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Rev. 9/24/94

SUBJECT: Rev 25 to HP Procedure HP-90, "Emergency Equipment."

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PRIORITY 1 DOCUMENT

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-90
REVISION 25

1.0 TITLE:

EMERGENCY EQUIPMENT

2.0 REVIEW AND APPROVAL:

Reviewed by Plant Nuclear Safety Committee 6/24 1975

Approved by K. N. Harris Plant General Manager 9/11 1975

Revision 25 Reviewed by Facility Review Group 7/26 1994

Approved by C. L. Burton Plant General Manager 7/26 1994

3.0 PURPOSE:

This procedure gives the instructions to be used when conducting inventories and maintenance of H.P. emergency lockers.

4.0 PRECAUTIONS AND LIMITATIONS:

4.1 All equipment removed from emergency equipment locations will be replaced when possible with equipment of equivalent type.

4.2 When equipment is removed that cannot be immediately replaced, make an entry in the remarks section of the inventory sheet.

4.3 All emergency equipment shall be checked and inventoried once each month at each of the following locations and following each use:

1. Operational Support Center.

2. PSL Unit 1 Control Room/Technical Support Center.

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ST. LUCIE PLANT
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EMERGENCY EQUIPMENT

4.0 PRECAUTIONS AND LIMITS: (continued)

4.3 (continued)

3. PSL Unit 2 Control Room.

4. Lawnwood Regional Medical Center.

5. Martin Memorial Hospital

6. Emergency Operations Facility, Midway Road & I-95.

7. Site Assembly Station Emergency Monitoring Kits.

NOTE
Checks and inventories shall be completed within five (5) working days following each use and documented in a manner consistent with routine monthly inventories.

4.4 A kit shall not be deficient of a major piece of emergency equipment. If a major piece of equipment is removed from a kit, the equipment must be replaced immediately (same day). Major equipment is asterisked on inventory sheets.

4.5 Quantities of items (other than major equipment) on the inventory sheets are guidelines. An item found to be less than the inventory listed quantity should be replaced by the next inventory. Item substitution is authorized only if the item substituted is comparable to the original equipment.

4.6 The offsite environmental monitoring kits (2) and the onsite kit (1) contain the same items, Attachment #5 is used for each kit.

4.7 Kit check sources used to test instrument operability should be stored away from kit TLDs.

5.0 RELATED SYSTEM STATUS:

NONE

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EMERGENCY EQUIPMENT

6.0 REFERENCES:

6.1 St. Lucie Plant Radiological Emergency Plan (E-Plan)

6.2 E-Plan Implementing Procedures (EPIPs)

6.3 Health Physics Procedures, HP-200 Series

6.4 HPP-22, "Air Sampling."

6.5 HPP-62, "Inspection, Maintenance, and Quality Assurance of Respiratory Protection Equipment."

6.6 HPP-70, "Personnel Contamination Monitoring and Decontamination Procedure."

6.7 HPP-101, "Identification and Reporting of Radiological Events."

6.8 Admin. Procedure No. 1-0010125, "Schedule of Periodic Tests, Checks and Calibrations."

6.9 Admin. Procedure No. 2-0010125, "Schedule of Periodic Tests, Checks and Calibrations."

6.10 ADM-17.01, "Duties and Responsibilities of the Shift Technical Advisor."

6.11 NRC Generic Letter 91-14, "Emergency Telecommunications."

6.12 NRC Administrative Letter 94-04, "Change of the NRC Operations Center Commercial Telephone and Facsimile Numbers." /R25

7.0 RECORDS REQUIRED:

7.1 Inventory sheets for each of the locations listed in 4.3 above (HP-90) - Attachments #1-7 shall be maintained in the plant files in accordance with QI 17-PR/PSL-1 "Quality Assurance Records."

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HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

8.0 INSTRUCTIONS:

8.1 Inventory all items, using the appropriate inventory list (Attachment), to verify that the proper supplies are present.

8.2 Verify that the selected procedures contained in the kit are of current revisions, if not, replace procedure with a **controlled copy** of the current revision. Prior to taking inventory of the kits contact the Nuclear Records Vault to ascertain the current revision numbers of:

- E-Plan
- EPIPs (see Table 1)
- HP-200 Series (see Table 2)
- HPP-22, "Air Sampling" (Form HPP-22.1, Air Sample Data Sheet.)
- HPP-70, "Personnel Contamination Monitoring and Decontamination Procedure"
- HP-90, "Emergency Equipment"
- HPP-101, "Identification and Reporting of Radiological Events" (Form HPP-110.1, Radiological Event Report)
- HP-112, "Multibadging" (Multibadge/Extremity Forms).
- C-110, "Collecting Initial Set of Post-Accident Samples and Guidelines for Establishing Post-Accident Water and Gas Inventory Control."
- "Establishing Remote Analysis Laboratory, Counting Laboratory and Counting Procedures for Accident Samples"

The procedure distribution is listed on the inventory sheets.

8.3 Prior to conducting inventories, contact the Emergency Planning Coordinator to determine if any procedure revisions are available to be added to the emergency kits.

8.4 Perform operational checks of instruments as directed by the Attachments. Results of operational checks shall be noted on the applicable Attachments. The emergency kit friskers shall receive monthly response checks.

8.5 Any equipment which is out of calibration, fails the operational check, or appears to be unusable shall be replaced.

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EMERGENCY EQUIPMENT

8.0 INSTRUCTIONS: (continued)

8.6 Batteries

- Verify that there is a sufficient supply of spare batteries available for all instruments and equipment requiring batteries.

- Replace any battery or package of batteries which approaches (within one (1) month) or exceeds its expiration date or shelf life.

- Every January and July, inspect batteries in all instruments and equipment for signs of deterioration or leaks and replace, as necessary.

8.7 Verify that the dosimeters and TLDs are current. TLDs are changed out in the kits on a quarterly basis. Check TLDs for current quarter issue.

8.8 Verify that respirators are functional as prescribed by HP-62, "Inspection, Maintenance, and Quality Assurance of Respiratory Protection Equipment."

8.9 Conduct monthly test of communications equipment with state and local government and the NRC (refer to Appendix B, Instructions for Testing Emergency Communications Equipment).

8.10 Note any deviation from the inventory on the applicable HP-90 Attachment and when deviation will be corrected.

8.11 The AS FOUND space on each attachment shall be completed with one of the following codes P=Pass, F=Fail, R=See Remarks. If item quantity found is different than recommended, include the number found with the appropriate code.

8.12 Upon completion of the inventory, sign the form in the blank labeled Checked By.

8.13 Two copies of each checklist (Attachment) will be required, one to be posted on the equipment locker door and one to be forwarded to the Nuclear Records Vault. Eight copies of Attachment 5, are required, one for each monitoring kit (4) and one to the Nuclear Records Vault for each kit.

8.14 Verify that each locker and environmental monitoring kit has a conspicuously posted copy of the current inventory for ready reference.

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EMERGENCY EQUIPMENT

8.0 INSTRUCTIONS: (continued)

8.15 All completed inventory forms are to be reviewed prior to being sent to the Nuclear Records Vault. Signature in the Reviewed by blank means all required equipment is present, in calibration, and functional and any failed communications test has been reported in accordance with Appendix B.

8.16 A copy of the reviewed inventory forms, to be forwarded to the Nuclear Records Vault, should be sent to the Emergency Planning Coordinator.

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EMERGENCY EQUIPMENT

TABLE 1
EMERGENCY PLAN IMPLEMENTING PROCEDURES

EPIP 3100021E - "Duties and Responsibilities of the Emergency Coordinator"

EPIP 3100022E - "Classification of Emergencies"

EPIP 3100023E - "Onsite Emergency Organization and Call Directory"

EPIP 3100024E - "Natural Emergencies"

EPIP 3100025E - "Fire Emergencies"

EPIP 3100026E - "Criteria for and Conduct of Evacuations"

EPIP 3100027E - "Re-entry"

EPIP 3100029E - "Duties of the Individual Who Discovers an Emergency Condition"

EPIP 3100032E - "Onsite Support Centers"

EPIP 3100033E - "Offsite Dose Calculations"

EPIP 3100034E - "Maintaining Emergency Preparedness - Emergency Response Plan Training"

EPIP 3100035E - "Offsite Radiological Monitoring"

EPIP 3100050E - "Maintaining Emergency Preparedness - Emergency Exercises, Drills, Tests, and Evaluations"

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HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

TABLE 2
HP-200 SERIES PROCEDURES

HP-200 - "Health Physics Emergency Organization"

HP-201 - "Emergency Personnel Exposure Control"

HP-202 - "Environmental Monitoring During Emergencies"

HP-203 - "Personnel Access Control During Emergencies"

HP-204 - "In-Plant Radiation and Contamination Surveys During Emergencies"

HP-205 - "Emergency In-Plant Air Sampling"

HP-206 - "Analysis of Emergency In-Plant Air Samples"

HP-207 - "Monitoring Evacuated Personnel During Emergencies"

HP-208 - "Personnel Decontamination During Emergencies"

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EMERGENCY EQUIPMENT

ATTACHMENT 1
UNIT 1 CONTROL ROOM/TECH SUPPORT CENTER STORAGE LOCKER
(Sheet 1 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	INSTRUMENTS	Pass	Fail
*	1. Portable Dose Rate Instrument (≥ 5R/hr)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	2. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	3. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	4. Dual Channel Analyzer		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		

	DOSIMETRY		Minimum Quantity	As** Found
*	1. TLD, Whole Body	Qtr.:	50	
*	2. TLD, Extremity	Qtr.:	6	
*	3. TLD, Finger Ring	Qtr.:	6	
*	4. Multibadge Packs	Qtr.:	5	
*	5. DRD, 0-500 mR	Exp. Date:	50	
*	6. DRD, 0-5R	Exp. Date:	10	
*	7. DRD, 0-100R	Exp. Date:	5	

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 1
UNIT 1 CONTROL ROOM/TECH SUPPORT CENTER STORAGE LOCKER
(Sheet 2 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	DRESS-OUT SUPPLIES	Minimum Quantity	As** Found
1.	Coveralls	20	
2.	Cloth Hood	20	
3.	Cotton Liners (pr.)	20	
4.	Rubber Gloves (pr.)	20	
5.	Surgical Gloves (pr.)	20	
6.	Rubber Shoe Covers (pr.)	20	
7.	Plastic Booties (pr.)	20	
8.	T-Cuts (pr.)	20	
9.	Whirl Pack	50	
10.	Tape (2" roll)	5	
	OTHER EQUIPMENT		
* 1.	SCBA	4	
* 2.	Air Sampler Model No.: Serial No.: Calib. Date:	1	
3.	Full-Face Respirator (perform functional check, update card)	8	
4.	Charcoal Canister Exp. Date:	16	
5.	Dosimeter Charger	2	
6.	Contamination Smears and Envelopes/Folders	500	
7.	Radiation Barrier Tape/Rope/Ribbon	N/A	
8.	Radiation Sign and Assorted Inserts	5	
9.	Step-Off Pads	10	
10.	Poly Bags (yellow)	10	
11.	Extension Cord (HD)	N/A	
12.	Plastic Rainsuits	20	
13.	Batteries - complete set of replacement batteries, both type and number, available for all equipment requiring batteries; check shelf life.	N/A	
14.	Silver Zeolite Cartridges	5	

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 1
UNIT 1 CONTROL ROOM/TECH SUPPORT CENTER STORAGE LOCKER
(Sheet 3 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

DOCUMENTS, PROCEDURES, LOGS	Avail.	Unavail.
1. PSL Emergency Plan (check for current revision)		
2. EPIPs (full set) (check for current revisions)		
3. HP-90 (check for current revision)		
4. HP-112 (check for current revision)		
5. HP-200 Series (full set) (check for current revisions)		
6. C-110 (check for current revision)		
7. C-111 (check for current revision)		
8. Form HPP-22.1 (25 copies) (check for current revision)		
9. Radiation Exposure Summary Report		
10. Radiation Team Leader (RTL) Log		
11. Field Monitoring Log		
12. Field Monitoring Maps		

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

Remarks:_____

Checked by:_____ Reviewed by:_____

Date:_____ Date:_____

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 2
UNIT 2 CONTROL ROOM STORAGE LOCKER
(Sheet 1 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	INSTRUMENTS	Pass	Fail
*	1. Portable Dose Rate Instrument (≥5 R/hr)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	2. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	3. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	4. Dual Channel Analyzer		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		

	DOSIMETRY		Minimum Quantity	As** Found
*	1. TLD, Whole Body	Qtr.:	10	
*	2. TLD, Extremity	Qtr.:	2	
*	3. TLD, Finger Ring	Qtr.:	2	
*	4. Multibadge Packs	Qtr.:	5	
*	5. DRD, 0-500 mR	Exp. Date:	10	
*	6. DRD, 0-5R	Exp. Date:	10	
*	7. DRD, 0-100R	Exp. Date:	5	

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 2
UNIT 2 CONTROL ROOM STORAGE LOCKER
(Sheet 2 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	DRESS-OUT SUPPLIES	Minimum Quantity	As** Found
1.	Coveralls	10	
2.	Cloth Hood	10	
3.	Cotton Liners (pr.)	10	
4.	Rubber Gloves (pr.)	10	
5.	Surgical Gloves (pr.)	10	
6.	Rubber Shoe Covers (pr.)	10	
7.	Plastic Booties (pr.)	10	
8.	T-Cuts (pr.)	10	
9.	Whirl Pack	50	
10.	Tape (2" roll)	3	
	OTHER EQUIPMENT		
1.	SCBA	5	
2.	Air Sampler Model No.: Serial No.: Calib. Date:	1	
3.	Full-Face Respirator (perform functional check, update card)	8	
4.	Charcoal Canister Exp. Date:	16	
5.	Dosimeter Charger	1	
6.	Contamination Smears and Envelopes/Folders	500	
7.	Radiation Barrier Tape/Rope/Ribbon	N/A	
8.	Radiation Sign and Assorted Inserts	5	
9.	Step-Off Pads	10	
10.	Poly Bags (yellow)	10	
11.	Extension Cord (HD)	N/A	
12.	Plastic Rainsuits	10	
13.	Batteries - complete set of replacement batteries, both type and number, available for all equipment requiring batteries; check shelf life	N/A	
14.	Silver Zeolite Cartridges	5	

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 2
UNIT 2 CONTROL ROOM STORAGE LOCKER
(Sheet 3 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	DOCUMENTS, PROCEDURES, LOGS	Avail.	Unavail.
1.	PSL Emergency Plan (check for current revision)		
2.	EPIPs (full set) (check for current revisions)		
3.	HP-112 (check for current revision)		
4.	HP-200 Series (full set) (check for current revisions)		
5.	Form HPP-22.1 (25 copies) (check for current revision)		
6.	Radiation Exposure Summary Report		

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

Remarks:_____

_____

Checked by:_____ Reviewed by:_____

Date:_____ Date:_____

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 3
OPERATIONAL SUPPORT CENTER INVENTORY
(Sheet 1 of 4)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	INSTRUMENTS	Pass	Fail
*	1. Portable Dose Rate Instrument (≥5 R/hr)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	2. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	3. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	4. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	5. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
*	6. Dual Channel Analyzer		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	7. Scaler and Detector		
	Model No.: Serial No.: Calib. Date:		

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 3
OPERATIONAL SUPPORT CENTER INVENTORY
(Sheet 2 of 4)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	DOSIMETRY	Minimum Quantity	As** Found
*	1. TLD, Whole Body Qtr.:	40	
*	2. TLD, Extremity Qtr.:	12	
*	3. TLD, Finger Ring Qtr.:	12	
*	4. Multibadge Packs Qtr.:	5	
*	5. DRD, 0-500 mR Exp. Date:	40	
*	6. DRD, 0-5R Exp. Date:	20	
*	7. DRD, 0-100R Exp. Date:	10	
	DRESS-OUT SUPPLIES		
	1. Coveralls	50	
	2. Cloth Hood	50	
	3. Cotton Liners (pr.)	50	
	4. Rubber Gloves (pr.)	50	
	5. Surgical Gloves (pr.)	50	
	6. Rubber Shoe Covers (pr.)	50	
	7. Plastic Booties (pr.)	50	
	8. T-Cuts (pr.)	50	
	9. Whirl Pack	100	
	10. Tape (2" roll)	10	
	OTHER EQUIPMENT		
*	1. SCBA	2	
*	2. Air Sampler Model No.: Serial No.: Calib. Date	1	
	3. Silver Zeolite Cartridges	20	
	4. Particulate Filters	20	
	5. Full-Face Respirator (perform functional check, update card)	12	

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 3
OPERATIONAL SUPPORT CENTER INVENTORY
(Sheet 3 of 4)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

OTHER EQUIPMENT (continued)	Minimum Quantity	As** Found
6. Charcoal Canister Exp. Date:	24	
7. Dosimeter Charger (electric)	1	
8. Dosimeter Charger (battery)	2	
9. Contamination Smears and Envelopes/Folders	1500	
10. Radiation Barrier Tape/Rope/Ribbon	N/A	
11. Radiation Sign and Assorted Inserts	20	
12. Step-Off Pads	20	
13. Poly Bags (yellow)	50	
14. Portable Fluorescent Lights	3	
15. Flashlights	24	
16. Rope (manila)	N/A	
17. Insect Repellent (spray can)	10	
18. Decontamination Agent	1	
19. Bull Horn	2	
20. Plastic Rainsuits	50	
21. Clipboards	5	
22. Lined Tablets	10	
23. Note Pads	10	
24. Felt-Tip Pens (black)	24	
25. Ink Pens (black)	24	
26. Pencils	24	
27. Scissors	3	
28. Bolt Cutters	1	
29. Batteries - Complete set of replacement batteries, both type and number, available for all equipment requiring batteries; check shelf life.	N/A	

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 3
OPERATIONAL SUPPORT CENTER INVENTORY
(Sheet 4 of 4)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

DOCUMENTS, PROCEDURES, LOGS		Avail.	Unavail.
1.	OSC Supervisor Manual		
	EPIP 3100023E (check for current revision)		
	EPIP 3100026E (check for current revision)		
	EPIP 3100027E (check for current revision)		
	EPIP 3100032E (check for current revision)		
2.	HP OSC Supervisor (HPOSC) Manual		
	HP-112 (check for current revision)		
	HP-200 Series (full set) (check for current revision)		
3.	Form HPP-22.1 (25 copies) (check for current revision)		
4.	Radiation Exposure Summary Report		
5.	HP Supervisor in OSC (HPOSC) Log		
6.	HP Survey Maps (Unit 1 and Unit 2)		
7.	Jaycee Park Kit		
	EPIP 3100023E (check for current revision)		
	HP-207 (check for current revision)		
	HP-208 (check for current revision)		
	Decon Log Notebook including:		
	Form HP207.1 (25 copies) (check for current revision)		
	Form HPP-70.1 (25 copies) (check for current revision)		

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

Remarks:_____

_____

Checked by:_____ Reviewed by:_____

Date:_____ Date:_____

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 4
SITE ASSEMBLY STATION
(Sheet 1 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	INSTRUMENTS	Pass	Fail
*	1. Portable Count Rate (Frisker) Instrument (Decon)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	2. Portable Count Rate (Frisker) Instrument (Field Team)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	3. Portable Count Rate (Frisker) Instrument (Field Team)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	4. Portable Count Rate (Frisker) Instrument (Field Team)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	5. Portable Count Rate (Frisker) Instrument (Field Team)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 4
SITE ASSEMBLY STATION
(Sheet 2 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

DRESS-OUT SUPPLIES	Minimum Quantity	As** Found
1. Coveralls	10	
2. Cloth Hood	10	
3. Cotton Liners (pr.)	10	
4. Rubber Gloves (pr.)	10	
5. Surgical Gloves (pr.)	10	
6. Rubber Shoe Covers (pr.)	10	
7. Plastic Booties (pr.)	10	
8. T-Cuts (pr.)	10	
9. Whirl Pack	50	
10. Tape (2" roll)	3	
OTHER EQUIPMENT		
1. Paper PCs	10	
2. Radiation Barrier Tape/Rope/Ribbon	N/A	
3. Radiation Sign and Assorted Inserts	3	
4. Step-Off Pads	10	
5. Poly Bags (yellow)	50	
6. 5 Gallon Jug of Water	1	
7. Waterless Hand Cleaner (can)	2	
8. Hand Rags	50	
9. Towels	6	

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 4
SITE ASSEMBLY STATION
(Sheet 3 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

DOCUMENTS, PROCEDURES, LOGS	Avail.	Unavail.
1. EPIP 3100023E (check for current revision)		
2. HP-200 Series (full set) (check for current revision)		
3. Notebook		
4. Decon Log Notebook including:		
Form HP 207.1 (25 copies) (check for current revision		
Form HPP-70.1 (25 copies) (check for current revision)		
COMMUNICATIONS TEST	**Pass**	**Fail**
1. Wall Phone		
Perform communications test in accordance with Appendix B		

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

Remarks:_____

_____

_____

Checked by:_____ Reviewed by:_____

Date:_____ Date:_____

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 5
SITE ASSEMBLY STATION-ENVIRONMENTAL MONITORING KITS
(Sheet 1 of 2)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	INSTRUMENTS	Pass	Fail
*	1. Portable Dose Rate Instrument (≥ 5R/hr)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	2. Dual Channel Analyzer		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
	DOSIMETRY	**Minimum Quantity**	**As** Found**
*	1. TLD, Whole Body Qtr.:	2	
*	2. DRD, 0-500 mR Exp. Date:	2	
*	3. DRD, 0-5 R Exp. Date:	2	
	OTHER EQUIPMENT		
*	1. Air Sampler (auto battery-powered)	1	
	Model No.: Serial No.: Calib. Date:		
	2. Silver Zeolite Cartridges	6	
	3. Particulate Filters	6	
	4. Plastic Bags (labeled "Air Sample Data")	6	
	5. Surgical Gloves (pr.)	6	
	6. Portable Radio	1	
	7. Power Cord with Cigarette-Lighter Plug	1	
	8. DC Power Receptacle with Battery Clips	1	
	9. Microphone with Cable	1	
	10. Magnetic-Mount Antenna	1	
	11. Full Face Respirator (perform functional check, update card)	2	
	12. Charcoal Canister Exp. Date:	2	

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 5
SITE ASSEMBLY STATION-ENVIRONMENTAL MONITORING KITS
(Sheet 2 of 2)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

OTHER EQUIPMENT (continued)		Minimum Quantity	As** Found
13.	Stopwatch	1	
14.	Calculator	1	
15.	Dosimeter Charger	1	
16.	Tweezers	1	
17.	Flashlight	1	
18.	Batteries - Complete set of replacement batteries, both type and number, available for all equipment requiring batteries; check shelf life.	N/A	
	DOCUMENTS, PROCEDURES, LOGS	Avail.	Unavail.
1.	HP-202 (check for current revision)		
2.	(Form) Table 1 of HP-202 (2 copies) (check for current revision)		
3.	Form HP202.1 (6 copies) (check for current revision)		
4.	Field Monitoring Log		
5.	Plant Phone Numbers (in logbook) (verify against current revision of EPIP 3100023E)		
6.	Field Monitoring Maps		

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

Remarks:_____

_____

_____

_____

Checked by:_____ Reviewed by:_____

Date:_____ Date:_____

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 6
EMERGENCY OPERATIONS FACILITY
(Sheet 1 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	INSTRUMENTS	Pass	Fail
*	1. Portable Dose Rate Instrument (≥ 5R/hr)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	2. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	3. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
	DOSIMETRY	**Minimum -Quantity**	**As** Found**
*	1. TLD, Whole Body Qtr.:	6	
*	2. DRD, 0-500 mR Exp. Date:	10	
*	3. DRD, 0-5 R Exp. Date:	5	
	DRESS-OUT SUPPLIES		
	1. Coveralls	20	
	2. Cloth Hood	20	
	3. Cotton Liners (pr.)	20	
	4. Rubber Gloves (pr.)	20	
	5. Surgical Gloves (pr.)	20	
	6. Rubber Shoe Covers (pr.)	20	
	7. Plastic Booties (pr.)	20	
	8. T-Cuts (pr.)	20	
	9. Whirl Pack	50	
	10. Tape (2" roll)	5	

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 6
EMERGENCY OPERATIONS FACILITY
(Sheet 2 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	OTHER EQUIPMENT	Minimum Quantity	As** Found
1.	Full Face Respirator (perform functional check, update card)	6	
2.	Charcoal Canister Exp. Date:	12	
3.	Dosimeter Charger (electric)	1	
4.	Dosimeter Charger (battery)	1	
5.	Silver Zeolite Cartridges	50	
6.	Contamination Smears and Envelopes/Folders	500	
7.	Radiation Barrier Tape/Rope/Ribbon	N/A	
8.	Radiation Sign and Assorted Inserts	10	
9.	Step-Off Pads	10	
10.	Poly Bags (yellow)	10	
11.	Plastic Rainsuits	20	
12.	Batteries - Complete set of replacement batteries, both type and number, available for all equipment requiring batteries; check shelf life.	N/A	
	DOCUMENTS, PROCEDURES, LOGS	**Avail.**	**Unavail.**
1.	PSL Emergency Plan (check for current revision)		
2.	EPIPs (full set) (check for current revision)		
3.	HP-90 (check for current revision)		
4.	HP-200 Series (full set) (check for current revision)		
5.	C-110 (check for current revision)		
6.	C-111 (check for current revision)		
	COMMUNICATIONS TEST - EMERGENCY OPERATIONS FACILITY (EOF)	**Pass**	**Fail**
1.	NRC Emergency Notification System (ENS) - Perform communications test in accordance with Appendix B		
2.	NRC Health Physics Network (HPN) - Perform communications test in accordance with Appendix B		
3.	NRC Reactor Safety Counterpart Link (RSCL) - Perform communications test in accordance with Appendix B.		

