GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Health Physics Start-Up Surveillance
PROCEDURE TITLE

HNP-8030
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
1	Pages 1 and 2	W.H. Rogers	Jim Swartz	2/10/83

C4

PROCEDURE REVISION REQUEST

Safety Related
DAM 12/30/82

PROCEDURE NO. HNP- 8030

Revision No. 2

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
M. Wright	10-28-82	W.H. Rogers	12/22/82

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

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

Safety Related (✓) Non-Safety Related ( )

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

Attach marked up copy of procedure to this form.

REASON FOR REQUEST pg 1 para A. clarify extended down time by putting a time frame with it. Add REFERENCES section as required by HNP-9. Pg 2: add unit 2 to Remarks section.

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

83-4
PRB Number

1-11-83
Date

HNP-3

BT

MANUAL SET

SAFETY EVALUATION

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

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

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

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

APPROVAL
See Title Page
DATE
See Title Page

E. I. HATCH NUCLEAR PLANT

Georgia Power

PROCEDURE NO.
HNP-8030
REVISION NO.
1
PAGE NO.
1 of 4

BT

HEALTH PHYSICS START-UP SURVEILLANCE

A. PURPOSE

To ensure that radiological safety is maintained during reactor start-up (not scram recoveries) after extended down time of two weeks or longer.

B. REFERENCES

1. HNP-8026

C. SAFETY

1. Observe radiation protection procedures.

D. EQUIPMENT

1. RO-2A or RO-3A
2. Teletector
3. PNC-4 or PNR-4
4. Rad Signs and rope

E. PROCEDURE

Perform activities as per Data Package 1 (Data Sheet 1).

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-8030-1

SERIAL NO: R01-

MPL NO: _____

RTYPE: G15.14

XREF: _____

TOTAL SHEETS: 3

FREQUENCY: AS NEEDED

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: UNIT 1 OR 2

FIGURE 1
Page 1 of 3

MANUAL SET

DATA PACKAGE 1
DATA SHEET 1

1. Should be performed before startup.

   a. Check high radiation areas and ensure that all areas are posted as needed (Ref. HNP-8026).

   _____ _____
   Name Date

   b. Ensure all high radiation area doors are locked (Ref. HNP-8026).

   _____ _____
   Name Date

   c. Rope off and post the large blue lines at Turbine Building 112' elevation at the condensate pumps. (Unit I only).

   _____ _____
   Name Date

   d. Return low volume air samplers to service. Record in log book.

   _____ _____
   Name Date

2. Should be performed after 50% power.

   a. Ensure that the Waste Gas and Recombiner Building are not airborne.

   Record in Log Book.

   _____ _____
   Name Date

   b. Perform Cim-Cam surveillance and ensure areas are not airborn.

   Record in Log Book.

   _____ _____
   Name Date

3. Should be performed after 75% power.

   a. Perform a general area gamma radiation survey and ensure dose rates are as expected.

   Record in Log Book.

   _____ _____
   Name Date

FIGURE 1
Page 2 of 3

DATA PACKAGE 1 (CONT)
DATA SHEET 1 (CONT)

b. Perform a detailed survey of penterations for radiation.

Rx 158' and Rx 185' elevations.

Record in Log Book.

_____
Name Date

4. General Remarks: _____

_____

_____

_____

_____

_____

FIGURE 1
Page 3 of 3

MANUAL SET

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Airborne Radioactivity Concentration Determination for Abnormal or Accident Conditions

PROCEDURE TITLE

HNP-4826

PROCEDURE NUMBER

Lab

RESPONSIBLE SECTION

SAFETY RELATED (X) NON-SAFETY RELATED ( )

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
2	Pages 1,3,5 & 9	W H Rogers	Jim Swartz	1/20/82
3	Pages 1, 4, 5, 6, & 9	W H Rogers	Jim Swartz for	4/23/82
4	Page 2	W H Rogers	[illegible]	12/3/82
5	Pages 1,2,3 & 7	W H Rogers	[illegible]	2/8/83

MANUAL SET

C/H

Needs PRC 2-7-83 WHR

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4826

Revision No. 4

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Rick Fitolo	2/2/82	W H Rogers	2/3/83

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

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

Safety Related (✓) Non-Safety Related ( )

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

Attach marked up copy of procedure to this form.

REASON FOR REQUEST Procedure revised ① to reference new OSC location & ② to require the use of silver zeolite cartridges in determining airborne radioactivity concentrations during an emergency.

page 1, A.1 : change to Operational Support Center
D.2.b : add silver zeolite
D.2.c : delete reference to high volume sampler
D.2.c : change to silver zeolite and add - rain sample(s) + delete reference to high volume air sampler
D.2.g : delete

P2, E.2 : change to silver zeolite & correct filter
E.5 : change to silver zeolite
E.6 : add when practical

page 2, F.1 : add OSC

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No

for PRB Secretary

83-19
PRB Number

2-3-83
Date

page 7, I.3 : delete 2nd paragraph

HNP-3

MANUAL SET

708

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP- 4826

Revision No. 4

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
W H Rogers	12-7-82	W H Rogers	12-7-82

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

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

Safety Related (✓) Non-Safety Related ( )

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

Attach marked up copy of procedure to this form.

