E+02	1.64E+02

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS E
MILLIREM/HR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	2.59E+05	1.21E+05	7.69E+04	5.53E+04	4.26E+04	3.43E+04	2.86E+04	2.44E+04	2.11E+04	1.86E+04
2	1.38E+05	6.87E+04	3.85E+04	2.76E+04	2.13E+04	1.72E+04	1.43E+04	1.22E+24	1.06E+04	9.38E+03
3	8.64E+04	4.05E+04	2.56E+04	1.84E+04	1.42E+04	1.14E+04	9.53E+03	8.12E+03	7.04E+03	6.28E+03
4	6.48E+04	3.03E+04	1.92E+04	1.38E+04	1.06E+04	8.59E+03	7.14E+03	6.09E+03	5.28E+03	4.65E+03
5	5.64E+04	2.58E+04	1.61E+04	1.15E+04	8.79E+03	7.06E+03	5.86E+03	4.98E+03	4.31E+03	3.79E+03
6	5.38E+04	2.35E+04	1.44E+04	1.01E+04	7.68E+03	6.13E+03	5.06E+03	4.29E+03	3.70E+03	3.25E+03
7	5.14E+04	2.16E+04	1.38E+04	9.03E+03	6.82E+03	5.42E+03	4.46E+03	3.76E+03	3.24E+03	2.84E+03
8	4.92E+04	2.02E+04	1.18E+04	8.17E+03	6.13E+03	4.85E+03	3.98E+03	3.35E+03	2.88E+03	2.52E+03
9	4.71E+04	1.86E+04	1.09E+04	7.45E+03	5.57E+03	4.39E+03	3.60E+03	3.02E+03	2.60E+03	2.27E+03
10	4.53E+04	1.74E+04	1.00E+04	6.85E+03	5.10E+03	4.01E+03	3.28E+03	2.75E+03	2.36E+03	2.06E+03
11	4.35E+04	1.63E+04	9.35E+03	6.34E+03	4.70E+03	3.69E+03	3.01E+03	2.53E+03	2.17E+03	1.89E+03
12	4.04E+04	1.53E+04	8.74E+03	5.90E+03	4.37E+03	3.42E+03	2.79E+03	2.34E+03	2.00E+03	1.74E+03
13	3.73E+04	1.41E+04	8.08E+03	5.47E+03	4.05E+03	3.17E+03	2.58E+03	2.17E+03	1.85E+03	1.61E+03
14	3.46E+04	1.31E+04	7.51E+03	5.08E+03	3.76E+03	2.95E+03	2.40E+03	2.01E+03	1.72E+03	1.50E+03
15	3.23E+04	1.22E+04	7.01E+03	4.74E+03	3.51E+03	2.75E+03	2.24E+03	1.88E+03	1.61E+03	1.40E+03
16	3.03E+04	1.15E+04	6.57E+03	4.44E+03	3.29E+03	2.58E+03	2.10E+03	1.76E+03	1.51E+03	1.31E+03
17	2.85E+04	1.08E+04	6.18E+03	4.18E+03	3.10E+03	2.43E+03	1.98E+03	1.66E+03	1.42E+03	1.23E+03
18	2.69E+04	1.02E+04	5.84E+03	3.95E+03	2.92E+03	2.29E+03	1.87E+03	1.56E+03	1.34E+03	1.17E+03
19	2.55E+04	9.67E+03	5.53E+03	3.74E+03	2.77E+03	2.17E+03	1.77E+03	1.48E+03	1.27E+03	1.10E+03
20	2.43E+04	9.19E+03	5.26E+03	3.55E+03	2.63E+03	2.06E+03	1.68E+03	1.41E+03	1.21E+03	1.05E+03
21	2.31E+04	8.75E+03	5.00E+03	3.38E+03	2.51E+03	1.96E+03	1.60E+03	1.34E+03	1.15E+03	10.00E+02
22	2.20E+04	8.35E+03	4.78E+03	3.23E+03	2.39E+03	1.87E+03	1.53E+03	1.28E+03	1.10E+03	9.54E+02
23	2.11E+04	7.99E+23	4.57E+03	3.09E+03	2.29E+03	1.79E+03	1.46E+03	1.22E+03	1.05E+03	9.13E+02
24	2.02E+04	7.65E+03	4.38E+03	2.96E+03	2.19E+03	1.72E+03	1.40E+03	1.17E+03	1.00E+03	8.75E+02
25	1.94E+04	7.35E+03	4.20E+03	2.84E+03	2.11E+03	1.65E+03	1.34E+03	1.13E+03	9.64E+02	8.40E+02
26	1.87E+04	7.07E+03	4.04E+03	2.73E+03	2.02E+03	1.59E+03	1.29E+03	1.08E+03	9.27E+02	8.07E+02
27	1.80E+04	6.82E+03	3.89E+03	2.63E+03	1.95E+03	1.53E+03	1.24E+03	1.04E+03	8.93E+02	7.78E+02
28	1.73E+04	6.56E+03	3.79E+03	2.54E+03	1.88E+03	1.47E+03	1.20E+03	1.01E+03	8.61E+02	7.50E+02
29	1.67E+04	6.33E+03	3.62E+03	2.45E+03	1.81E+03	1.42E+03	1.16E+03	9.71E+02	8.31E+02	7.24E+02
30	1.62E+04	6.12E+03	3.50E+03	2.37E+03	1.75E+03	1.37E+03	1.12E+03	9.39E+02	8.04E+02	7.00E+02
31	1.56E+04	5.93E+03	3.39E+03	2.29E+03	1.70E+03	1.33E+03	1.09E+03	9.08E+02	7.78E+02	6.77E+02
32	1.52E+24	5.74E+03	3.28E+03	2.22E+03	1.64E+03	1.29E+03	1.05E+03	8.80E+02	7.53E+02	6.56E+02
33	1.47E+04	5.57E+03	3.18E+03	2.15E+03	1.59E+03	1.25E+03	1.02E+03	8.53E+02	7.31E+02	6.36E+02
34	1.43E+24	5.40E+03	3.09E+03	2.09E+03	1.55E+03	1.21E+03	9.88E+02	8.28E+02	7.09E+02	6.17E+02
35	1.39E+24	5.25E+03	3.00E+03	2.03E+03	1.50E+03	1.18E+03	9.60E+02	8.05E+02	6.89E+02	6.00E+02
36	1.35E+24	5.10E+03	2.92E+03	1.97E+03	1.46E+03	1.15E+03	9.33E+02	7.82E+02	6.70E+02	5.83E+02
37	1.31E+24	4.97E+03	2.84E+03	1.92E+03	1.42E+03	1.11E+03	9.09E+02	7.61E+02	6.52E+02	5.67E+02
38	1.28E+24	4.83E+03	2.77E+03	1.87E+03	1.39E+03	1.09E+03	8.84E+02	7.41E+02	6.34E+02	5.52E+02
39	1.24E+24	4.71E+03	2.69E+03	1.82E+03	1.35E+03	1.06E+03	8.62E+02	7.22E+02	6.18E+02	5.38E+02
40	1.21E+24	4.59E+03	2.63E+03	1.78E+03	1.32E+03	1.03E+03	8.40E+02	7.04E+02	6.03E+02	5.25E+02
41	1.18E+24	4.48E+03	2.56E+03	1.73E+03	1.28E+03	1.01E+03	8.20E+02	6.87E+02	5.88E+02	5.12E+02
42	1.15E+24	4.37E+03	2.50E+03	1.69E+03	1.25E+03	9.82E+02	8.02E+02	6.70E+02	5.74E+02	5.00E+02
43	1.13E+24	4.27E+03	2.44E+03	1.65E+03	1.22E+03	9.59E+02	7.81E+02	6.55E+02	5.61E+02	4.88E+02
44	1.10E+24	4.18E+03	2.39E+03	1.62E+03	1.20E+03	9.37E+02	7.64E+02	6.40E+02	5.48E+02	4.77E+02
45	1.08E+24	4.08E+03	2.34E+03	1.58E+03	1.17E+03	9.17E+02	7.47E+02	6.26E+02	5.36E+02	4.67E+02
46	1.05E+24	3.99E+03	2.28E+03	1.55E+03	1.14E+03	8.97E+02	7.33E+02	6.12E+02	5.24E+02	4.56E+02
47	1.03E+24	3.91E+03	2.24E+03	1.51E+03	1.12E+03	8.78E+02	7.15E+02	5.99E+02	5.13E+02	4.47E+02
48	1.01E+24	3.83E+03	2.19E+03	1.48E+03	1.10E+03	8.59E+02	7.00E+02	5.87E+02	5.02E+02	4.37E+02
49	9.98E+03	3.75E+03	2.14E+03	1.45E+03	1.07E+03	8.42E+02	6.86E+02	5.75E+02	4.92E+02	4.28E+02
50	9.78E+03	3.67E+03	2.10E+03	1.42E+03	1.05E+03	8.25E+02	6.72E+02	5.63E+02	4.82E+02	4.20E+02

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS F
MILLIREM/HR PER CURIE/SEC OF IODINE RELEASED

UPPER WIND SPEED (MPH)	DOWNWIND DISTANCE FROM THE PLANT									
	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	4.57E+05	2.34E+05	1.57E+05	1.17E+05	9.31E+04	7.69E+04	6.53E+04	5.65E+04	4.98E+04	4.44E+04
2	2.29E+05	1.17E+05	7.85E+04	5.86E+04	4.66E+04	3.84E+04	3.26E+04	2.83E+04	2.49E+04	2.22E+04
3	1.52E+05	7.80E+04	5.23E+04	3.91E+04	3.10E+04	2.56E+04	2.18E+04	1.88E+04	1.66E+04	1.48E+04
4	1.14E+05	5.85E+04	3.92E+04	2.93E+04	2.33E+04	1.92E+04	1.63E+04	1.41E+04	1.24E+04	1.11E+04
5	1.82E+05	5.89E+04	3.36E+04	2.48E+04	1.95E+04	1.62E+04	1.36E+04	1.17E+04	1.03E+04	9.14E+03
6	1.82E+05	4.82E+04	3.09E+04	2.25E+04	1.75E+04	1.42E+04	1.19E+04	1.03E+04	8.96E+03	7.94E+03
7	1.81E+05	4.55E+04	2.85E+04	2.04E+04	1.58E+04	1.27E+04	1.06E+04	9.18E+03	7.93E+03	7.01E+03
8	9.96E+04	4.38E+04	2.64E+04	1.87E+04	1.43E+04	1.15E+04	9.59E+03	8.18E+03	7.11E+03	6.27E+03
9	9.78E+04	4.06E+04	2.46E+04	1.73E+04	1.31E+04	1.05E+04	8.73E+03	7.42E+03	6.43E+03	5.67E+03
10	9.58E+04	3.85E+04	2.29E+04	1.60E+04	1.21E+04	9.66E+03	7.99E+03	6.78E+03	5.87E+03	5.17E+03
11	8.78E+04	3.64E+04	2.15E+04	1.49E+04	1.12E+04	8.93E+03	7.37E+03	6.25E+03	5.40E+03	4.75E+03
12	8.05E+04	3.34E+04	1.99E+04	1.38E+04	1.04E+04	8.27E+03	6.82E+03	5.78E+03	5.00E+03	4.39E+03
13	7.43E+04	3.08E+04	1.83E+04	1.27E+04	9.60E+03	7.64E+03	6.30E+03	5.34E+03	4.61E+03	4.05E+03
14	6.90E+04	2.86E+04	1.70E+04	1.18E+04	8.91E+03	7.09E+03	5.85E+03	4.96E+03	4.28E+03	3.76E+03
15	6.44E+04	2.67E+04	1.59E+04	1.10E+04	8.32E+03	6.62E+03	5.46E+03	4.63E+03	4.00E+03	3.51E+03
16	6.04E+04	2.50E+04	1.49E+04	1.03E+04	7.80E+03	6.20E+03	5.12E+03	4.34E+03	3.75E+03	3.29E+03
17	5.68E+04	2.36E+04	1.40E+04	9.73E+03	7.34E+03	5.84E+03	4.82E+03	4.08E+03	3.53E+03	3.10E+03
18	5.37E+04	2.22E+04	1.32E+04	9.19E+03	6.93E+03	5.51E+03	4.55E+03	3.85E+03	3.33E+03	2.93E+03
19	5.09E+04	2.11E+04	1.25E+04	8.70E+03	6.57E+03	5.22E+03	4.31E+03	3.65E+03	3.16E+03	2.77E+03
20	4.83E+04	2.00E+04	1.19E+04	8.27E+03	6.24E+03	4.96E+03	4.09E+03	3.47E+03	3.00E+03	2.63E+03
21	4.60E+04	1.91E+04	1.14E+04	7.87E+03	5.94E+03	4.73E+03	3.90E+03	3.30E+03	2.86E+03	2.51E+03
22	4.39E+04	1.82E+04	1.08E+04	7.52E+03	5.67E+03	4.51E+03	3.72E+03	3.15E+03	2.73E+03	2.39E+03
23	4.20E+04	1.74E+04	1.04E+04	7.19E+03	5.42E+03	4.32E+03	3.56E+03	3.02E+03	2.61E+03	2.29E+03
24	4.02E+04	1.67E+04	9.93E+03	6.89E+03	5.20E+03	4.14E+03	3.41E+03	2.89E+03	2.50E+03	2.19E+03
25	3.86E+04	1.60E+04	9.53E+03	6.61E+03	4.99E+03	3.97E+03	3.28E+03	2.79E+03	2.40E+03	2.11E+03
26	3.71E+04	1.54E+04	9.17E+03	6.36E+03	4.80E+03	3.82E+03	3.15E+03	2.67E+03	2.31E+03	2.03E+03
27	3.59E+04	1.48E+04	8.83E+03	6.12E+03	4.62E+03	3.68E+03	3.03E+03	2.57E+03	2.22E+03	1.95E+03
28	3.45E+04	1.43E+04	8.51E+03	5.91E+03	4.46E+03	3.55E+03	2.92E+03	2.48E+03	2.14E+03	1.89E+03
29	3.33E+04	1.39E+04	8.22E+03	5.70E+03	4.30E+03	3.42E+03	2.82E+03	2.39E+03	2.07E+03	1.82E+03
30	3.22E+04	1.33E+04	7.95E+03	5.51E+03	4.16E+03	3.31E+03	2.73E+03	2.31E+03	2.00E+03	1.76E+03
31	3.12E+04	1.29E+04	7.69E+03	5.33E+03	4.02E+03	3.20E+03	2.64E+03	2.24E+03	1.93E+03	1.70E+03
32	3.02E+04	1.25E+04	7.45E+03	5.17E+03	3.90E+03	3.10E+03	2.56E+03	2.17E+03	1.87E+03	1.65E+03
33	2.93E+04	1.21E+04	7.22E+03	5.01E+03	3.73E+03	3.01E+03	2.48E+03	2.10E+03	1.82E+03	1.60E+03
34	2.84E+04	1.18E+04	7.01E+03	4.86E+03	3.67E+03	2.92E+03	2.41E+03	2.04E+03	1.76E+03	1.55E+03
35	2.76E+04	1.14E+04	6.81E+03	4.72E+03	3.56E+03	2.84E+03	2.34E+03	1.98E+03	1.71E+03	1.50E+03
36	2.68E+04	1.11E+04	6.62E+03	4.59E+03	3.47E+03	2.76E+03	2.27E+03	1.93E+03	1.67E+03	1.46E+03
37	2.61E+04	1.08E+04	6.44E+03	4.47E+03	3.37E+03	2.68E+03	2.21E+03	1.88E+03	1.62E+03	1.42E+03
38	2.54E+04	1.05E+04	6.27E+03	4.35E+03	3.28E+03	2.61E+03	2.16E+03	1.83E+03	1.58E+03	1.39E+03
39	2.48E+04	1.03E+04	6.11E+03	4.24E+03	3.20E+03	2.55E+03	2.10E+03	1.79E+03	1.54E+03	1.35E+03
40	2.41E+04	1.00E+04	5.96E+03	4.13E+03	3.12E+03	2.48E+03	2.05E+03	1.73E+03	1.50E+03	1.32E+03
41	2.36E+04	9.77E+03	5.81E+03	4.03E+03	3.04E+03	2.42E+03	2.00E+03	1.69E+03	1.46E+03	1.28E+03
42	2.30E+04	9.53E+03	5.68E+03	3.94E+03	2.97E+03	2.36E+03	1.95E+03	1.65E+03	1.43E+03	1.25E+03
43	2.25E+04	9.31E+03	5.54E+03	3.85E+03	2.90E+03	2.31E+03	1.90E+03	1.61E+03	1.39E+03	1.22E+03
44	2.19E+04	9.10E+03	5.42E+03	3.76E+03	2.84E+03	2.26E+03	1.86E+03	1.58E+03	1.36E+03	1.20E+03
45	2.15E+04	8.90E+03	5.30E+03	3.67E+03	2.77E+03	2.21E+03	1.82E+03	1.54E+03	1.33E+03	1.17E+03
46	2.10E+04	8.70E+03	5.18E+03	3.59E+03	2.71E+03	2.16E+03	1.78E+03	1.51E+03	1.30E+03	1.14E+03
47	2.05E+04	8.52E+03	5.07E+03	3.52E+03	2.65E+03	2.11E+03	1.74E+03	1.48E+03	1.28E+03	1.12E+03
48	2.01E+04	8.34E+03	4.97E+03	3.45E+03	2.60E+03	2.07E+03	1.71E+03	1.45E+03	1.25E+03	1.10E+03
49	1.97E+04	8.17E+03	4.86E+03	3.37E+03	2.55E+03	2.03E+03	1.67E+03	1.42E+03	1.22E+03	1.07E+03
50	1.93E+04	8.01E+03	4.77E+03	3.31E+03	2.50E+03	1.99E+03	1.64E+03	1.39E+03	1.20E+03	1.05E+03