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 6
EMERGENCY OPERATIONS FACILITY
(Sheet 3 of 3)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

COMMUNICATIONS TEST - EMERGENCY OPERATIONS FACILITY (EOF) (continued)	Pass	Fail
4. NRC Protective Measures Counterpart Link (PMCL) - Perform communications test in accordance with Appendix B.		
5. NRC Management Counterpart Link (MCL) - Perform communications test in accordance with Appendix B.		
6. NRC Local Area Network (LAN) - Perform communications test in accordance with Appendix B		
7. Local Government Radio (LGR) Channel 2 (39.18 MHz) - Perform communications test in accordance with Appendix B		
8. Local Government Radio (LGR) Channel 1 (39.10 MHz) - Perform communications test in accordance with Appendix B		
9. FPL Plant Radio Channel 4 - Perform communications test in accordance with Appendix B		
10. State Warning Point (SWP) Hot Ring Down Phone (HRD) - Perform communications test in accordance with Appendix B		

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

Remarks:_____

_____

Checked by:_____ Reviewed by:_____

Date:_____ Date:_____

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 7
HOSPITAL EMERGENCY EQUIPMENT INVENTORY
(Sheet 1 of 2)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

	INSTRUMENTS	Pass	Fail
*	1. Portable Dose Rate Instrument (≥ 5R/hr)		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	2. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
*	3. Portable Count Rate (Frisker) Instrument		
	Model No.: Serial No.: Calib. Date:		
	Perform operability check in accordance with Appendix A		
	DOSIMETRY	**Minimum Quantity**	**As** Found**
*	1. TLD, Whole Body Qtr.:	12	
	2. DRD, 0-20 R Exp. Date:	5	
*	3. DRD, 0-500 mR Exp. Date:	12	
	OTHER EQUIPMENT		
	1. Dosimeter Charger	1	
	2. Contamination Smears and Envelopes/Folders	500	
	3. Radiation Barrier Tape/Rope/Ribbon	N/A	
	4. Radiation Sign and Assorted Inserts	5	
	5. Step-Off Pads	10	
	6. Poly Bags (yellow)	20	
	7. Herculite (may be precut)	N/A	
	8. Tape (2" roll)	5	
	9. Radioactive Material Tags	25	

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

ATTACHMENT 7
HOSPITAL EMERGENCY EQUIPMENT INVENTORY
(Sheet 2 of 2)

INSPECT ALL BATTERIES DURING JANUARY AND JULY INVENTORIES

Initials_____

OTHER EQUIPMENT (continued)	Minimum Quantity	As** Found
10. Lined Tablets	2	
11. Note Pads	2	
12. Ink Pens (black)	12	
13. Batteries - Complete set of replacement batteries, both type and number, available for all equipment requiring batteries; check shelf life.	N/A	
DOCUMENTS, PROCEDURES, LOGS	Avail.	Unavail.
1. EPIP 3100023E (check for current revision)		
2. HPP-70 (check for current revision)		
3. HPP-101 (check for current revision)		
4. HP-207 (check for current revision)		
5. HP-208 (check for current revision)		
6. Form HPP-101.1 (5 copies) (check for current revision)		
7. Form HPP-70.1 (5 copies) (check for current revision)		

* Major Equipment (replace same day, if deficient)
** Codes: P=Pass, F=Fail, R=See Remarks

Remarks:_____

_____

_____

Checked by:_____ Reviewed by:_____

Date:_____ Date:_____

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX A
OPERABILITY INSTRUCTIONS
(Sheet 1 of 5)

1. Portable Dose Rate Instrument - Check calibration sticker, battery test, and response to supplied check source.

> NOTE
> Kit check sources should be stored away from kit TLDs.

2. Portable Count Rate Instrument - Check calibration sticker, battery test (unplug line cord), and response to supplied check source.

3. Battery and Operational Checks of the Ludlum Model 2218.

> NOTE
> Should it be necessary to use Channel 2, items contained within parentheses are settings to be used for Channel 2, see Figure 1.

Verify that the RECYCLE knob is OFF. The knob is labeled and located on the rear panel of the instrument.

3.1 Check the battery as follows:

> NOTE
> If an instrument fails the battery check, it can be used only if it is connected to AC power and successfully passes the operational check.

1. Turn the POWER knob to "BAT".
2. Unplug the AC line cord.
3. Depress the BAT testbutton.
4. Observe the condition below the RATE SCALE.
5. If battery condition is not within the acceptable BAT TEST range, plug in the AC line cord and turn the POWER knob to CHARGE. Attach a label to the instrument stating "Instrument is charging, started charge at _____ AM/PM on_____19____".

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX A
OPERABILITY INSTRUCTIONS
(Sheet 2 of 5)

3. (continued)

3.1 (continued)

6. If the battery condition is acceptable, then continue with the steps below.

3.2 Set the STABILIZER toggle switch to "OFF.

3.3 Ch1 (Ch2), set the ADD-OFF-SUBTRACT knob to ADD.

3.4 Ch2 (Ch1), set the ADD-OFF-SUBTRACT knob to OFF

3.5 Ch1 and Ch2, set the ON-BYPASS toggle switch to BYPASS.

3.6 Ch1 (Ch2), set the WINDOW and the THRESHOLD dials IAW (in accordance with) settings on the side of the 2218 cabinet.

3.7 Set the unused Channel's WINDOW and THRESHOLD dials to 10.0.

3.8 Ch1 (Ch2), set the IN-OUT toggle switch to IN.

3.9 Ch2 (Ch1), set the IN-OUT toggle switch to OUT.

3.10 Set the MINUTES knob to X1.

3.11 Set the LIVE-CLOCK toggle switch to LIVE.

3.12 Set the F-S (Fast-Slow) toggle switch to S.

3.13 Set the Ch1-Ch2-Scaler knob to SCALER.

3.14 Set the MINUTES thumbwheel to 01.

3.15 Perform a source check as follows:

1. Place the Ba-133 check source in the shield under the detector.

2. Depress the COUNT-RESET button to start counting.

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX A
OPERABILITY INSTRUCTIONS
(Sheet 3 of 5)

3. (continued)

3.15 (continued)

3. When counting stops, compare the displayed counts with the acceptance range that is located on the side of the instrument.

4. If the displayed counts are within the acceptance range then go to step 3.17. If the displayed counts are not within the acceptance range then go to step 3.16.

3.16 High voltage (HV) adjustments are performed as follows:

1. Set the MINUTES knob to EXT.

2. Place the Ba-133 check source in the shield under the detector.

3. Depress the COUNT-RESET button to start counting.

4. Observe the COUNTS/MINUTE (Count Rate Meter) scale while making small adjustments in voltage to obtain the **maximum** count rate achievable.

5. Increase or decrease the voltage with the HV (High Voltage) dial.

6. Set the MINUTES knob to X1.

7. Depress the COUNT-RESET button to start counting.

8. When counting stops, compare the displayed counts with the acceptance range that is located on the side of the instrument.

9. If the displayed counts are within the acceptance range then to go step 3.17. If the displayed counts are not within the acceptance range then do not use the instrument.

10. Tag the instrument OUT OF SERVICE, give the reason.

11. Record the results in the appropriate Attachment.

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX A
OPERABILITY INSTRUCTIONS
(Sheet 4 of 5)

3. (continued)

3.16 (continued)

12. Give the reason for failure in the Remarks section.

3.17 The battery and Ch 1 operational response checks have been successfully completed.

3.18 Record the results in the appropriate Attachment.

3.19 Turn the POWER knob to CHARGE.

3.20 Repeat steps 3.3 to 3.15.4 to perform operational check of Ch 2. Be sure all settings are set-up for Ch 2.

NOTE
The instrument passes the operational check if one channel is operational. Record failure of either channel in the Remarks section of the Attachment.

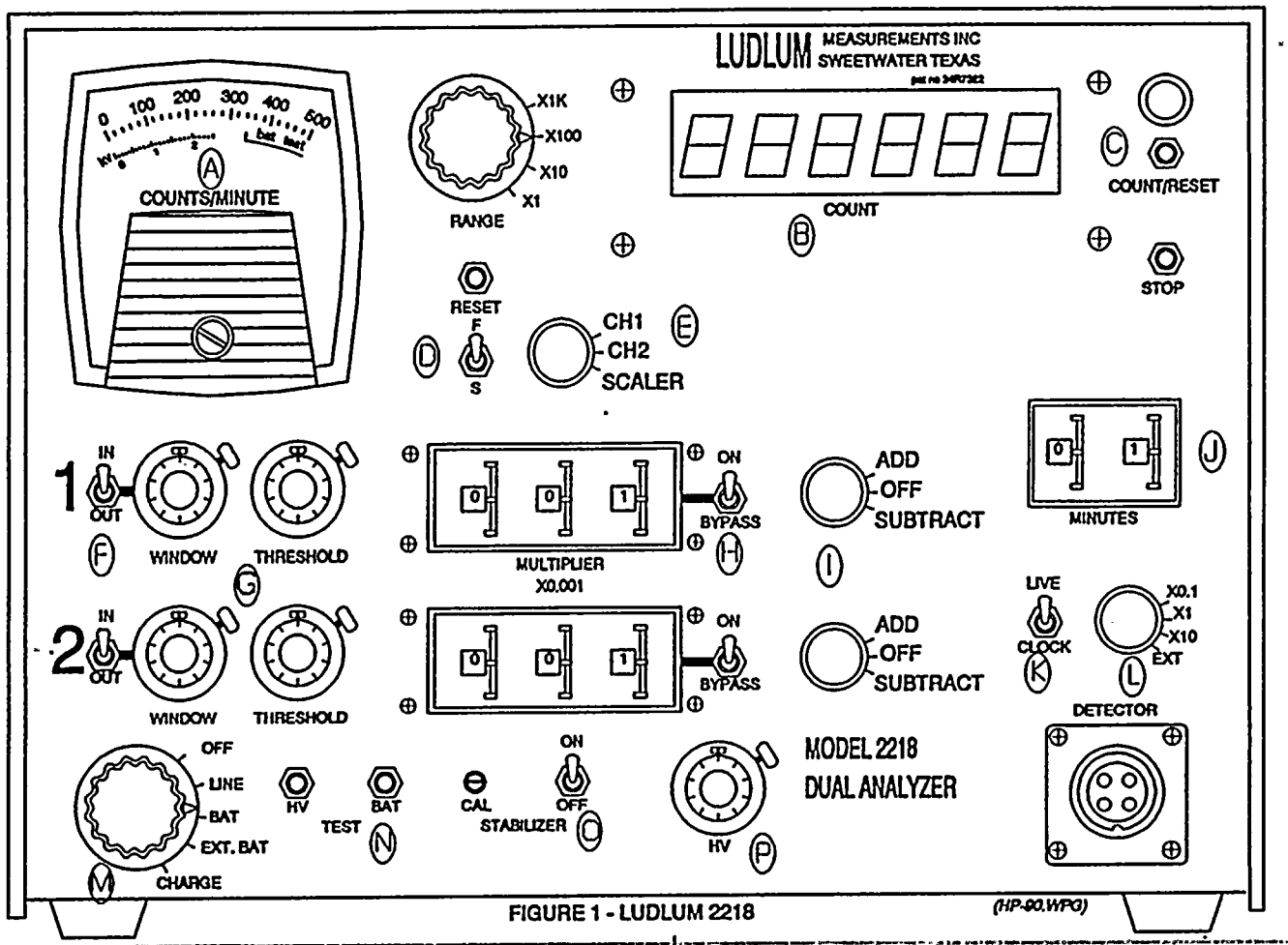

FIGURE 1 - LUDLUM 2218 (HP-90.WPG)

Battery Check
- M - set to "BAT"
- N - depress testbutton to check battery condition
- A - Indicates battery condition on "BAT TEST" scale

HV Adjustment
- L - set to "EXT"
- C - depress button to start count
- P - adjust voltage
- A - observe maximum count rate

Count Verification
- L - set to "X1"
- C - depress button to start count
- B - compare counts with acceptance range for the instrument

Operational Check (Ch1)
- O - toggle to "OFF"
- I - Ch1 to "ADD;" Ch2 to "OFF"
- H - toggle to "BYPASS" for Ch1 and Ch2
- G - Ch1 set WINDOW and THRESHOLD in accordance with settings on side of instrument; Ch2 set WINDOW and THRESHOLD to "10.0"
- F - toggle to "IN" for Ch1 and "OUT" for Ch2
- L - set to "X1"
- K - toggle to "LIVE"
- D - toggle to "S"
- E - set to "SCALER"
- J - set to "01"
- C - depress button to start count

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX B
INSTRUCTIONS FOR TESTING EMERGENCY COMMUNICATIONS EQUIPMENT
(Sheet 1 of 10)

I. Control Rooms

> NOTE
> The NRC Emergency Notification System (ENS) phones are tested in conjunction with the Technical Support Center.

/R25

A. Unit 1 Control Room emergency communications equipment is tested in accordance with plant Administrative Procedure 1-0010125, "Schedule of Periodic Tests, Checks and Calibrations."

B. Unit 2 Control Room emergency communications equipment is tested in accordance with plant Administrative Procedure 2-0010125, "Schedule of Periodic Tests, Checks and Calibrations."

II. Technical Support Center

A. Technical Support Center emergency communications equipment is tested in accordance with Plant Administrative Procedure ADM-17.01, "Duties and Responsibilities of the Shift Technical Advisor."

III. Emergency Operations Facility

Testing the NRC Emergency Telecommunications System (FTS 2000).

A. Emergency Notification System (ENS)

1. Phone number: (700) 821-0005

2. 3 extensions

   a. Room 101, NRC Table

   b. Room 101, Recovery Manager Table

   c. Room 114

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX B
INSTRUCTIONS FOR TESTING EMERGENCY COMMUNICATIONS EQUIPMENT
(Sheet 2 of 10)

III. (continued)

A. (continued)

3. Test

a. Check all three phones for dial tone by lifting the handset of the telephone and listening for a dial tone.

b. Using one of the phone extensions, call the NRC Operation Center (NRCOC) by lifting the handset and dialing the first number listed on the sticker located on the telephone cradle. No access code is necessary, just dial all ten digits of the number. If the main number is busy, dial the backup number. Alternate numbers until contact is made. /R25

c. After the NRCOC Duty Officer answers, inform him as follows: "This is the St. Lucie Emergency Operations Facility. I am conducting a check of the ENS, how do you receive me?" Ask the NRCOC Duty Officer if he wishes to call back, if so give him the telephone number and await the call.

d. The test is passed if (1) all phones have dial tone, (2) the link is operable, and (3) the NRCOC is successfully contacted.

e. Record the test result on the inventory form (Attachment 6).

f. If the test is a failure, see information under Trouble Notification.

B. Health Physics Network (HPN)

1. Phone number: (700) 821-0003

2. 3 extensions

a. Room 101, NRC Table

b. Room 103 (2)

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HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX B
INSTRUCTIONS FOR TESTING EMERGENCY COMMUNICATIONS EQUIPMENT
(Sheet 3 of 10)

III. (continued)

B. (continued)

3. Go to step F, Test Procedure

C. Reactor Safety Counterpart Link (RSCL)

1. Phone number: (700) 821-0008

2. 2 extensions

a. Room 101, NRC Table

b. Room 114

3. Go to step F, Test Procedure

D. Protective Measures Counterpart Link (PMCL)

1. Phone number: (700) 821-0006

2. 2 extensions

a. Room 101, NRC Table

b. Room 114

3. Go to step F, Test Procedure.

E. Management Counterpart Link (MCL)

1. Phone number: (700) 821-0004

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HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX B
INSTRUCTIONS FOR TESTING EMERGENCY COMMUNICATIONS EQUIPMENT
(Sheet 4 of 10)

III. (continued)

E. (continued)

2. 2 extensions

a. Room 101, NRC Table

b. Room 114

3. Go to step F, Test Procedure

F. Test Procedure for HPN, RSCL, PMCL, and MCL.

1. For each communication link, do the following:

a. Check all extensions for dial tone by lifting the handset of the telephone and listening for a dial tone.

b. Check link operability by using the phones on the NRC Table in Room 101. Each link must be able to call-out and receive a call to pass. Use the following call scheme:

HPN: Dial 700-821-0008

RSCL: Dial 700-821-0006

PMCL: Dial 700-821-0004

MCL: Dial 700-821-0003

c. The test is passed if (1) all phones have dial tone and (2) the link is operable.

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX B
INSTRUCTIONS FOR TESTING EMERGENCY COMMUNICATIONS EQUIPMENT
(Sheet 5 of 10)

III. (continued)

F. (continued)

d. Record the test result on the inventory form (Attachment 6) for each communication link.

e. If the test is a failure, see information under Trouble Notification.

G. Local Area Network (LAN)

1. Phone number: (700) 821-0007.

2. 1 extension

a. Room 114

3. Test

a. Check the telephone line by plugging in a telephone, lifting the handset, and listening for a dial tone.

H. Trouble Notification

1. If any aspect of the Emergency Telecommunications System is inoperable notify the NRC Operations Center in Rockville, Maryland by using a commercial telephone and dialing one of the following numbers:

(301) 951-0550

(301) 816-5100 /R25
/R25

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX B
INSTRUCTIONS FOR TESTING EMERGENCY COMMUNICATIONS EQUIPMENT
(Sheet 6 of 10)

III. (continued)

H. (continued)

2. Provide the following information (per IN 86-97):

a. Name of contact - Rick Walker or Kim Heffelfinger

b. Phone number of contact - Rick Walker
(407) 465-3550, ext. 3197

Kim Heffelfinger
(407) 468-4130

c. Location of contact - FPL/PSL
P.O. Box 128
Ft. Pierce, Florida
34954

d. Any other information that would expedite repair, if known or as requested.

3. Notify Rick Walker and/or Kim Heffelfinger.

I. The Local Govemment Radio (LGR) is a HF radio frequency utilized by St. Lucie County, Martin County, the St. Lucie Plant Control Rooms, and Emergency Operations Facility. This is a backup to the State Hot Ring Down Phone Circuit. The Plant (low band) Radio is the FPL operation channel located in the Control Rooms of each unit.

CAUTION
To safeguard against potential damage resulting from lightning striking the EOF, the LGR Radio console is left disconnected when not in use.

1. Instructions for Testing.

a. Go to the radio console (4 channels) located in the dose assessment area of the EOF.

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX B
INSTRUCTIONS FOR TESTING EMERGENCY COMMUNICATIONS EQUIPMENT
(Sheet 7 of 10)

III. (continued)

I. (continued)

1. (continued)

b. To operate/test the radio, connect the four (4) cable plug connector's numbered 1-4 into the corresponding sockets. The cables are made up of two (2) colored wires each, as indicated below:

No. 1 - green and yellow wires

No. 2 - brown and white wires

No. 3 - red and black wires

No. 4 - blue and orange wires

Following proper connection of all four (4) cables, plug the console into the wall outlet.

c. Call one of the Plant St. Lucie Control Rooms and ask them to standby for testing the LGR and the Plant Radio.

d. Turn the radio on and turn to channel 2 on the radio console. This is LGR frequency 39.18 MHz corresponding to channel F2 in Unit 1 and channel F2 in Unit 2 and is the channel monitored in both Control Rooms.

e. Press the transmit button and announce "St. Lucie Unit 1 or 2 (whichever you arranged to test with), this is St. Lucie EOF, come in please, over." They will acknowledge contact and you will say, "St. Lucie Plant, this is St. Lucie EOF, I am conducting a communications check, how do you read me, over?" They will acknowledge. Ask the Control Room to switch to channel F1. End transmission with "This is St. Lucie EOF, KNAS 412 over and out."

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX B
INSTRUCTIONS FOR TESTING EMERGENCY COMMUNICATIONS EQUIPMENT
(Sheet 8 of 10)

III. (continued)

I. (continued)

1. (continued)

f. Record operability status on the inventory form (Attachment 6).

g. If the system is inoperable, notify the Emergency Planning Coordinator or the Protection Services Supervisor.

h. Repeat test procedure in steps e., f., and g. above using Channel 1 (39.10 MHz, call letters still KNAS 412)

i. Test FPL Plant Radio (Channel C, 37.7 MHz, KNGE 861) by switching to Channel 4. Press the transmit button and announce, "St. Lucie Unit 1 or 2, (whichever you arrange to test with) this is the St. Lucie EOF conducting a communications check of the Plant Radio, how do you read me, over?" End the transmission with, "This concludes the communications checks with Unit 1 or 2, this is St. Lucie EOF, KNGE 861 over and out."

j. Turn radio off.

k. Unplug the console from the wall outlet.

l. Disconnect all four (4) cables.

J. The State Warning Point (SWP) Hot Ring Down (HRD) circuit is a dedicated phone system linking the State agencies, St. Lucie County, and Martin County with the Plant Control Rooms, Technical Support Center and the Emergency Operations Facility.

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX B
INSTRUCTIONS FOR TESTING EMERGENCY COMMUNICATIONS EQUIPMENT
(Sheet 9 of 10)

III. (continued)

J. (continued)

1. Instructions for Testing.

a. Go to the Division of Emergency Management's office Room 108, in the EOF and locate the phone labeled Hot Ring Down (HRD).

b. Pick up the handset and dial the State Warning Point (SWP) in Tallahassee. This is done by dialing 100. The State Warning Point Duty Officer will acknowledge by saying, "This is State Warning Point, go ahead." You in turn will announce "This is St. Lucie EOF, I am conducting a communications check, how do you receive me? The State will acknowledge. Request the State Warning Point to call you back on Station number 123.

c. Self test procedure for additional extensions.

(1) Conduct a self test on extensions 122 and 124 located in the bull pen.

(2) To perform the self test, adjust the volume control to the mid-range position. Lift the handset and press the push to talk bar while speaking into the handset mouthpiece. You should hear yourself in the handset earpiece (this is called sidetone). Now locate the black button on the rear of the telephone next to the power connector. Activate the test mode by holding this button down while simultaneously depressing the push to talk bar and speaking into the handset mouthpiece. Voice should now be heard in the speaker.

/R25

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURE NO. HP-90, REVISION 25
EMERGENCY EQUIPMENT

APPENDIX B
INSTRUCTIONS FOR TESTING EMERGENCY COMMUNICATIONS EQUIPMENT
(Sheet 10 of 10)

III. (continued)

J. (continued)

1. (continued)

c. (continued)

2. (continued)

Satisfactory completion of the self test is determined when the presence of sidetone is detected while pressing the push to talk bar and speaking into the handset, and when a loopback of the speaker's voice is heard in the loudspeaker while pressing the test switch located on the rear of the terminal. The self test is a complete audio loopback of the terminal's audio circuits up to, but not including, the line matching transformers. As such, this test is a good method to evaluate instrument performance. /R25

d. Record operability status on the inventory form (Attachment 6).

e. If the system is inoperable, notify the Emergency Planning Coordinator or Protection Services Supervisor.

IV. Site Assembly Station

A. Conduct functional check of the Site Assembly Station (SAS) telephone located on the west wall.

1. Place a local call and request a call back to ensure that the phone works properly.

2. Record operability status on the inventory form (Attachment 4).

3. If the phone is inoperable, notify the Emergency Planning Coordinator or the Protection Services Supervisor.

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203
REVISION 10

1.0 TITLE:

PERSONNEL ACCESS CONTROL DURING EMERGENCIES

2.0 REVIEW AND APPROVAL:

Reviewed by Facility Review Group February 1, 1982

Approved by J. H. Barrow (for) Plant General Manager February 4, 1982

Revision 10 Reviewed by FRG 1/25 1994

Approved by C. L. Burton Plant General Manager 1/31 1994

3.0 PURPOSE:

This procedure provides guidelines for control of personnel access to the plant and radiologically effected areas during and following an emergency.

4.0 PRECAUTIONS AND LIMITATIONS:

4.1 The Emergency Coordinator (EC) may waive the requirements of this procedure to allow access for the search and rescue of injured or lost personnel or to place the plant in a safe condition.

4.2 Re-entry into the plant following evacuation during an emergency shall be made only when authorized by the Emergency Coordinator.

4.3 All emergency personnel dispatched from Operational Support Center (OSC) shall be briefed by the HP Supervisor in the Operational Support Center (HPOSC) in the task they are to perform, radiological conditions that are known or expected to be encountered and their allowed exposure, and protective equipment necessary to accomplish the task.

4.4 The access control point for the plant is the North Security Building unless otherwise directed by the EC.

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

4.0 PRECAUTIONS AND LIMITATIONS: (continued)

4.5 The normal access control point for the Radiation Controlled Area (RCA) is the security check point outside the Reactor Auxiliary Buildings (RAB), the RTL may establish other entry points as radiological conditions change.

4.6 The Emergency Coordinator may adjust access control restrictions if the plant conditions and radiological conditions warrant.

4.7 The attachments (A for Unit 1, B for Unit 2) contain area dose rates of the RAB based on a Three Mile Island Unit 2 (TMI-2) type of accident. These attachments should be referred to prior to entry into any area where dose rates are unknown. The dose rates may be verified by Area Radiation Monitors.

> CAUTION
> The area radiation monitors will provide only the dose rates at the detector locations. Radiation levels in areas outside the immediate detector locations may be significantly higher.

4.8 Entries into radiation areas exceeding 10 R/hr should not be made without Emergency Coordinator or Radiation Team Leader (RTL) authorization.

4.9 Unless authorized by the EC to exceed 10 CFR 20 annual exposure limits, reentry personnel exposures shall be maintained below the 10 CFR 20 limits. /R10

4.10 Personnel shall be restricted from further exposure if their annual DDE reaches 3.0 Rem or if their thyroid CDE reaches 25 Rem. /R10

4.11 Personnel reaching the dose limits in 4.10 above may be allowed to receive additional exposure after a determination of dose has been finalized by the reading of their TLD or bioassay as appropriate. /R10

5.0 RELATED SYSTEM STATUS:

None

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

6.0 REFERENCES:

6.1 St. Lucie Plant Radiological Emergency Plan (E-Plan)

6.2 HP-2, "FPL Health Physics Manual."

6.3 HP-112, "Multibadging"

6.4 HP 201, "Emergency Personnel Exposure Control."

6.5 E-Plan Implementing Procedure 3100027E, "Re-entry"

6.6 FPL TMI Plant Shielding Study

6.7 Position paper, "Exposure Limits Emergency Response - Field Team Members," October 28, 1993, J. L. Danek, JNO-JB. /R10

7.0 RECORDS REQUIRED:

7.1 The following documents when completed shall be maintained in the plant files in accordance with QI 17-PR/PSL-1 "Quality Assurance Records."