REASON FOR REQUEST

pg 1 Sect D para 1 Change TSC to Operations Support Center.

pg 7 Sect H. Change TSC to OSC Capitalize R in "report" for new sentence

PRB RECOMMENDS APPROVAL: (✓) Yes ( ) No

for PRB Secretary

82-225
PRB Number

12-16-82
Date

HNP-3

MANUAL SET

SAFETY EVALUATION

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

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

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

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

APPROVAL	PROCEDURE NO
See Title Page	HNP-4826
DATE	REVISION NO
See Title Page	5
	PAGE NO
	1 of 11

E. I. HATCH NUCLEAR PLANT

Georgia Power

AIRBORNE RADIOACTIVITY CONCENTRATION DETERMINATION FOR ABNORMAL OR ACCIDENT CONDITIONS

A. PURPOSE

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

B. SAFETY

Observe Radiation Protection Procedures and Plant Hatch Emergency Procedures.

C. GENERAL

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

D. EQUIPMENT

1. CIM-CAM located in Operational Support Center.

2. Lab cart supplied with the following equipment either dedicated (i.e., taken out of regular service and reserved for emergency use) or readily available for use near the OSC.

   a. One SAM 2/RD-22 calibrated and set at the Iodine peak, with detector and sample holder.

   b. One low-volume air sampler with silver zeolite cartridges and filters.

   c. One high range survey meter (PIC-6A, teletector or equivalent.)

   d. One box of extra silver zeolite cartridges for the low-volume air sampler (2").

   e. Extra filter papers for samplers.

   f. One complete set of protective coveralls.

   g. One M.S.A. Model 401 Air Pack Respirator.

   h. One high range dosimeter.

i. One E-120 Low range instrument.

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

k. Purging apparatus.

E. PROCEDURE

CAUTION

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

NOTE

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

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

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

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

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

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

6. When practical, follow the correct step-off pad undressing procedure to remove protective clothing before leaving the operating buildings.

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

F. PURGING OF CHARCOAL AND SILVER ZEOLITE CARTRIDGES

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

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

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

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

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

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

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

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

G. COUNTING AND ANALYSIS

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

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

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

1. Operation of Instrument.

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

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

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

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

   e. Set CH1 WINDOW to ".72".

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

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

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

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

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

NOTE

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

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

(1) Silver Zeolite Cartridges:

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

(2) Charcoal Cartridges:

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

NOTE

-10

a. 4.5×10 = conversion factor to get from disintegrations per minute to microcuries.

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

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

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

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

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

---

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

2. Daily Operational Calibration

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

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

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

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

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

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

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

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

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

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

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

NOTE

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

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

NOTE

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

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

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

3. Use of Silver Zeolite Cartridges.

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

H. USE OF OTHER SOURCES OF INFORMATION

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

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

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4826-1

SERIAL NO: R05-

MPL NO:

RTYPE: G15.03

XREF:

TOTAL SHEETS: 2

FREQUENCY: As Required

COMPLETED BY:

DATE COMPLETED:

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

ACCEPTABLE _____ UNACCEPTABLE _____

REVIEWED BY:

DATE REVIEWED:

REMARKS:

FIGURE 1
Page 1 of 2

MANUAL SET

DATA PACKAGE 1
(Data Sheet 1)

PORTABLE AIR SAMPLE LOG

DATE: ____________ NO.: ____________

COLLECTION DATA

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

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

COLLECTION DATA

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

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

COLLECTION DATA

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

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

IODINE ACTIVITY: 1) SILVER ZEOLITE = $\frac{(\text{NET CPM})(4.5 \times 10^{-10})}{(\text{VOLUME IN LITERS})(.95)(\text{D.E.})}$

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

PROCEDURE DATA PACKAGE

DOCUMENT NO: HNP-4826-2

SERIAL NO: R05-

MPL NO: _____

RTYPE: G15.03

XREF: _____

TOTAL SHEETS: 2

FREQUENCY: As Required

COMPLETED BY: _____

DATE COMPLETED: _____

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

ACCEPTABLE _____ UNACCEPTABLE _____

REVIEWED BY: _____

DATE REVIEWED: _____

REMARKS: _____

FIGURE 2
Page 1 of 2

MANUAL SET

GEORGIA POWER COMPANY

HATCH NUCLEAR PLANT

PROCEDURE

Spill Prevention Control and Countermeasures (SPCC) for Oil, Hazardous Substances and Hazardous Waste
PROCEDURE TITLE

HNP-4001
PROCEDURE NUMBER

Lab
RESPONSIBLE SECTION

SAFETY RELATED ( ) NON-SAFETY RELATED (X)

REV.	DESCRIPTION	APPROVED DEPT. HEAD	APPROVED PLANT MANAGER	DATE
3	General Revision	W R Rogers	J H Miller Jr	4/16/82
4	Pages 5 and 12-13	W R Rogers	J H Miller Jr	2/10/83

MANUAL SET

RECEIVED
JAN 21 1983

We

PROCEDURE REVISION REQUEST

PROCEDURE NO. HNP-4001

PROCEDURE SECTION

Revision No. 43

REQUESTED BY		DEPARTMENT HEAD APPROVAL	
Name:	Date:	Signature:	Date:
Byron H. Fennell	12-28-82	W F Rogers	1/19/83

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

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

Safety Related ( ) Non-Safety Related (X)

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

Attach marked up copy of procedure to this form.