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS A

MILLIREM/HOUR PER CURIE/SEC OF NOBLE GASES RELEASED

DOWNWIND DISTANCE FROM PLANT

SPEED (MPH)	1 MI	2 MI	3 MI	4 MI	5 MI	6 MI	7 MI	8 MI	9 MI	10 MI
1	1.1825	0.6326	0.4387	0.3486	0.3486	0.3486	0.3486	0.3486	0.3486	0.3486
2	0.5913	0.3163	0.2194	0.1783	0.1783	0.1783	0.1783	0.1783	0.1783	0.1783
3	0.3942	0.2109	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	0.0088	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068	0.0068

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS B

MILLIREM/YEAR 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	8.4764	2.1399	0.9532	0.5367	0.3678	0.3486	0.3486	0.3486	0.3486	0.3486
2	4.2382	1.0700	0.4766	0.2683	0.1839	0.1783	0.1783	0.1783	0.1783	0.1783
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	0.4282	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	0.3057	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	0.4238	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	0.0128	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	0.0068	0.0068	0.0068	0.0068	0.0068

manual set

APPENDIX A
VERIFICATION TABLES

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	18.4241	5.2916	2.5412	1.5891	1.0871	0.7236	0.5472	0.4617	0.4148	0.3768
2	9.2128	2.6458	1.2706	0.7946	0.5436	0.3618	0.2736	0.2309	0.2074	0.1884
3	6.1414	1.7639	0.8471	0.5298	0.3257	0.2412	0.1824	0.1539	0.1383	0.1256
4	4.6060	1.3229	0.6353	0.3973	0.2518	0.1809	0.1368	0.1154	0.1037	0.0942
5	3.6848	1.0583	0.5082	0.3178	0.2014	0.1447	0.1094	0.0923	0.0830	0.0754
6	3.0707	0.8819	0.4235	0.2515	0.1679	0.1206	0.0912	0.0770	0.0691	0.0628
7	2.6320	0.7559	0.3630	0.2156	0.1439	0.1034	0.0782	0.0660	0.0593	0.0538
8	2.3030	0.6615	0.3176	0.1886	0.1259	0.0905	0.0684	0.0577	0.0518	0.0471
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	0.4070	0.1955	0.1161	0.0775	0.0557	0.0421	0.0355	0.0319	0.0290
14	1.3160	0.3780	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	0.0309	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	1.0838	0.3113	0.1495	0.0888	0.0592	0.0426	0.0322	0.0272	0.0244	0.0222
18	1.0236	0.2940	0.1412	0.0838	0.0560	0.0402	0.0304	0.0257	0.0230	0.0209
19	0.9697	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	0.1212	0.0719	0.0480	0.0345	0.0261	0.0220	0.0198	0.0179
22	0.8375	0.2405	0.1155	0.0686	0.0458	0.0329	0.0249	0.0210	0.0189	0.0171
23	0.8010	0.2301	0.1105	0.0656	0.0438	0.0315	0.0238	0.0201	0.0180	0.0164
24	0.7677	0.2205	0.1059	0.0629	0.0420	0.0302	0.0228	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	0.0360	0.0258	0.0195	0.0165	0.0148	0.0135
29	0.6353	0.1825	0.0876	0.0520	0.0347	0.0250	0.0189	0.0159	0.0143	0.0130
30	0.6141	0.1764	0.0847	0.0503	0.0336	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	0.5118	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	0.0258	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	0.0100	0.0090	0.0082
47	0.3920	0.1126	0.0541	0.0321	0.0214	0.0154	0.0116	0.0098	0.0088	0.0080
48	0.3838	0.1102	0.0529	0.0314	0.0210	0.0151	0.0114	0.0096	0.0086	0.0079
49	0.3760	0.1080	0.0519	0.0308	0.0206	0.0148	0.0112	0.0094	0.0085	0.0077
50	0.3685	0.1059	0.0508	0.0302	0.0201	0.0145	0.0109	0.0092	0.0083	0.0075

manual set

APPENDIX A
VERIFICATION TABLES

VERIFICATION TABLE

GROUND LEVEL RELEASE
STABILITY CLASS D

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	43.7286	17.9298	10.4443	7.8782	5.2871	4.8485	3.2669	2.7142	2.3825	1.9867
2	21.8983	8.9645	5.2222	3.9351	2.6836	2.4242	1.6343	1.3571	1.1512	0.9934
3	14.5935	5.9763	3.4814	2.3567	1.7357	1.3495	1.0896	0.9047	0.7675	0.6622
4	10.9451	4.4822	2.6111	1.7676	1.3018	1.0121	0.8172	0.6786	0.5756	0.4967
5	9.1088	3.6966	2.1365	1.4398	1.0573	0.8203	0.6613	0.5484	0.4648	0.4007
6	8.2678	3.2299	1.8434	1.2334	0.9016	0.6972	0.5608	0.4642	0.3928	0.3382
7	7.5438	2.8745	1.6236	1.0902	0.7967	0.6268	0.4871	0.4026	0.3403	0.2928
8	6.9558	2.5937	1.4524	0.9817	0.6983	0.5375	0.4328	0.3557	0.3004	0.2592
9	6.4655	2.3657	1.3158	0.8672	0.6281	0.4827	0.3864	0.3187	0.2689	0.2318
10	6.0538	2.1765	1.2028	0.7988	0.5718	0.4381	0.3503	0.2887	0.2435	0.2090
11	5.6919	2.0167	1.1075	0.7257	0.5235	0.4012	0.3205	0.2639	0.2224	0.1909
12	5.3722	1.8799	1.0272	0.6713	0.4835	0.3701	0.2954	0.2431	0.2049	0.1757
13	4.9128	1.7615	0.9538	0.6228	0.4484	0.3431	0.2738	0.2253	0.1897	0.1627
14	4.5619	1.6171	0.8949	0.5783	0.4164	0.3186	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	0.5060	0.3643	0.2789	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	0.4499	0.3238	0.2478	0.1977	0.1627	0.1370	0.1175
19	3.3614	1.1915	0.6520	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	2.9038	1.0290	0.5631	0.3680	0.2650	0.2028	0.1618	0.1331	0.1121	0.0962
23	2.7768	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	0.4588	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	0.1046	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	0.7303	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	0.1929	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	1.3884	0.4922	0.2693	0.1760	0.1267	0.0970	0.0774	0.0637	0.0536	0.0460
47	1.3589	0.4817	0.2636	0.1723	0.1240	0.0949	0.0757	0.0623	0.0525	0.0450
48	1.3306	0.4716	0.2581	0.1687	0.1214	0.0929	0.0742	0.0610	0.0514	0.0441
49	1.3034	0.4620	0.2528	0.1652	0.1190	0.0910	0.0726	0.0598	0.0503	0.0432
50	1.2773	0.4528	0.2478	0.1619	0.1166	0.0892	0.0712	0.0586	0.0493	0.0423

manual set

APPENDIX A
VERIFICATION TABLES

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	19.8493	14.2578	10.9867	8.8585	7.3722	6.2838	5.4522	4.8082
2	33.4483	15.6609	9.9247	7.1289	5.4934	4.4293	3.6866	3.1415	2.7261	2.4041
3	22.2989	12.4406	6.6164	4.7526	3.6622	2.9529	2.4577	2.0943	1.8174	1.6027
4	16.7242	7.8304	4.9623	3.5644	2.7467	2.2146	1.8433	1.5708	1.3631	1.2020
5	14.5633	6.6444	4.1552	2.9685	2.2686	1.8218	1.5116	1.2858	1.1128	0.9781
6	13.8782	6.2582	3.7383	2.6884	1.9817	1.5815	1.3161	1.1862	0.9552	0.8375
7	13.2546	5.5671	3.3482	2.3311	1.7592	1.3972	1.1498	0.9711	0.8367	0.7323
8	12.6846	5.1497	3.0519	2.1871	1.5816	1.2514	1.0269	0.8654	0.7443	0.6585
9	12.1616	4.7984	2.8037	1.9224	1.4366	1.1332	0.9278	0.7805	0.6703	0.5852
10	11.6801	4.4781	2.5929	1.7675	1.3159	1.0353	0.8461	0.7187	0.6097	0.5317
11	11.2352	4.2048	2.4115	1.6357	1.2139	0.9531	0.7776	0.6524	0.5591	0.4873
12	10.8227	3.9588	2.2539	1.5221	1.1266	0.8829	0.7194	0.6029	0.5163	0.4497
13	9.6271	3.6461	2.0868	1.4108	1.0446	0.8186	0.6669	0.5589	0.4785	0.4167
14	8.9394	3.3857	1.9378	1.3100	0.9700	0.7601	0.6193	0.5190	0.4443	0.3869
15	8.3435	3.1608	1.8079	1.2227	0.9053	0.7095	0.5780	0.4844	0.4147	0.3611
16	7.8228	2.9625	1.6949	1.1463	0.8487	0.6651	0.5419	0.4541	0.3888	0.3385
17	7.3619	2.7882	1.5952	1.0788	0.7988	0.6260	0.5100	0.4274	0.3659	0.3186
18	6.9529	2.6333	1.5066	1.0189	0.7544	0.5912	0.4817	0.4036	0.3456	0.3009
19	6.5869	2.4947	1.4273	0.9653	0.7147	0.5601	0.4563	0.3824	0.3274	0.2851
20	6.2576	2.3703	1.3559	0.9170	0.6790	0.5321	0.4335	0.3633	0.3110	0.2708
21	5.9596	2.2571	1.2913	0.8733	0.6467	0.5068	0.4128	0.3460	0.2962	0.2579
22	5.6887	2.1545	1.2326	0.8336	0.6173	0.4837	0.3941	0.3302	0.2828	0.2462
23	5.4414	2.0609	1.1790	0.7974	0.5904	0.4627	0.3769	0.3159	0.2705	0.2355
24	5.2147	1.9750	1.1299	0.7642	0.5658	0.4434	0.3612	0.3027	0.2592	0.2257
25	5.0061	1.8960	1.0847	0.7336	0.5432	0.4257	0.3468	0.2906	0.2488	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	0.5030	0.3941	0.3211	0.2691	0.2304	0.2006
28	4.4697	1.6928	0.9685	0.6550	0.4850	0.3801	0.3096	0.2595	0.2222	0.1934
29	4.3156	1.6345	0.9351	0.6324	0.4683	0.3670	0.2990	0.2505	0.2145	0.1868
30	4.1717	1.5800	0.9039	0.6113	0.4527	0.3547	0.2890	0.2422	0.2074	0.1805
31	4.0372	1.5290	0.8748	0.5916	0.4381	0.3433	0.2797	0.2344	0.2007	0.1747
32	3.9118	1.4812	0.8474	0.5731	0.4244	0.3326	0.2709	0.2270	0.1944	0.1693
33	3.7935	1.4364	0.8218	0.5558	0.4115	0.3225	0.2627	0.2202	0.1885	0.1641
34	3.6829	1.3941	0.7976	0.5394	0.3994	0.3130	0.2550	0.2137	0.1830	0.1593
35	3.5778	1.3543	0.7748	0.5240	0.3880	0.3041	0.2477	0.2076	0.1777	0.1548
36	3.4784	1.3167	0.7533	0.5095	0.3772	0.2956	0.2408	0.2018	0.1728	0.1505
37	3.3825	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	3.2078	1.2154	0.6953	0.4703	0.3482	0.2729	0.2223	0.1863	0.1595	0.1389
40	3.1288	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	0.1730	0.1481	0.1290
43	2.9125	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	0.4168	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	2.7237	1.0304	0.5895	0.3987	0.2952	0.2313	0.1885	0.1579	0.1352	0.1177
47	2.6628	1.0085	0.5770	0.3902	0.2889	0.2264	0.1845	0.1546	0.1324	0.1152
48	2.6273	0.9875	0.5650	0.3821	0.2829	0.2217	0.1806	0.1514	0.1296	0.1128
49	2.5741	0.9673	0.5534	0.3743	0.2771	0.2172	0.1769	0.1483	0.1270	0.1105
50	2.5235	0.9480	0.5424	0.3668	0.2716	0.2128	0.1734	0.1453	0.1244	0.1083

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APPENDIX A
VERIFICATION TABLES

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	117.9800	62.4097	40.5822	28.2639	24.8261	19.8365	16.8357	14.5855	12.8388	11.4459
2	58.9898	30.2048	20.2511	15.1319	12.8131	9.9183	8.4179	7.2928	6.4194	5.7229
3	39.3265	20.1366	13.5007	10.0879	8.8087	6.6122	5.6119	4.8618	4.2796	3.8153
4	29.4949	15.1024	10.1255	7.5660	6.3065	4.959?	4.2099	3.6464	3.2097	2.8615
5	26.4299	13.1369	8.8628	6.4827	5.8442	4.3489	3.4989	3.0284	2.6589	2.3576
6	26.3463	12.4296	7.9733	5.7929	4.5899	3.6788	3.0683	2.6458	2.3114	2.0482
7	26.0798	11.7481	7.3683	5.2742	4.8692	3.2865	2.7462	2.3487	2.0459	1.8281
8	25.6917	11.0978	6.8192	4.8321	3.6997	2.9758	2.4746	2.1099	1.8334	1.6171
9	25.2269	10.4839	6.3424	4.4528	3.3898	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	1.3338
11	22.6536	9.3916	5.5482	3.8399	2.8961	2.3045	1.9028	1.6121	1.3941	1.2248
12	20.7658	8.8878	5.1250	3.5555	2.6828	2.1343	1.7609	1.4918	1.2895	1.1324
13	19.1684	7.9467	4.7389	3.2928	2.4764	1.9782	1.6284	1.3778	1.1903	1.0453
14	17.7992	7.3791	4.3929	3.0476	2.2995	1.8294	1.5093	1.2787	1.1053	0.9707
15	16.6128	6.8872	4.1008	2.8444	2.1462	1.7075	1.4087	1.1934	1.0316	0.9060
16	15.5743	6.4567	3.8438	2.6666	2.0121	1.6007	1.3207	1.1188	0.9671	0.8493
17	14.6582	6.0769	3.6177	2.5098	1.8937	1.5066	1.2432	1.0530	0.9102	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	5.4372	3.2368	2.2456	1.6944	1.3480	1.1121	0.9422	0.8144	0.7152
20	12.4595	5.1654	3.0758	2.1333	1.6097	1.2806	1.0565	0.8951	0.7737	0.6795
21	11.8662	4.9194	2.9266	2.0317	1.5338	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	2.6729	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	4.1323	2.4608	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	0.5952	0.5227
27	9.2292	3.8262	2.2778	1.5802	1.1924	0.9486	0.7826	0.6632	0.5731	0.5033
28	8.8996	3.6896	2.1964	1.5238	1.1498	0.9147	0.7547	0.6393	0.5526	0.4853
29	8.5927	3.5623	2.1207	1.4712	1.1101	0.8832	0.7286	0.6173	0.5336	0.4686
30	8.3063	3.4436	2.0500	1.4222	1.0731	0.8537	0.7044	0.5967	0.5158	0.4530
31	8.0384	3.3325	1.9839	1.3763	1.0385	0.8262	0.6816	0.5775	0.4992	0.4384
32	7.7872	3.2284	1.9219	1.3333	1.0060	0.8004	0.6603	0.5594	0.4836	0.4247
33	7.5512	3.1305	1.8636	1.2929	0.9756	0.7761	0.6403	0.5425	0.4689	0.4118
34	7.3291	3.0385	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	0.4299	0.3775
37	6.7348	2.7921	1.6622	1.1531	0.8701	0.6922	0.5711	0.4838	0.4182	0.3673
38	6.5576	2.7186	1.6184	1.1228	0.8472	0.6740	0.5561	0.4711	0.4072	0.3576
39	6.3895	2.6489	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	0.6098	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	0.3599	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	1.3370	0.9275	0.6999	0.5568	0.4594	0.3892	0.3364	0.2954
47	5.3019	2.1980	1.3085	0.9078	0.6850	0.5449	0.4496	0.3809	0.3292	0.2891
48	5.1914	2.1522	1.2813	0.8889	0.6707	0.5336	0.4402	0.3729	0.3224	0.2831
49	5.0855	2.1083	1.2551	0.8707	0.6570	0.5227	0.4312	0.3653	0.3158	0.2773
50	4.9838	2.0662	1.2300	0.8533	0.6439	0.5122	0.4226	0.3581	0.3095	0.2718

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GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Emergency Operations Facility
Activation Procedure
PROCEDURE TITLE

HNP-4869
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
0	New Procedure	[signature]	[signature]	6/1/83
1	General Revision	[signature]	[signature]	10/7/83

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Need by 10-6-83

We 9/30/83

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-4869 SHEET 1 OF 2

Revision No. 0

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Tim J. Kuhlem	9/26/83	RW Zavadoski	10/1/83
		W H Rogers	10-1-83

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

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

PRESENT STATUS: Safety Related (X) Non-Safety Related ( )

The above Safety/Non-Safety Status has changed ( ) Yes to _____

Attach marked up copy of procedure to this form.

REASON FOR REQUEST: To reflect changes in the facilities (ie, set-up, phones and status boards). Also to add making the HVAC system operational.

DESCRIPTION OF CHANGES: Page 2. D.1 - add from flag box on
Page 2. D.6 - change to number marked
D.7 - change to sentence inserted
Page 4 - delete wall line as shown and label "Conference Room"
Page 5 - - - delete old page and add new page

PRB RECOMMENDS APPROVAL: ( )Yes ( )No JLee
PRB Secretary

83-185
PRB Number

9-30-83
Date

HNP-9

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EC

PROCEDURE REVISION REQUEST SHEET 2 OF 2

PROCEDURE NO. HNP- 4469
REVISION NO. 0

REASON OR REQUEST: To reflect changes in the facilities (ie. set up, phone and status boards). Also to add the HVAC system start-up.