1. Form HP 203.1, "Evacuated Area Re-entry Authorization" and any attachments.

2. Form HP 203.2, "Emergency Access Control Log Sheet"

3. Form HP 203.3, "Emergency Response Dose Control." /R10

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

8.0 INSTRUCTIONS:

8.1 The Health Physics representative in charge of HP activities at the OSC (HPOSC) is responsible for ensuring access control to radiologically affected areas. The following steps will enable him to perform this function.

1. Contact the Radiation Team Leader in the Technical Support Center (TSC) to determine where the access control point(s) are to be established.

2. Select a Radiation Team Member to man the access control point(s).

3. Brief the team members on the conditions within the areas using available information from surveys and area monitors.

4. Instruct them that no one is permitted to enter the area without providing a completed "Evacuated Area Re-entry Authorization" form (HP-203.1) unless authorized by the Emergency Coordinator.

5. Instruct them that initial entry into an evacuated area must be made by at least two people, one of whom must be a Radiation Team Member.

8.2 The access control watch shall perform the following steps:

1. Position himself in such a manner that personnel accessing the area must pass by him.

2. Review form HP 203.1 to ensure that the individual is authorized entry and that the individual has the required protective equipment specified by the HPOSC.

3. Deny access to anyone who does not have an HP 203.1 or does not have all the required equipment as listed on the form.

4. Log the individual into the area on the "Emergency Access Control Log Sheet" form (HP 203.2) for each individual entering the area.

5. Maintain a list of times when individuals are expected out of the area.

6. Immediately inform the HPOSC of individuals who are overdue.

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

8.0 INSTRUCTIONS: (continued)

8.2 (continued)

7. When an individual exits from the area, complete the log entry on the HP 203.2.

8. Report to the HPOSC any personnel contamination or exposures in excess of the allowed exposure.

9. Ensure that personnel monitoring devices are taken by the individual to the OSC for further processing and recording.

10. Check items removed from the area for contamination.

11. In the event that an individual is contaminated, detain the individual and request assistance from the HPOSC to escort and decontaminate him.

12. Record any survey data taken by the Re-entry team in the "Remarks" section of the "Evacuated Area Re-entry Authorization" form (HP 203.1) as dose rate information for future entries. Transmit this information to the HPOSC also.

8.3 At the conclusion of the reentry, the dose received by the individual shall be entered on Form HP-203.3 to maintain a current dose record of DDE and CDE (Thyroid) for the individual. /R10

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

HP 203.1
EVACUATED AREA RE-ENTRY AUTHORIZATION
(Page 1 of 1)

1. Reason for Entry: _____

2.

	Name/PID	Current Annual Dose	Dose Allowed * This Entry	Dose Received	Remaining Dose Allowed
A.					
B.					
C.					
D.					
E.					
F.					

/R10

NOTE

* All doses should be maintained below admin limit of 3 Rem unless specifically authorized by the Emergency Coordinator and Radiation Team Leader.

/R10

3. Protective Equipment Required: (Specify # of each)

Cloth Coveralls	____	Plastic Hood	____
Plastic Coveralls	____	Plastic Shoe Covers	____
Cotton Gloves	____	Rubber Shoe Covers	____
Rubber Gloves	____	Rubber Boots	____
Cloth Hood	____		

4. Respiratory Equipment: (Check One)

SCBA____ Charcoal Canister Respirator____ Other____

5. Survey Instrument(s) Required: _____

6. Dosimetry Required:

Whole Body

Low Range _____

Hi Range _____

Merlins _____

Extremities/Multibadging: Use Forms from HP-112, "Multibadging" and attach to this form.

7. Records Checked by: _____ Date ____/____/____ Time _____

8. Notified Emergency Coordinator and Rad. Team Leader (HPOSC): Date ____/____/____ Time _____

Approved by (HPOSC): _____ Date ____/____/____ Time _____

9. Exposures Recorded: _____ Date ____/____/____ Time _____

10. Reviewed by (HPOSC): _____ Date ____/____/____ Time _____

11. Air Sample # (if applicable)_____ /R10

12. Remarks_____ /R10

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

HP 203.2
EMERGENCY ACCESS CONTROL LOG SHEET

Date____/____/____ Location_____

Name	TLD #	Time In	Expected Time Out	Time Out	Init.

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

HP-203.3
EMERGENCY RESPONSE DOSE CONTROL

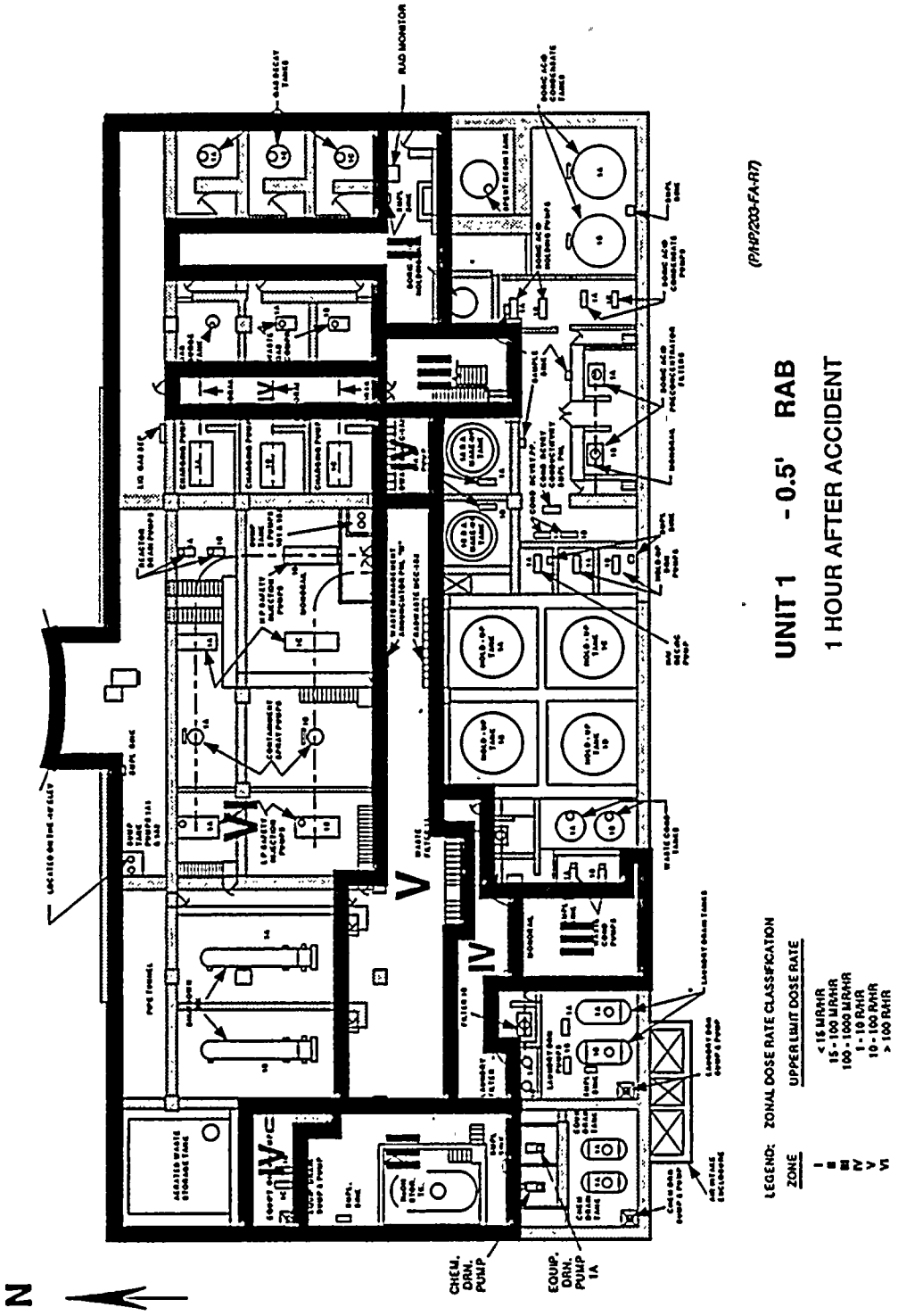
Name	TLD #	Date	Air Sample No.	Time In	Time Out	This Entry	Deep Dose mrem Prev Entry	(1) Total Dose	This Entry	Thyd Dose mrem Prev Entry	(2) Total Dose

(1), (2) Annual Deep Dose shall not exceed 3.0 Rem or Annual Thyroid Dose shall not exceed 25 Rem without approval from Emergency Coordinator to exceed 10 CFR 20 dose limits.

/R10

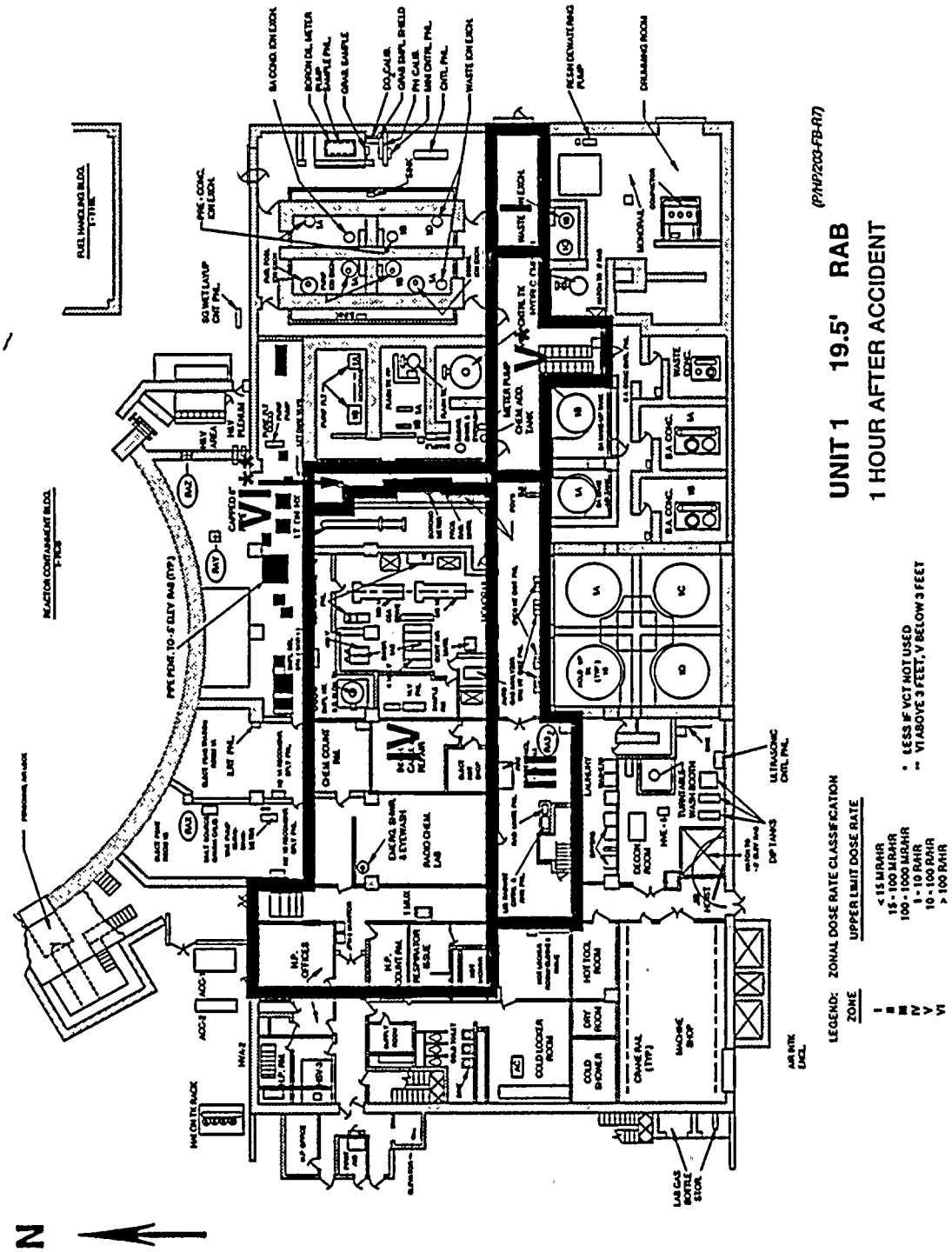
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT A
(Page 1 of 8)



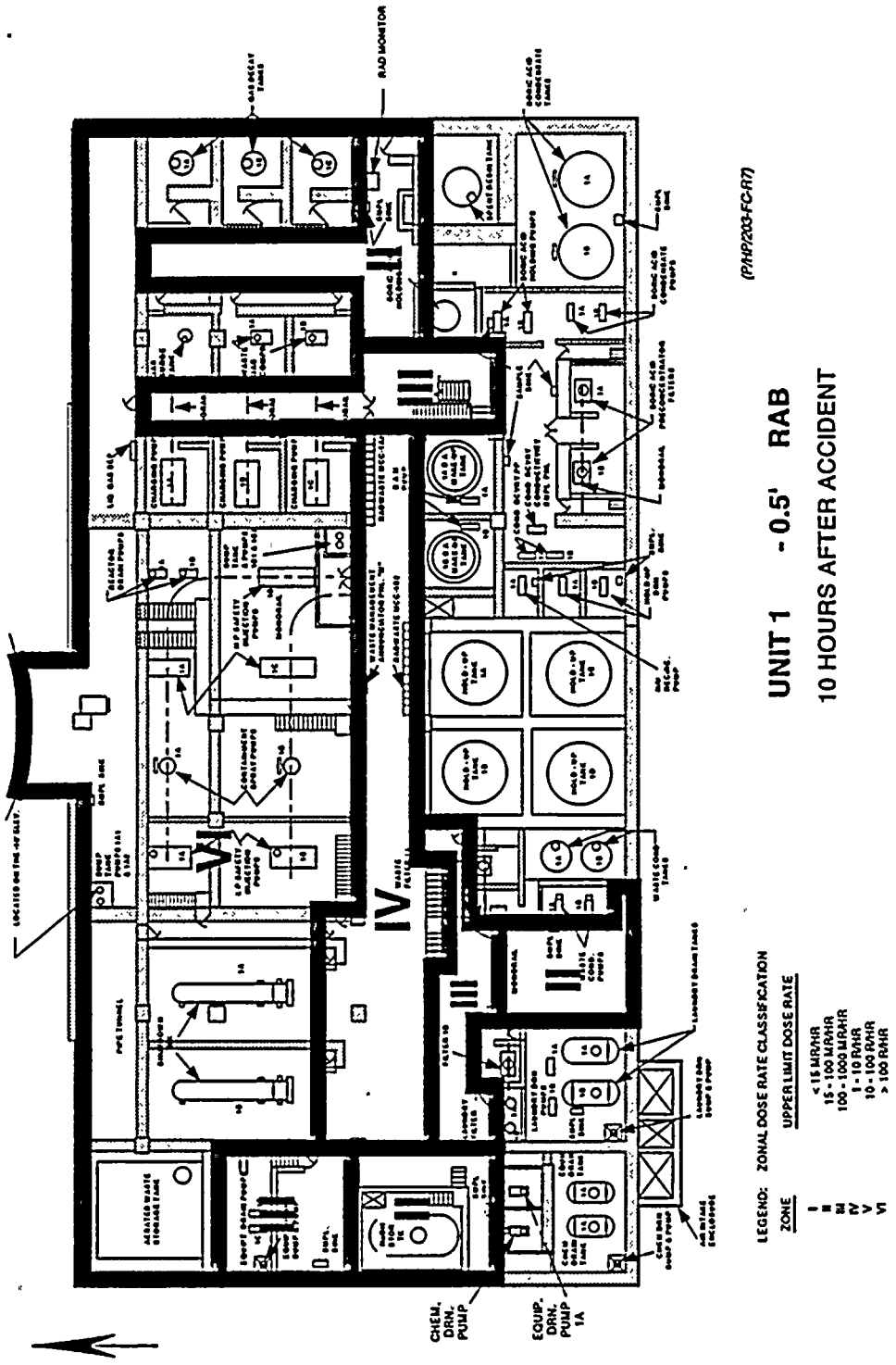
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT A
(Page 2 of 8)



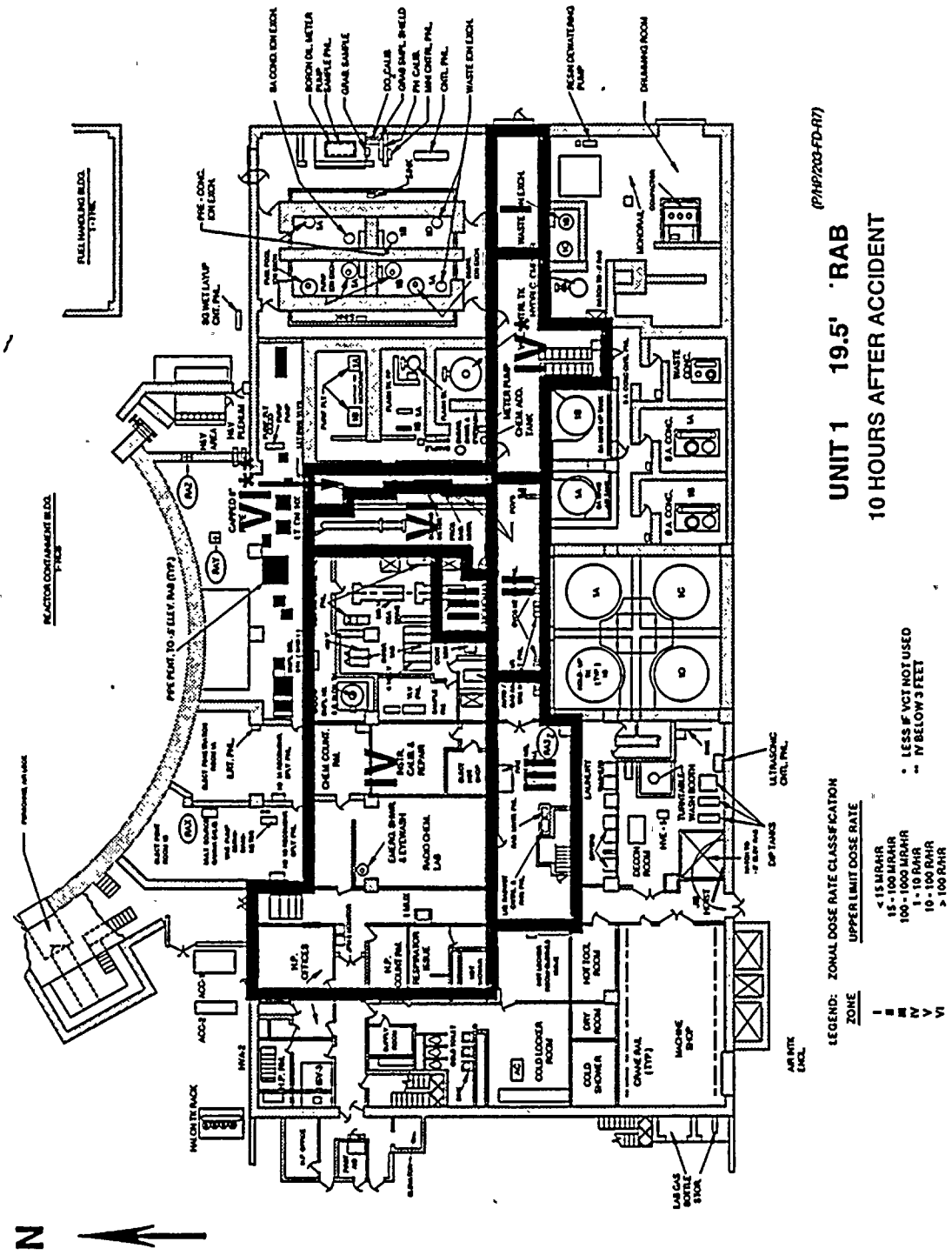
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT A
(Page 3 of 8)



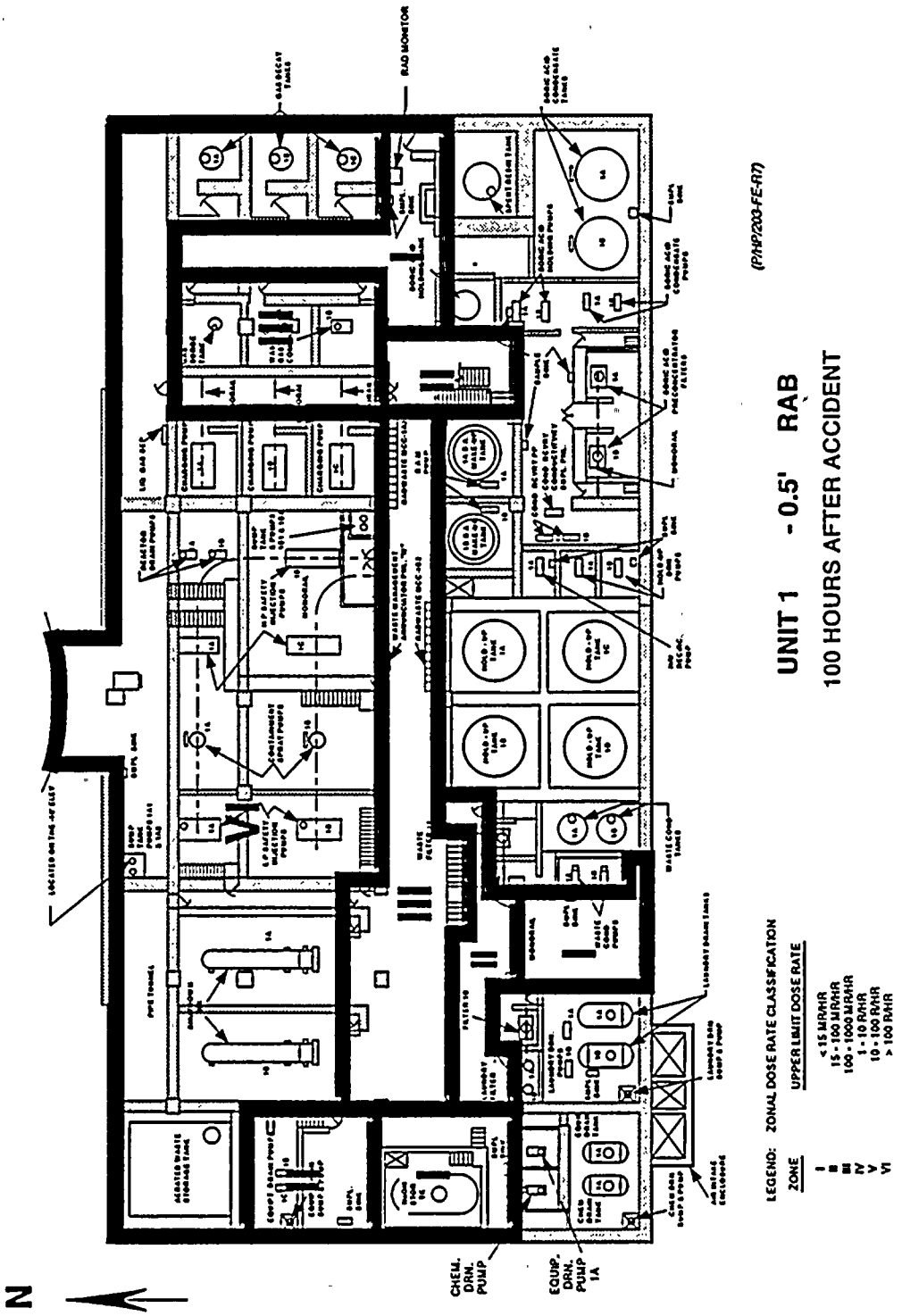
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT A
(Page 4 of 8)



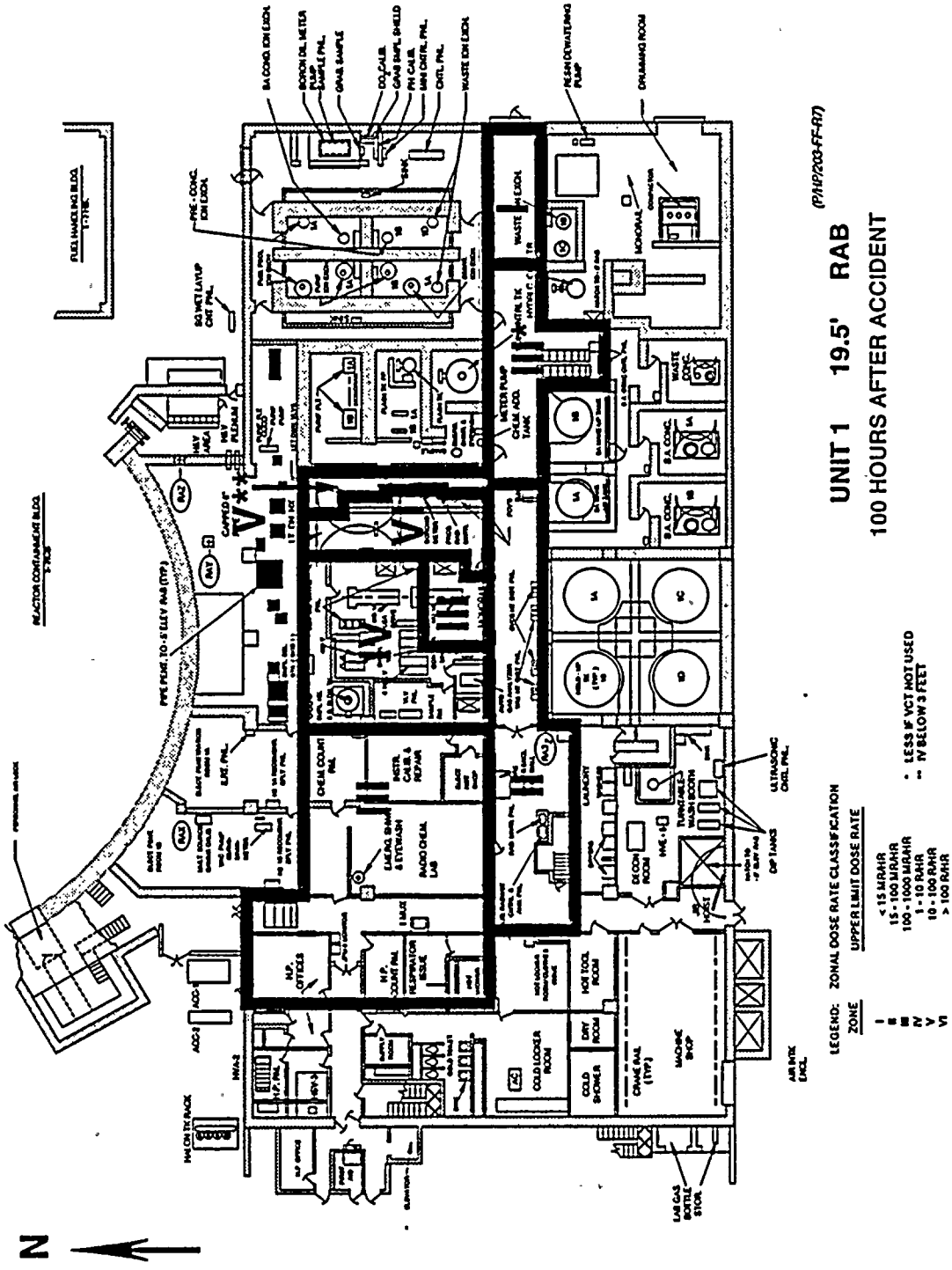
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT A
(Page 5 of 8)



ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT A
(Page 6 of 8)



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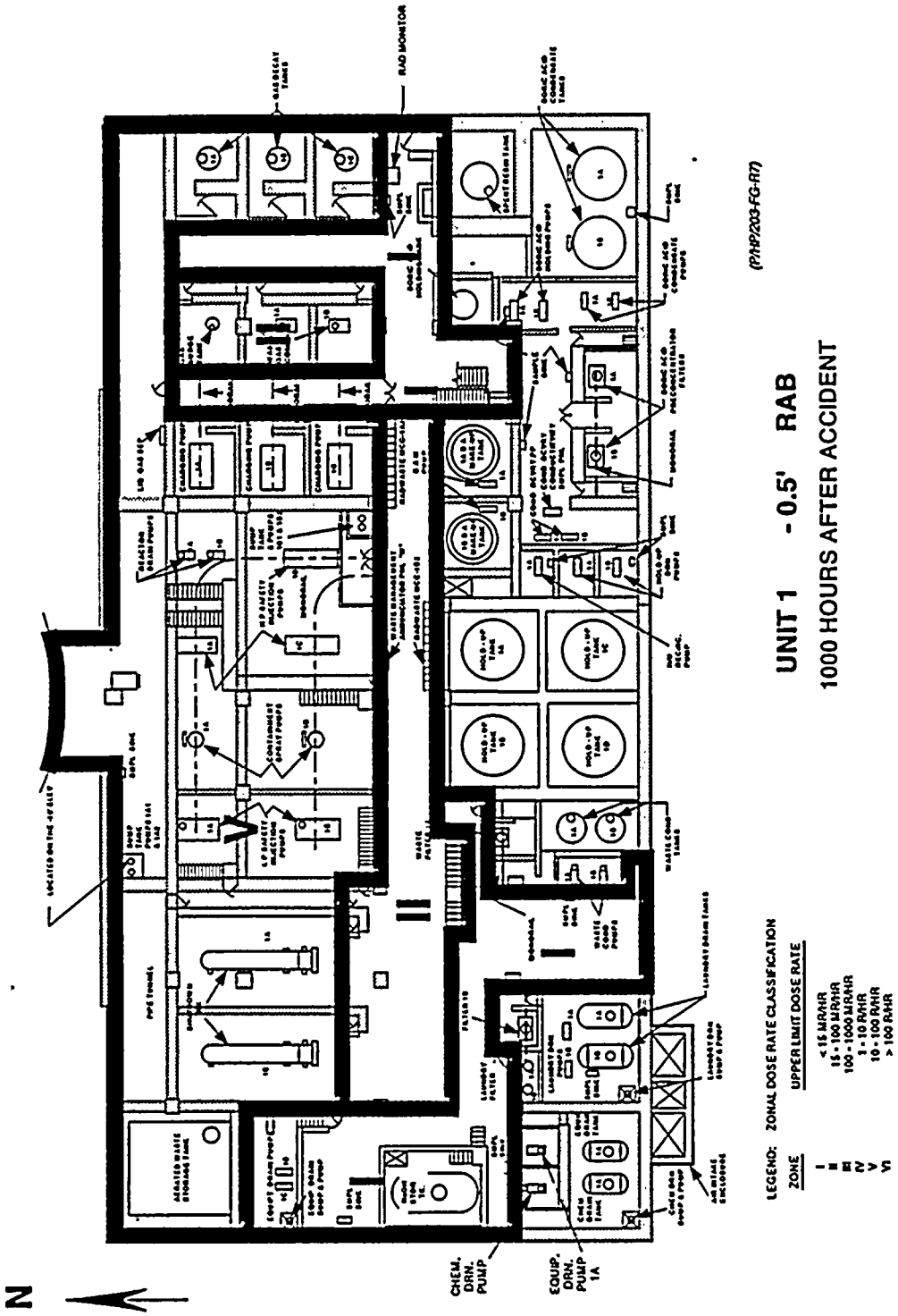
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT A
(Page 7 of 8)



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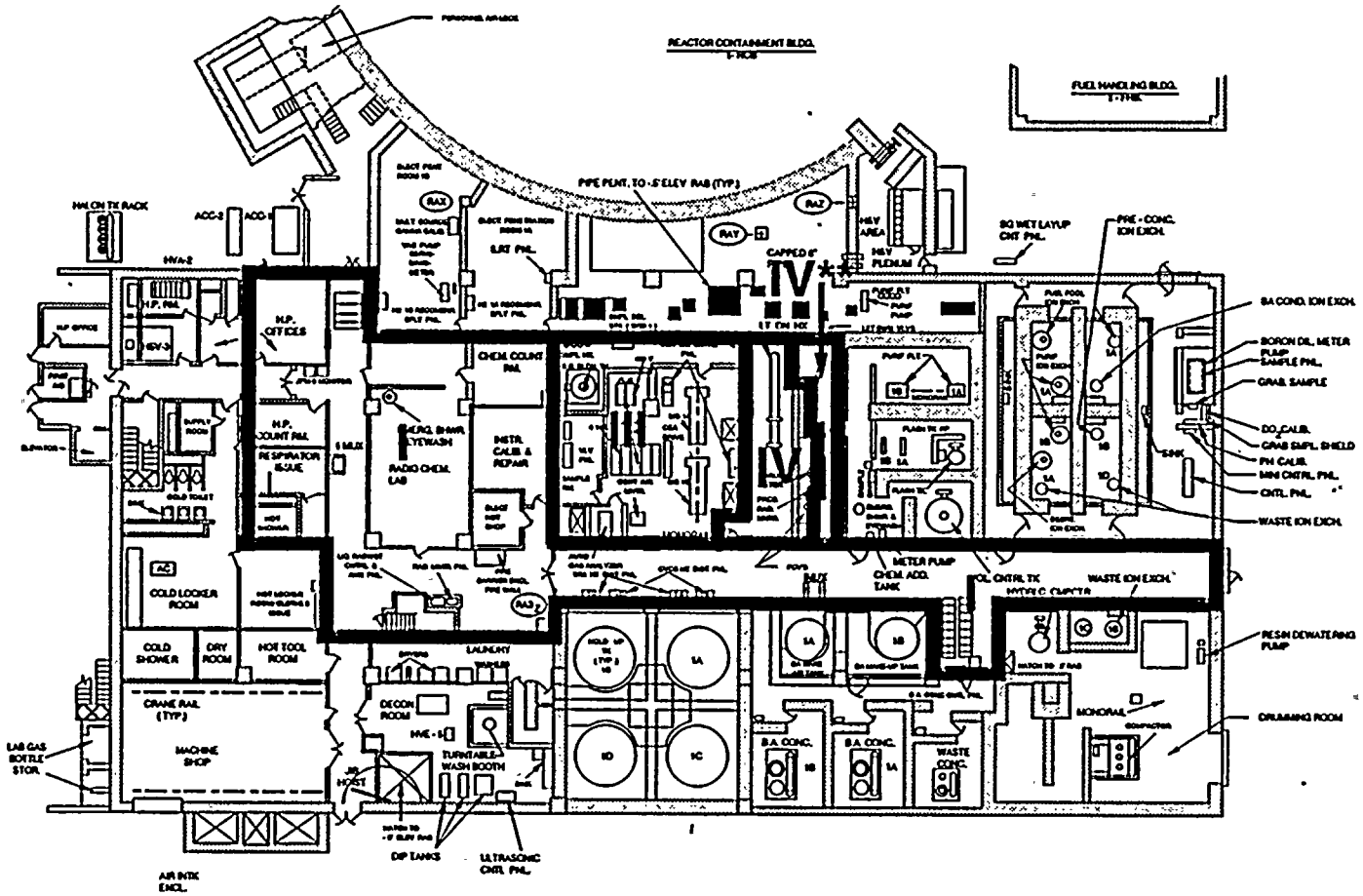
(Page 8 of 8)



LEGEND: ZONAL DOSE RATE CLASSIFICATION

ZONE	UPPER LIMIT DOSE RATE
I	< 15 MR/HR
II	15 - 100 MR/HR
III	100 - 1000 MR/HR
IV	1 - 10 R/HR
V	10 - 100 R/HR
VI	> 100 R/HR

** II BELOW 3 FEET

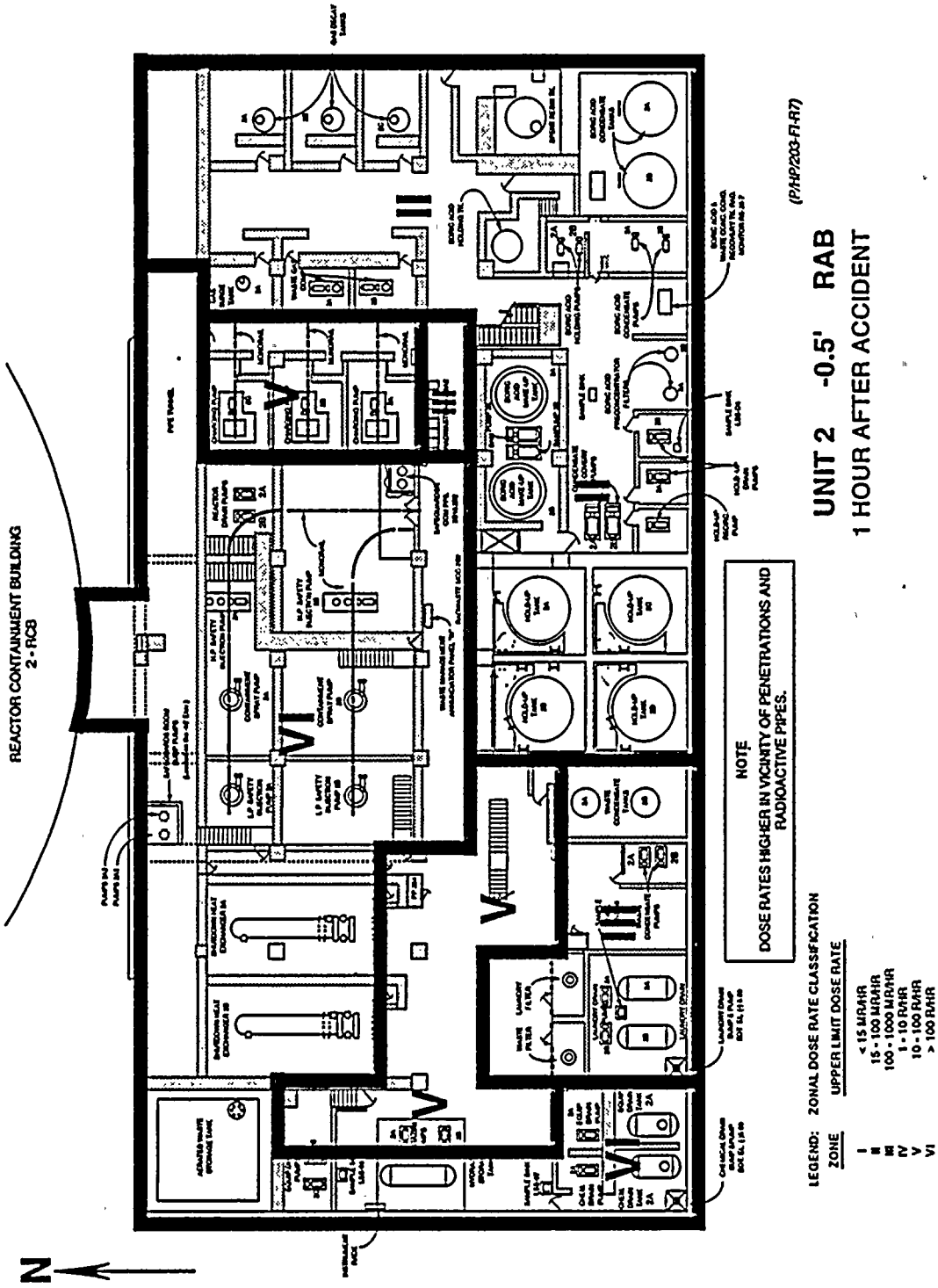
(P/HP/203-FH-R7)

UNIT 1 19.5' RAB

1000 HOURS AFTER ACCIDENT

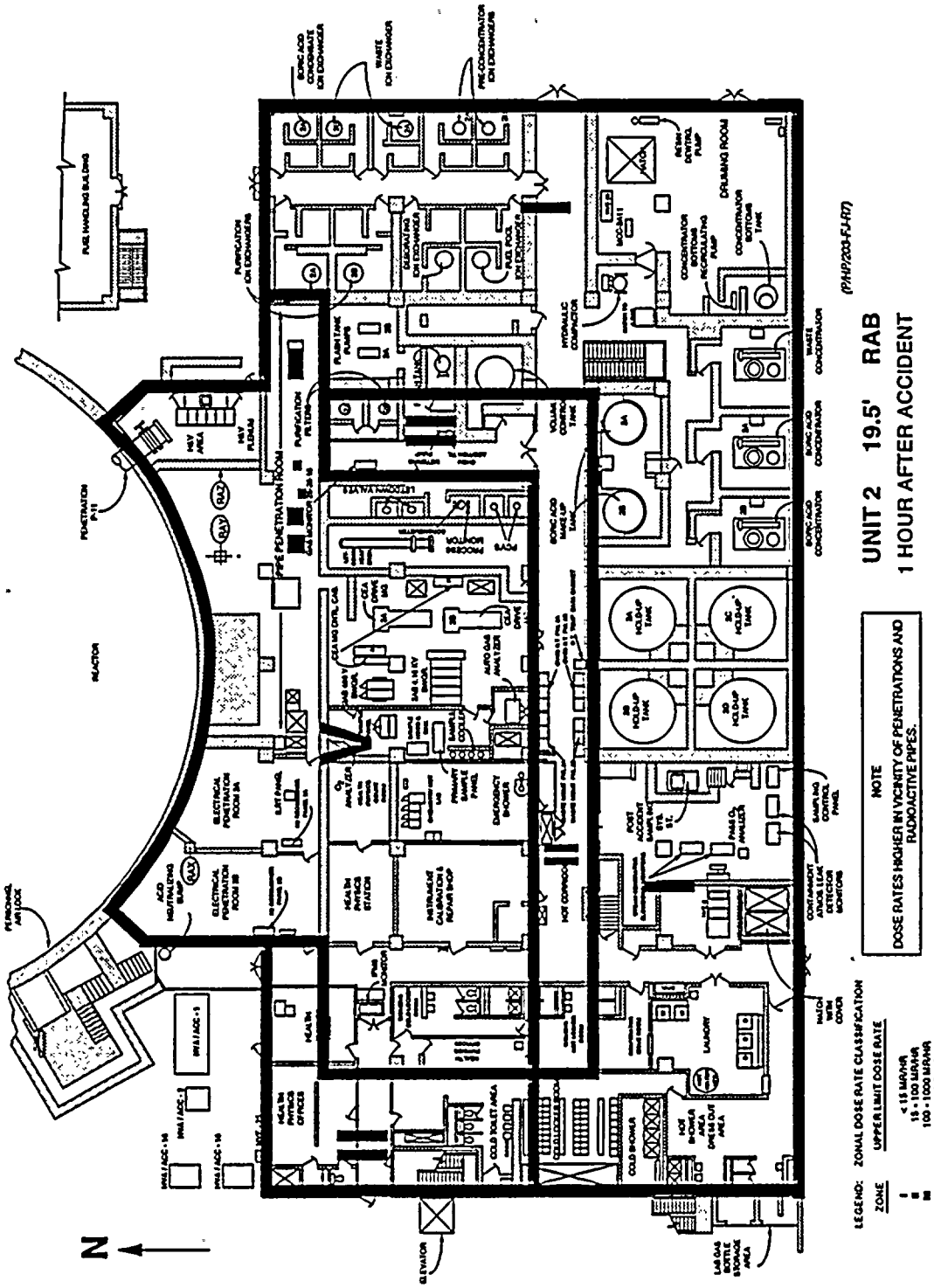
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
(Page 1 of 16)



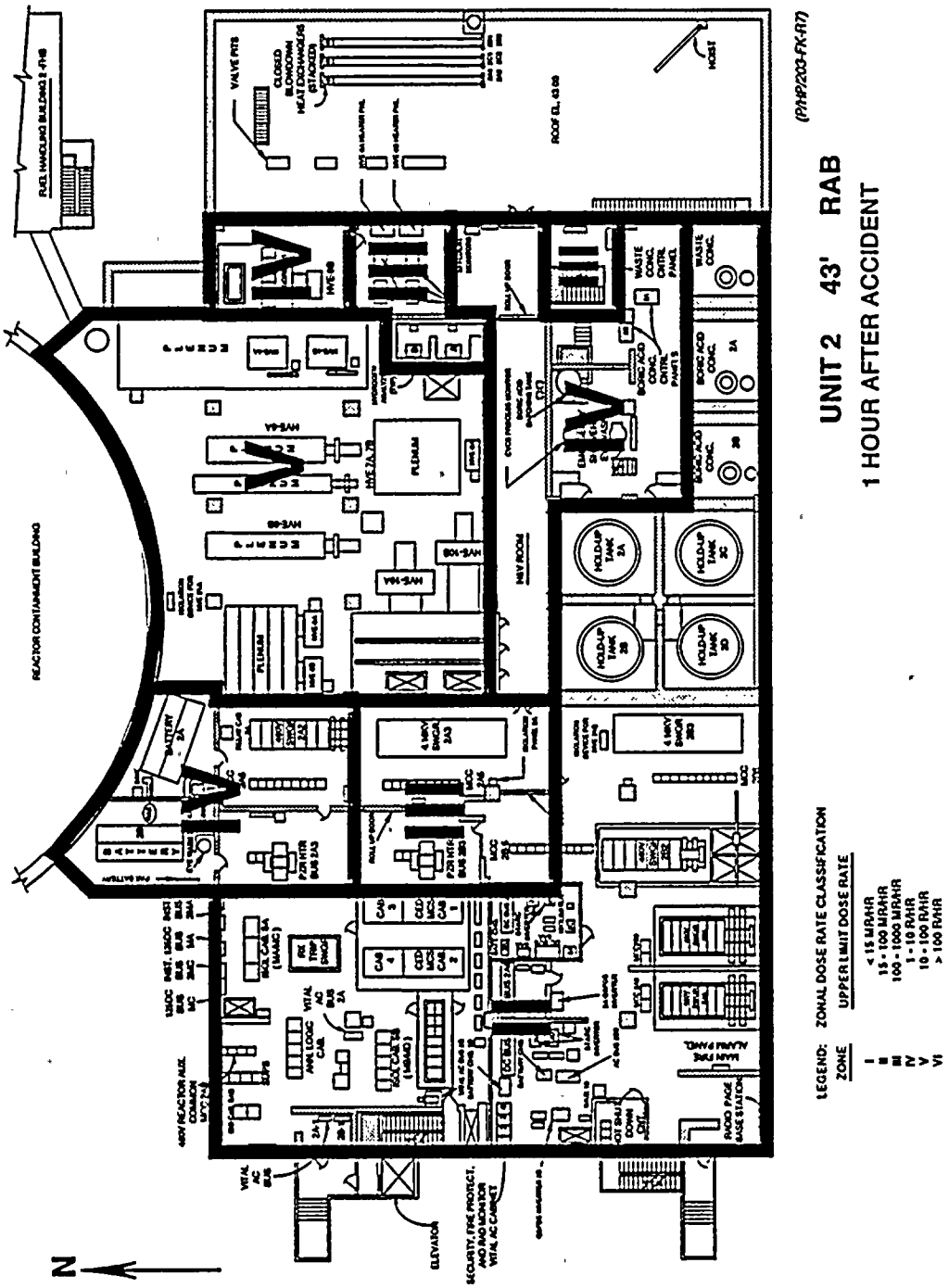
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
(Page 2 of 16)

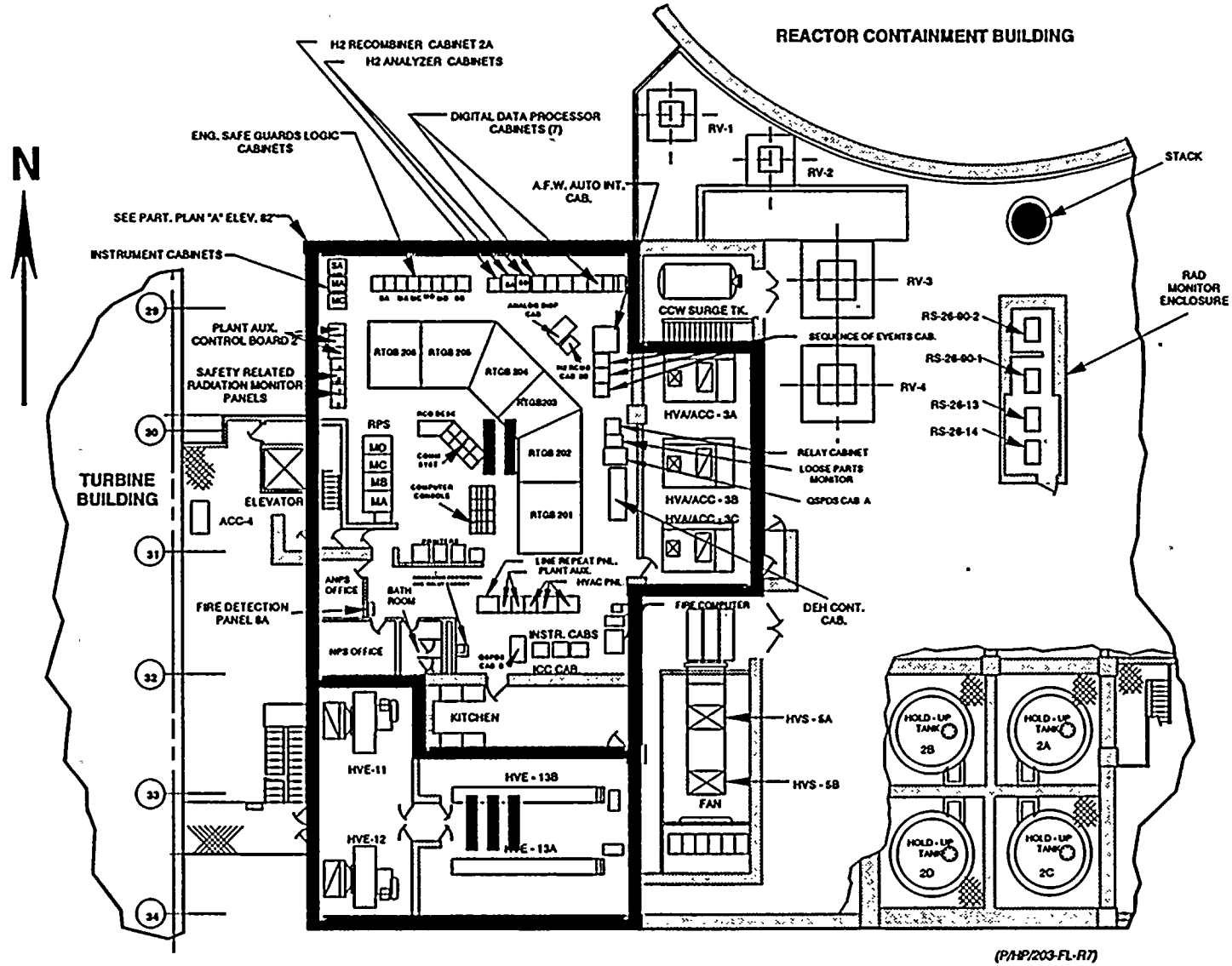


ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
(Page 3 of 16)



ATTACHMENT B
(Page 4 of 16)



(P/HP/203-FL-R7)