REASON FOR REQUEST Letter sent down from Mr. G.F. Head indicating that the Environmental Protection Division and Georgia Power Co. are trying to work more closely together. Georgia Power recommends that the following changes and/or additions to our existing procedures be implemented.

page 4 of 13

5 of 13

11 of 13

13 of 13

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

_____ PRB Number

_____ Date

BT

HNP-3

MANUAL SET

SAFETY EVALUATION

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

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

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

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

APPROVAL	E. I. HATCH NUCLEAR PLANT	PROCEDURE NO
See Title Page	Georgia Power	HNP-4001
DATE		REVISION NO
See Title Page		4
		PAGE NO
		1 of 14

BT

SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) FOR OIL, HAZARDOUS SUBSTANCES, AND HAZARDOUS WASTE

NOTE

This procedure supersedes HNP-1-4130 Rev. 1 approved 4/11/77.

A. CONDITION

The detection of hazardous waste or hazardous substances spillage is limited to the visible loss of integrity of the container(s) which is known to contain such materials or the accumulation of such materials outside their containers.

An oil spill may be indicated by:

1. Oil slicks or suspected oil slicks at the discharge structure, in the yard drain effluents, or in the circulating water flumes.
2. Oil in the D/G day tank room floor or the D/G room floor.
3. Oil in sumps of any building.
4. Decreasing tank level in the underground fuel oil storage tanks.
5. Visual observation.

B. AUTOMATIC ACTIONS

None.

C. INDIVIDUAL ACTION

All persons who are assigned to Plant Hatch are responsible for reporting leaks or suspected leaks of oil, hazardous susbstances, or hazardous waste. As per this section, each individual is expected to give technical or manual assistance to contain and control such a spill until relieved by the Emergency Coordinator.

In the event a spill or suspected spill of any oil, hazardous substance, or hazardous waste is detected, the person finding such an event is to notify his immediate supervisor, Emergency Coordinator, or Plant Manager and give them the following information:

1. Your name and present location.
2. Type and location of spill.

3. Estimate of quantity or extent of the spill.

Use appropriate actions to contain spill as per Attachment 3 and wait there until relieved by the Emergency Coordinator or his designate.

D. EMERGENCY COORDINATOR ACTION

At all times, there must be at least one employee, either on the plant site or on call, with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of this procedure and the site's contingency plan (SPCC), all operations to be carried out within the oil, hazardous waste and hazardous substances areas, the locations and characteristics of the material being handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the (SPCC) contingency plan.

NAME OF EMERGENCY COORDINATOR

PRIMARY: S. X. Baxley

(Office)

(Home)

BACKUP: J. C. Lewis

(Office)

(Home)

1. Whenever there is an imminent or actual emergency, the Emergency Coordinator must immediately activate internal facility alarms or communication systems to notify all personnel necessary to handle the emergency.

2. Whenever there is a release, fire, or explosion, the Emergency Coordinator must immediately identify the character, exact source, amount and real extent of any released materials.

3. The Emergency Coordinator must assess possible hazards to human health, or the environment. This assessment must consider both direct and indiret effects (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated on the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat induced explosions). He must report his findings as follows:

   a. If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify the appropriate local authorities.

b. He must notify the Power Generation Duty Officer.

c. He must immediately notify the Senior Power Generation Environmental Specialist. Should he be unable to contact him, then the Emergency Coordinator should attempt to reach one of the following in the order listed:

H. Hobbs	Sr. Pwr. Env. Spec.
D. Howell	Supv. Pwr. Gen. Tech. Serv.
C. Hobson	Sr. Design Engineer
C. Huling	Env. Licensing Engineer
T. Byerley	Manager Env. Affairs

The Emergency Coordinator should have the following information at hand when reporting an incident to the Power Generation Services group:

(1) Time and type of incident (e.g., release, fire);

(2) Name and quantity of material(s) involved, to extent known;

(3) Containment procedures being used;

(4) Type cleanup in progress;

(5) The extent of injuries, if any; and

(6) Possible hazards to human health or the environment outside the plant boundaries.

d. Any incident which requires the implementation of the contingency plan must be noted in the operating record as to the time, date, and details of the incident.

e. Within ten (10) days of the incident, a written report containing the above listed information, plus remedial action taken to prevent this type of incident in the future, and the estimated quantity and disposition of recovered material that resulted from the incident, must be forwarded to the Senior Power Generation Environmental Specialist.

4. During an emergency, the Emergency Coordinator must take all reasonable measures necessary (including, but not limited to, stopping processes and operations, collecting and containing released material, removing or isolating containers) to ensure that fires, explosions, and releases do not occur, recur, or spread to other areas.

5. If operations are stopped due to a fire, explosion, or release, the Emergency Coordinator must monitor the halted system(s) for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment whenever this is appropriate.