DESCRIPTION OF CHANGES:

Page 6 - delete old page and add new page.
Page 7 - " " " " "
Page 8 - " " " " "
Page 9 - " " " " "
10 -
11 -
12 -
13 -
14 -
15 -
16 -
17 -
18 -
Page 19 → 23 - delete
Page 27 - add "Dry Markers" and change "OSC" in title to "EOF"
Page 28 - change "OSC" in title to "EOF"
Page 30 - make changes marked to "Program load" section

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EMERGENCY OPERATIONS FACILITY ACTIVATION PROCEDURE

NOTE

This procedure is intended to be guidance for activating the Emergency Operations Facility (EOF) in emergency situations. Deviation from the listed sequence is permitted when plant conditions warrant a more expedient order of completion.

A. PURPOSE

The EOF is an onsite or nearsite support facility for the management of overall licensee emergency response (including coordination with federal, state, and local officials), coordination of radiological and environmental assessments, and determination of recommended public protective actions. This procedure addresses and delineates the actions required to bring the EOF to a state of functional readiness.

B. CRITERIA FOR ACTIVATION

The EOF shall be activated at a Site Area Emergency, General Emergency, or when deemed necessary. All or portions of this procedure will be implemented as appropriate based on the desired function of the EOF. Activation is achieved when, in the judgment of the EOF Manager and/or Emergency Director, staffing and equipment are sufficient to carry out the purpose of the EOF facility.

C. RESPONSIBILITIES

The first person(s) responding to the EOF will be responsible for initiating this procedure. The EOF Manager or his/her designate, upon arrival, will be responsible for ensuring completion of this procedure.

D. ACTIONS

The person(s) implementing this procedure shall perform the following actions:

1. Obtain keys to Simulator Building from glass key box or from Security and as necessary have Security unlock appropriate doors in EOF and to lock doors to all entry points except the west end entry point. Ensure that two classrooms in north side are locked.

2. Establish personnel sign-in to provide accountability to EOF. Place a table, sign-in sheets, and badges next to double doors at the west end of the hallway between entry and first classrooms. Have incoming personnel sign in on the sign-in sheets and wear the appropriate badge. (See Data Package 1 for sign-in sheets.)

3. Ensure arrangement of the physical facilities per Figures 1 through 4.

4. Ensure arrangement of the communications equipment per Figure 5 through 7. Telephones are stored in cabinets on north wall of classrooms and in HP lab cabinet. Tape cords to floor.

5. Remove the portable status boards from behind the false wall in Classroom 1 and place per arrangement in Figure 8 and 9.

6. Check status boards for correctness per Figure 10 through 15.

7. Make HVAC filter system operational by pushing red button located in the Simulator Building HVAC room. This action will put the system in the abnormal condition.

8. Ensure adequacy of supplies and equipment per Data Package 2.

NOTE

Contact responsible group if discrepancy is noted.

9. Set up dose assessment computer per Data Package 3.

10. Perform communications checks per Data Package 4.

11. Have Health Physics personnel check operability of HP instruments and take general area dose rate readings and air samples and record on Data Package 5.

12. Ensure minimum staffing of the following positions:

    a. EOF Manager

    b. Dose Assessment

    c. Public Information

    d. Security

    e. Health Physics

f. Administration

g. Communicators/Recorders.

13. Review sign-in sheets for accountability check. Ensure control has been established.

14. Ensure that key personnel are starting a log.

15. Inform Emergency Director, and as appropriate TSC and General Office, EOF is activated.

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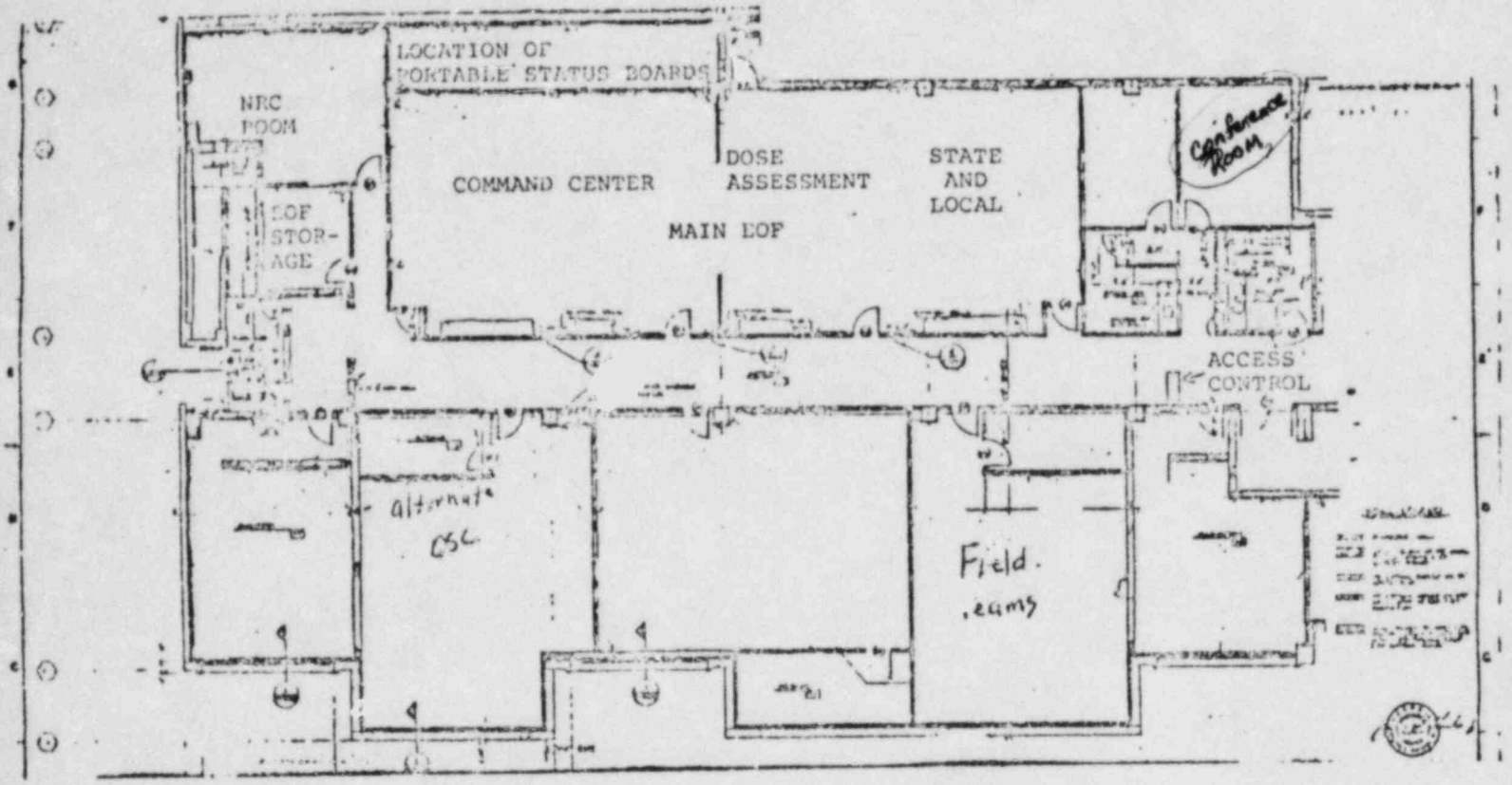
FIGURE 1

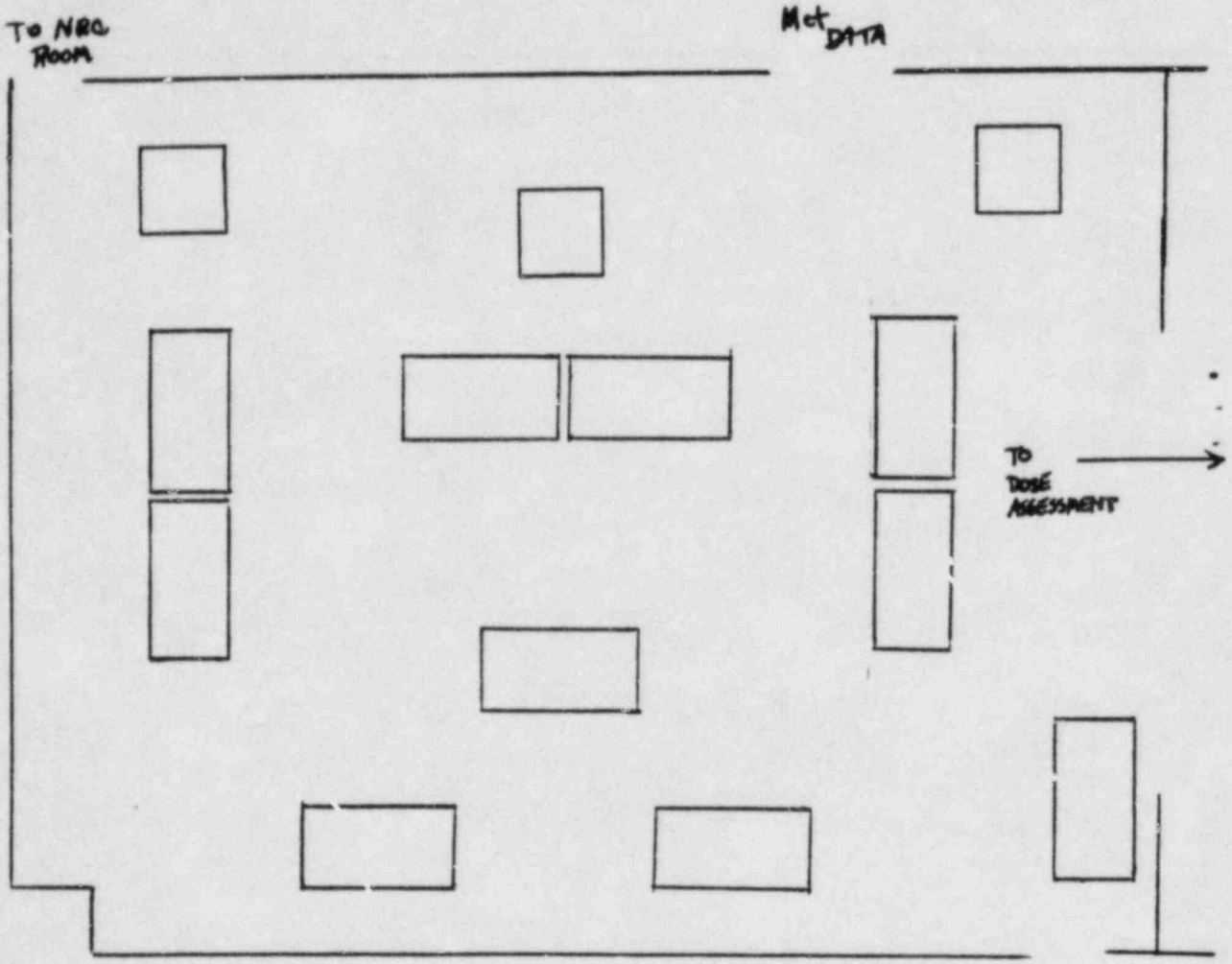
EOF FLOOR PLAN



manual set

FIGURE 2

ARRANGEMENT OF TABLES IN COMMAND CENTER



- EXTRA TABLES ARE TO BE SET UP IN THE HALL

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FIGURE 3

ARRANGEMENT OF TABLES IN DOSE ASSESSMENT

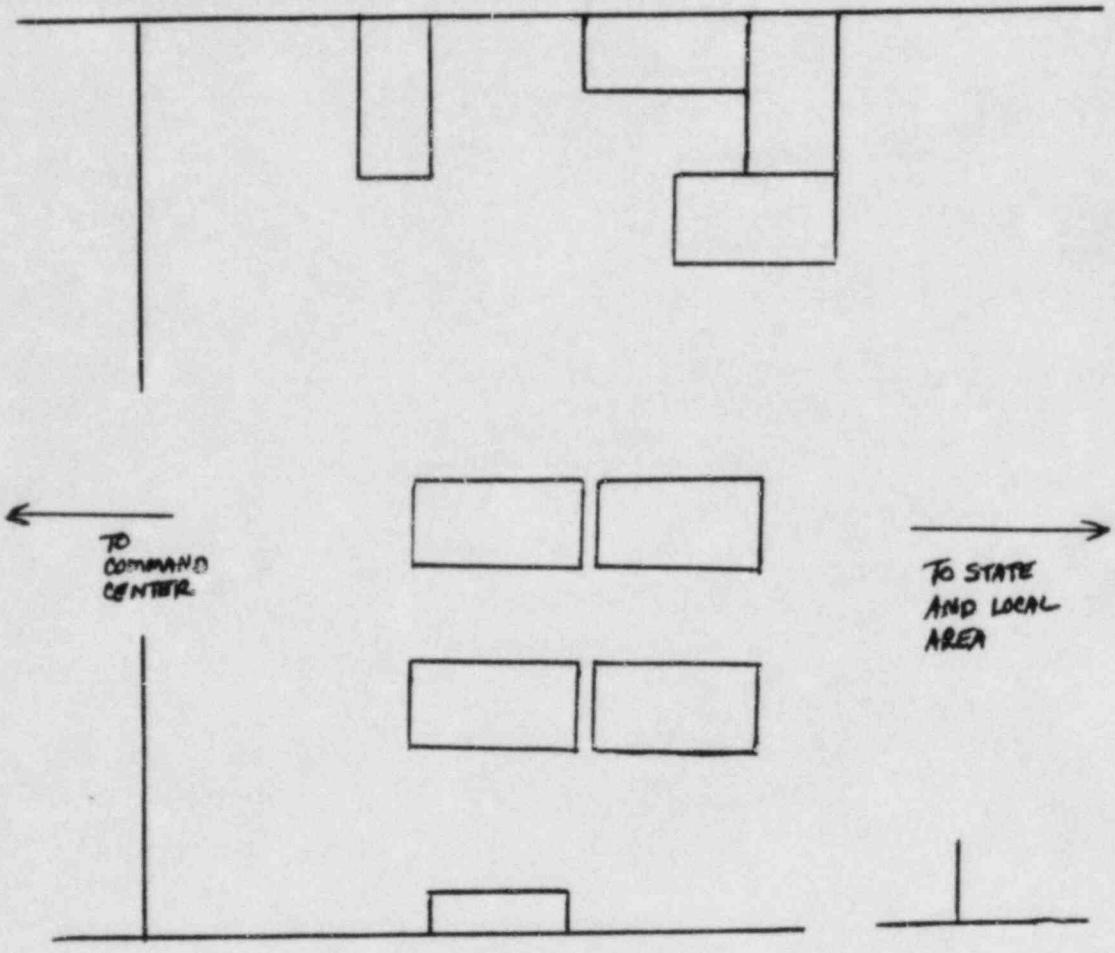

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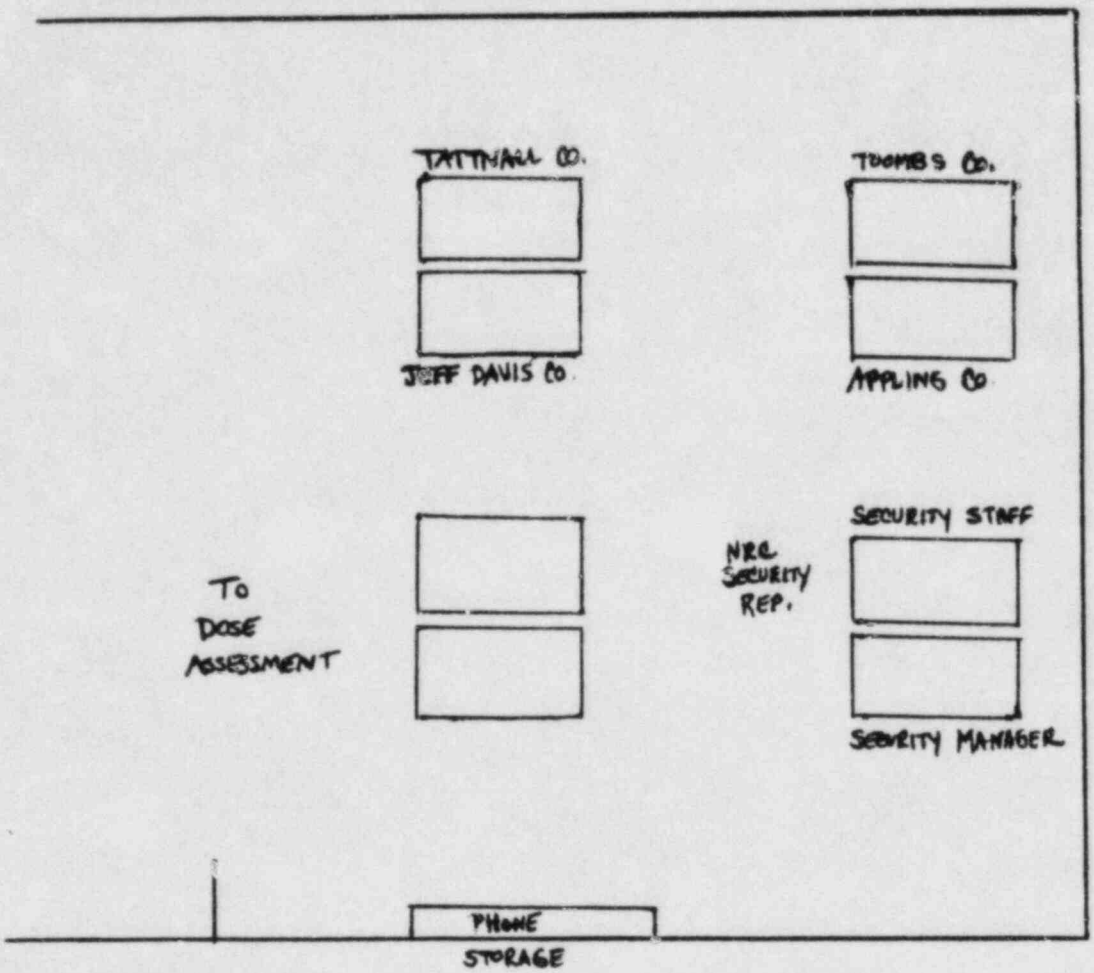
FIGURE 4