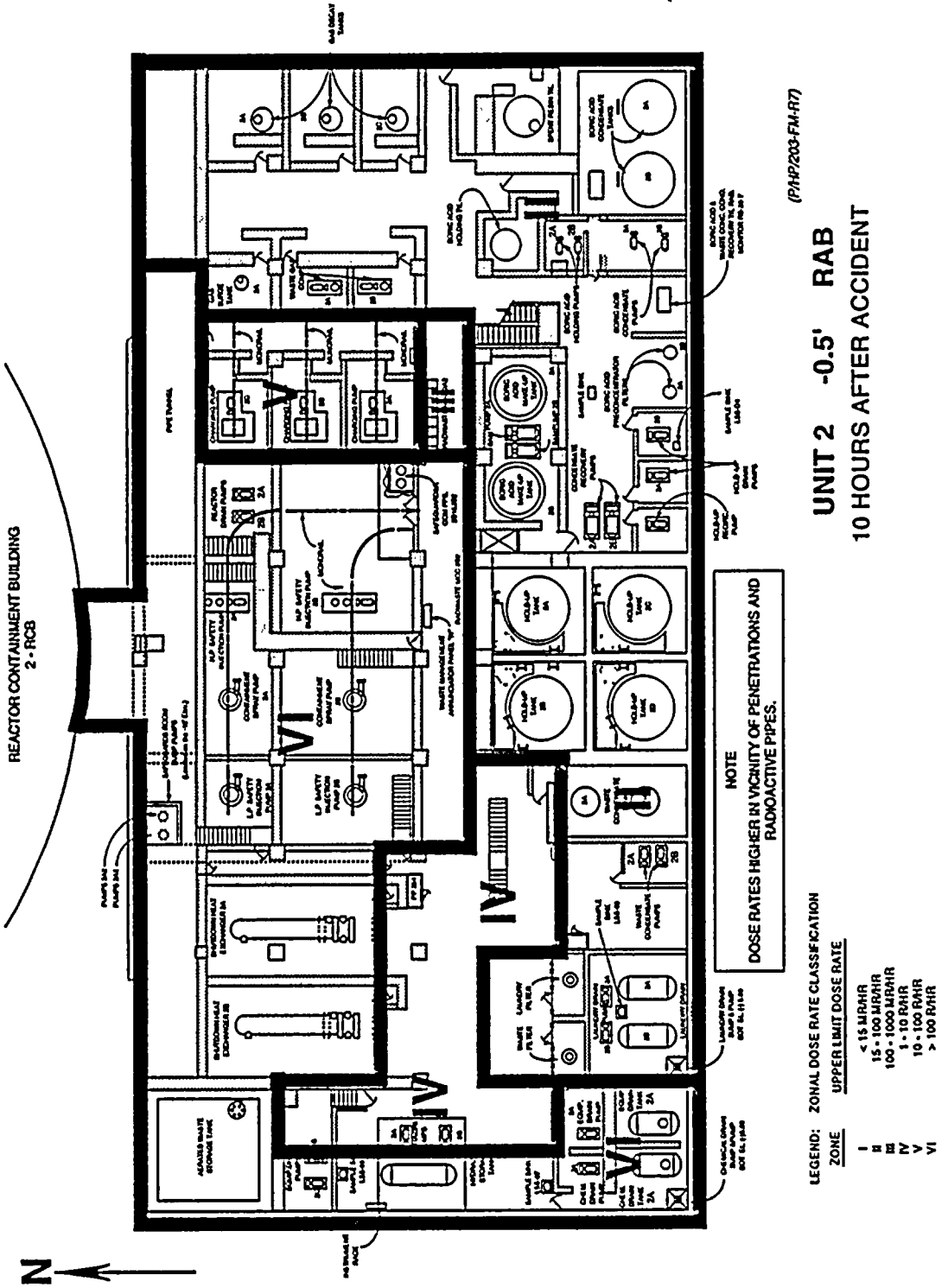
UNIT 2 62' RAB
1 HOUR AFTER ACCIDENT

LEGEND: ZONAL DOSE RATE CLASSIFICATION

ZONE	UPPER LIMIT DOSE RATE
I	< 15 MR/HR
II	15 - 100 MR/HR
III	100 - 1000 MR/HR
IV	1 - 10 R/HR
V	10 - 100 R/HR
VI	> 100 R/HR

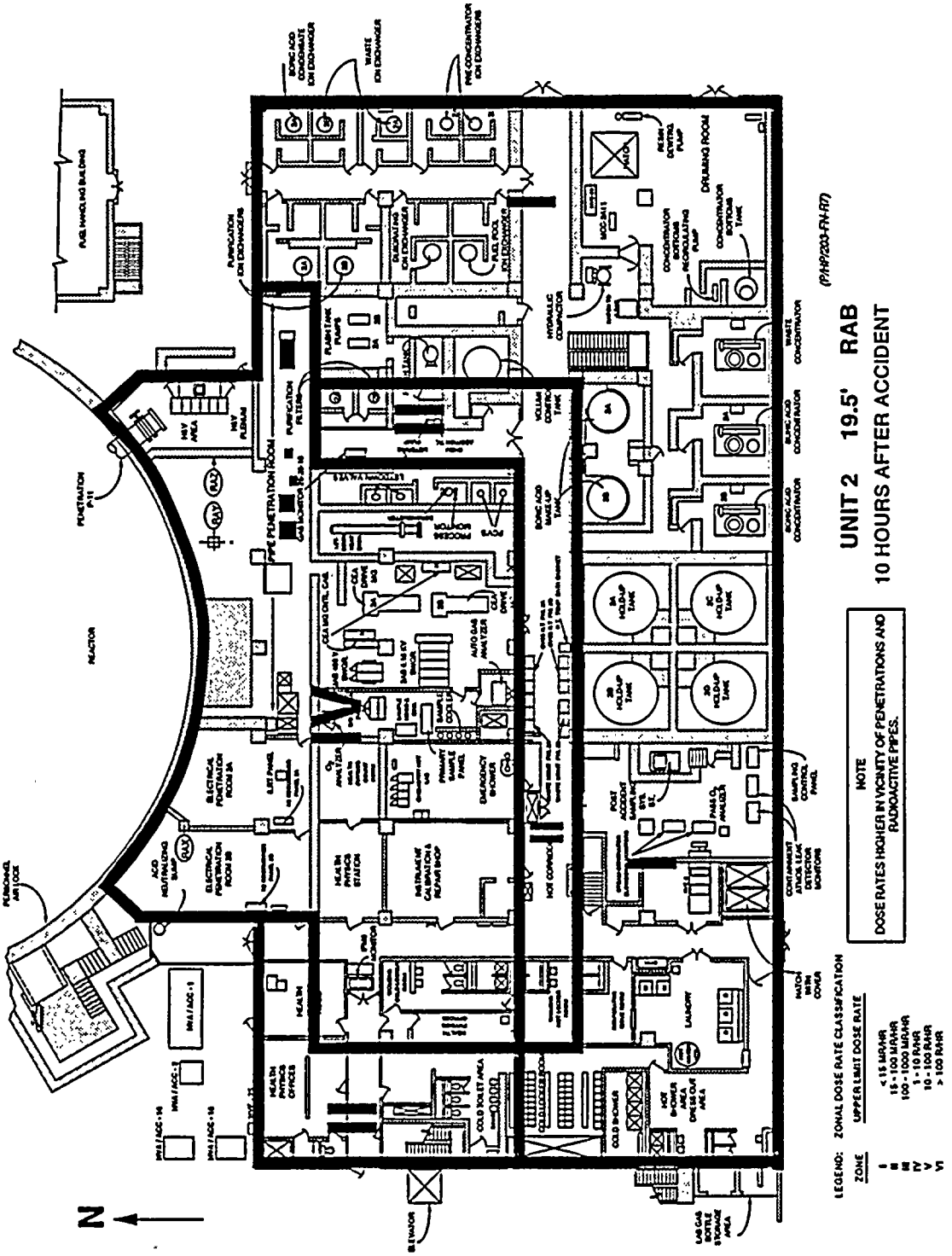
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
(Page 5 of 16)



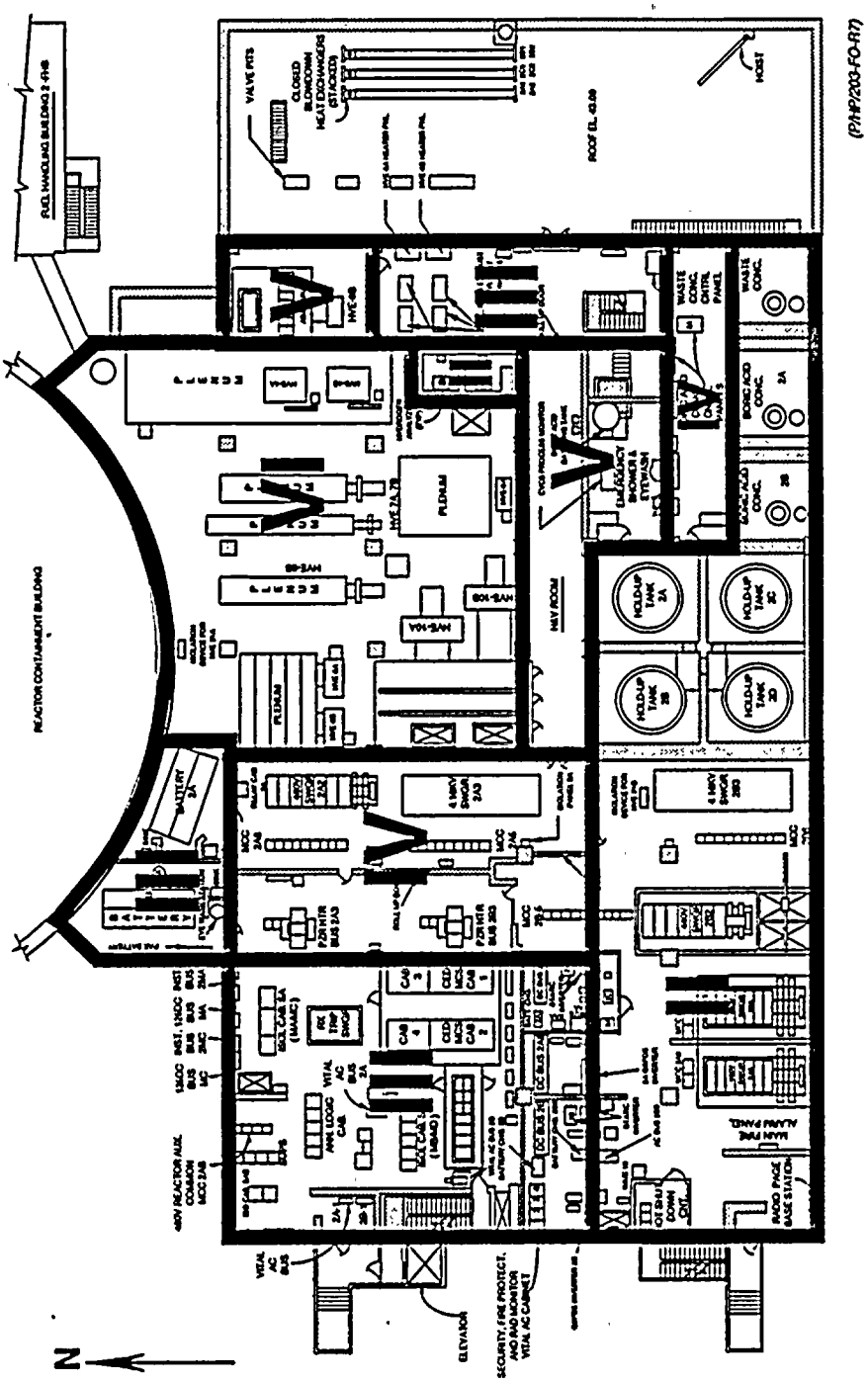
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
(Page 6 of 16)



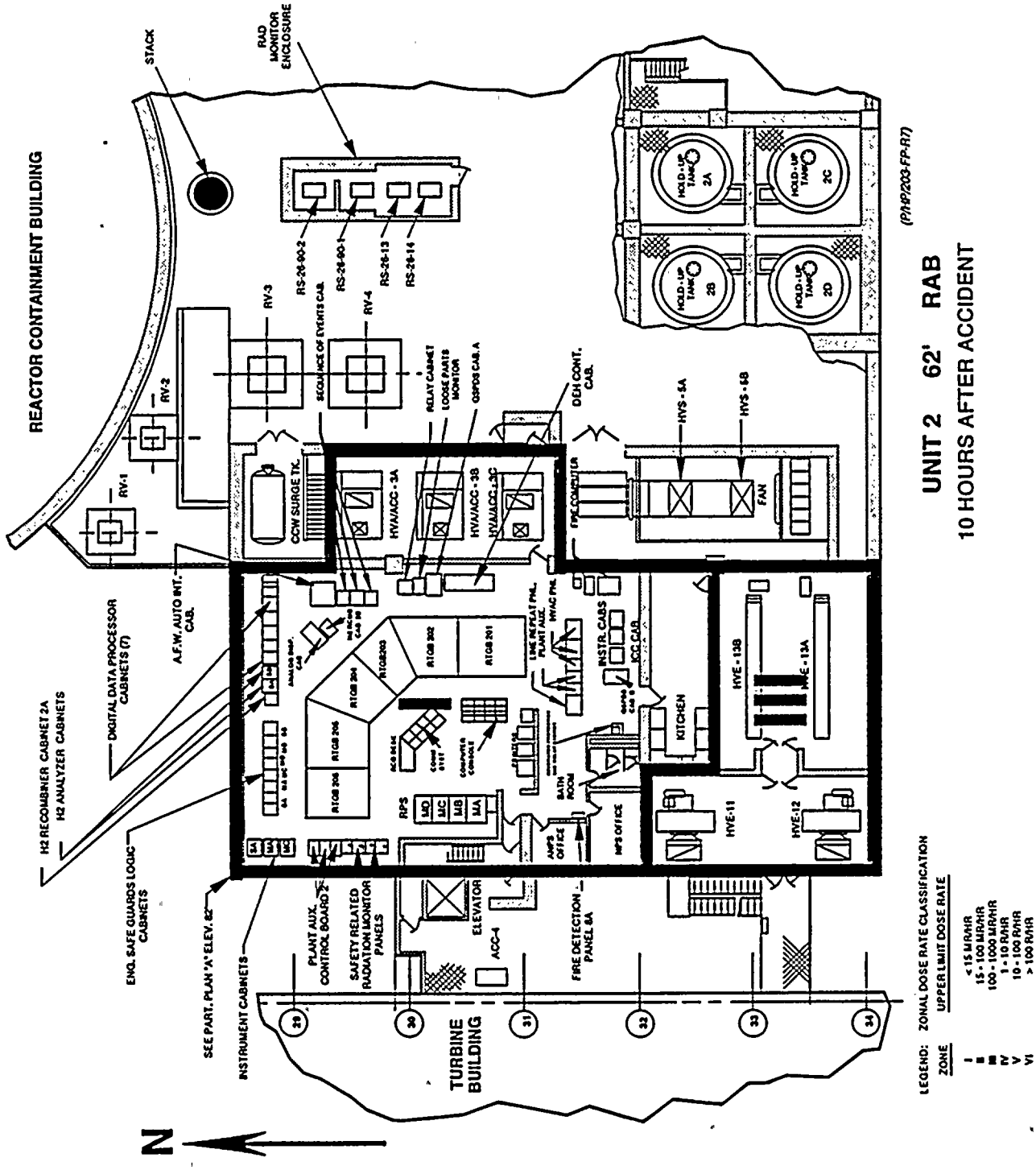
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
(Page 7 of 16)



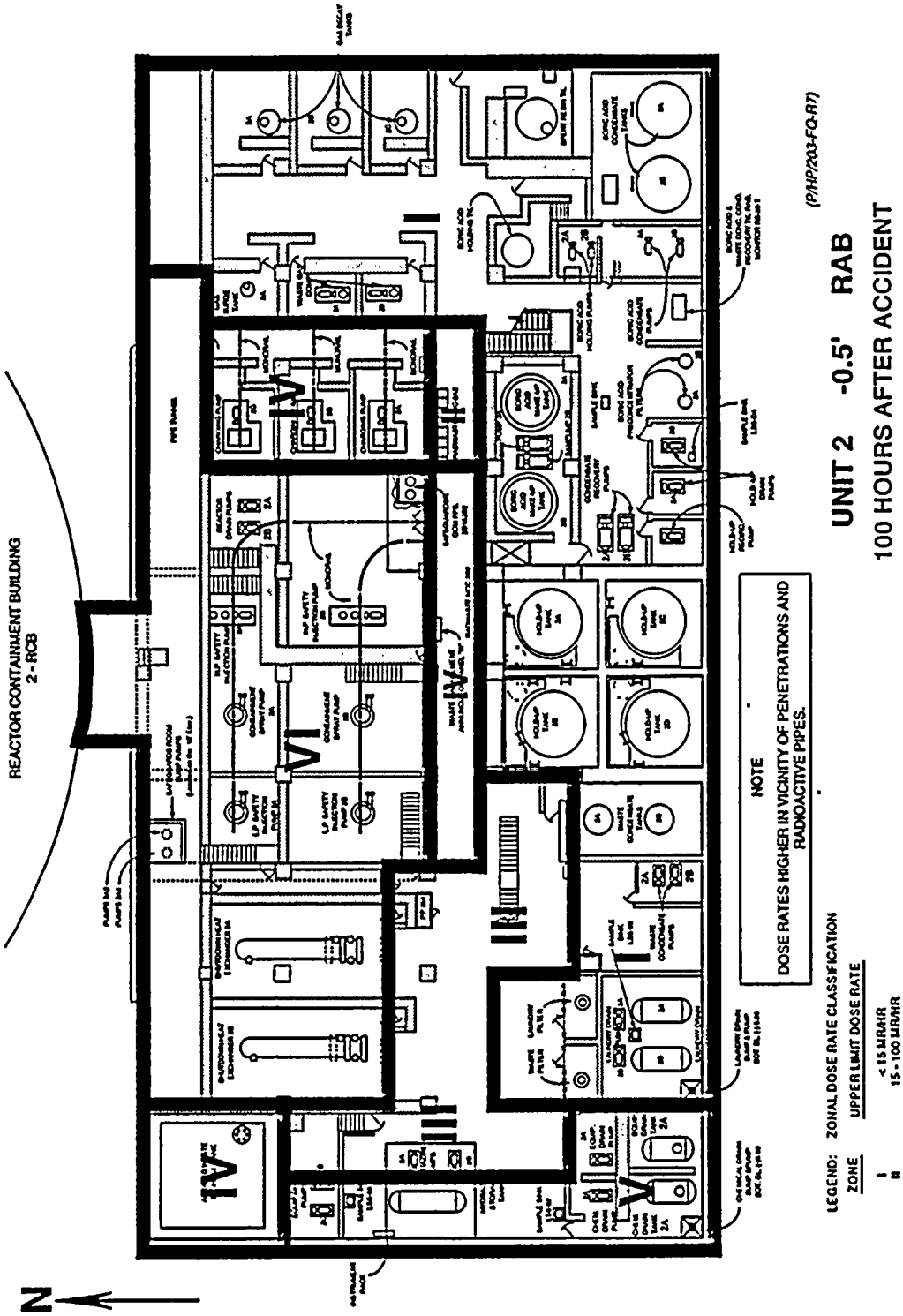
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
(Page 8 of 16)



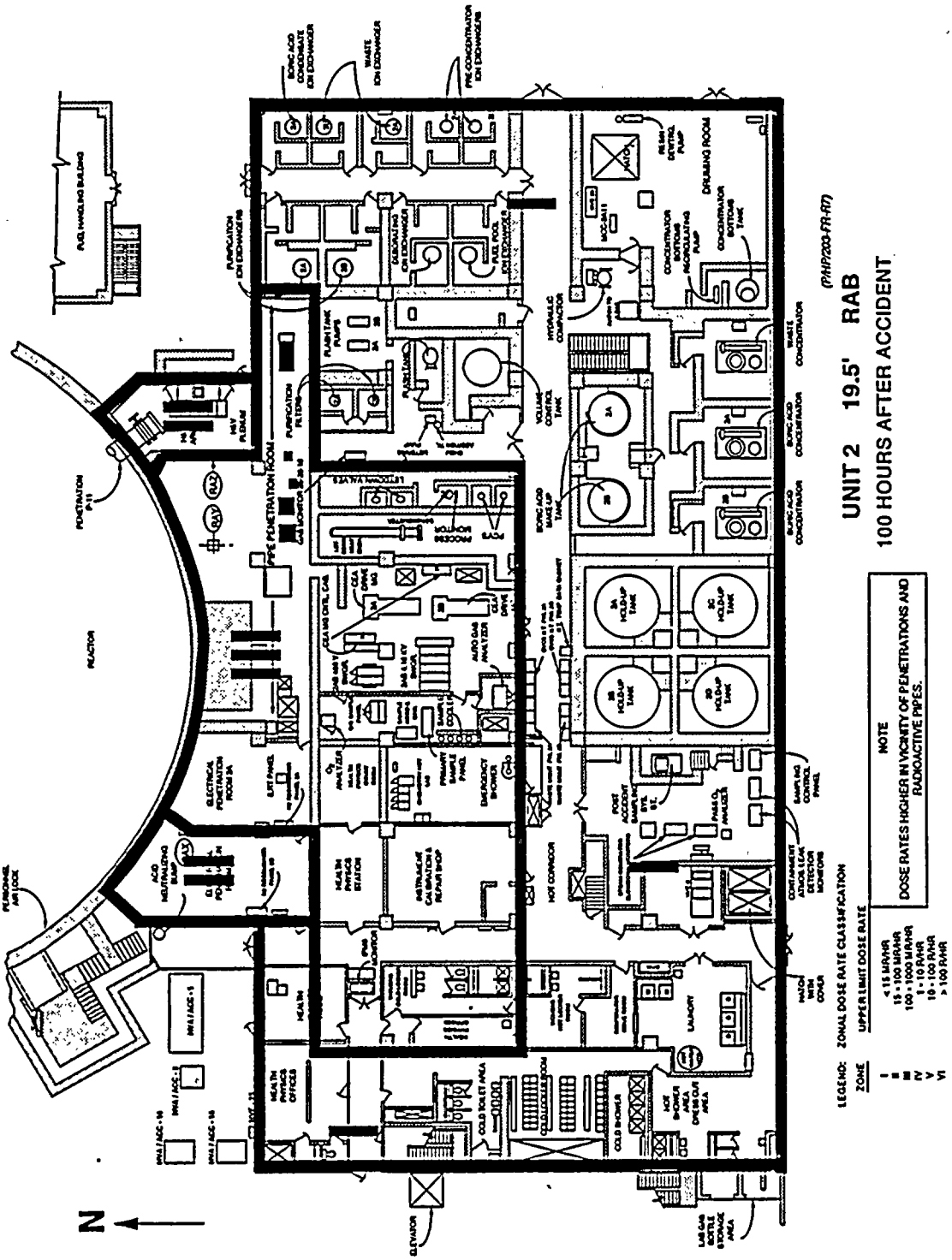
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
(Page 9 of 16)



ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
(Page 10 of 16)



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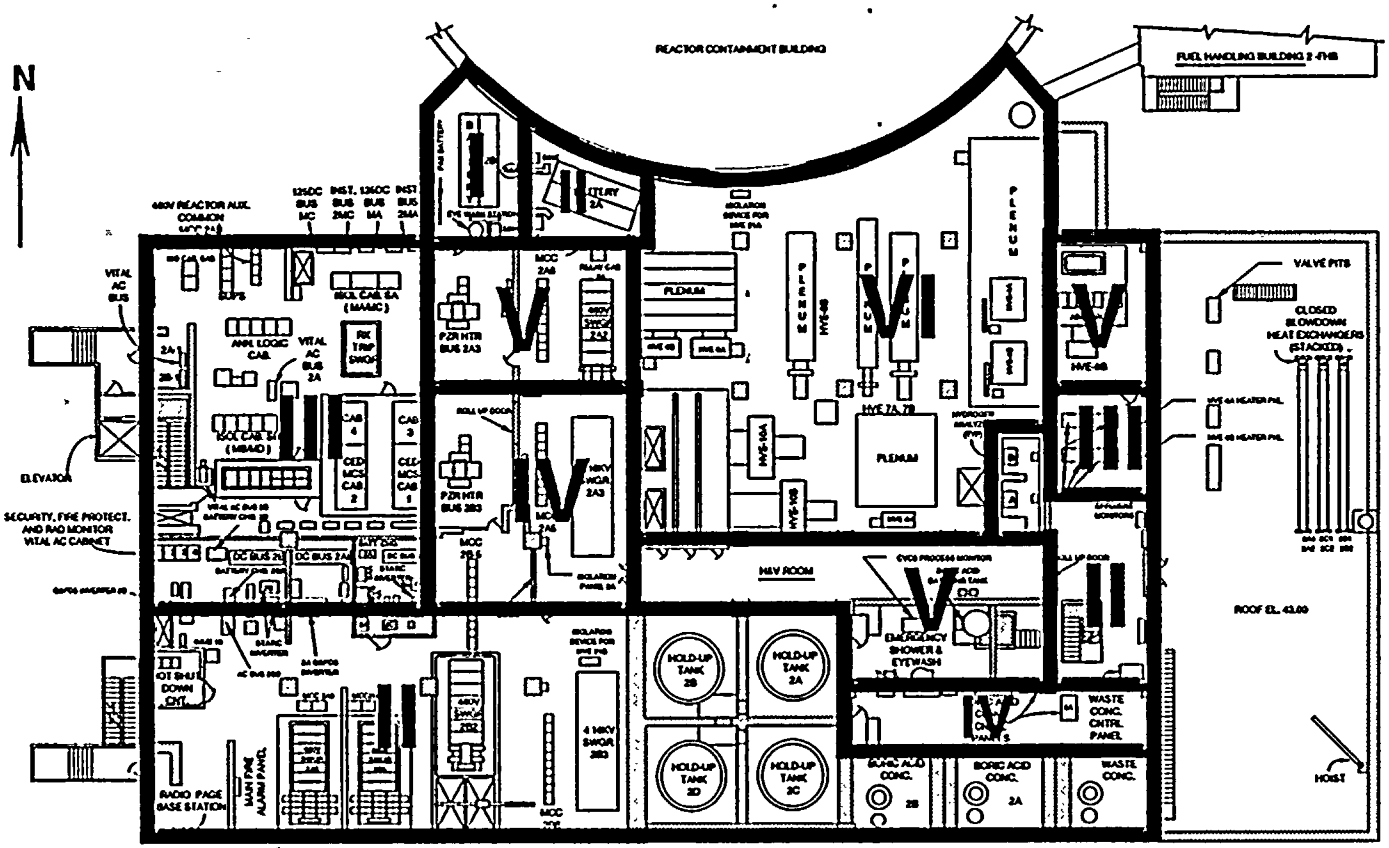
(Page 11 of 16)



(P/HP/203-FS-R7)