6. Immediately following an emergency, the coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water, or any other material that is hazardous as a result of the incident.

7. The Emergency Coordinator must ensure that in the affected area(s) of the site:

   a. No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed.

   b. All emergency equipment (See Attachment 4) listed in the contingency plan (SPCC) is cleaned and fit for use before operations are resumed.

8. The Emergency Coordinator must notify the Regional Administrator and appropriate state and local authorities that the facility is in compliance with Section E.7 of this procedure before operations are resumed in the affected area(s) of the facility. This notification should be made through the Senior Power Generation Environmental Specialist.

E. POWER GENERATION SERVICES GROUP ACTION

This group is responsible for ensuring that all power generation facilities spill prevention control and countermeasures procedures for oil, hazardous substances, and hazardous waste are adequate to comply with all existing state and federal regulations. They will provide technical assistance, if needed, in the training of personnel in spill control and cleanup practices. They will maintain liaison and exchange information with all power generation facilities to ensure the latest cleanup practices are being employed at each facility. They will be responsible for notifying the GPC Environmental Affairs section of any releases from a power generation facility. In turn, they shall notify the Georgia Environmental Protection Division and the Environmental Protection Agency.

F. REFERENCES

49 CFR 100 to 179, 40 CFR 260 to 265, Georgia Rules for Hazardous Waste Management, GEN-8355, GEN-8356, and HNP-7607

G. REPORTABLE QUANTITIES

1. Oil or "chemicals" in any amounts - Report immediately through Environmental Affairs as per HNP-4001.

2. Hazardous Substances

Any discharge of one of the substances listed on Attachments 1 and 2 which exceeds in any 24 hour period the quantity listed under the column (on the same attachment) labeled RQ in pounds.

3. Hazardous Waste

Any quantity. See Attachment 5 for description of oil storage areas.

4. All other spills, diversions, or bypasses not oil or chemicals.

a. Minor Quantities - Duration of less than 15 minutes. Reporting desirable but optional on regular quarterly report.

b. Minor Quantities - Duration of 15 minutes to 2 hours. Report required on regular quarterly report.

c. Major Quantities in any time frame, or minor quantities with duration of 2 hours or more. Call EPD within 24 hours of becoming aware, explain by letter within 5 days, and include on regular quarterly report.

H. CONTAINMENT AND CONTROL PROVISIONS

1. Area Drainage

a. Drainage from diked storage areas shall be restrained by valves or other positive means to prevent spill or other excessive leakage of oil, hazardous substances, and hazardous waste into a drainage system or inplant treatment system, unless the system is designed to handle such leakage.

b. Diked areas may be emptied by pumps or ejectors; however, these shall be manually activated, and the condition of the accumulated materials shall be examined before activation to be sure no oil, hazardous substances or hazardous waste will be discharged to surface waters.

c. Flapper-type drain valves shall not be used to drain diked areas. Valves used for drainage of diked areas shall as far as practicable be of manual open and close design. In addition, the valve shall be opened and reclosed following discharge under responsible supervision.

d. Area drainage from undiked storage areas shall, if possible, flow into holding ponds or other structures designed to retain oil, hazardous substances, or hazardous waste, or otherwise prevent its uncontrolled entry into the environment. Such structures shall not be located in areas subject to periodic flooding.

e. Area drainage systems shall be adequately engineered to prevent oil, hazardous substances, or hazardous waste from reaching surface waters in the event of equipment failure or human error.

2. Bulk Storage Tanks

a. No tank shall be used for storage of oil or hazardous substances unless its material and construction are compatible with the material stored, such as pressure, temperature, etc. See Power Generation Procedures GEN-8355 and GEN-8356 for details concerning the types of containers in which hazardous waste may be stored.

b. All bulk storage tank installations for oil or hazardous substances shall be constructed so that a secondary containment is provided for 110 percent of the total volume within the contained area. Diked areas shall be sufficiently impervious so as to contain spilled material until it can be removed or treated.

An alternative drainage system could consist of a complete drainage trench enclosure arranged so that a spill could terminate and be safely confined in a catchment basin or holding pond.

c. Buried metallic storage tanks represent a potential for undetected spills. A newly buried installation shall be protected from corrosion by coatings, cathodic protection, or other effective methods compatible with local soil conditions. Partially buried metallic storage tanks should be avoided unless the buried portion of the shell is adequately coated since partial burial can cause rapid corrosion of metallic surfaces, especially at the earth/air interface.

d. Above ground storage tanks shall be subject to daily visual inspections for signs of deterioration, leaks which might cause a spill or accumulation of oil inside a diked area. This will ensure prompt discovery and control of any spilled material. Visible leaks from seams, gaskets, rivets, and bolts, sufficiently large enough to cause an accumulation of oil or hazardous substances in diked areas should be promptly corrected.

e. Old and new tank installations shall as far as practicable have high liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station. These liquid level sensing devices should be regularly tested to ensure proper operation.

f. Mobile or portable storage tanks shall be positioned or located so as to prevent the stored material from reaching surface waters. If possible, a secondary containment shall be furnished for 110 percent of the total volume stored within the containment area. This type of storage tank shall not be located in an area subject to flooding.