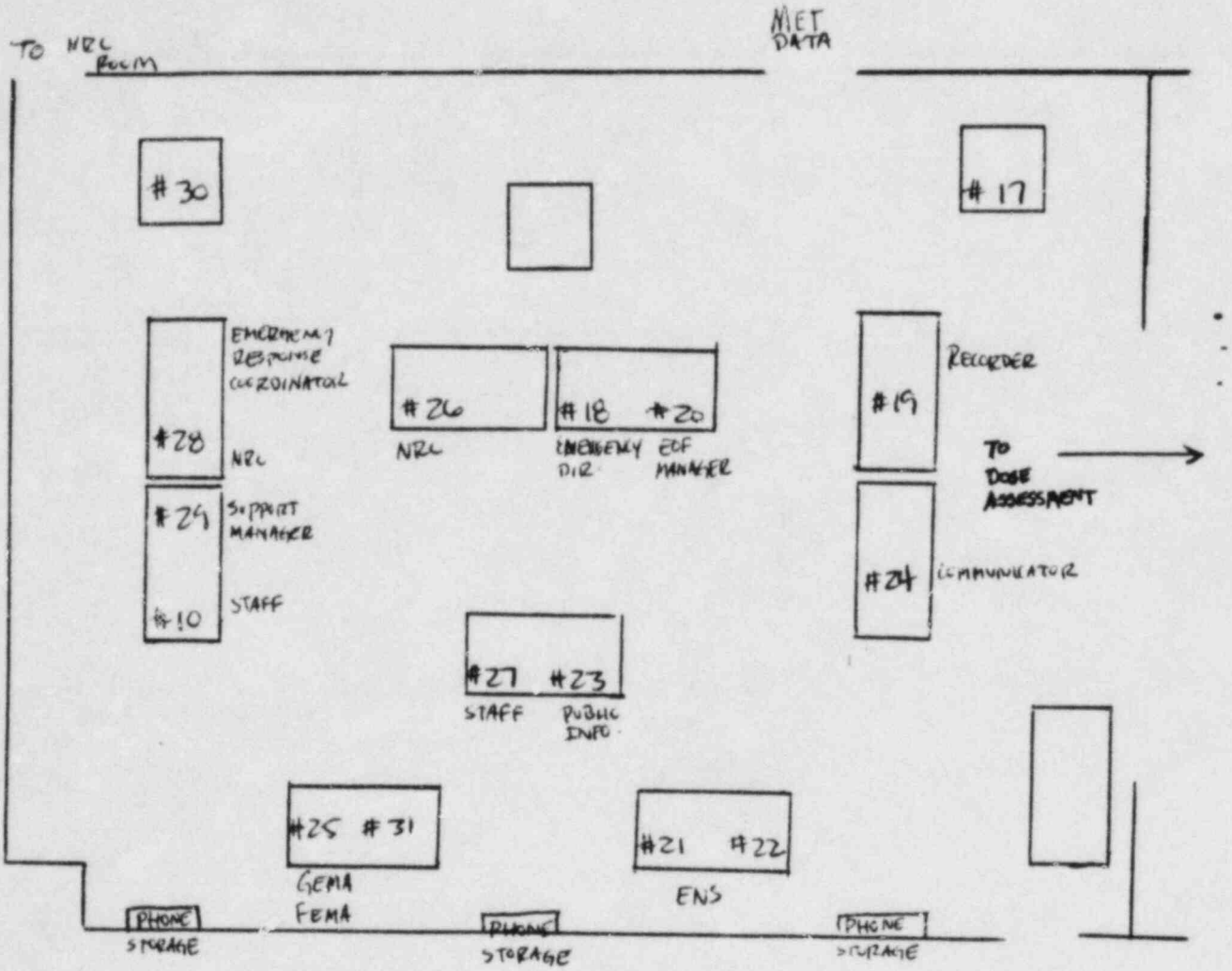
ARRANGEMENT OF TABLES IN STATE AND LOCAL AREA



manual set

FIGURE 5

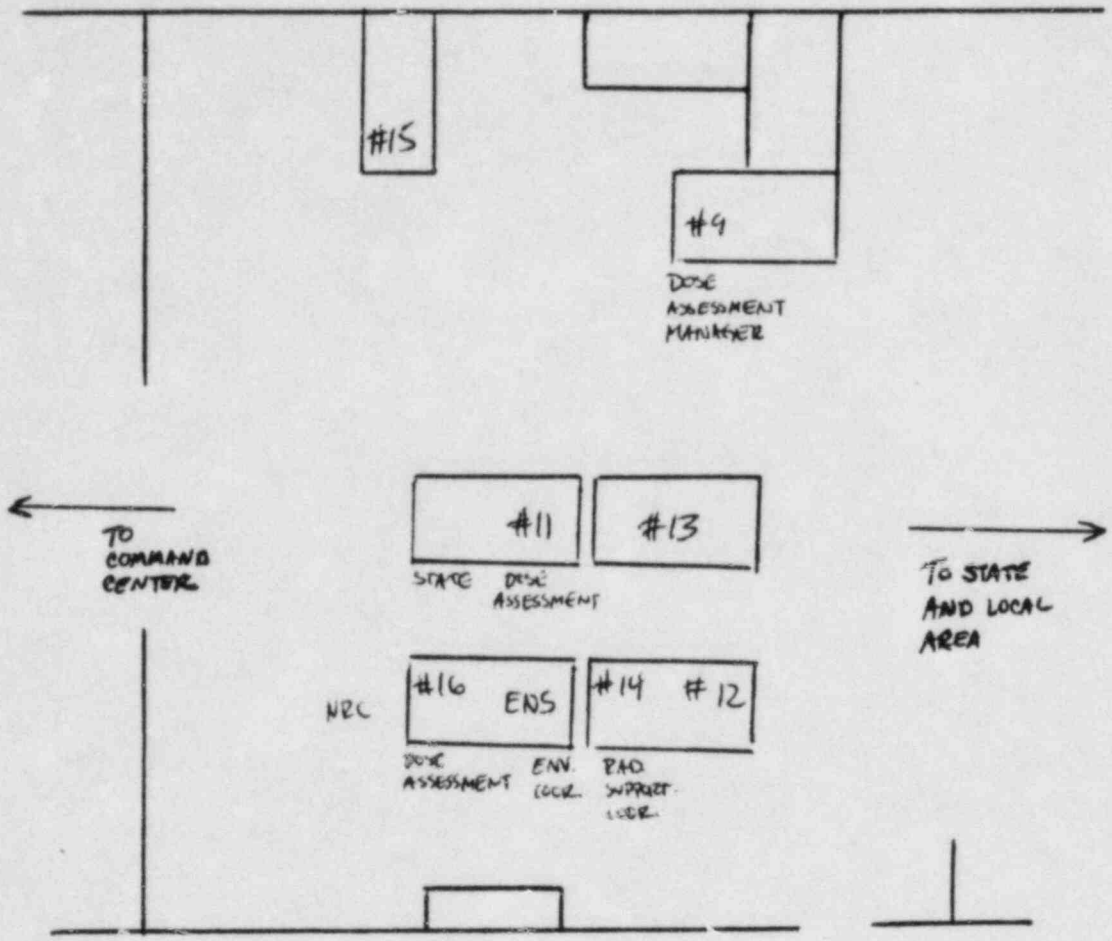
ARRANGEMENT OF PHONES IN COMMAND CENTER



manual set

FIGURE 6

ARRANGEMENT OF PHONES IN DOSE ASSESSMENT AREA



LEGEND

4 DIGITS INDICATES PLANT EXTENSION
NR INDICATES PHONE SET WITHOUT RING DOWN LINES
R INDICATES PHONE SET WITH RING DOWN LINES

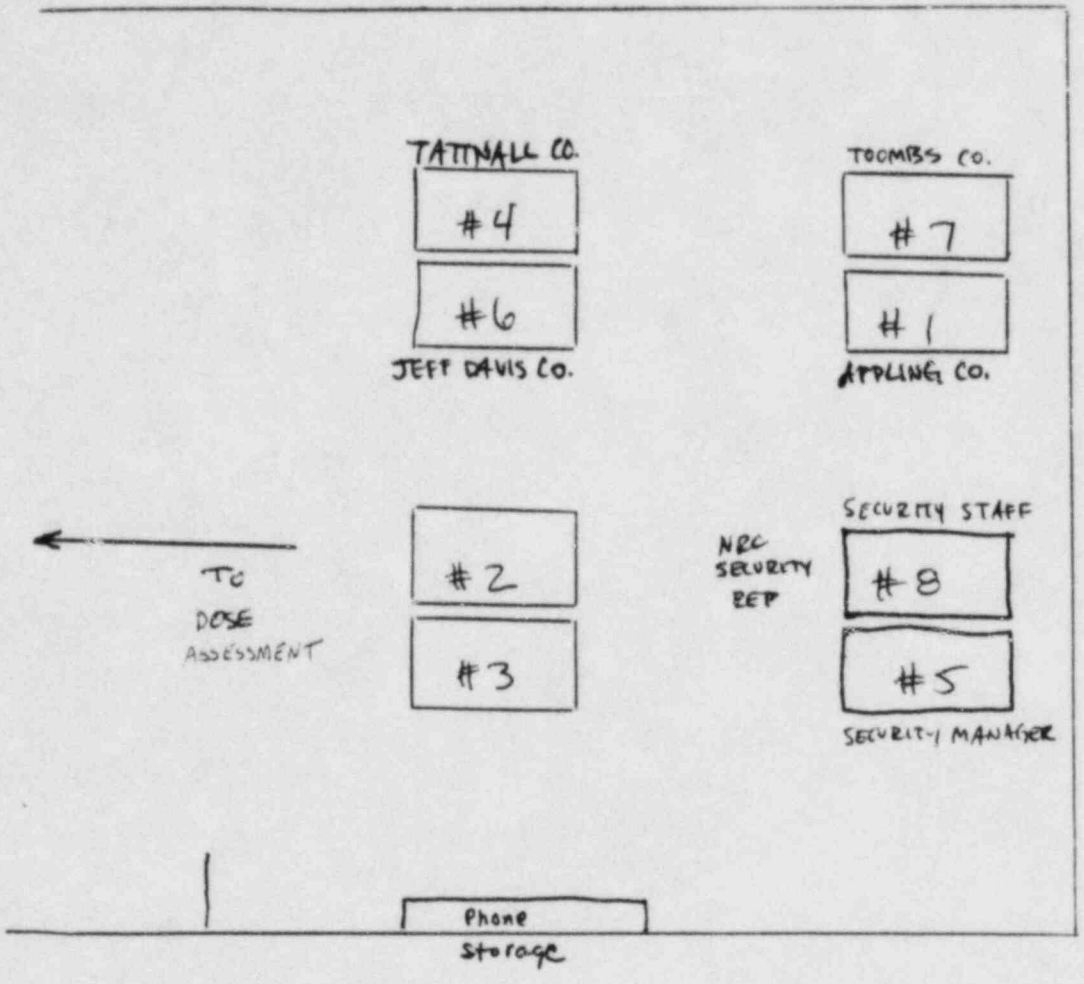
NOTE

# INDICATES PHONE SET IDENTIFIER ON BOTTON OF PHONE SET

manual set

FIGURE 7

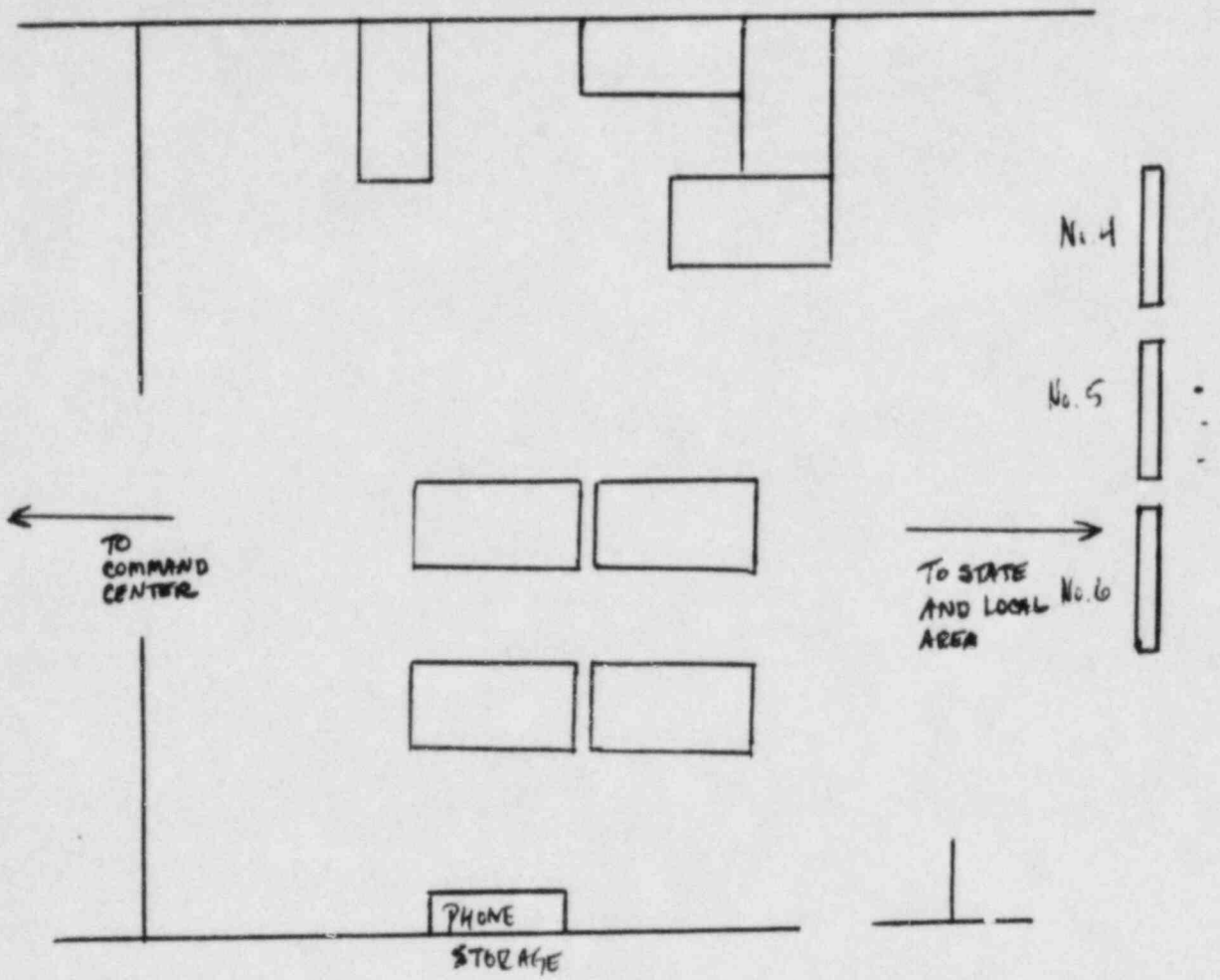
ARRANGEMENT OF PHONES IN STATE AND LOCAL AREA



manual set

FIGURE 8

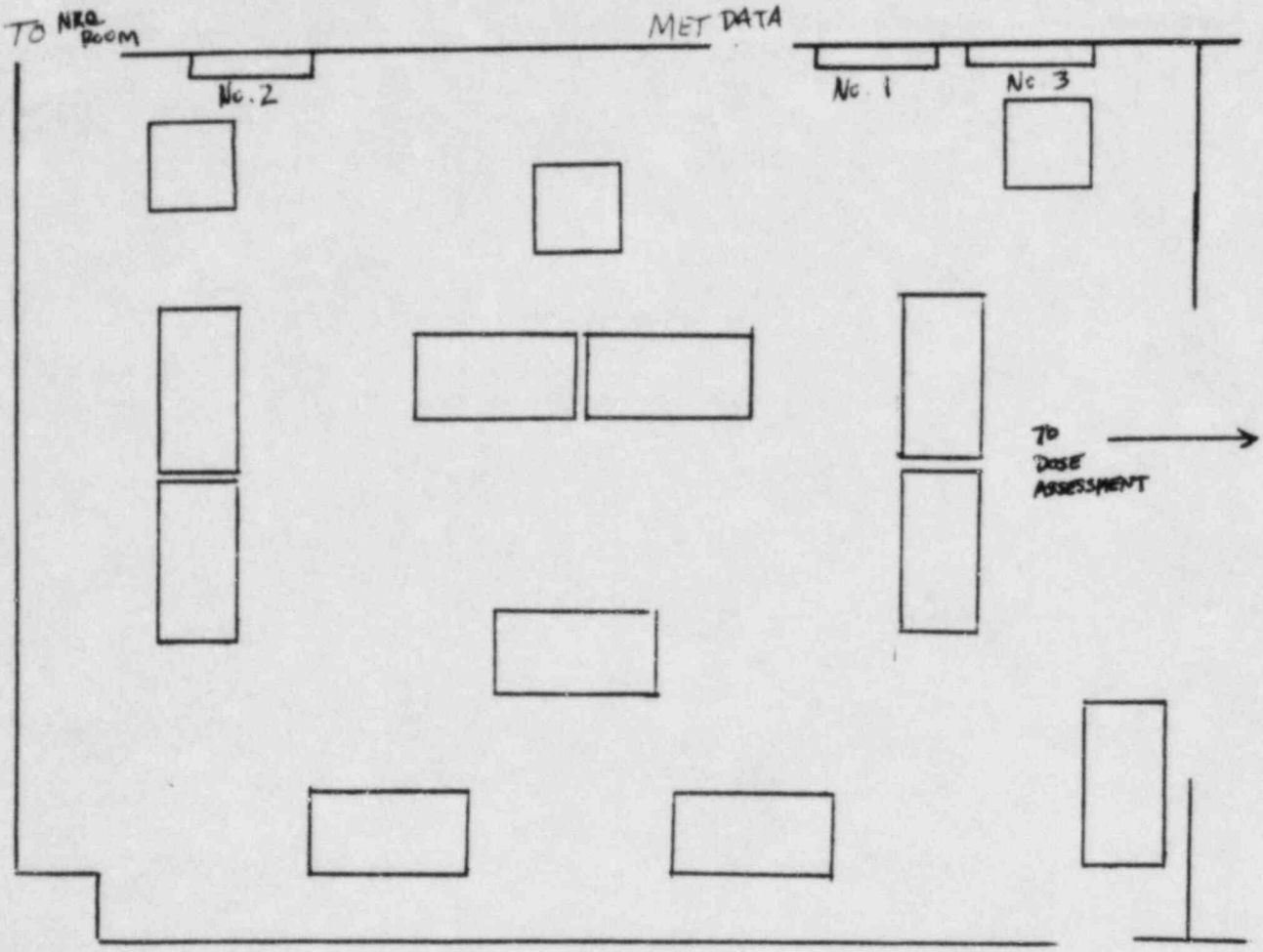
LOCATIONS OF PORTABLE STATUS BOARDS IN DOSE ASSESSMENT AREA



manual set

FIGURE 9

LOCATIONS OF STATUS BOARD IN COMMAND CENTER



manual set

FIGURE 10

STATUS BOARD #1

1	EMERGENCY STATUS	
EOF ACTIVATED	DATE	TIME
EMERGENCY CLASS	DATE	TIME
UNIT STATUS OF OTHER UNIT		

EMERGENCY ACTIONS UNDERWAY						
OFFSITE ASSISTANCE	YES	NO				
FIRE				AMBULANCE		
POLICE				HOSPITAL		
OTHER						
SITE EVACUATION	YES	NO	LIMITED	NOTIFIED:	DATE	TIME
				NRC		
				STATE OF GA		