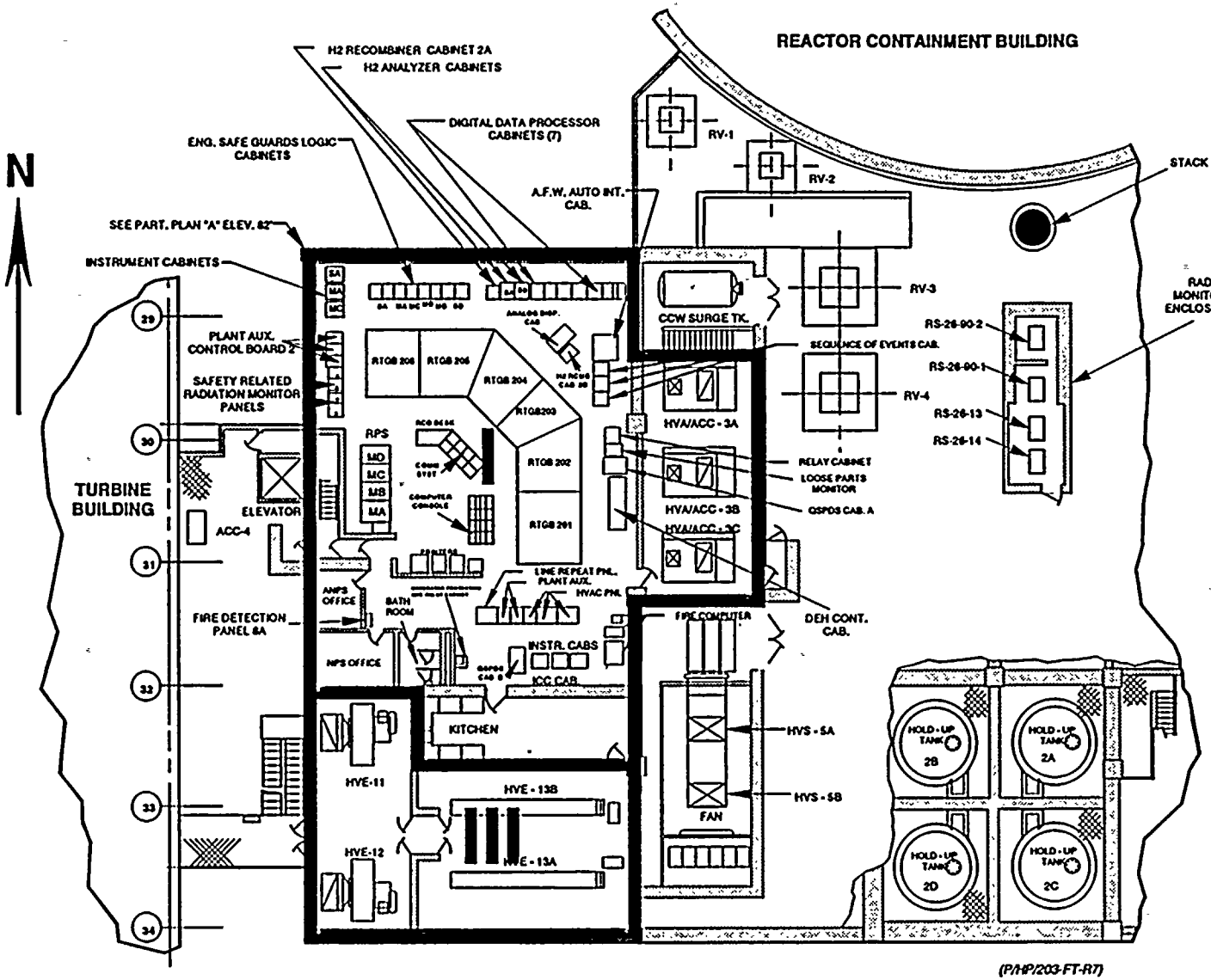
LEGEND: ZONAL DOSE RATE CLASSIFICATION

ZONE	UPPER LIMIT DOSE RATE
I	< 15 MR/HR
II	15 - 100 MR/HR
III	100 - 1000 MR/HR
IV	1 - 10 R/HR
V	10 - 100 R/HR
VI	> 100 R/HR

UNIT 2 43' RAB

100 HOURS AFTER ACCIDENT

ATTACHMENT B
(Page 12 of 16)



(P/HP/203-FT-R7)

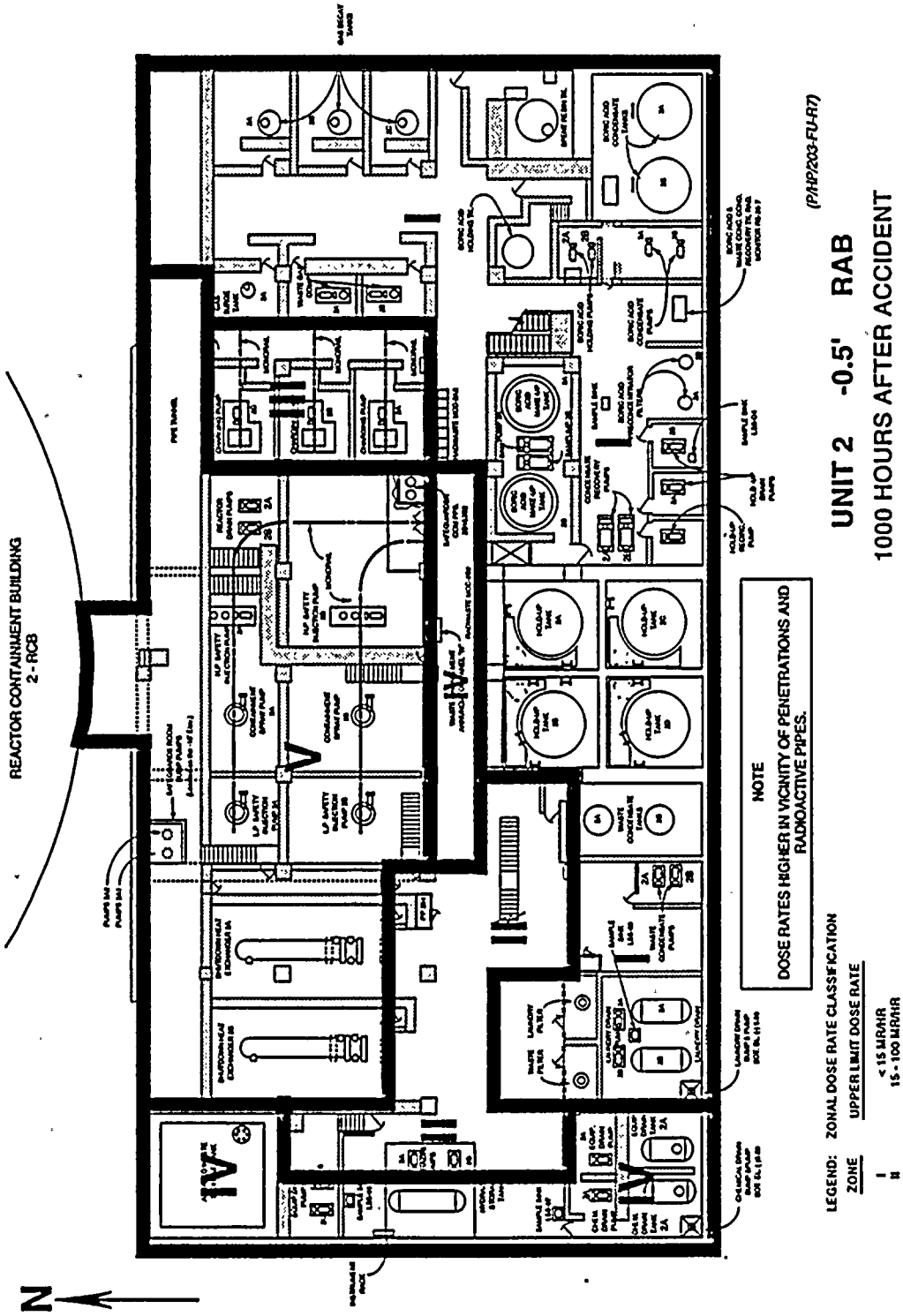
LEGEND: ZONAL DOSE RATE CLASSIFICATION

ZONE	UPPER LIMIT DOSE RATE
I	< 15 MR/HR
II	15 - 100 MR/HR
III	100 - 1000 MR/HR
IV	1 - 10 R/HR
V	10 - 100 R/HR
VI	> 100 R/HR

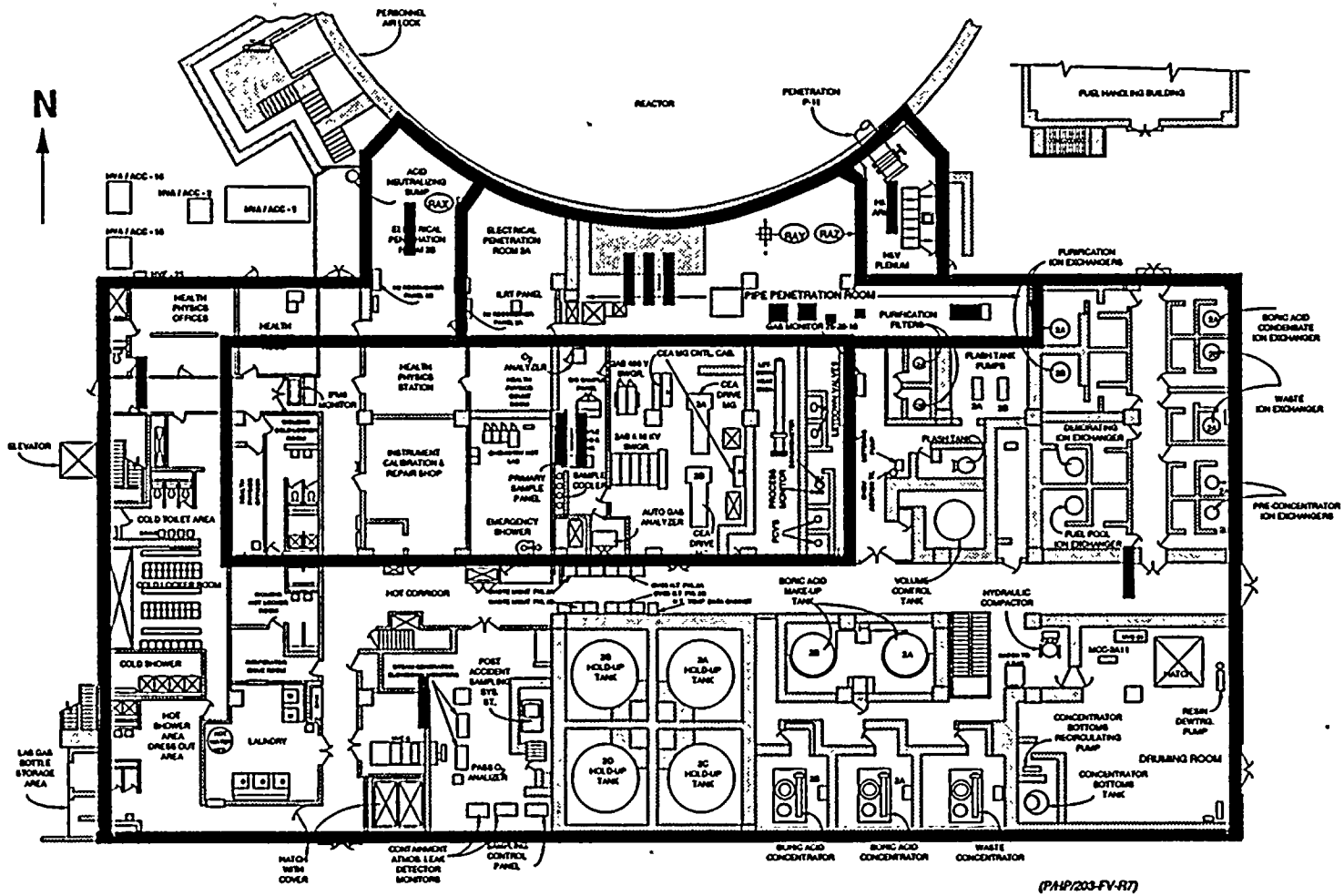
UNIT 2 62' RAB
100 HOURS AFTER ACCIDENT

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
(Page 13 of 16)



ATTACHMENT B
(Page 14 of 16)



(PHP/203-FV-R7)

LEGEND: ZONAL DOSE RATE CLASSIFICATION

ZONE	UPPER LIMIT DOSE RATE
I	< 15 MR/HR
II	15 - 100 MR/HR
III	100 - 1000 MR/HR
IV	1 - 10 R/HR
V	10 - 100 R/HR
VI	> 100 R/HR

NOTE
DOSE RATES HIGHER IN VICINITY OF PENETRATIONS AND RADIOACTIVE PIPES.

UNIT 2 19.5' RAB
1000 HOURS AFTER ACCIDENT

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-203, REVISION 10
PERSONNEL ACCESS CONTROL DURING EMERGENCIES

ATTACHMENT B
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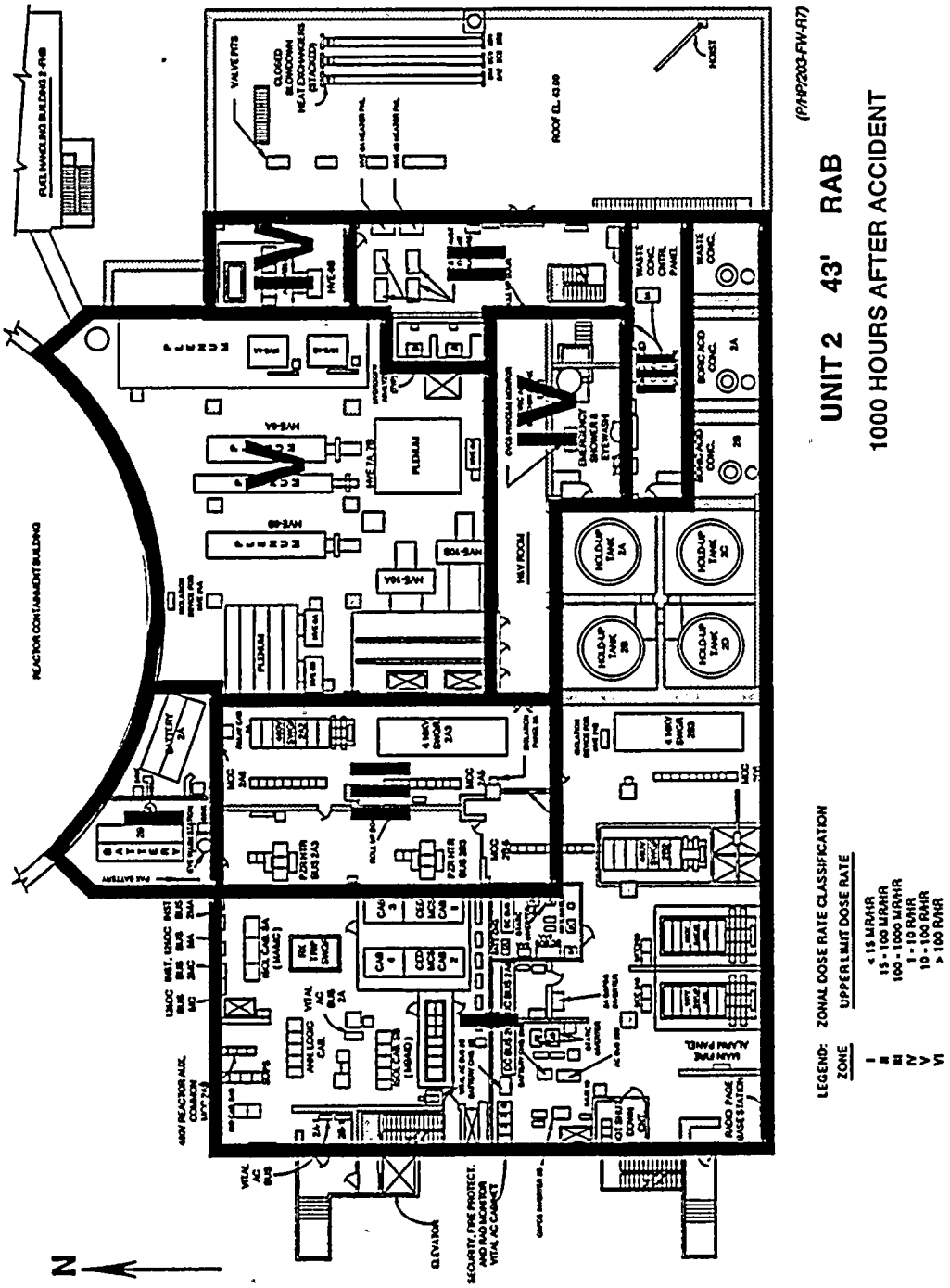

ATTACHMENT B
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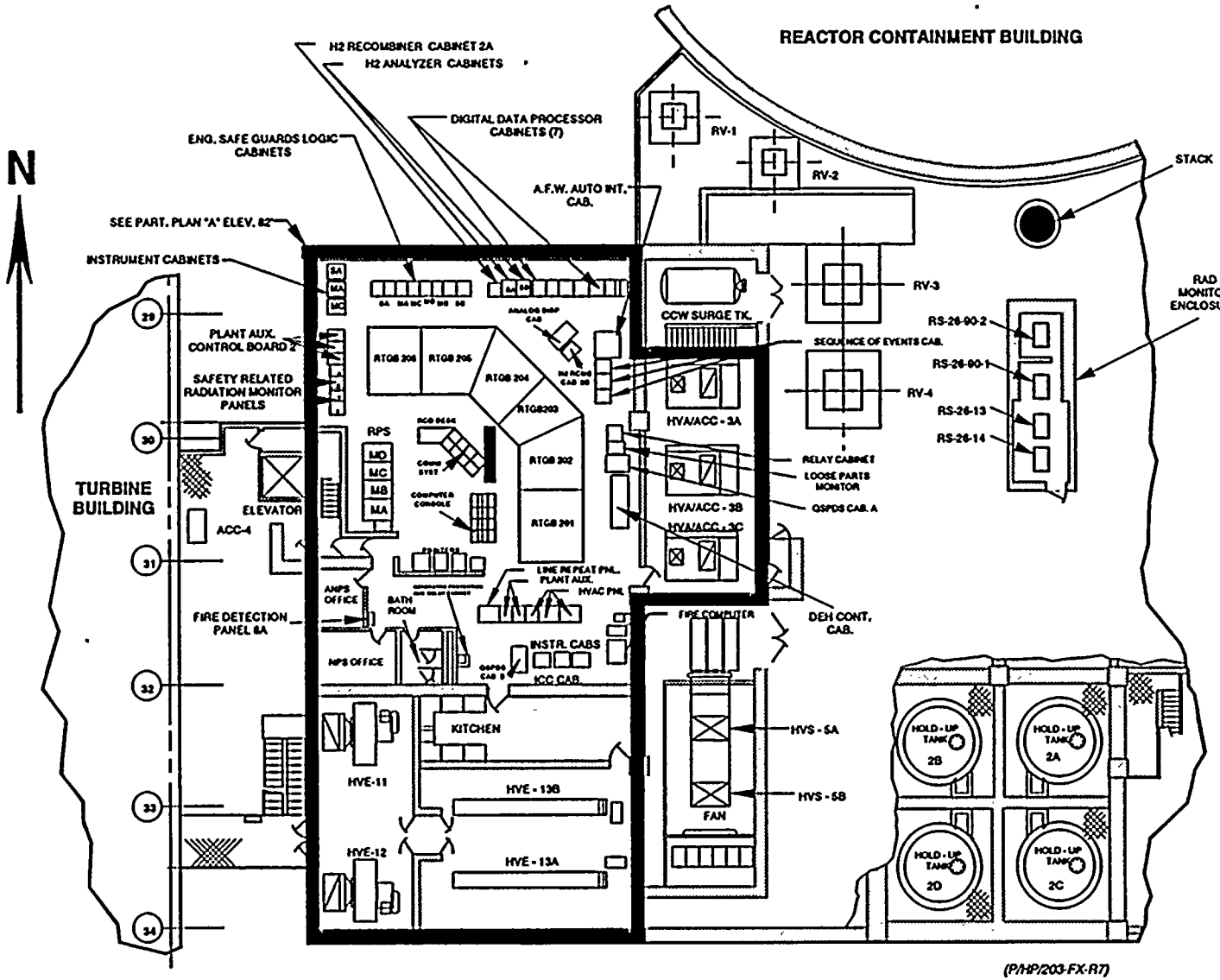

(P/HP/203-FX-R7)

LEGEND: ZONAL DOSE RATE CLASSIFICATION

ZONE	UPPER LIMIT DOSE RATE
I	< 15 MR/HR
II	15 - 100 MR/HR
III	100 - 1000 MR/HR
IV	1 - 10 R/HR
V	10 - 100 R/HR
VI	> 100 R/HR

UNIT 2 62' RAB
1000 HOURS AFTER ACCIDENT

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204
REVISION 4

1.0 TITLE:

IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

2.0 REVIEW AND APPROVAL:

Reviewed by Facility Review Group February 1, 1982

Approved by J. H. Barrow (for) Plant General Manager February 4, 1982

Revision 4 Reviewed by F R G 12/10 1992

Approved by G. J. Boissy Plant General Manager 12/22 1992

3.0 PURPOSE:

3.1 This procedure provides guidelines for performing radiological surveys under accident conditions.

3.2 DISCUSSION:

During an emergency, one of the primary responsibilities of the Emergency Radiation Team shall be to evaluate the radiological conditions within the plant. In addition, Operations will require surveys to assess radiological conditions in accordance with the Emergency Operating Procedures (EOPs). Given the higher than normal radiation levels which could be encountered while performing surveys, preplanning of surveys shall be essential to maintaining exposures ALARA. /R4

4.0 PRECAUTIONS AND LIMITATIONS:

4.1 All surveys will be performed under the authorization of the Radiation Team Leader (RTL) and/or the Emergency Coordinator (EC). /R4

4.2 The "buddy system" will be used for entries into areas with unknown, extreme or variable radiological conditions.

4.3 Appropriate protective clothing, respiratory protection equipment, and dosimetry shall be worn at all times.

4.0 PRECAUTIONS AND LIMITS: (continued)

4.4 No individual shall exceed the personnel exposure limits listed in Health Physics Procedure HP-201, 'Emergency Personnel Exposure Control' unless authorized in accordance with that procedure.

5.0 RELATED SYSTEM STATUS:

None

6.0 REFERENCES:

6.1 St. Lucie Plant Radiological Emergency Plan (E-Plan).

6.2 E-Plan Implementing Procedures (EPIPs).

6.3 EPIP 3100027E, 'Re-entry.'

6.4 HP-2, 'FPL Health Physics Manual.'

6.5 HP-4, 'Scheduling of Health Physics Activities.'

6.6 HP-20, 'Area Radiation and Contamination Surveys.'

6.7 HP-201, 'Personnel Emergency Exposure Control.'

6.8 FPL TMI Plant Shielding Study

6.9 HP-203, 'Personnel Access Control During Emergencies.'

7.0 RECORDS REQUIRED:

7.1 Plant survey maps when complete shall be maintained in the plant files in accordance with QI 17-PR/PSL-1, "Quality Assurance Records".

8.0 INSTRUCTIONS:

8.1 Prior to entering an area to perform initial surveys, the Radiation Team Leader and/or HPOSC (HP Supervisor in the Operational Support Center) shall review available data to determine the expected exposure rates. This review will include but not be limited to the following:

A. All recent surveys of access ways and cubicle entrances.

B. The plant Area Radiation Monitoring System (ARMS).

C. The attachments (A for Unit 1, B for Unit 2) contain area dose rates of the Reactor Auxiliary Building (RAB) based on a Three Mile Island Unit 2 (TMI-2) type of accident. These attachments should be referred to prior to entry into any area where dose rates are unknown. The dose rates may be verified by Area Radiation Monitors.

8.2 The HPOSC and RTL shall assign stay times and verify 'Evacuated Area Re-Entry Authorization' form (HP-203.1) is completed prior to entry.

8.3 The survey route and sample points and methods shall be determined prior to entry by the HPOSC. See HP-205, 'Emergency Inplant Air Sampling' for Emergency Air Sampling. This information shall be designated on the Plant Survey Maps (see HP-4, 'Scheduling of Health Physics Activities').

8.4 The survey team shall be briefed by the HPOSC prior to entering the evacuated area. Special techniques or conditions shall be emphasized and noted in the Plant Survey Maps (see HP-4).

8.5 Surveys shall be conducted in accordance with Health Physics Procedure HP-20, 'Area Radiation and Contamination Surveys,' along with any additional techniques or conditions specified by the HPOSC.

8.6 Exercise extreme caution around spill areas due to the potentially high contamination levels, and near "holes" in shield walls such as doorways. Avoid potential Hot Spots as much as practicable.

8.7 Exercise caution in removing protective clothing to preclude spread of contamination.

8.8 Surveys shall be documented in accordance with HP-20 and maintained at the OSC.

8.9 The Radiation Team Leader and HPOSC shall use the information from the initial surveys to determine future actions with regard to the Emergency affected area.