3. Transfer and Pumping Operations

a. Buried piping installations should have a protective wrapping and coating and should be cathodically protected if soil conditions warrant. If a section of buried line is exposed for any reason, it should be carefully examined for deterioration. If corrosion drainage is found, additional examination and corrective action should be taken as indicated by the magnitude of the drainage.

b. When a pipeline is not in service or in standby service for an extended time, the terminal connection at the transfer point should be capped or blank-flanged and marked as to origination.

c. Pipe supports should be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.

d. All above-ground valves and pipelines should be subjected to regular examination by operating personnel, at which time the general condition of items such as large joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, lagging of valves, and metal surfaces shall be assessed.

e. Prior to departure of any tank truck, the lowermost drain and all outlets of such vehicle should be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.

4. Training

An introductory training program concerning oil spill prevention, control, and cleanup procedures is available for all new employees. In addition, spill prevention and cleanup briefings should be scheduled and conducted for designated plant personnel annually to assure an adequate understanding of the SPCC plan. These briefings should highlight and describe known spills or failures, malfunctioning components, and recently developed precautionary measures. If possible, training sessions will be conducted to provide spill cleanup personnel with practical experience in deploying and operating the equipment available at the site.

5. Emergency Equipment

The equipment listed on Attachment 4 should be maintained in proper standby condition so as to be immediately available in the event of a spill.

6. Arrangement with Local Authorities

The following local authorities have indicated they will support the site as the need arises.

Baxley Fire Dept.	Baxley, GA
Lyons Fire Dept.	Lyons, GA
City of Vidalia Fire Dept.	Vidalia, GA
Appling General Hospital	Baxley, GA
Meadows Memorial Hospital	Vidalia, GA
Appling County Sheriff's Dept.	Baxley, GA
Toombs County Sheriff's Dept.	Lyons, GA

7. Evacuation Plan

See Power Generation Procedure GEN-3030.

8. Description of Past Spill Occurrences

A complete description of past spill occurrences is available in the "Oil and Hazardous Substance Spill Prevention" Training Lesson Plan (8/10/81 Rev. 0). Anyone using this procedure is urged to read this lesson plan.

I. AMENDMENT OF THIS PROCEDURE

This procedure (contingency plan) must be reviewed at least once every three (3) years, and immediately amended if necessary whenever:

1. Applicable regulations are revised.

2. The plan fails in an emergency.

3. The oil, hazardous substances, or hazardous waste storage facilities change in design and construction in a way that materially increases the potential for fires, explosions, or releases or changes the response necessary in an emergency.

4. The list of emergency coordinators changes.

5. The list of emergency equipment changes.

Should it become necessary to amend this SPCC plan for any reason, the Senior Power Generation Environmental Specialist should be contacted as soon as possible.