DATE/TIME	ADDITIONAL INFORMATION

RECORDED BY: _____

manual set

Georgia Power

APPROVAL	See Title Page
DATE	See Title Page

REVISION	1
PAGE NO	14 of 29

FIGURE 11

STATUS BOARD # 2

DATE/TIME	DESCRIPTION OF EVENTS

RECORDED BY: _____

FIGURE 11

STATUS BOARD # 2

2

DATE/TIME	DESCRIPTION OF EVENTS

RECORDED BY: ______________________

FIGURE 12

STATUS BOARD # 3

		PLANT STATUS														
REACTOR	DATE/TIME															
	POWER %															
	WATER LEVEL IN.															
	PRESSURE PSIG															
	WATER TEMP °F															
TORUS	WATER LEVEL IN.															
	PRESSURE PSIG															
	WATER TEMP °F															
DRYWELL	H_2 CONC %															
	O_2 CONC %															
	PRESSURE PSIG															
	TEMP °F															
OTHER																

RECORDED BY: _____

manual set

FIGURE 13

STATUS BOARD # 4

METEOROLOGICAL DATA

DATE/TIME														
STABILITY CLASS														
DELTA T F														
LOWER WIND SPEED														
UPPER WIND SPEED														
WIND DIRECTION FROM														

RADIOLOGICAL INFORMATION

DATE/TIME														
I/M RANGE STACK MONITOR CPS														
RM 16 mr/hr														
STACK FLOW CPM														
RX BLDG VENT CPM														
RX BLDG FLOW CPM														
NOBLE GAS RELEASE RATE CI/SEC														
GROUND LEVEL														
STACK LEVEL														
IODINE RELEASE RATE CI/SEC														
GROUND LEVEL														
STACK LEVEL														

STANDBY GAS TREATMENT IN USE? YES NO

RECORDED BY: _____

manual set

FIGURE 14

STATUS BOARD # 5

5

	CURRENT DOSERATE									2 HOUR PROJECTED DOSE								
	WHOLE BODY mr/hr					THYROID mr/hr				WHOLE BODY mr/hr					THYROID mr/hr			
DATE/ TIME	SECTOR	1	2	5	10	1	2	5	10	SECTOR	1	2	5	10	1	2	5	10

RECORDED BY:______________________

manual set

FIGURE 15

STATUS BOARD # 6

FIELD TEAM DATA

TEAM	LOCATION (S, Mi, #)	REF # ETA	TIME	PROJECTED DOSE WB (mR/hr)	PROJECTED DOSE Thyroid (mR/hr)	FIELD RESULTS WB (mR/hr)	FIELD RESULTS Thyroid (mR/hr)	IODINE uCi/cc	DOS. mR	REMARKS

manual set

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4869-1

SERIAL NO: R01-

MPL NO: _____

RTYPE: G15.03

XREF: _____

TOTAL SHEETS: 2

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: _____

FIGURE 16
Page 1 of 2

manual set

DATA PACKAGE 1

EOF SIGN-IN SHEET

Date: ___________________

Name	Badge No.	Time In	Time Out	Time In	Time Out	Time In	Time Out

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4869-2

SERIAL NO: R01-

MPL 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.

ACCEPTABLE _____ UNACCEPTABLE _____

REVIEWED BY: _____

DATE REVIEWED: _____

REMARKS: _____

FIGURE 17
Page 1 of 3

manual set

DATA PACKAGE 2

EOF SUPPLIES LIST

SUPPLY CABINET		EQUIPMENT	
Pencils and pencil sharpener		Typewriter	
Staples and staplers		H.P. Instruments	
Tape and tape dispensers		Air sampler	
Hole punch		Respirators	
Watercolor markers		Telecopier	
Dry Markers		Contamination signs and barriers	
Rulers			
Gem clips		Field Team Monitor Instruments	
Rubber bands		DOCUMENT ROOM	
Staple pullers		Located in Simulator	
Expanding folders			
Label maker			
Letter trays			
Calendar stands and refills			
Local phone books			
Scratch pads			
Phone call logs			
Logbooks			
Typing paper			
GPC letterhead paper			
Interoffice paper			
Name tags			
Ashtrays			
Waste baskets			

FIGURE 17
Page 2 of 3

manual set

DATA PACKAGE 2 (CONT.)

EOF SUPPLIES LIST

SUPPLY CABINET		EQUIPMENT	
Coffee supplies			
Coffee pot			
Emergency call list			
Emergency telephone numbers			
Maps for Field Teams			

Signature Date

FIGURE 17
Page 3 of 3

manual set

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4869-3

SERIAL NO: R01-

MPL NO: _____

RTYPE: G15.03

XREF: _____

TOTAL SHEETS: 2

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: _____

FIGURE 18
Page 1 of 2

manual set

DATA PACKAGE 3

DOSE ASSESSMENT COMPUTER START-UP

		INITIAL
1.	HARDWARE CONNECTIONS	
a.	Ensure that printer and computer are switched off.	_____
b.	Connect Input/Output cord (thin blue cord) from computer.	_____
c.	Feed paper into printer and lock down.	_____
2.	POWER-UP	
a.	Plug printer and computer power cords into outlet.	_____
b.	Turn printer on.	_____
c.	Push printer reset button.	_____
d.	Turn computer on.	_____
3.	PROGRAM LOAD	
a.	Red light illuminates.	_____
b.	Insert disc into disc drive unit after red light goes out.	_____
c.	Press reset	_____
d.	Enter - Date and time (24 hour clock)	_____
e.	Enter - Basic	_____
f.	Enter - 2 (files)	_____
g.	Press - Enter Key	_____
h.	Load - "DOSE"	_____
i.	Remove disc from disc drive unit when red light goes off.	_____
j.	Enter - Run	_____
k.	Proceed as prompted by computer	_____

FIGURE 18
Page 2 of 2

manual set

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4869-4

SERIAL NO: R01

MPL NO: _____

RTYPE: G15.03

XREF: _____

TOTAL SHEETS: 2

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: _____

FIGURE 19
Page 1 of 2

manual set

DATA PACKAGE 4

COMMUNICATIONS CHECKS

NOTE

Check radio operability. Ensure that a minimum of one of the below listed telephone lines is functioning. These checks may be completed on a single telephone set. Functioning is defined for normal and ring down lines to be as follows:

Ring Down Lines - When the receiver is lifted a ringing of the other phone is heard.

Normal Lines - When the receiver is lifted a dialtone is heard.

TELEPHONE LINE	OPERABLE	INOPERABLE
Ring Down to (Control Room)		
Ring Down to (OSC)		
Ring Down to (TSC)		
Ring Down to General Office		
1 of 2 Local Outside Lines		
Any 2 Plant Extensions		

Signature Date

FIGURE 19
Page 2 of 2

manual set

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4869-5

SERIAL NO: R01-

MPL NO: _____

RTYPE: G15.03

XREF: _____

TOTAL SHEETS: 2

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: _____

FIGURE 20
Page 1 of 2

manual set

DATA PACKAGE 5

SURVEY RESULTS

DATE	TIME	GENERAL AREA DOSE RATES	AIRBORNE ACTIVITY	INITIALS

FIGURE 20
Page 2 of 2

manual set

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Offsite Radiological Environmental Monitoring During Emergencies
PROCEDURE TITLE

HNP-4827
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	J. T. Beckham, Jr.	12/3/82
1	Pages 1 thru 15	R. W. Zavadoski W. H. Rogers	J. T. Beckham, Jr.	10/6/83
2	Pages 4 and 13	R. W. Zavadoski	J. T. Beckham, Jr.	10/12/83

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manual set

We 10/11 Need date 10/11/83 gcc

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-4827 SHEET 1 OF ___

Revision No. 1

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
M. Wright	10-11-83	RW Zavadoski	10/11/83

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

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

PRESENT STATUS: Safety Related (✓) Non-Safety Related ( )

The above Safety/Non-Safety Status has changed ( ) Yes to _____

Attach marked up copy of procedure to this form.

REASON FOR REQUEST: To correct a conflict between the procedure and the data packages and to correct one line on two graphs.

DESCRIPTION OF CHANGES: Pg 4, para 19, delete "with the window facing up", Pg 78 change line reading "30 LPM" to read "20 LPM", Pg. 13 delete "with window facing down."

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No VElton
PRB Secretary

93-188
PRB Number

10-11-83
Date

HNP-9

BT

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SAFETY EVALUATION

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

1. The probability of occurence and the consequences of an accident or malfunction of equipment important to the 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 setting which would allow a safety limit to be exceeded or to allow a limiting condition for operation to be exceeded as stated in Technical Specifications

HNP-3

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OFFSITE RADIOLOGICAL ENVIRONMENTAL MONITORING DURING EMERGENCIES

NOTE

This procedure supercedes HNP-4625 Rev. 5 and HNP-4725 Rev 5.

A. PURPOSE

To provide a method for the determination of radiological conditions in the plant environs, due to the release of radioactive materials from the plant under accident conditions. Also, this procedure will provide instructions for integrated offsite survey teams consisting of some combination of state, local, and GPC personnel.

B. DEFINITIONS AND TERMS

1. EOF - Emergency Operations Facility
2. REC - State Radiological Emergency Coordinator
3. RET - Radiological Emergency Team
4. Dose Assessment Management - Integrated state, local, and GPC personnel collectively consisting of the Dose Assessment Manager, the REC, and lead personnel from local civil defense organizations.

C. SCOPE

1. The activities of the offsite monitoring teams will generally be performed in the Emergency Planning Zones (EPZ), from the plant to distance of approximately (but not limited to) 10 miles.
2. Offsite monitoring teams will be under the direction of the Dose Assessment Management in the EOF.

NOTE

It is understood that the ultimate responsibility for offsite radiological environmental monitoring rests with the State.

D. REFERENCES

1. HNP-4620 "Site Area Emergency"
2. HNP-8142 "Stabilized Assay Meter SAM-2 Operation and Calibration"

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E. ORGANIZATION

1. Team Composition

a. The teams are expected to generally consist of 3 or 4 persons, depending upon the avilability of personnel and the nature of the mission to be performed. Functions to be performed may include:

(1) Driver
(2) Navigator
(3) Data Recorder
(4) In-transit Instrument Reader
(5) Field Sampler
(6) Communicator
(7) Sample Taker
(8) Sample Analyzer

b. The Dose Assessment Management shall designate a team captain for each monitoring team. The team captain shall assign responsibility for each of the above functions (as applicable) to individual team members. Team members may be assigned responsibility for multiple functions. The team captain is responsible for assuring that all necessary actions are performed.

2. Team Responsibilities

a. Collect environmental media.

b. Conduct radiological field measurements (plume monitoring) with readings by location.

c. Conduct air monitoring by location.

d. Communicate sample analysis data, dose rate information, and personnel dosimetry to the EOF.

F. ACTIONS

1. Radiological Emergency Team personnel should meet in the EOF to get instructions, find out the events that have taken place, and to be assigned to a monitoring team.

2. The Dose Assessment Management is to divide personnel into teams using combinations of state, local, and GPC personnel. Teams should consist of a max of 4 people (avg. 3).

manual set

3. Offsite teams may use vehicles equipped with two-way communication devices belonging to GPC, the state, or the locals as appropriate. In addition, portable radios and antennas obtained from the EOF will be used as alternative communications. If personal vehicles are used, the portable radios and antennas will be the primary communication system and the Bell system as an alternative.

4. The Dose Assessment Management shall designate a team captain for each team.

5. Once the teams and team captains have been designated, each team captain will be responsible for assigning each member of his team certain tasks, ie, driver of the vehicle, navigator, data recorder, in-transit instrument reader, field sampler, communicator, sample taker, and sample analyzer.

6. Upon the classification of an ALERT level emergency, the offsite teams may be activated at the discretion of the Dose Assessment Management. If the classification is a SITE AREA or GENERAL Emergency, teams shall be activated. The Dose Assessment Management directs the staffing and deployment.

7. Obtain a survey team kit at the EOF.

8. Complete the checklist in Data Package 1, Data Sheet 1.

9. After the equipment is checked for operability, the monitoring team will establish communications with the EOF.

10. Turn on survey instruments, allow them to warm up, and verify response with the check source provided.

11. Install glass fiber filter and silver zeolite cartridge in sample holder of air sampler. Turn on sampler and confirm proper operation. Turn off.

12. Proceed to area specified by Dose Assessment Management.

13. While in transit, survey meter for measuring dose is turned on. The instrument is positioned for continuous viewing and ready access for recording readings. If readings above background are detected, record appropriate information on Data Package 2, Data Sheet 1.

    a. Indicate observed readings on survey map. (Report any indication of a plume to the EOF). Record on Data Package 2, Data Sheet 1.

    b. Record time entering the plume as indicated by the survey meter reading on Data Package 2, Data Sheet 2.

c. If dose rate is in excess of 5 mr/hr, report reading to the EOF.

NOTE

Minimize traversing of the plume as much as practical to maintain exposures ALARA. Contact the EOF prior to exceeding any administrative exposure guidelines. Provide periodic personnel exposure updates to the EOF when exposures are considered significant. Record personnel exposure data in Data Package 2, Data Sheet 1.

14. Upon arrival at the sampling location, perform a dose rate survey in the following manner:

a. At waist level, hold GM probe HP-210 or GM survey meter (or equivalent), read meter, and record results on Data Package 2, Data Sheet 2.

b. At 2" above the ground, hold GM probe with detector window facing the ground, read meter and record results on Data Package 2, Data Sheet 2.

c. At waist level, hold high range survey meter horizontal, read and record dose rate on Data Package 2, Data Sheet 2.

d. Repeat step c above, but at 2" from the ground.

15. Take air sample at designated area when requested by Dose Assessment Management as follows:

a. Place a silver zeolite (AgX) cartridge in the sample head, and mark the cartridge to specify the inlet side of the cartridge. Place a particulate filter upstream of the AgX cartridge, and place the sample head in the air sampler.

b. With the engine running, connect the air sampler power leads to the vehicle battery, taking care to connect the positive and negative cables to the positive and negative battery terminals respectively.

c. Start air sampler and record time on Data Package 2, Data Sheet 2.

d. Check air flow indication and record flow rate.

e. Run air sampler 10 minutes, record flow rate from calibration sticker on Data Package 2, Data Sheet 2.

NOTE

Dose Assessment Management may request other sample times.

f. Make radiation survey as in step 14 above while running the air sampler.

NOTE

If levels are greater than 10 mr/hr report reading to the EOF and await instruction from the Dose Assessment Management.

g. Remove the AgX cartridge and particulate filter from the sampler head, and place in separate plastic bags.

h. Air samples should be labeled and a log entry made in the log book of the following information:

Date and start time of sample
Duration of sample
Flow rate of sample
Location of sample point (map location, landmarks, etc.)
Survey team name
Air sampler number
SAM-2 Analyzer serial number (if used)

NOTE

During air sampling, monitoring teams should observe the dose rate instrument for significant changes in dose rates. Report any significant changes to the EOF. Record personnel doses on Data Package 2, Data Sheet 2 while sampling.

i. Insert GM survey meter probe (HP-210) into sample holder (SH-4A) and record background reading.

j. Place glass fiber filter in SH-4A holder and obtain reading (CPM). Calculate airborne concentration per Data Package 2, Data Sheet 3.

k. Place silver zeolite cartridge (which has been placed in plastic bags) directly against probe (HP-210). Obtain reading (cpm) and calculate airborne concentration per Data Package 2, Data Sheet 3. (µci/cc)

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NOTE

If SAM-2 Counters are available, cartridges may be counted using HNP-8142 and HNP-4826. Record data on Data Package 2, Data Sheet 2 as CPM (net).

1. Place sample filters in envelopes and record on envelopes time, location, flow, sample time, cpm, background, and air activity. Hold for further analysis at place EOF.