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT A
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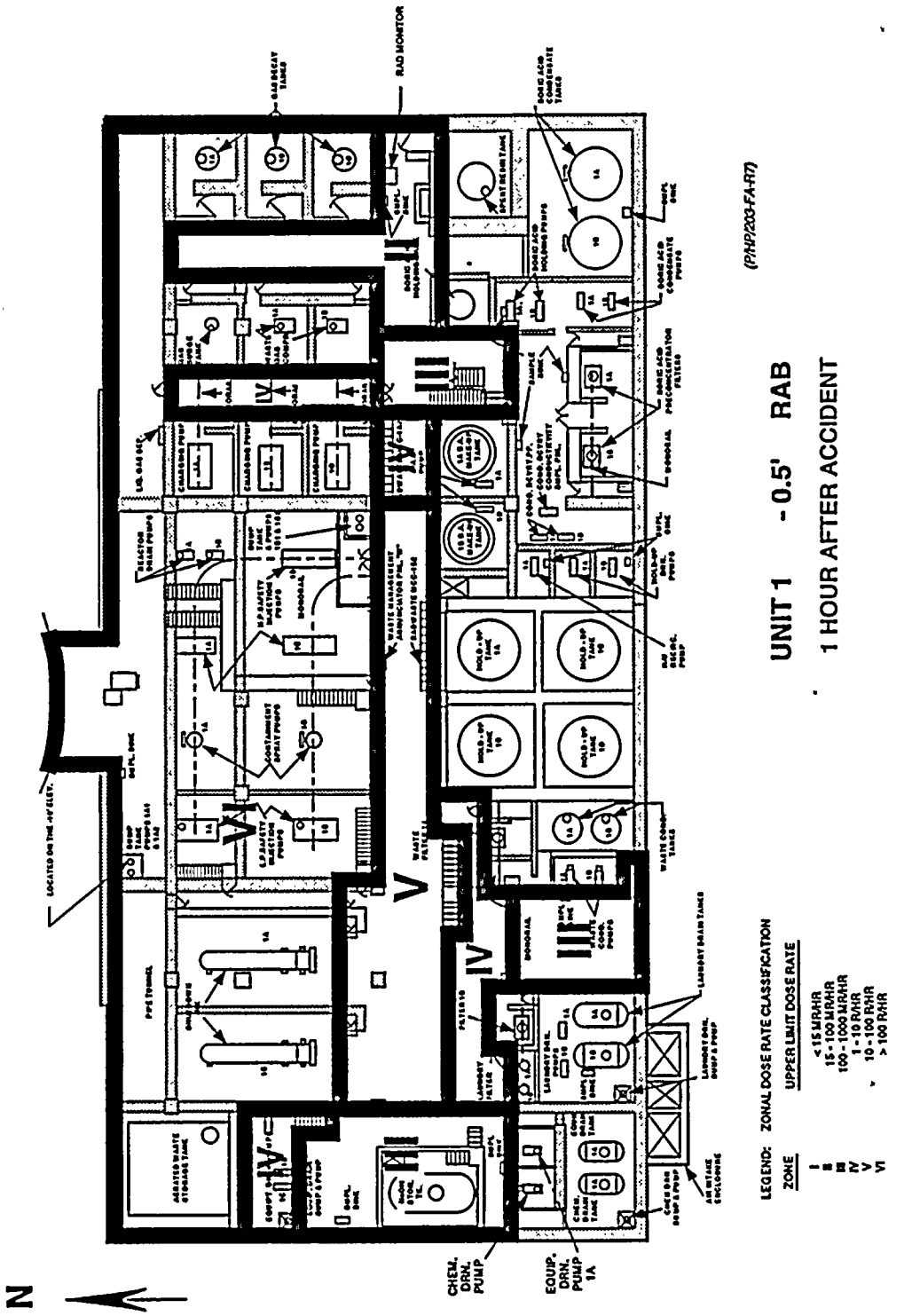
/R4



ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT A
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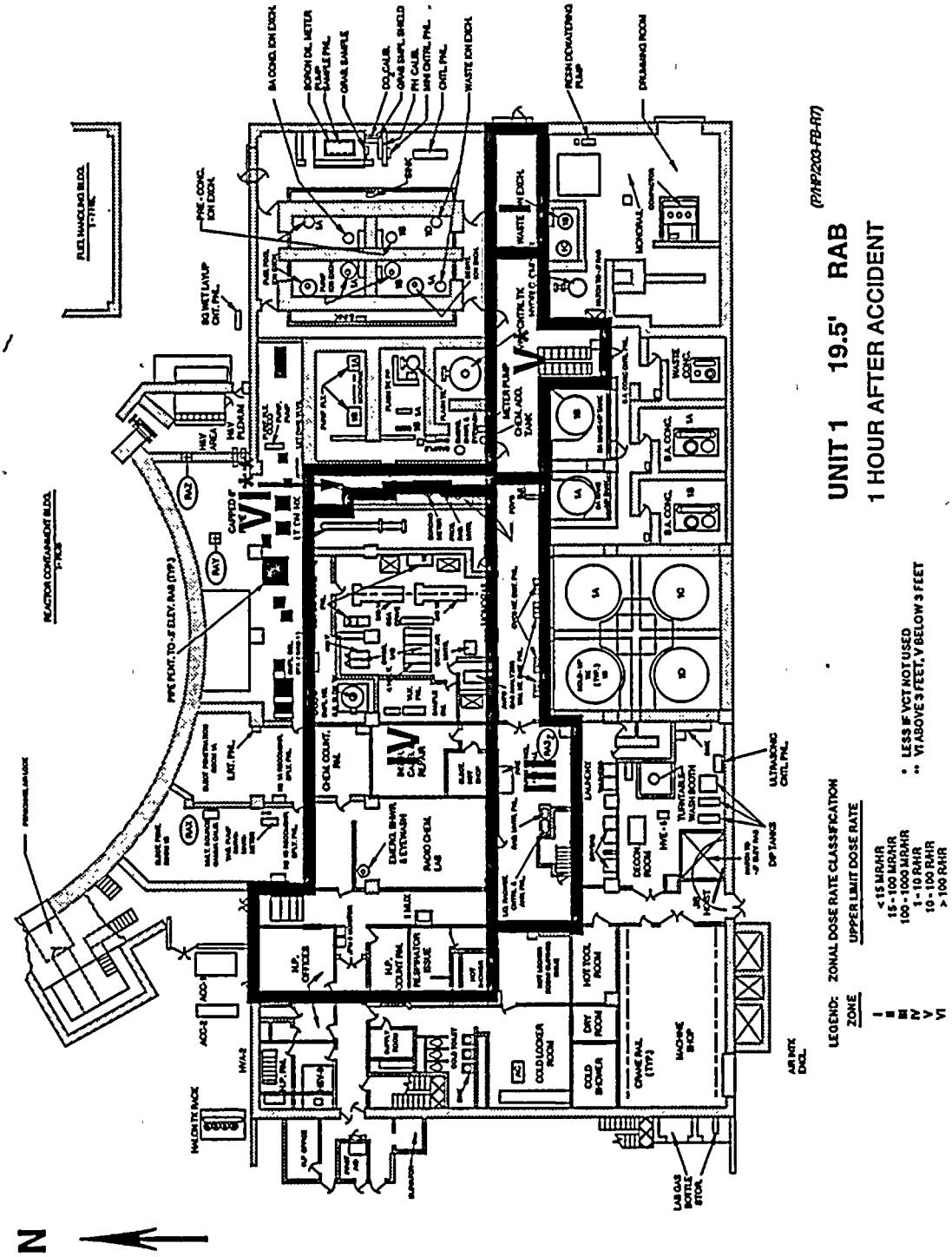

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT A
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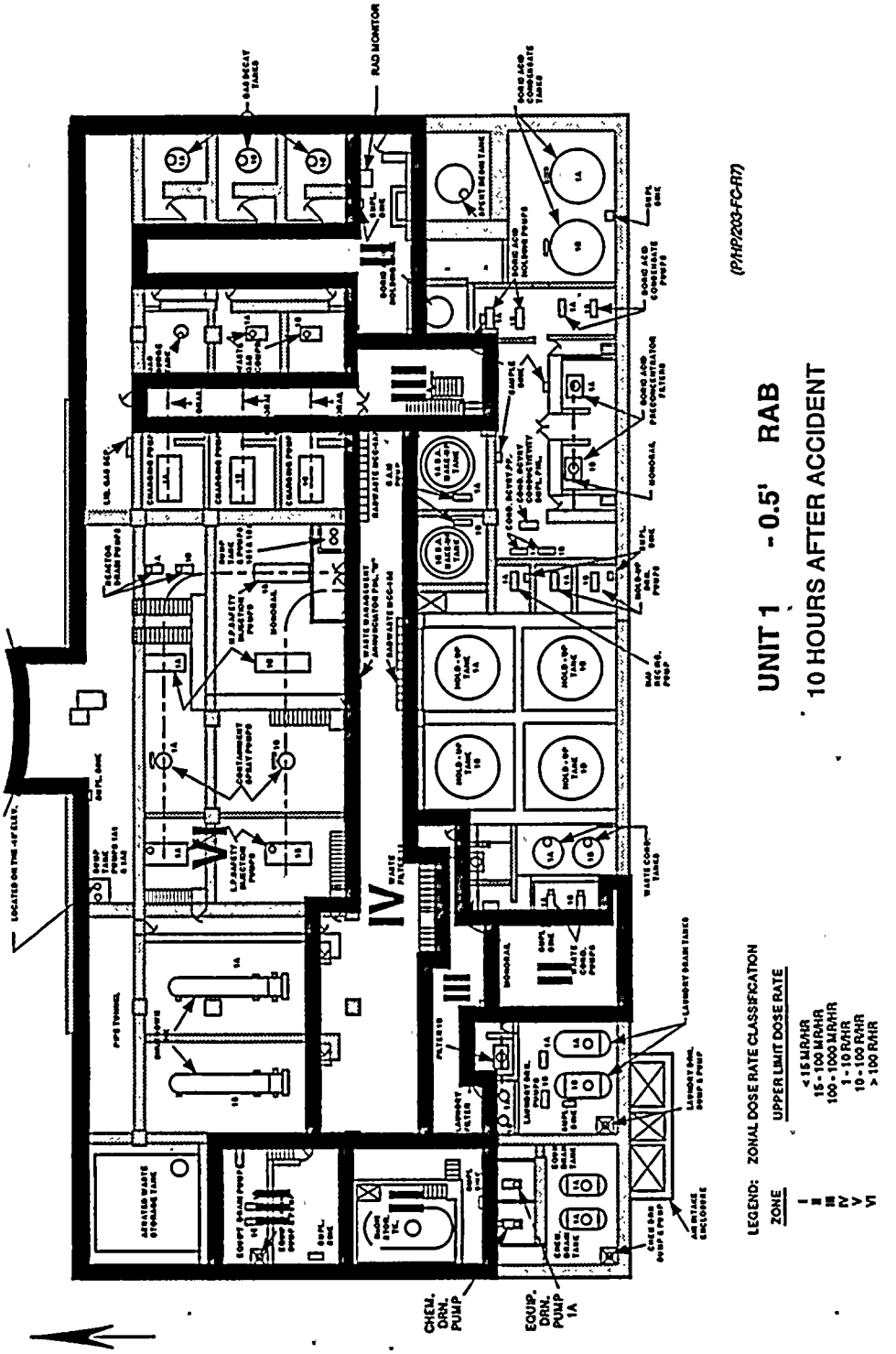

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT A
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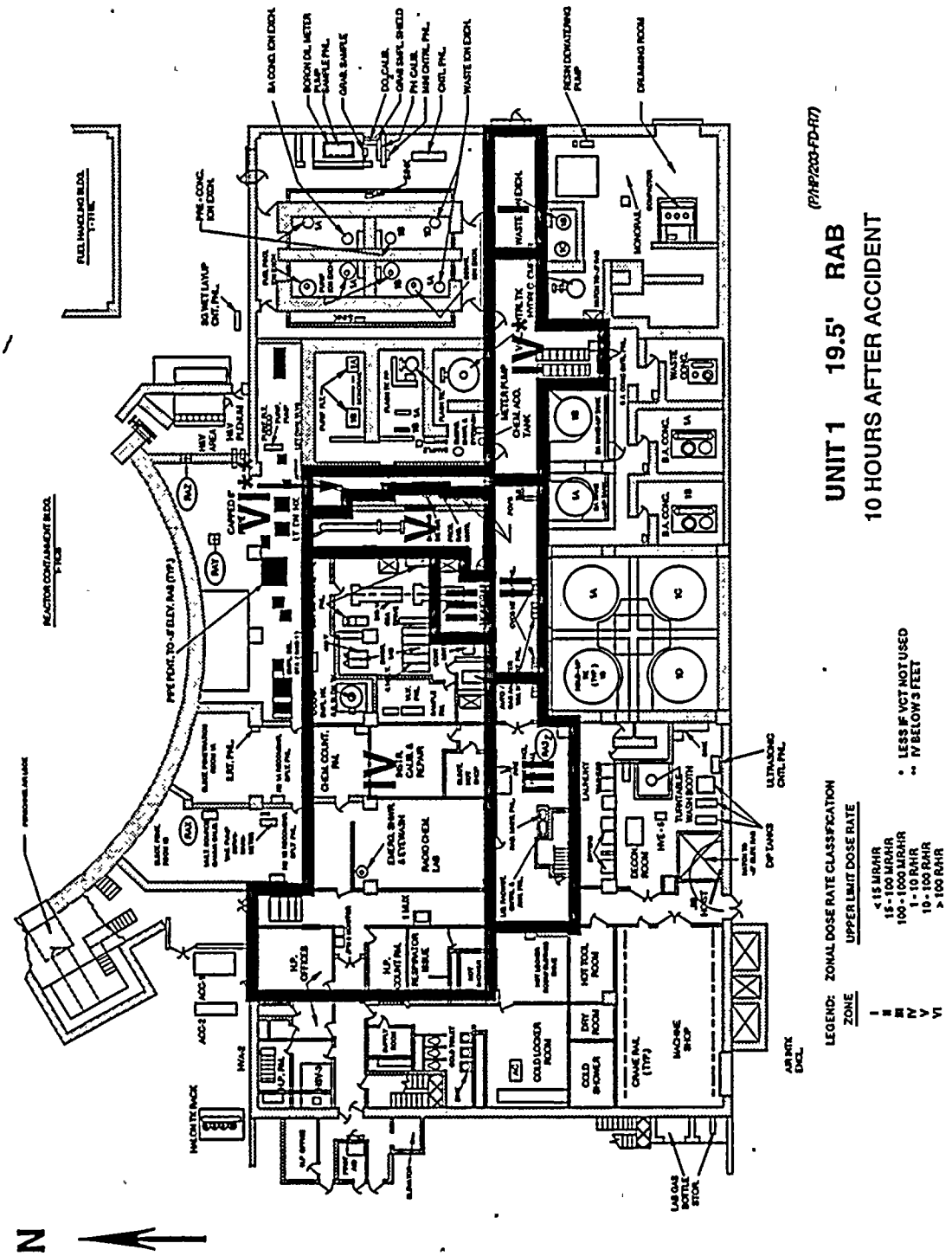

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT A
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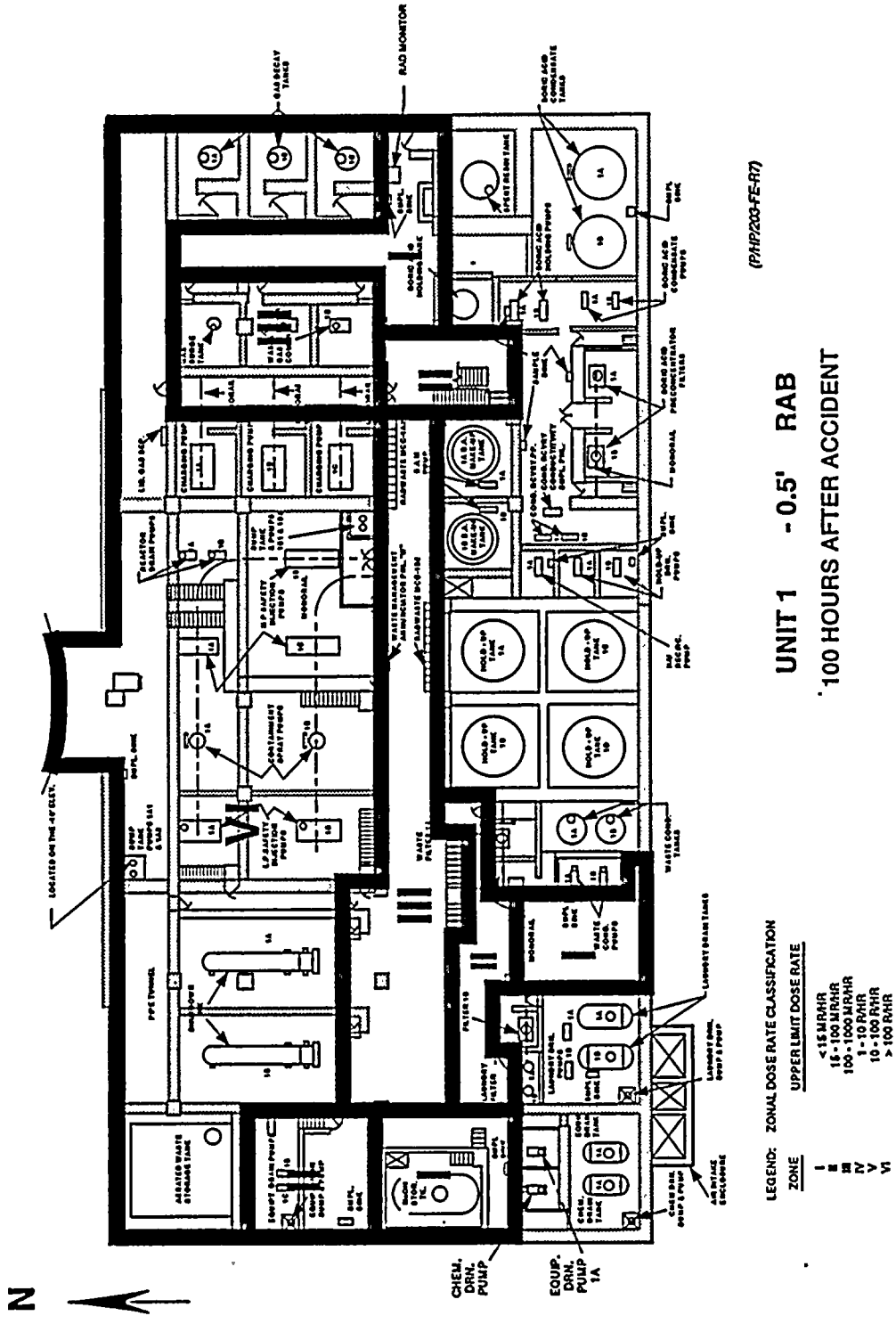

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT A
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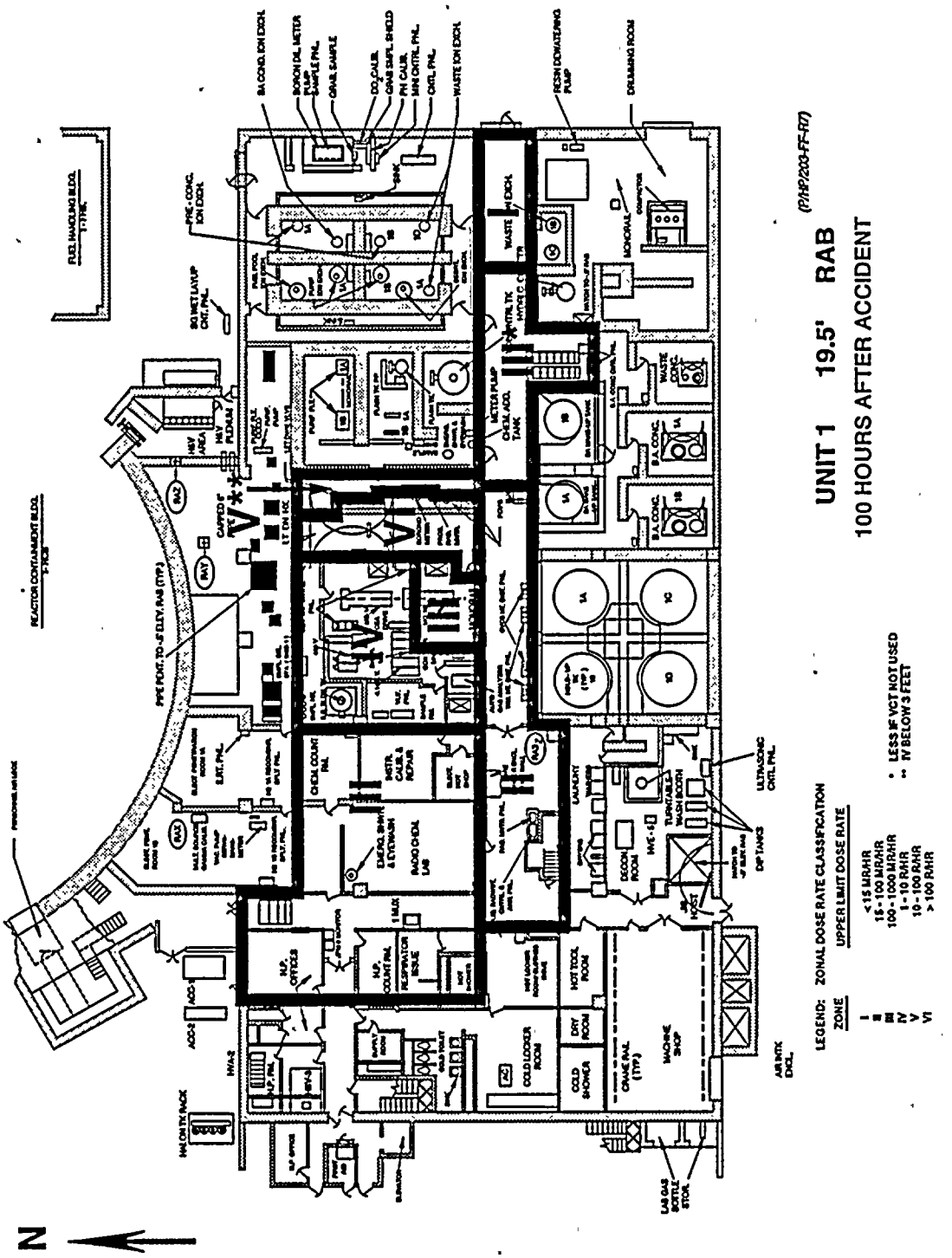

ST. LUCIE PLANT
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IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT A
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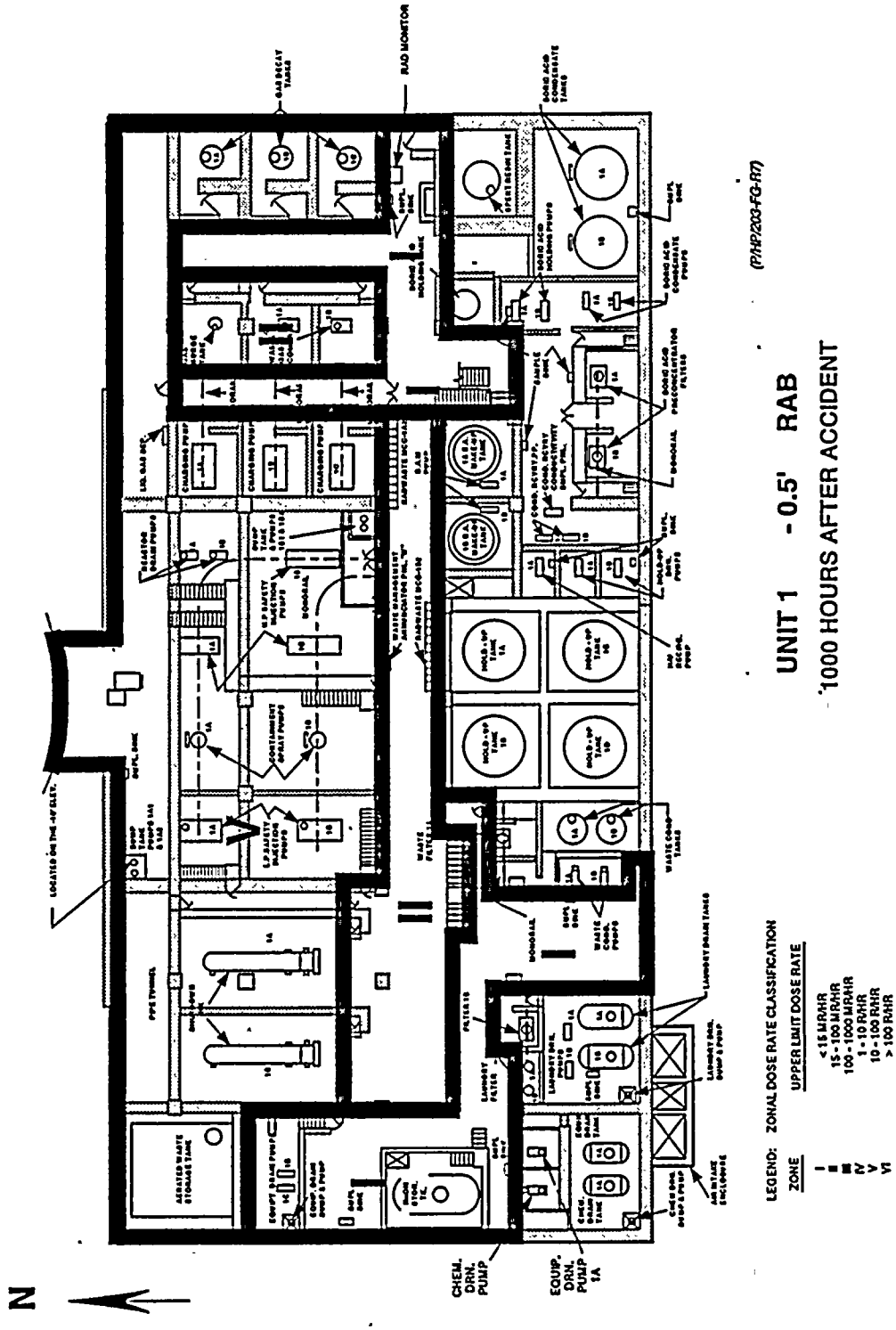