ATTACHMENT 1

Material	Category	RQ in pounds (kilograms)
Acetaldehyde	C	1,000 (454)
Acetic acid	C	1,000 (454)
Acetic anhydride	C	1,000 (454)
Acetone cyanohydrin	A	10 (4.54)
Acetyl bromide	D	5,000 (2,270)
Acetyl chloride	D	5,000 (2,270)
Acrolein	X	1 (0.454)
Acrylonitrile	B	100 (45.4)
Adipic acid	D	5,000 (2,270)
Aldrin	X	1 (0.454)
Allyl alcohol	B	100 (45.4)
Allyl chloride	C	1,000 (454)
Aluminum sulfate	D	5,000 (2,270)
Ammonia	B	100 (45.4)
Ammonium acetate	D	5,000 (2,270)
Ammonium benzoate	D	5,000 (2,270)
Ammonium bicarbonate	D	5,000 (2,270)
Ammonium bichromate	C	1,000 (454)
Ammonium bifluoride	D	5,000 (2,270)
Ammonium bisulfite	D	5,000 (2,270)
Ammonium carbamate	D	5,000 (2,270)
Ammonium carbonate	D	5,000 (2,270)
Ammonium chloride	D	5,000 (2,270)
Ammonium chromate	C	1,000 (454)
Ammonium citrate	D	5,000 (2,270)
Ammonium fluoborate	C	5,000 (2,270)
Ammonium fluoride	D	5,000 (2,270)
Ammonium hydroxide	C	1,000 (454)
Ammonium oxalate	D	5,000 (2,270)
Ammonium silicofluoride	C	1,000 (454)
Ammonium sulfamate	D	5,000 (2,270)
Ammonium sulfide	D	5,000 (2,270)
Ammonium sulfite	D	5,000 (2,270)
Ammonium tartrate	D	5,000 (2,270)
Ammonium thiocyanate	D	5,000 (2,270)
Ammonium thiosulfate	D	5,000 (2,270)
Amyl acetate	C	1,000 (454)
Aniline	C	1,000 (454)
Antimony pentachloride	C	1,000 (454)
Antimony potassium tartrate	C	1,000 (454)
Antimony tribromide	C	1,000 (454)
Antimony trichloride	C	1,000 (454)
Antimony trifluoride	C	1,000 (454)
Antimony trioxide	D	5,000 (2,270)
Arsenic disulfide	D	5,000 (2,270)
Arsenic pentoxide	D	5,000 (2,270)
Arsenic trichloride	D	5,000 (2,270)
Arsenic trioxide	D	5,000 (2,270)
Arsenic trisulfide	D	5,000 (2,270)
Barium cyanide	A	10 (4.54)
Benzene	C	1,000 (454)
Benzoic acid	D	5,000 (2,270)
Benzonitrile	C	1,000 (454)
Benzoyl chloride	C	1,000 (454)
Benzyl chloride	B	100 (45.4)
Beryllium chloride	D	5,000 (2,270)
Beryllium fluoride	D	5,000 (2,270)
Beryllium nitrate	D	5,000 (2,270)
Butyl acetate	D	5,000 (2,270)
n-Butyl phthalate	B	100 (45.4)
Butylamine	C	1,000 (454)
Butyric acid	D	5,000 (2,270)
Cadmium acetate	B	100 (45.4)
Cadmium bromide	B	100 (45.4)
Cadmium chloride	B	100 (45.4)
Calcium arsenate	C	1,000 (454)
Calcium arsenite	C	1,000 (454)
Calcium cyanide	A	10 (4.54)
Calcium dodecylbenzene sulfonate	C	1,000 (454)
Calcium hypochlorite	B	100 (45.4)
Captan	A	10 (4.54)
Carbaryl	B	100 (45.4)
Carbofuran	A	10 (4.54)
Carbon disulfide	D	5,000 (2,270)
Carbon tetrachloride	D	5,000 (2,270)
Chlorcane	X	1 (0.454)
Chlorine	A	10 (4.54)
Chlorobenzene	B	100 (45.4)
Chloroform	D	5,000 (2,270)
Chlorpyrifos	X	1 (0.454)
Chlorosulfonic acid	C	1,000 (454)
Chromic acetate	C	1,000 (454)
Chromic acid	C	1,000 (454)
Chromic sulfate	C	1,000 (454)
Chromous chloride	C	1,000 (454)
Cobaltous bromide	C	1,000 (454)
Cobaltous formate	C	1,000 (454)
Cobaltous sulfamate	C	1,000 (454)
Coumaphos	A	10 (4.54)
Cresol	C	1,000 (454)
Crotonaldehyde	B	100 (45.4)
Cupric acetate	B	100 (45.4)
Cupric acetoarsenite	B	100 (45.4)
Cupric chloride	A	10 (4.54)
Cupric nitrate	B	100 (45.4)
Cupric oxalate	B	100 (45.4)
Cupric sulfate	A	10 (4.54)
Cupric sulfate ammoniated	B	100 (45.4)
Cupric tartrate	B	100 (45.4)
Cyanogen chloride	A	10 (4.54)
Cyclohexane	C	1,000 (454)
2,4-D Acid	B	100 (45.4)
2,4-D Esters	B	100 (45.4)
DDT	X	1 (0.454)
Diazinon	X	1 (0.454)
Dicamba	C	1,000 (454)
Dichlobenil	C	1,000 (454)
Dichlone	X	1 (0.454)
Dichlorobenzene	B	100 (45.4)
Dichloropropane	D	5,000 (2,270)
Dichloropropene	D	5,000 (2,270)
Dichloropropene-Dichloropropane Mixture	D	5,000 (2,270)
2,2-Dichloropropionic acid	D	5,000 (2,270)
Dichlorvos	A	10 (4.54)
Dieldrin	X	1 (0.454)
Diethylamine	C	1,000 (454)
Dimethylamine	C	1,000 (454)
Dinitrobenzene	C	1,000 (454)
Dinitrophenol	C	1,000 (454)
Dinitrotoluene	C	1,000 (454)
Diquat	C	1,000 (454)
Disulfoton	X	1 (0.454)
Diuron	B	100 (45.4)
Dodecylbenzenesulfonic acid	C	1,000 (454)
Endosulfan	X	1 (0.454)
Endrin	X	1 (0.454)
Epichlorohydrin	C	1,000 (454)
Ethion	A	10 (4.54)
Ethylbenzene	C	1,000 (454)
Ethylenediamine	C	1,000 (454)
Ethylene dibromide	C	1,000 (454)
Ethylene dichloride	D	5,000 (2,270)
EDTA	D	5,000 (2,270)
Ferric ammonium citrate	C	1,000 (454)
Ferric ammonium oxalate	C	1,000 (454)
Ferric chloride	C	1,000 (454)
Ferric fluoride	B	100 (45.4)
Ferric nitrate	C	1,000 (454)
Ferric sulfate	C	1,000 (454)
Ferrous ammonium sulfate	C	1,000 (454)
Ferrous chloride	B	100 (45.4)
Ferrous sulfate	C	1,000 (454)
Formaldehyde	C	1,000 (454)
Formic acid	D	5,000 (2,270)
Fumaric acid	D	5,000 (2,270)
Furfural	C	1,000 (454)
Guthion	X	1 (0.454)
Heptachlor	X	1 (0.454)
Hexachlorocyclopentadiene	X	1 (0.454)
Hydrochloric acid	D	5,000 (2,270)
Hydrofluoric acid	D	5,000 (2,270)