16. Collect soil, vegetation and water samples when requested by the Dose Assessment Management, as follows:

    a. Take bag (mark it soil) and small scoop, fill with surface soil from a bare spot, tape closed, and tag with the date, time, and location.

    b. Take bag (mark it vegetation) and scissors. Cut vegetation approximately two (2) inches above ground, fill bag, tape closed, and tag with the date, time and location. (If possible, choose vegetation that might be ingested by animals).

    c. Fill poly bottle with surface water, close and tag with date, time and location.

17. Record time out of the plume on Data Package 2, Data Sheet 2, and determine total stay time.

18. Report all results to EOF and await further instructions. Document all results in Data Package 2.

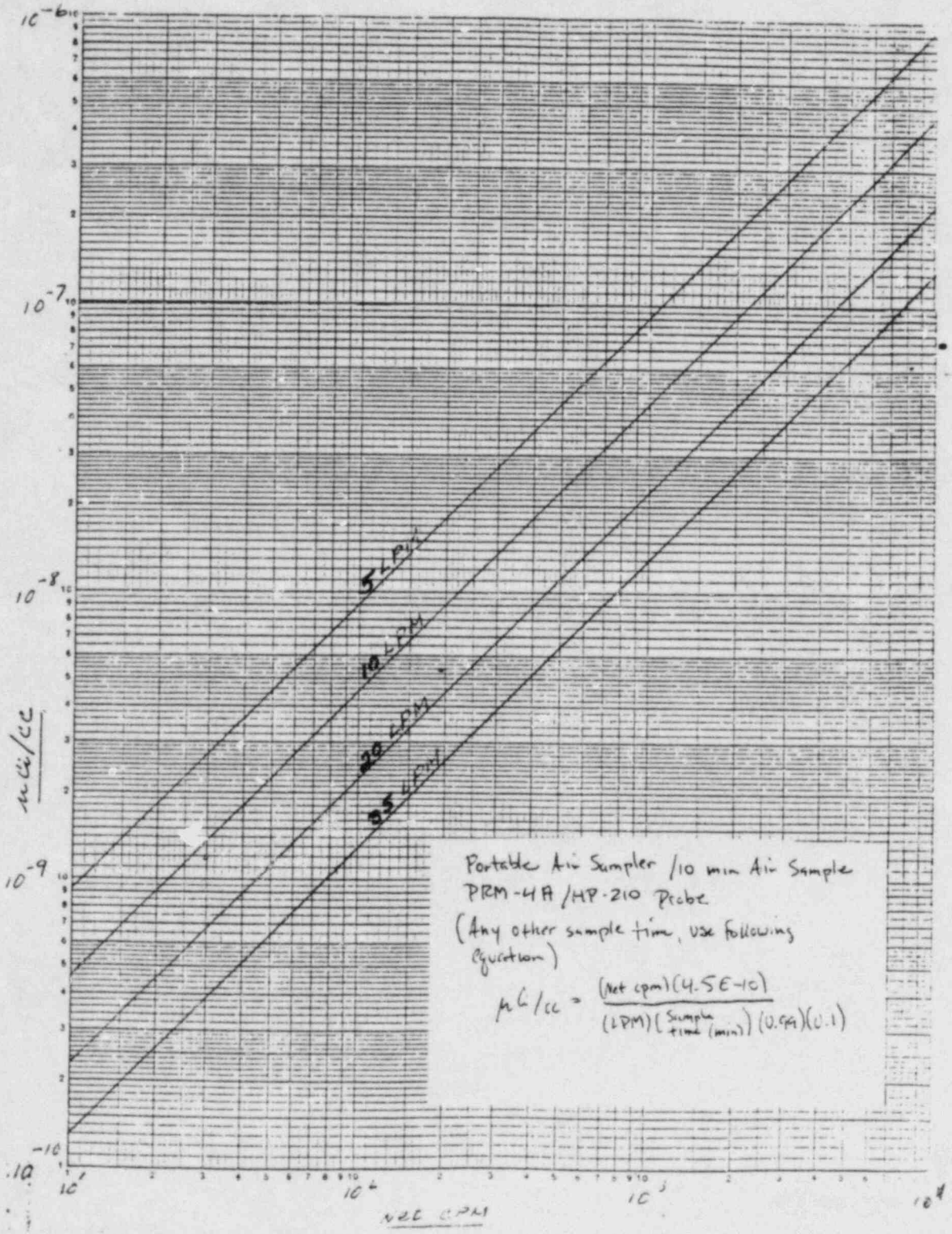
19. When directed by the Dose Assessment Management, proceed to environmental TLD and air sample cabinet locations. Change out TLD and filters at the stations noting time and date of change out. Return samples to the EOF.

20. Return all data sheets to the EOF for review, analysis and temporary storage. These data sheets shall be permanently stored in Document Control upon termination of the emergency condition.

manual set

FIGURE 1

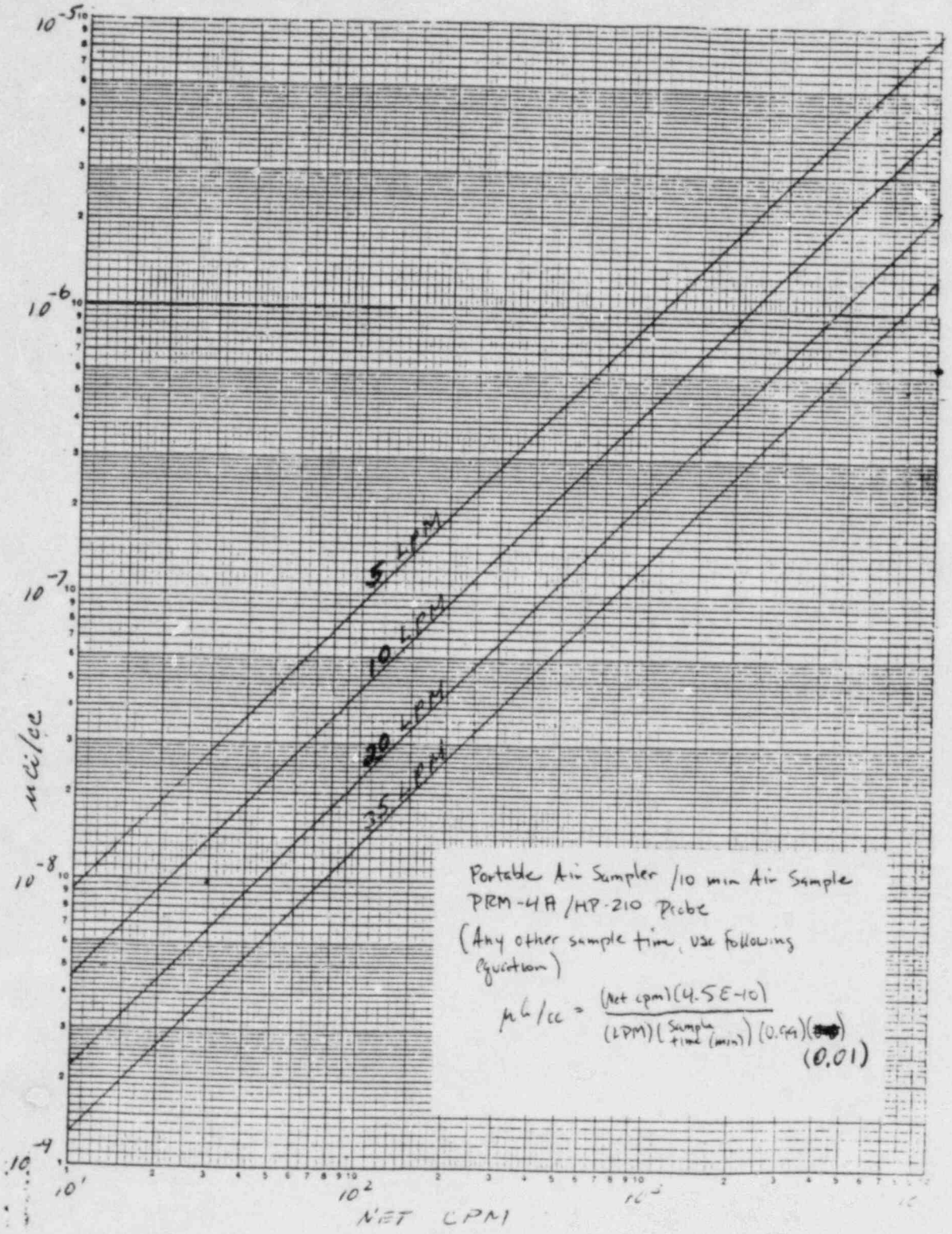
GROSS AIRBORNE DETERMINATION



manual set

FIGURE 2

IODINE DETERMINATION



manual set

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4827-1

SERIAL NO: R02-

MPL NO: _____

RTYPE: G15.03

XREF: _____

TOTAL SHEETS: 2

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: _____

FIGURE 3
Page 1 of 2

manual set

DATA PACKAGE 1
MONITORING TEAM CHECKLIST
Data Sheet 1

A. Inventory Kit and Verify Necessary Items

1. SAM-2 Analyzer (optional) _____
   a. Battery and source check _____
2. Survey Instruments _____
   a. Battery and source check _____
3. AgX Cartridges _____
4. Particulate Filters _____
5. Calculator _____
6. Stop Watch _____
7. Log Book _____
8. Sample Bags _____
9. Pocket dosimeters _____
10. TLDs _____
11. EOF Telephone Numbers (in log book) _____
12. Airborne Activity Calculation Form _____
13. Gloves _____
14. Tweezers _____
15. Labeling Materials (labels, pens, etc) _____
16. Maps and Procedures _____
17. Spare Batteries _____
18. Blank Smears _____
19. Portable Air Sampler _____
20. Sample Bottles _____
21. HP 210 Probe/Holder _____

B. Prior to departing the EOF, verify the following:

1. Survey instrument in cab and on lowest scale _____
2. Team members equipped with dosimetry _____
3. Maps in cab _____
4. Vehicle radio check completed _____

FIGURE 3
Page 2 of 2

manual set

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4827-2

SERIAL NO: R02-

MPL NO: _____

RTYPE: G15.03

XREF: _____

TOTAL SHEETS: 5

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: _____

FIGURE 4
Page 1 of 5

manual set

DATA PACKAGE 2

Data Sheet 1

Monitoring Team_____ Page ____ of ____ Date_____

EXPOSURE RATE AND EXPOSURE MEASUREMENT DATA FORM

** LOCATION				TIME	SURVEY INSTRUMENT	GROUND LEVEL EXPOSURE RATES1			PERSONNEL DIRECT READING DOSIMETRY2			TIME RE-PORTED
S	M	P	OTHER			2 meter (mR/hr)	1 meter (mR/hr)	Contact (mR/hr)	Name____ (mR)	Name____ (mR)	Name____ (mR)	

CONDITION	ACTION
1a. Exposure rate 25 mR/hr and radioiodine (^{131}I) air is not known.	1a. Potassium iodide (KI) recommended, unless directed otherwise by Dose Accessment Management.
2a. Total exposure 100 mR.	2a. Contact Dose Assessment Management and advise.
b. Total exposure 3 R.	b. Evacuation recommended, unless directed otherwise by Dose Assessment Management.
c. Total exposure 25 R.	c. Evacuation mandatory, contact Dose Assessment Management.

**Location-ie, sector, mile marker, direction, distance, road signs, landmarks, Hwy #'s, etc.

NOTE: Anytime exposure rate greater or equal to 25 mR/hr (regardless of air activity), Dose Assessment Management must be contacted.

S = Sector
M = Mile
P = Sample Point (1,2)

FIGURE 4
Page 2 of 5

manual set

DATA PACKAGE 2
Data Sheet 2

OFFSITE EMERGENCY MONITORING TEAM

Team_____ Date_____

Time entering plume_____ Time Exiting Plume_____ Plume Stay Time_____

Sample: Location_____ Sample Time On_____Sample Time Off_____

Flow Rate:_____LPM

Sampler Type _____ Serial Number_____

GROSS AIRBORNE ACTIVITY (Glass Fiber Filter)

(Sample + background CPM)_____CPM (Background CPM)_____CPM

(Sample + background CPM)-(background CPM)=Corrected CPM____CPM (net)*

From Figure 1 particulate airborne concentration=_____µci/cc**

Instrument Type_____ Serial Number_____

IODINE AIRBORNE ACTIVITY (AgX Filter)

(Sample + background CPM)_____CPM (Background CPM)_____

(Sample + background CPM)-(Background CPM)=Corrected CPM____CPM (net)*

From Figure 2 Iodine Airborne concentration=_____ µci/cc**

From Data Sheet 3 Thyroid Dose Rate _____mr/hr

Instrument Type_____ Serial Number_____

COUNT/DOSE RATE SURVEY

Count/dose rate while in transit_____CPM_____Mr/hr

Count rate @ waist level _____CPM

Count rate @ 2" from ground (window facing ground)_____CPM

Dose rate @ waist level_____Mr/hr

Dose rate @ 2" from ground_____Mr/hr

Instrument type_____ Serial Number_____

Instrument type_____ Serial Number_____

manual set

700820

DATA PACKAGE 2 (CONT)
Data Sheet 2

OFFSITE EMERGENCY MONITORING TEAM

PERSONNEL DOSIMETRY*** Time_____

Team member_____Dose_____mr
Team member_____Dose_____mr
Team member_____Dose_____mr
Team member_____Dose_____mr

SAMPLES COLLECTED

_____Direct radiation TLD's _____Milk

_____Vegetation _____Well Water

_____Soil _____Drinking Water from surface source

_____Other (specify) _____Other (specify)

* Note: If SAM-2 used record CPM (net) as instrument reading.

** Note: If activity (CPM), flow rate (LPM), or sample times (min) are different from information on Figures 1 & 2, use Data Sheet 3 for calculations and record results on Data Sheet 2 (μci/cc).

*** Note: Read and record personnel doseimtry at least one time while at each sample location. (More frequently if does rates are high).

FIGURE 4
Page 4 of 5

manual set

700820

DATA PACKAGE 2
Data Sheet 3

ENVIRONMENTAL AIRBORNE ACTIVITY CALCULATION FORM

1. Net Particulate (CPM)_____(from Data Sheet 2)

2. Net Iodine (CPM)_____(from Data Sheet 2)

3. Sample time_____ min. (from Data Sheet 2)

4. Flow rate_____ LPM (from Data Sheet 2)

Particulate

5. Gross Airborne Concentration =

Particulate

$$\frac{(\text{CPM (net)})\ (4.5\text{E-}9)}{(\_\_\_\_\_\text{LPM})\ (\_\_\_\_\_\text{min.})} = \_\_\_\_\_\ \mu\text{ci/cc}$$

Iodine

6. Airborne Concentration=

Iodine

$$\frac{(\text{CPM (net)})\ (4.5\text{E-}8)}{(\_\_\_\_\_\text{LPM})\ (\_\_\_\_\_\text{min.})} = \_\_\_\_\_\ \mu\text{ci/cc}$$

7. Thyroid Dose Rate=

(line 5 µci/cc) x (1.85E+9 mr/hr/µci/cc) = _____mr/hr

*If a SAM-2 is used the graphs are not usable. The formula following must be used:

$$\frac{(\text{Net CPM})\ (1.5\ \text{E-}9)}{(\text{volume in liters})} \text{ for charcoal cartridge}$$

$$\frac{(\text{Net CPM})\ (1.58\ \text{E-}9)}{(\text{volume in liters})} \text{ for silver zeolite}$$

manual set

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Determination of the Extent
Of Core Damage Under Accident Conditions
PROCEDURE TITLE

HNP-4848
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
0	New Procedure	W. B. Rogers for RWS	Haworth Jr	7/5/83
1	Pages 3 thru 6	R. W. Spradlin	Jim Greene	8/4/83

We 10/11

Need date 10/11/83 JEC

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4848 SHEET 1 OF 1

Revision No. 0

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
M.R. Wright	10-6-83	W.J. Dorgan / R.W. Swadosh	10/6/83

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

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

PRESENT STATUS: Safety Related (X) Non-Safety Related ( )

The above Safety/Non-Safety Status has changed ( ) Yes to _____

Attach marked up copy of procedure to this form.

REASON FOR REQUEST: To change graphs on pgs. 4 & 6 to apply directly to ~~pgs~~ Plant Batch.

DESCRIPTION OF CHANGES: Pg 3. Correct spelling of "to", delete "4 3" delete step 3. Replace pg. 4 with rev. pg 4. Pg 5 change "for the reference plant --" to "of uniform radioactivity --" Delete step 4. Replace pg 6 with rev. pg. 6.

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No JEC
PRB Secretary

83-188
PRB Number

10/11/83
Date

HNP-9

manual set

SAFETY EVALUATION

This revision 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 this revision because the revision does not change the purpose or performance of the ~~system~~ procedure which is to estimate the extent of core damage under accident conditions.

2. The possibility of an accident or malfunction of a different type than analyzed in the FSAR does not result from this revision because the ~~system responds and is operated as before the revision.~~ results from the use of the procedure are the same as before the revision.

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 allow a limiting condition for operations to be exceeded as stated in Technical Specifications.

DETERMINATION OF THE EXTENT OF CORE DAMAGE UNDER ACCIDENT CONDITIONS

A. PURPOSE

To provide instructions for determining the extent of core damage under accident conditions.

B. REFERENCES

NEDO-22215 "Procedures for the Determination of the Extent of Core Damage Under Accident Conditions" by C. C. Lin

C. SAFETY

Observe good radiation protection practices when handling samples to minimize personnel exposure.

D. PROCEDURE

Obtain a reactor water sample and a drywell atmosphere sample by using the installed Post Accident Sampling System (PASS). Determine the corrected activity concentration in micro-curies per gm (uCi/gm) decay corrected back to time of reactor shutdown. This correction can be done by entering the time of the reactor shutdown into the computer for the sampling time.