ATTACHMENT 2

Material	Category	RQ in pounds (kilograms)
Hydrogen cyanide	A	10 (4.54)
Hydrogen sulfide	B	100 (45.4)
Isoprene	C	1,000 (454)
Isopropanolamine dodecylberzenesulfonate.	C	1,000 (454)
Kelthane	D	5,000 (2,270)
Kepone	X	1 (0.454)
Lead acetate	D	5,000 (2,270)
Lead arsenate	D	5,000 (2,270)
Lead Chloride	D	5,000 (2,270)
Lead fluoborate	D	5,000 (2,270)
Lead fluoride	C	1,000 (454)
Lead iodide	D	5,000 (2,270)
Lead nitrate	D	5,000 (2,270)
Lead stearate	D	5,000 (2,270)
Lead sulfate	D	5,000 (2,270)
Lead sulfide	D	5,000 (2,270)
Lead thiocyanate	D	5,000 (2,270)
Lindane	X	1 (0.454)
Lithium chromate	C	1,000 (454)
Malathion	A	10 (4.54)
Maleic acid	D	5,000 (2,270)
Maleic anhydride	D	5,000 (2,270)
Mercaptodimethur	B	100 (45.4)
Mercuric cyanide	X	1 (0.454)
Mercuric nitrate	A	10 (4.54)
Mercuric sulfate	A	10 (4.54)
Mercuric thiocyanate	A	10 (4.54)
Mercurous nitrate	A	10 (4.54)
Methoxychlor	X	1 (0.454)
Methyl mercaptan	B	100 (45.4)
Methyl methacrylate	D	5,000 (2,270)
Methyl parathion	B	100 (45.4)
Mevinphos	X	1 (0.454)
Mexacarbate	C	1,000 (454)
Monoethylamine	C	1,000 (454)
Monomethylamine	C	1,000 (454)
Naled	A	10 (4.54)
Naphthalene	D	5,000 (2,270)
Naphthenic acid	B	100 (45.4)
Nickel ammonium sulfate	D	5,000 (2,270)
Nickel chloride	D	5,000 (2,270)
Nickel hydroxide	C	1,000 (454)
Nickel nitrate	D	5,000 (2,270)
Nickel sulfate	D	5,000 (2,270)
Nitric acid	C	1,000 (454)
Nitrobenzene	C	1,000 (454)
Nitrogen dioxide	C	1,000 (454)
Nitrophenol	C	1,000 (454)
Nitrotoluene	C	1,000 (454)
Paraformaldehyde	C	1,000 (454)
Parathion	X	1 (0.454)
Pentachlorophenol	A	10 (4.54)
Phenol	C	1,000 (454)
Phosgene	D	5,000 (2,270)
Phosphoric acid	D	5,000 (2,270)
Phosphorus	X	1 (0.454)
Phosphorus oxychloride	D	5,000 (2,270)
Phosphorus pentasulfide	B	100 (45.4)
Phosphorus trichloride	D	5,000 (2,270)
Polychlorinated biphenyls	A	10 (4.54)
Potassium arsenate	C	1,000 (454)
Potassium arsenite	C	1,000 (454)
Potassium bichromate	C	1,000 (454)
Potassium chromate	C	1,000 (454)
Potassium cyanide	A	10 (4.54)
Potassium hydroxide	C	1000(454)
Potassium permanganate	B	100 (45.4)
Procarbz	A	10 (4.54)
Propionic acid	D	5,000 (2,270)
Propionic anhydride	D	5,000 (2,270)
Propylene oxide	D	5,000 (2,270)
Pyridine	C	1,000 (454)
Quinone	C	1,000 (454)
Rotenone	C	1,000 (454)
Selenium oxide	C	1,000 (454)
Silver nitrate	X	1 (0.454)
Sodium	C	1,000 (454)
Sodium arsenate	C	1,000 (454)
Sodium arsenite	C	1,000 (454)
Sodium bichromate	C	1,000 (454)

Material	Category	RQ in pounds (kilograms)
Sodium fluoride	D	5,000 (2,270)
Sodium hydrosulfide	D	5,000 (2,270)
Sodium hydroxide	C	1,000 (454)
Sodium hypochlorite	B	100 (45.4)
Sodium methylate	C	1,000 (454)
Sodium nitrite	B	100 (45.4)
Sodium phosphate, dibasic	D	5,000 (2,270)
Sodium phosphate, tribasic	D	5,000 (2,270)
Sodium selenite	C	1,000 (454)
Strontium chromate	C	1,000 (454)
Strychnine	A	10 (4.54)
Styrene	C	1,000 (454)
Sulfuric acid	C	1,000 (454)
Sulfur monochloride	C	1,000 (454)
2,4,5-T acid	B	100 (45.4)
2,4,5-T amines	B	100 (45.4)
2,4,5-T esters	B	100 (45.4)
2,4,5-T salts	B	100 (45.4)
2,4,5-TP acid	B	100 (45.4)
2,4,5-TP acid esters	B	100 (45.4)
TDE	X	1 (0.454)
Tetraethyl lead	B	100 (45.4)
Tetraethyl pyrophosphate	B	100 (45.4)
Thallium sulfate	C	1,000 (454)
Toluene	C	1,000 (454)
Toxaphene	X	1 (0.454)
Trichlorfon	C	1,000 (454)
Trichloroethylene	C	1,000 (454)
Trichlorophenol	A	10 (4.54)
Triethanolamine dodecylbenzenesulfonate	C	1,000 (454)
Triethylamine	D	5,000 (2,270)
Trimethylamine	C	1,000 (454)
Uranyl acetate	D	5,000 (2,270)
Uranyl nitrate	D	5,000 (2,270)
Vanadium pentoxide	C	1,000 (454)
Vanadyl sulfate	C	1,000 (454)
Vinyl acetate	C	1,000 (454)
Vinylidene chloride	D	5,000 (2,270)
Xylene	C	1,000 (454)
Xylenol	C	1,000 (454)
Zinc acetate	C	1,000 (454)
Zinc ammonium chloride	D	5,000 (2,270)
Zinc borate	C	1,000 (454)
Zinc bromide	D	5,000 (2,270)
Zinc carbonate	C	1,000 (454)
Zinc chloride	D	5,000 (2,270)
Zinc cyanide	A	10 (4.54)
Zinc fluoride	C	1,000 (454)
Zinc formate	C	1,000 (454)
Zinc hydrosulfite	C	1,000 (454)
Zinc nitrate	D	5,000 (2,270)
Zinc phenolsulfonate	D	5,000 (2,270)
Zinc phosphide	C	1,000 (454)
Zinc silicofluoride	D	5,000 (2,270)
Zinc sulfate	C	1,000 (454)
Zirconium nitrate	D	5,000 (2,270)
Zirconium potassium fluoride	D	5,000 (2,270)
Zirconium sulfate	D	5,000 (2,270)
Zirconium tetrachloride	D	5,000 (2,270)

ATTACHMENT 3

METHODS FOR CONTAINING AND MANAGING OIL SPILLS

A. If spill is small, use oil absorbent (Soil Speedy Dry).

B. If spill is large, contain by:

1. Placing applicable sump pumps in the OFF position.
2. Closing valves to prevent spread of oil.
3. Using earth moving equipment to build temporary dikes if necessary.
4. Pumping oil into a tanker truck as necessary or back into storage tanks.

C. If oil enters a waterway:

1. Use perlite blanket or loose perlite to corral and absorb the floating oil.
2. If large amount of oil is involved, obtain the boom from Plant McDonough and place it downstream from the slick.
3. Spread straw or hay on the slick and when soaked with oil, collect using rakes or nets, place in a pit on the plant site.
4. If feasible, pump oil water mixture into a tank truck and decontaminate.
5. Continue cleaning up and reducing slick area as expeditiously as possible.
6. Dispose of oil soaked waste in an approved dump area.

D. Clean Up

1. Floating and settled materials which have reached waters of the U.S. should be removed to the extent practical.
2. Structural surfaces which have become coated with a spilled material should be cleaned to prevent additional leaching or re-entrainment into the water.

ATTACHMENT 4

EMERGENCY EQUIPMENT AVAILABLE IN CASE OF SPILL

ITEM	LOCATION	QUANTITY
Backhoe & Front End Loader	Hatch Bldg & Grounds	1
Environmental Boat	Hatch Env. Bldg.	1
Oil Sorb Blankets	Hatch Warehouse # 1	6 rolls
Speedi-Dry	Hatch Warehouse # 1	500 bags
Fire Extinguishers	Hatch Strategic Locations	62
Oil Booms	McDonough	1
Fire Hydrants	Hatch Strategic Locations	5
Fire Hose Stations	Hatch Strategic Locations	18

ATTACHMENT 5

DESCRIPTION OF OIL STORAGE AREAS

NAME	CAPACITY (GAL)	TYPE OF OIL	STORAGE CAPACITY OF DIKE (GAL)
Aux. Boiler Fuel Tank	77,000	# 2	78,680
D/G Tank 1A	1,000	# 2	1,302
D/G Tank 1B	1,000	# 2	1,302
D/G Tank 1C	1,000	# 2	1,302
D/G Tank 2A	1,000	# 2	1,302
D/G Tank 2B	1,000	# 2	1,302
Fire Pump	550	# 2	No Dike
Fire Pump	550	# 2	No Dike
Security	1,000	# 2	Underground
Diesel Warehouse # 1	2,000	# 2	Underground
Diesel Warehouse # 1	2,000	# 2	Underground
Diesel Warehouse # 1	1,000	# 2	Underground
Unleaded Warehouse # 1	10,000	Unleaded gas	Underground

Oil is received at this facility via tank truck.

Various other types of oil such as transformer oil and turbine oil are stored and used on the plant site. Transformer oil is contained within the metal transformer unit and other than this, no containment is provided. In the case of turbine oil, most of the storage areas are located inside the powerhouse and diked for fire protection. Any rupture of tanks that are not diked would be contained in a building setup also within the powerhouse.