Determine the corrected concentrations of the indicator isotopes I-131, Cs-137, Xe-133, and Kr-85. Multiply the concentrations of I-131 and Cs-137 that are in the reactor water by 1.22. Multiply the Xe-133 and Kr-85 in the drywell atmosphere sample by 0.786 for Unit I and 0.795 for Unit II. After multiplication, the resulting concentrations are the normalized concentrations and can be compared to the charts developed by General Electric and included in this procedure as Figures 1 through 4. Any damage to the fuel in the core can be determined directly from the graphs by reading percent of damage versus corrected concentration in uCi/gm or uCi/cc.

E. OTHER FACTORS

For further refinement of the core damage estimate, consult the reference in Section B. Some other factors that may be useful in determining core damage are summarized as follows.

1. Containment Radiation Levels

Containment radiation level provides a measure of core damage, because it is an indication of the inventory of

airborne fission products (i.e., noble gases, a fraction of the halogens, and a much smaller fraction of the particulates) released from the fuel to the containment. Containment hydrogen levels, which are measurable by the PASS or the containment gas analyzers, provide a measure of the extent of metal-water reaction which, in turn, can be used to estimate the degree of clad damage.

2. Reactor Vessel Water Level

Another significant parameter for the estimation of core damage is reactor vessel water level. This parameter is used to establish if there has been an interruption of adequate core cooling. Significant periods of core uncovery, as evidenced by reactor vessel water level readings, would be an indicator of a situation where core damage is likely. Water level measurement would be particularly useful in distinguishing between bulk core damage situations caused by loss of adequate cooling to the entire core and localized core damage situations caused by a flow blockage in some portion of the core.

3. Main Steam Line Monitors

There are other parameters which may provide an indication that a core damage event has occurred. These are main steam line radiation level and reactor vessel pressure. The usefulness of main steam line radiation measurement is limited because the main steam line radiation monitors are downstream of the main steam isolation valves (MSIVs) and would be unavailable following vessel isolation.

4. Reactor Vessel Pressure Measurement

Reactor vessel pressure measurement would provide an ambiguous indication of core damage, because, although a high reactor vessel pressure may be indicative of a core damage event, there are many non-degraded core events which could also result in high reactor vessel pressure.

5. Detection of the Less Volatile Fission Products

There are other measurements besides radionuclide measurements which are obtainable using the PASS which would further aid in estimating core damage. Detection of such elements in the reactor coolant as Sr, Ba, La, and Ru is evidence of fuel melting. These indications could be factored into the final core damage estimate.

6. Metal-Water Reaction of Hydrogen in the Containment

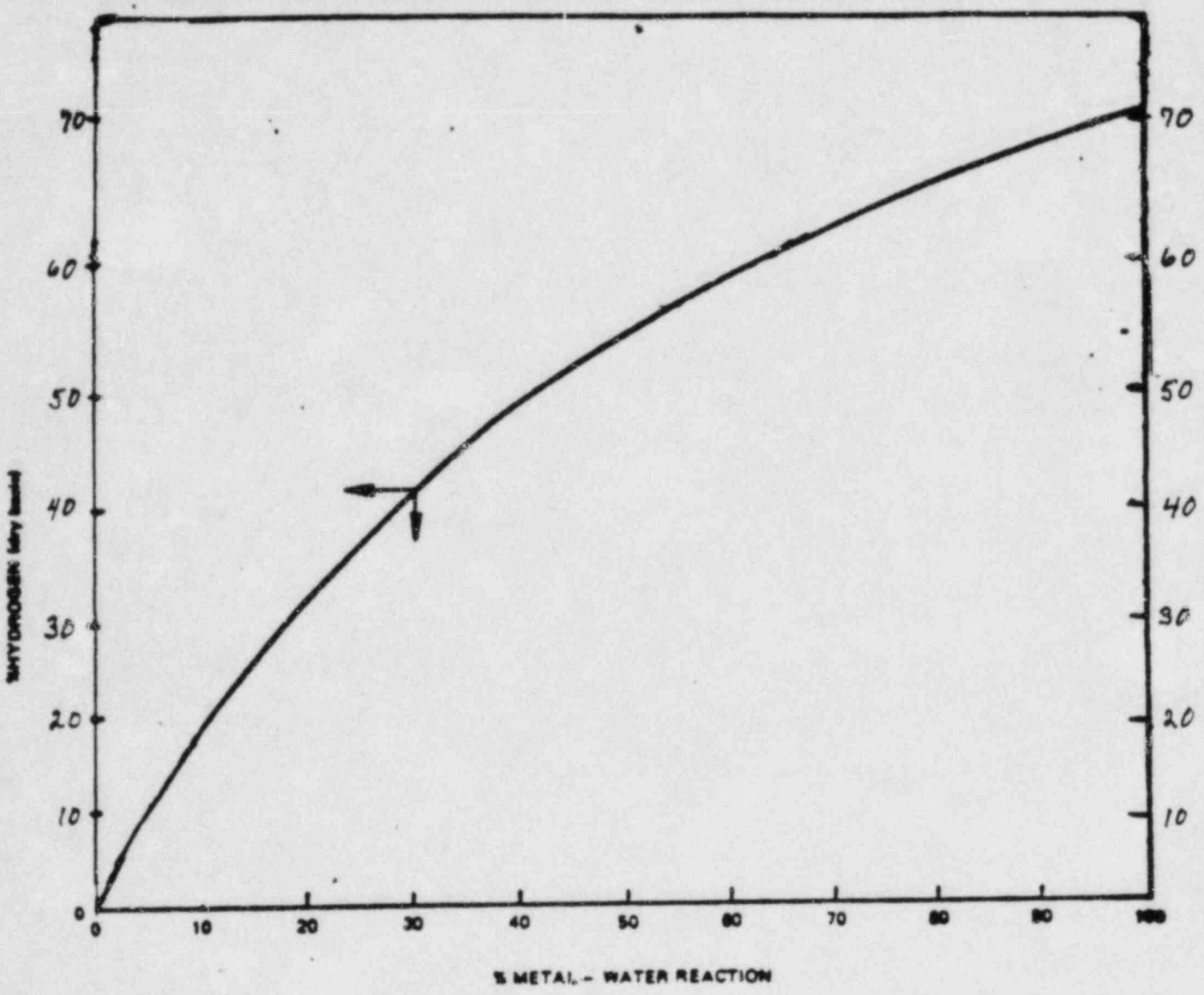
The extent of fuel clad damage as evidenced by the extent of metal-water reaction can be estimated by determination of the hydrogen concentration in the containment. That concentration is measurable by either the containment hydrogen monitor or by the post accident sampling system.

A correlation has been developed which relates containment hydrogen concentration to the percent metal-water reaction for Mark I type containments. That correlation is shown in the curve below. Steps 1 and 2 below indicate the method by which Plant Hatch can use the correlation to determine the extent of clad damage.

Step 1: Obtain containment hydrogen monitor reading, (H), in %.

Step 2: Using the curve below, determine the metal-wafer reaction for the reference plant, MW ref .

METAL-WATER REACTION OF HYDROGEN CURVE



manual set

7. Containment Radiation Level Readings

An indication of the extend of core damage is the containment radiation level which is a measure of the inventory of fission products released to the containment. The purpose of this step is to present that correlation and provide a method whereby Plant Hatch can use the correlation to determine the degree of core damage.

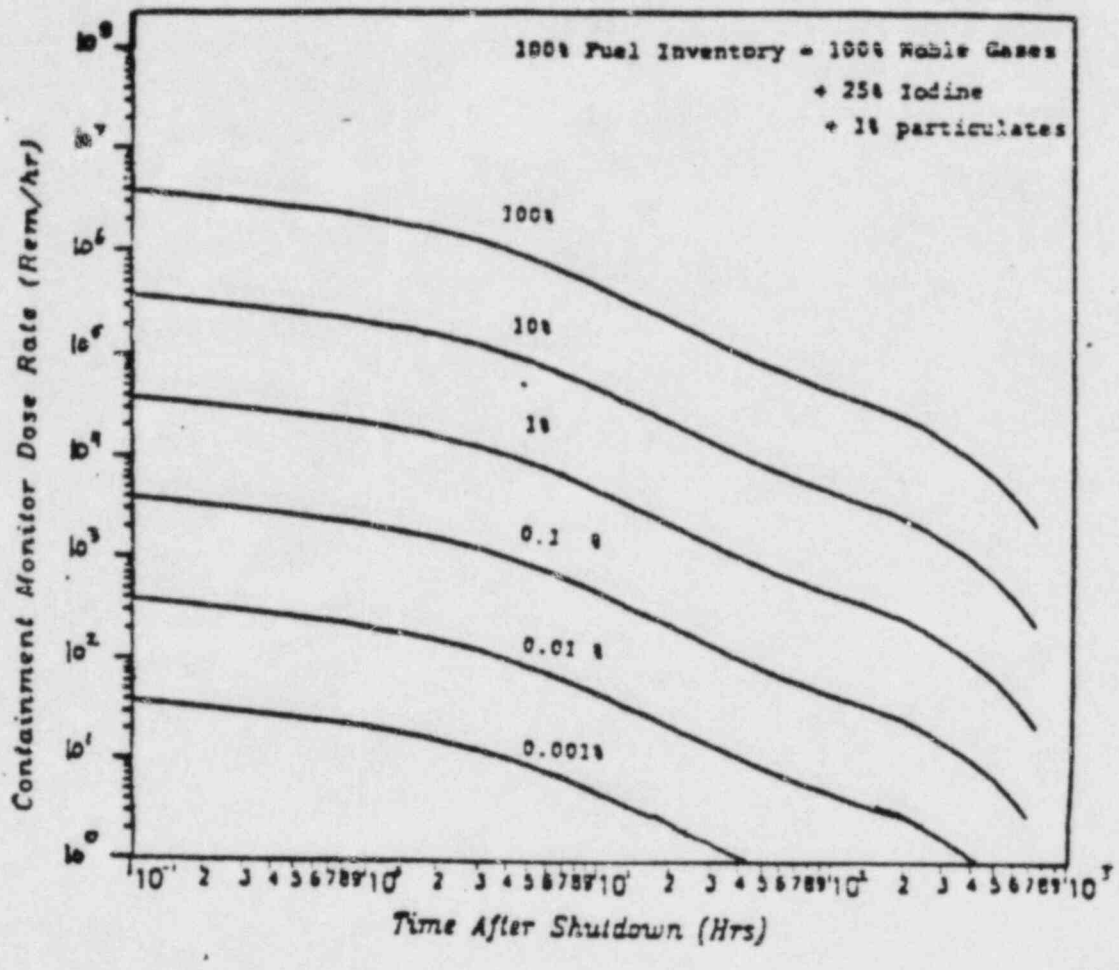
The procedure for determination of fraction of fuel inventory released to the containment is as follows:

Step 1: Obtain containment radiation monitor reading, (R), in Rem/hr.

Step 2: Determine elapsed time from plant shutdown to the containment radiation monitor reading (t) in hours.

Step 3: Using the curves below, determine the fuel inventory release of airborne radioactivity to the containment in percent.

PERCENT OF FUEL INVENTORY AIRBORNE IN THE CONTAINMENT CURVE



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8. Application of Other Significant Parameters to Core Damage Estimate

As noted previously, procedures have already been developed which provide an estimate of core damage based on radionuclide measurements. Based on these procedures, an initial assessment of core damage is made. Based on a clarification provided by the NRC, that assessment would appear in a matrix as follows:

Degree of Degradation	Minor (<10%)	Intermediate (10% - 50%)	Major (>50%)
No fuel damage	←---------- 1 ----------→		
Cladding failure	2	3	4
Fuel Overheat	5	6	7
Fuel Melt	8	9	10

As recommended by the NRC, there are four general classes of damage and three degrees of damage within each of the classes except for the "no fuel damage" class. Consequently, there are a total of 10 possible damage assessment categories. For example, Category 3 would be descriptive of the condition where between 10 and 50 percent of the fuel cladding has failed. Note that the conditions of more than one category could exist simultaneously. The objective of the final core damage assessment procedure is to narrow down to the maximum extent possible those categories which apply to the actual inplant situation.

FIGURE 1

NEDO-22215

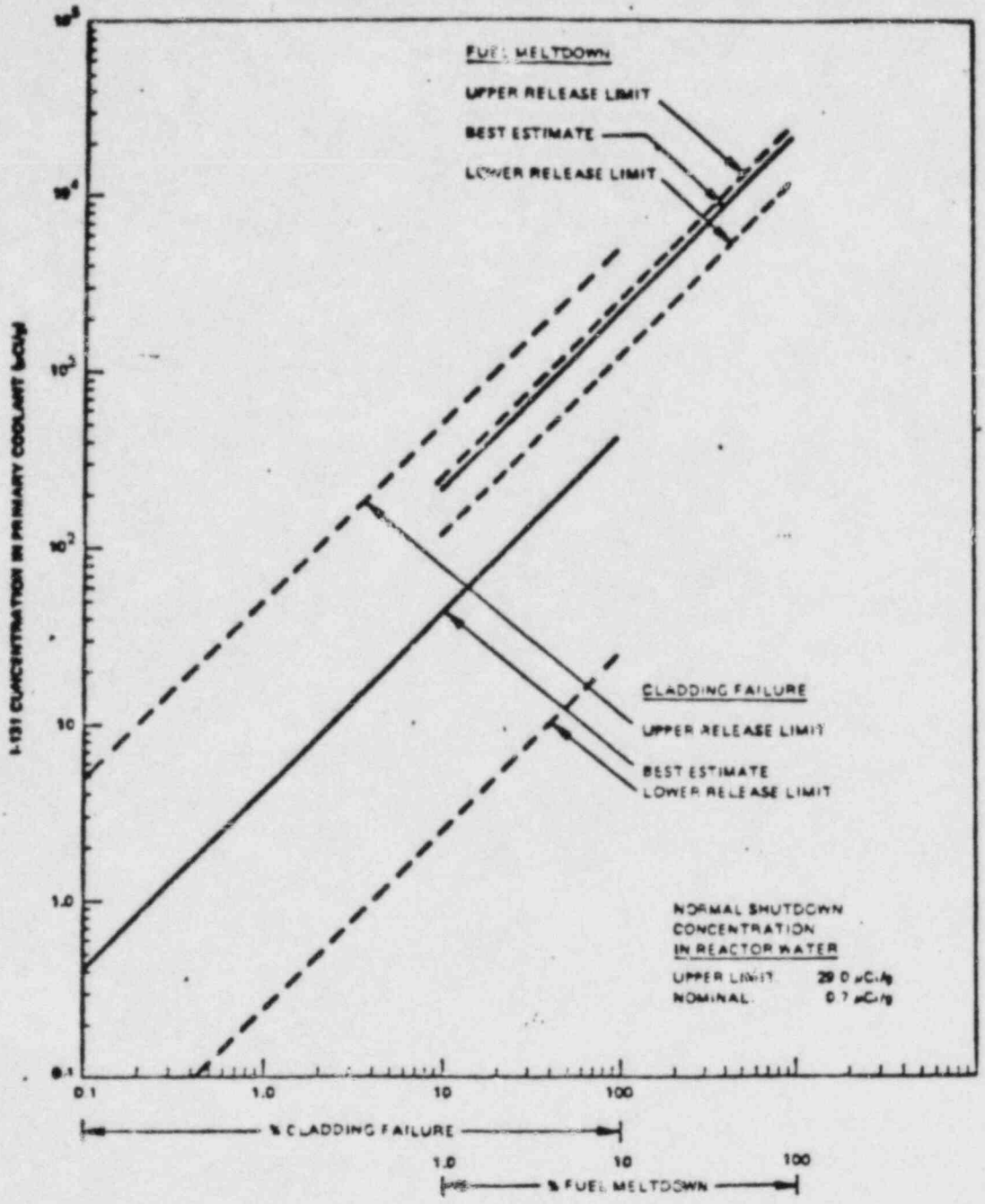

Figure 1: Relationship bewteen I-131 Concentration in the Primary Coolant (Reactor Water + Pool Water) and the Extent of Core Damage in Reference Plant

marked set

FIGURE 2

NEDO-22215

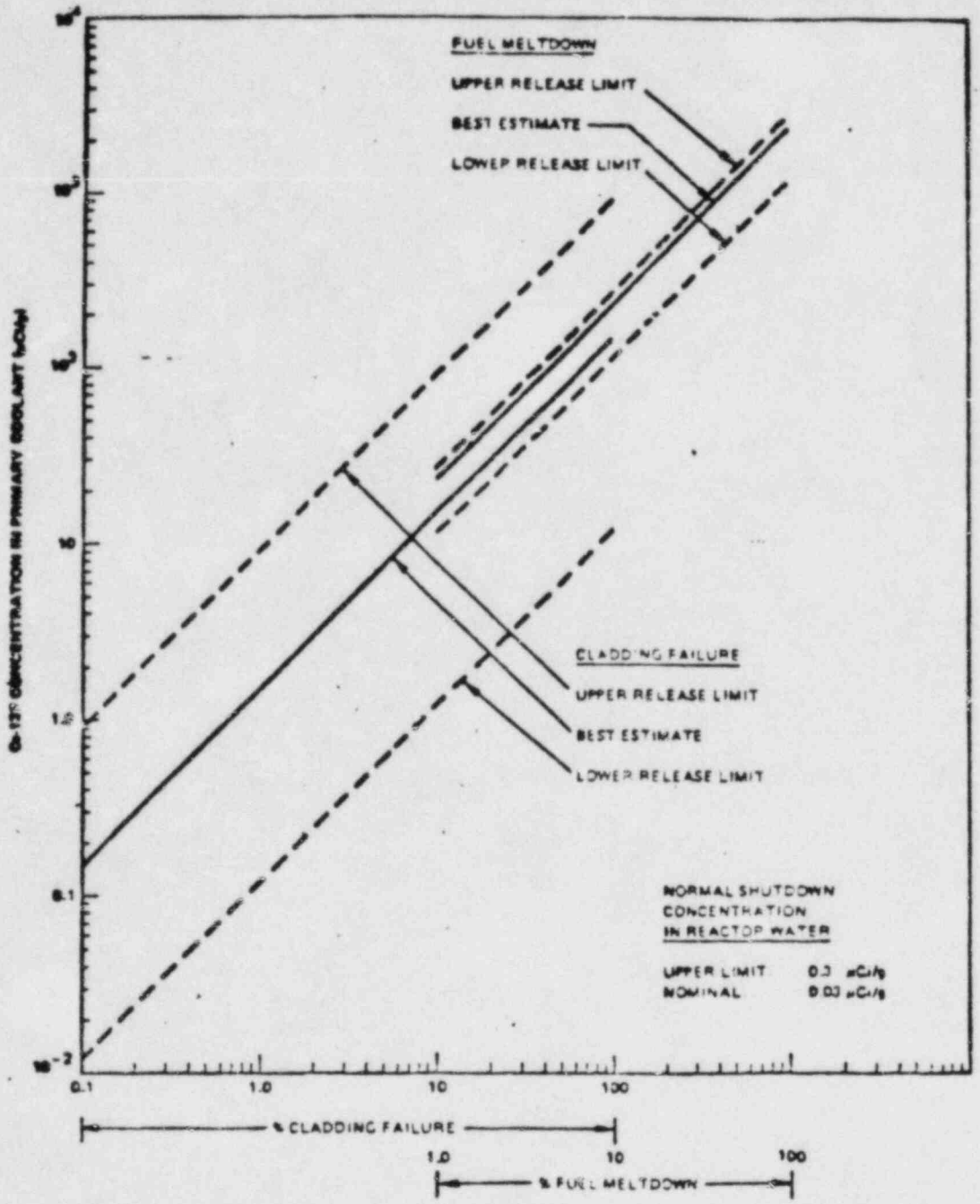

Figure 2: Relationship between Cs-137 Concentration in the Primary Coolant (Reactor Water + Pool Water) and the Extent of Core Damage in Reference Plant

manual set

FIGURE 3

NEDO-22215

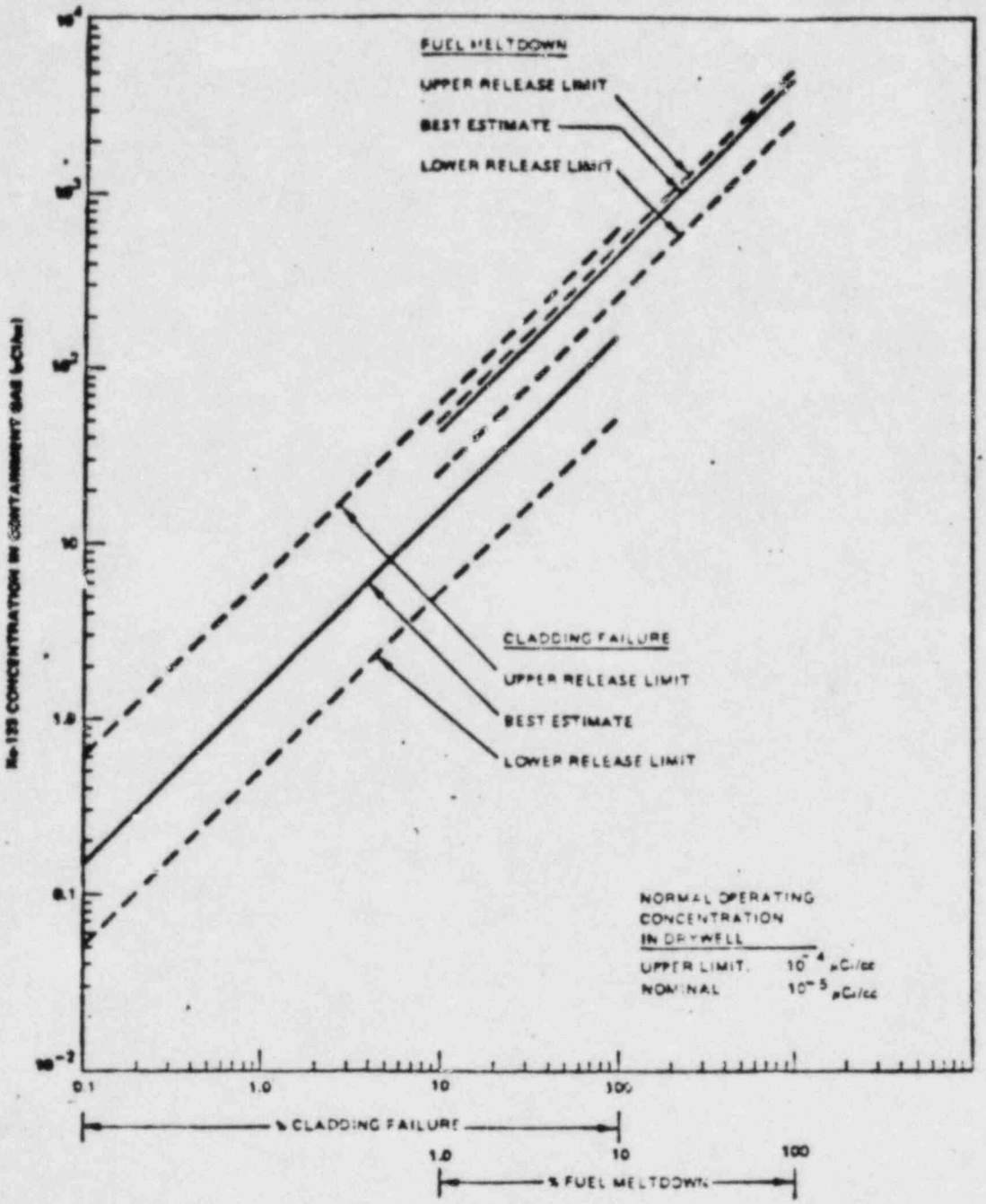

Figure 3: Relationship between Xe-133 Concentration in the Containment Gas (Drywell + Torus Gas) and the Extent of Core Damage in Reference Plant

manual set

FIGURE 4

NEDO-22215

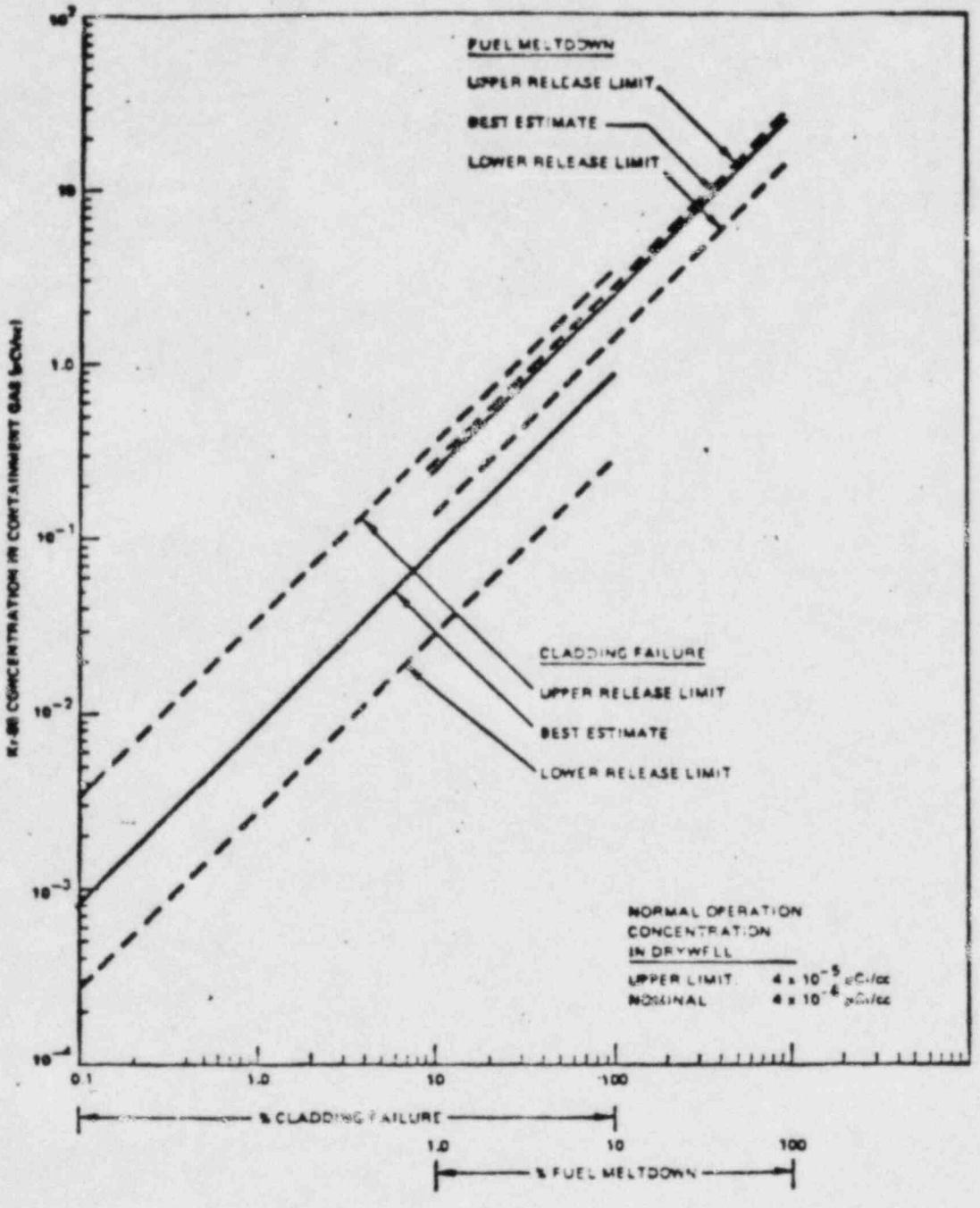

Figure 4: Relationship between Kr-85 Concentration in the Containment Gas (Drywell + Torus Gas) and the Extent of Core Damage in Reference Plant

manual set

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	Ruth Mix	8/23/82
5	Pages 2, 5 & 6	W H Rogers	J T Greene Jr	11/3/82
6	Pages 1-2, 5-6 & 8-10	R W Gardner	Ruth Mix	6/10/83
7	Pages 1-3 and 7-9	R W Gardner	J T Greene	10/12/83

We 10/11

Need date 10/11/83 MC

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-4860 SHEET 1 OF 1

Revision No. 07

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name: John D. Copley	Date: 10-7-83	Signature: RW Zavadoski / W.R. Bazzen	Date: 10/10/83 / 10/10/83

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

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

PRESENT STATUS: Safety Related (X) Non-Safety Related ( )

The above Safety/Non-Safety Status has changed ( ) Yes to _____

Attach marked up copy of procedure to this form.

REASON FOR REQUEST: The procedure at revision 06 does not reflect the present system of assigning communication.

DESCRIPTION OF CHANGES: Page 1 of 1 - Section 6 paragraph 2.3 deleted. Page 3 deleted - added new page 3 with 4 spaces listings. Page 4 deleted - added new page 4 with 4 spaces listings. Pages 8, 9 & 10 deleted - added new pages 8, 9 & 10 to reflect spaces, plans listings. Pages 8, 9 & 10 in data package.

PRB RECOMMENDS APPROVAL: (X) Yes ( ) No JL Elt
PRB Secretary

83-188
PRB Number

10/11/83
Date

HNP-9

5T

manual set

SAFETY EVALUATION

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

1. The probability of occurence and the consequences of an accident or malfunction of equipment important to the 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~~ IMPACT ANY SAFETY SYSTEMS AND IT BETTER identifies the locations of the emergency phones.

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~~ the change to this procedure does not affect any plant systems.

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 setting which would allow a safety limit to be exceeded or to allow a limiting condition for operation to be exceeded as stated in Technical Specifications

HNP-3

manual set

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), (i.e., 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. Each party checks the quality of reception.

3. If any line or phone is noted to be lacking in reception quality, the technician will record the problem using the Communications Repair Form (Figure 2). Also note Figure 2 being completed in column 4 of Data Package 1.

4. 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.

5. The HP Supervisor in charge of communication will assign a tracer number to each Communication Repair Form. He will also maintain a log of these forms using the Communication Repair Log (Figure 1).

D. CORRECTIVE ACTION TO BE COMPLETED BY COMMUNICATION PERSONNEL

1. Necessary corrective action is initiated through the supervisor in charge of communication as and when necessary through the use of Figure 2.

2. Return filled out Communication Repair Forms to the HP Supervisor in charge of communications when corrective action has been completed.

TABLE 1

EMERGENCY COMMUNICATION SYSTEM OUTLINE

Location	Phone Dedicated As:	Testing Procedure
Control Room	EOF	*
	TSC	*
	OSC	*
	SIM	*
	GPGO	*
	System Operator	Press 480 nx #1 on switchboard Dial 01 for system operator
	Division Operator	Press 480 nx #2 on switchboard Dial 15 for division operator
	ENN	See HNP-4861
	GEMA	*
OSC	Con. Rm	*
	TSC	*
	EOF	*
	SIM	*

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. Check one phone at each location as all multiple line sets are extensions.

TABLE 1 (CONT)

EMERGENCY COMMUNICATION SYSTEM OUTLINE

Location	Phone Dedicated As:	Testing Procedure
EOF	Con . Rm.	*
	TSC	*
	OSC	*
	SIM	*
	GPGO	*
	ENN	See HNP-4861
	NRC Hotline E.N.S.	*
	NRC Hotline H.P.N.	Dial 22 for headquarters Dial 23 for Regional Office
	Baxley line 367-7864	Dial plant's Baxley Ext. (367-7781)
TSC	Con. Rm.	*
	EOF	*
	OSC	*
	SIM	*
	GPGO	*
	ENN	See HNP-4861
	NRC Hotline E.N.S.	*
	Baxley line (367-7997)	Dial plant's Baxley Ext. (367-7781)
	Baxley line (367-7998)	Dial plant's Baxley Ext. (367-7781)

* Remove receiver and phone will ring at dedicated location. Check one phone at each location as all multiple line sets are extensions.

FIGURE 1

EMERGENCY COMMUNICATION REPAIR LOG

TRACER NUMBER	DISCOVERY DATE	L.A. COMPLETION DATE	REMARKS

manual set

FIGURE 2

EMERGENCY COMMUNICATIONS REPAIR FORM

TRACER NUMBER_____ DATE_____

TO:_____

LOCATION OF PHONE_____ PHONE NUMBER_____

DESCRIPTION OF PROBLEM:

_____

_____

_____

_____

_____/_____
SIGNED / DATE

DESCRIPTION OF CORRECTIVE ACTION:

_____

_____

_____

_____

CORRECTIVE ACTION COMPLETED _____/_____
SIGNED / DATE

:RETURN TO H.P. SUPERVISOR WHEN COMPLETED.

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4860-1

SERIAL NO: R07-

MPL NO:

RTYPE: G15.03

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:

FIGURE 3
Page 1 of 4

manual set

DATA PACKAGE 1

EMERGENCY TELEPHONE CHECK

LOCATION: CONTROL ROOM	DATE	FIGURE 2 FILLED OUT	INIT.
EOF			
TSC			
OSC			
SIM			
Georgia Power General Office			
System Operator			
Division Operator			
ENN			
GEMA			

LOCATION: OSC			
Con. Rm.			
TSC			
EOF			
SIM			

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

FIGURE 3
Page 2 of 4

manual set

DATA PACKAGE 1

EMERGENCY TELEPHONE CHECK

LOCATION: EOF	DATE	FIGURE 2 FILLED OUT	INIT.
Cont. Rm.			
TSC			
OSC			
SIM			
Georgia Power General Office			
ENN			
NRC Hotline ENS			
NRC HPN 22 / Hot Line 23			
Baxley Line 367-7864			

LOCATION: TSC			
Con. Rm.			
EOF			
OSC			
SIM			
Georgia Power General Office			
ENN			
NRC Hotline ENS			
Baxley Line 367-7997			
Baxley Line 367-7998			

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

DATA PACKAGE 1 (CONT)

EOF to * REMOTE LOCATIONS OF ENN	DATE	NAME	FIGURE 2 FILLED OUT	INIT.
G.E.M.A. (Atlanta) (404) 656-6401 *				
Baxley Police Dept. (912) 367-2403 *				
Appling County C.D. (912) 367-4698 *				
Appling County Sheriff (912) 367-2086 *				
Toombs County Sheriff (912) 526-6350 *				
Hazelhurst Police Dept. (912) 375-3311 *				
Reidsville Police Dept. (912) 557-4340 *				

CONTROL ROOM TO * REMOTE LOCATIONS OF ENN	DATE	NAME	FIGURE 2 FILLED OUT	INIT.
G.E.M.A. (Atlanta) (404) 656-6401 *				
Baxley Police Dept. (912) 367-2403 *				
Appling County C.D. (912) 367-4698 *				
Appling County Sheriff (912) 367-2086 *				
Toombs County Sheriff (912) 526-6350 *				
Hazelhurst Police Dept. (912) 375-3311 *				
Reidsville Police Dept. (912) 557-4340 *				

TSC TO * REMOTE LOCATIONS OF ENN	DATE	NAME	FIGURE 2 FILLED OUT	INIT.
G.E.M.A. (Atlanta) (404) 656-6401 *				
Baxley Police Dept. (912) 367-2403 *				
Appling County C (912) 367-4698 *				
Appling County Sheriff (912) 367-2086 *				
Toombs County Sheriff (912) 526-6350 *				
Hazelhurst Police Dept. (912) 375-3311 *				
Reidsville Police Dept. (912) 557-4340 *				

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

FIGURE 3
Page 4 of 4

manual set