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT A
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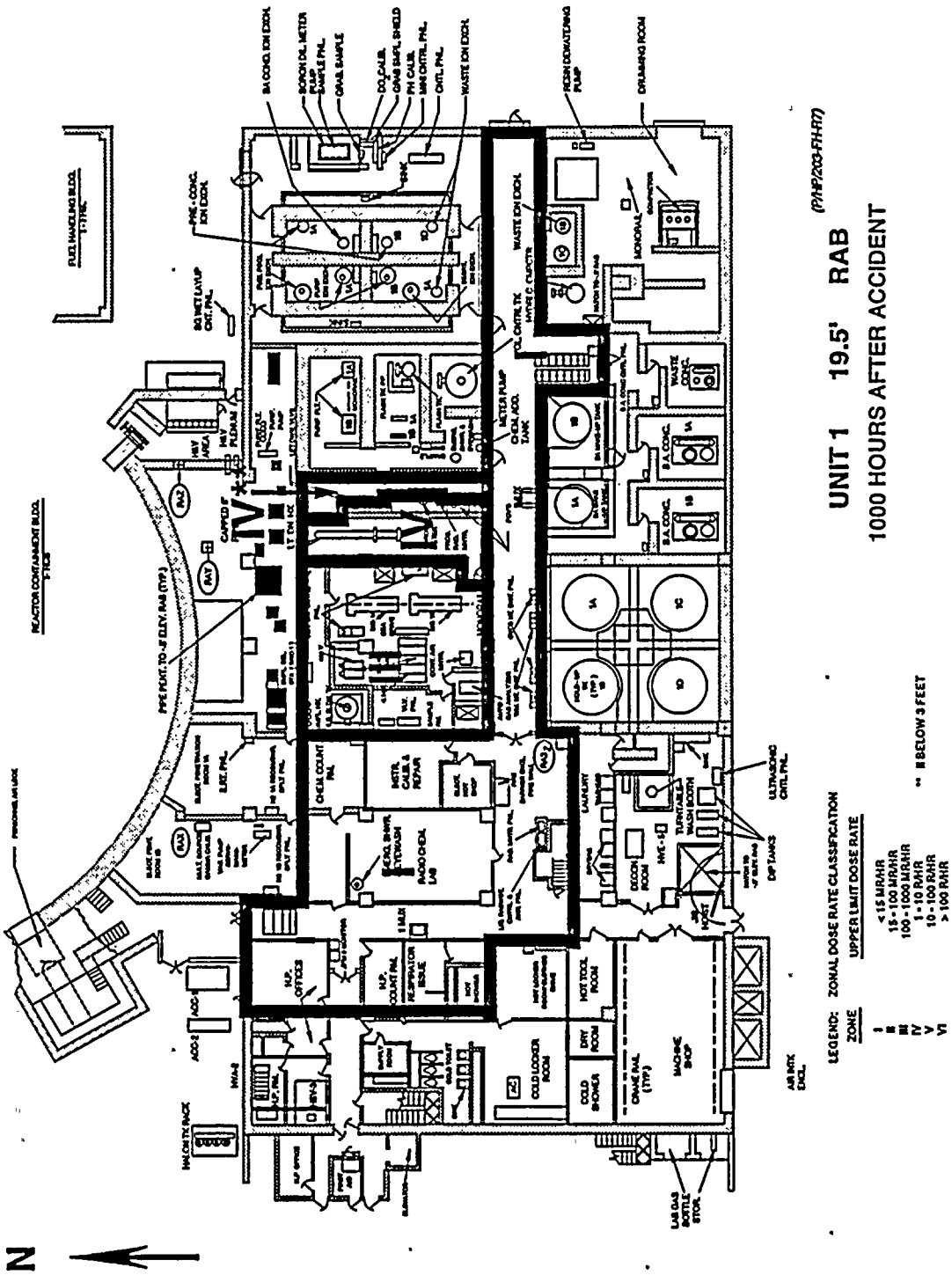

ST. LUCIE PLANT
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IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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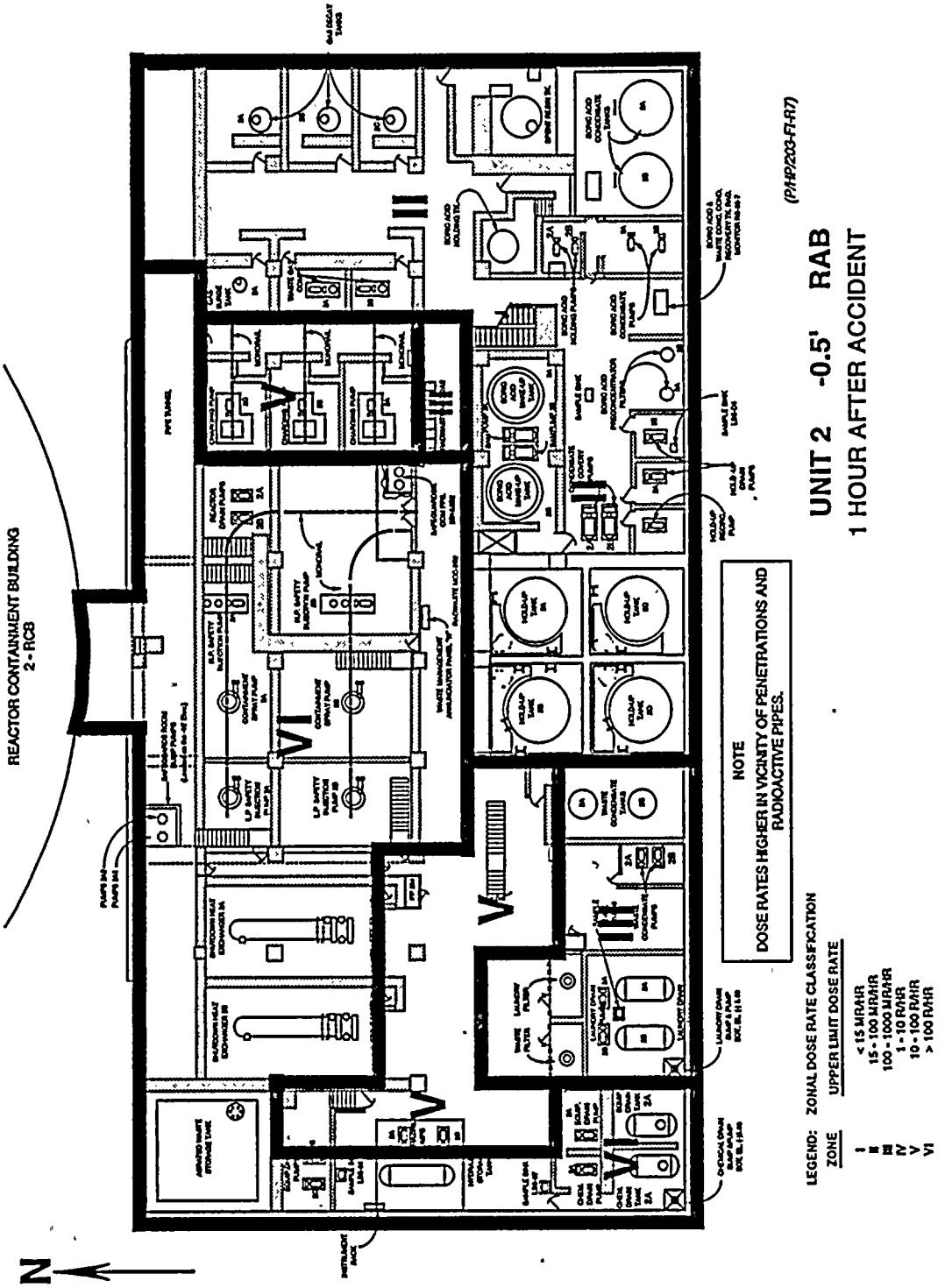

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IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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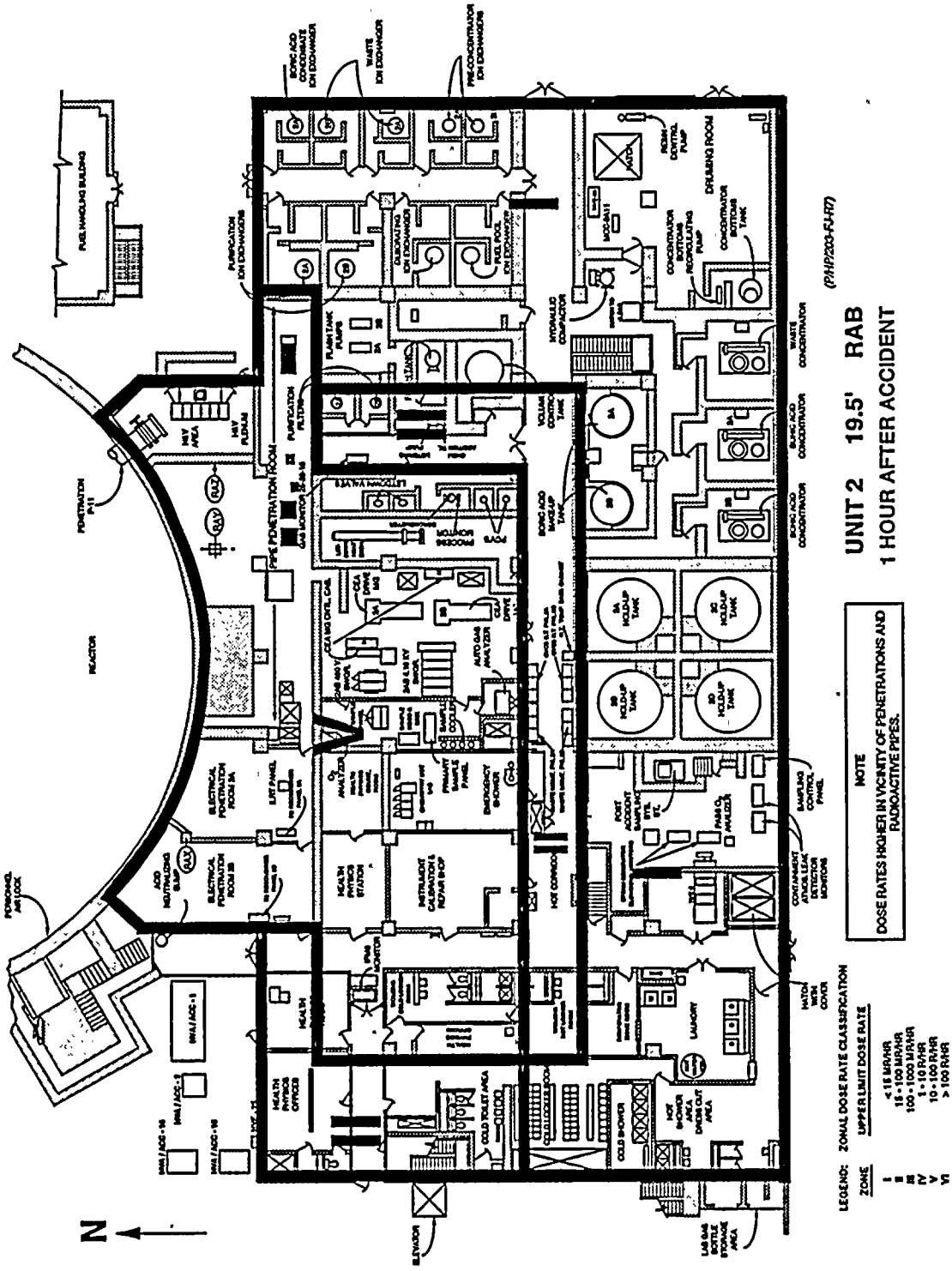

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HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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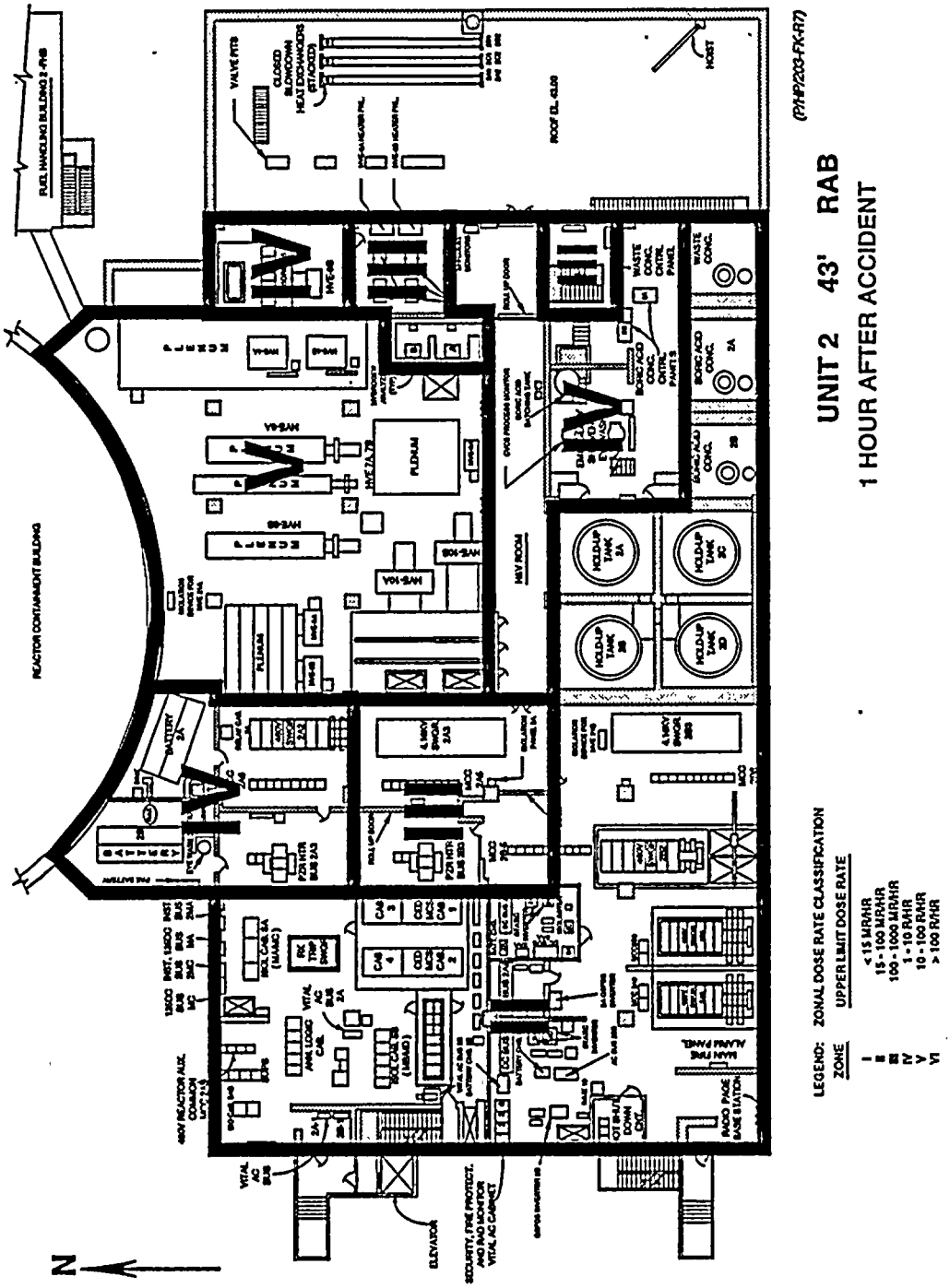

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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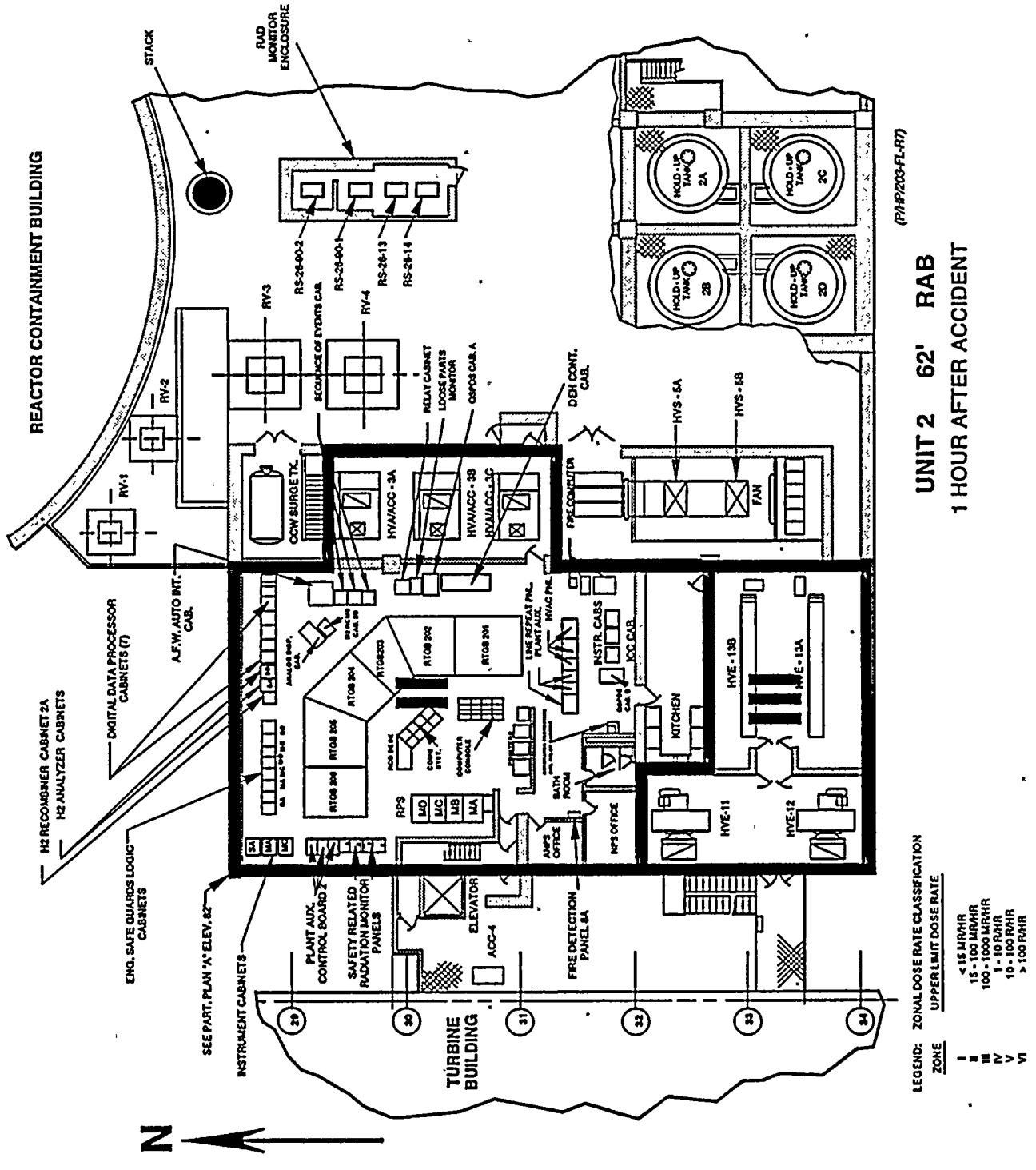

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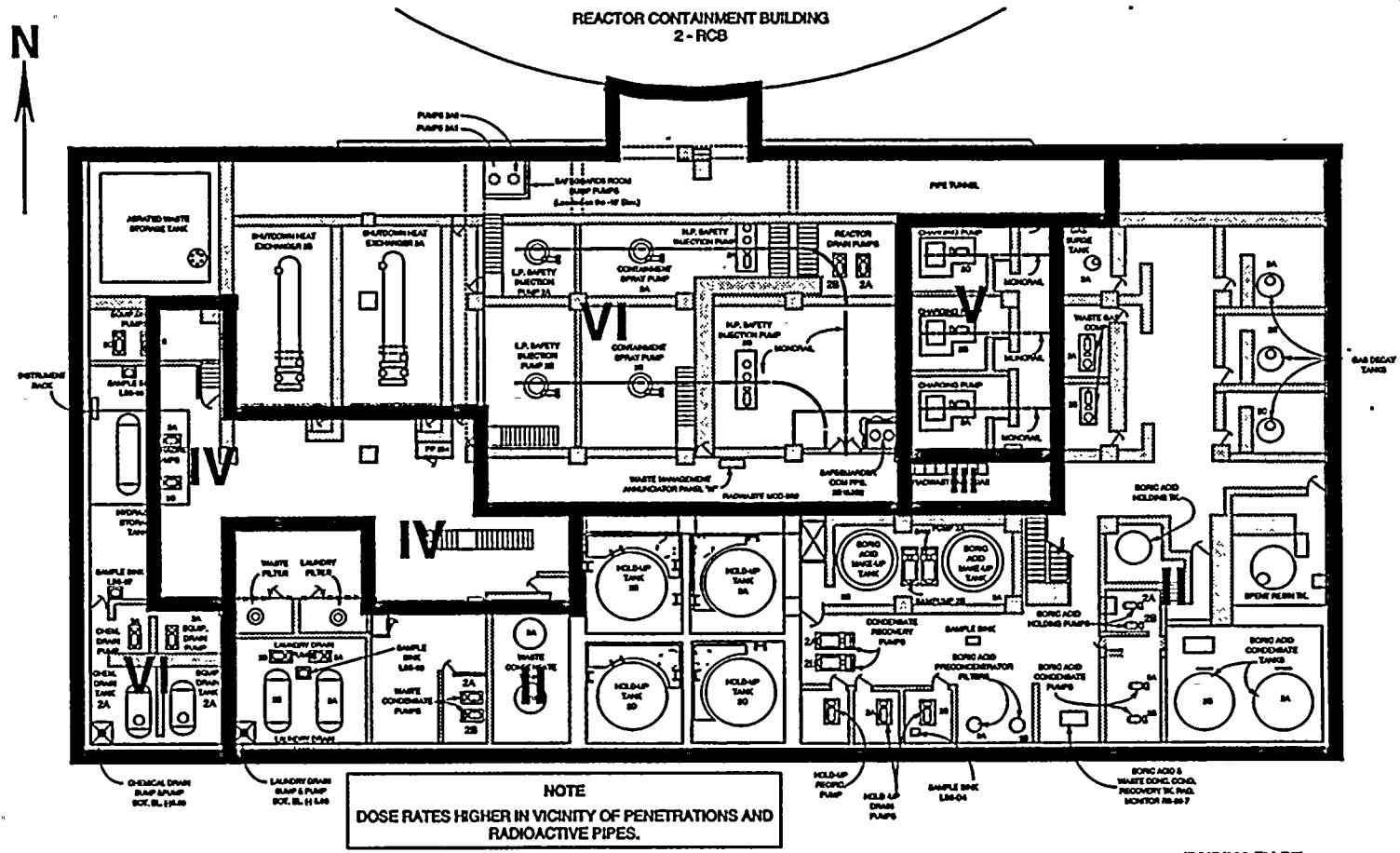

(P/HP/203-FM-R7)

UNIT 2 -0.5' RAB
10 HOURS AFTER ACCIDENT

LEGEND: ZONAL DOSE RATE CLASSIFICATION

ZONE	UPPER LIMIT DOSE RATE
I	< 15 MR/HR
II	15 - 100 MR/HR
III	100 - 1000 MR/HR
IV	1 - 10 R/HR
V	10 - 100 R/HR
VI	> 100 R/HR

/R4

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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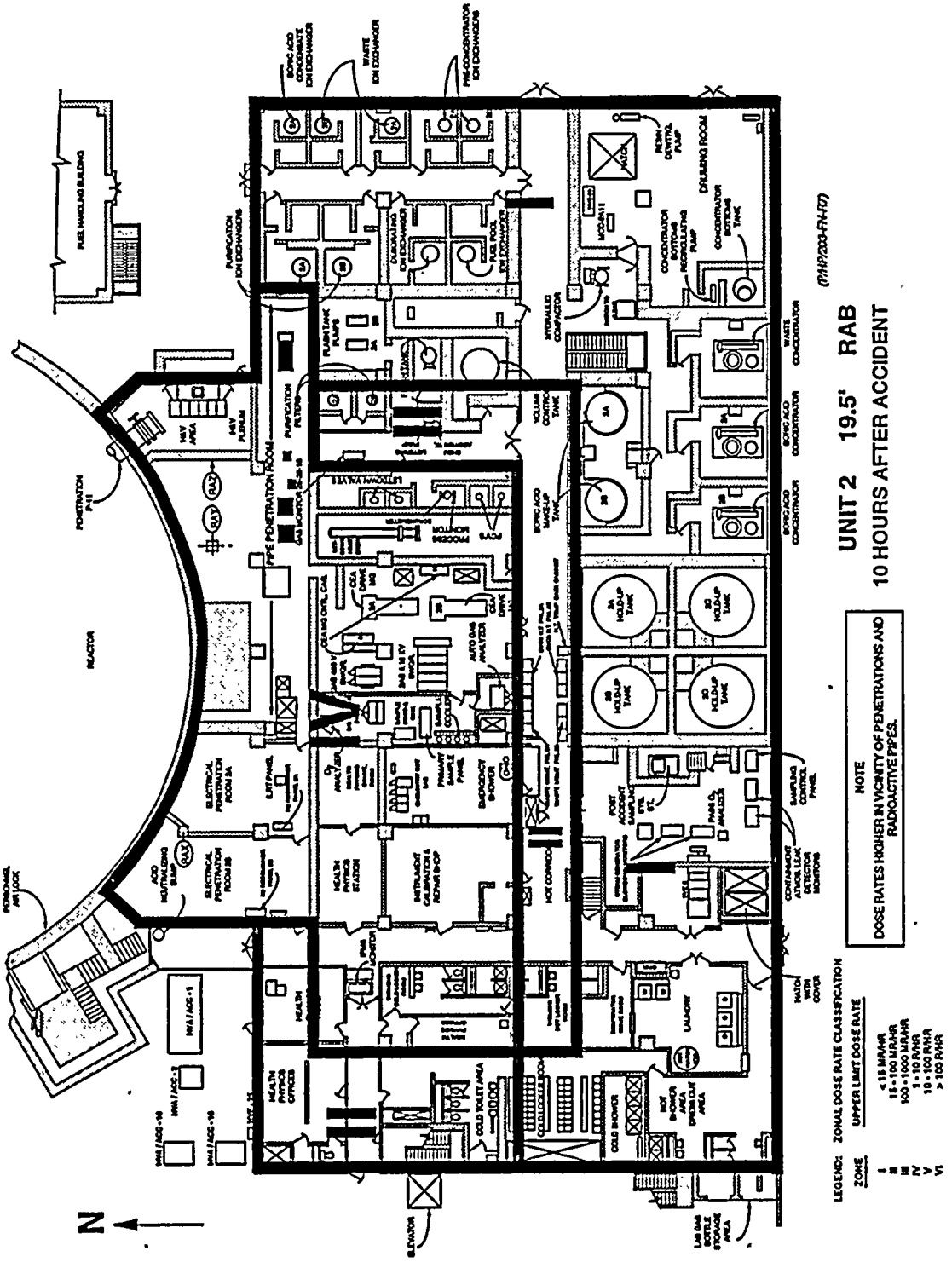

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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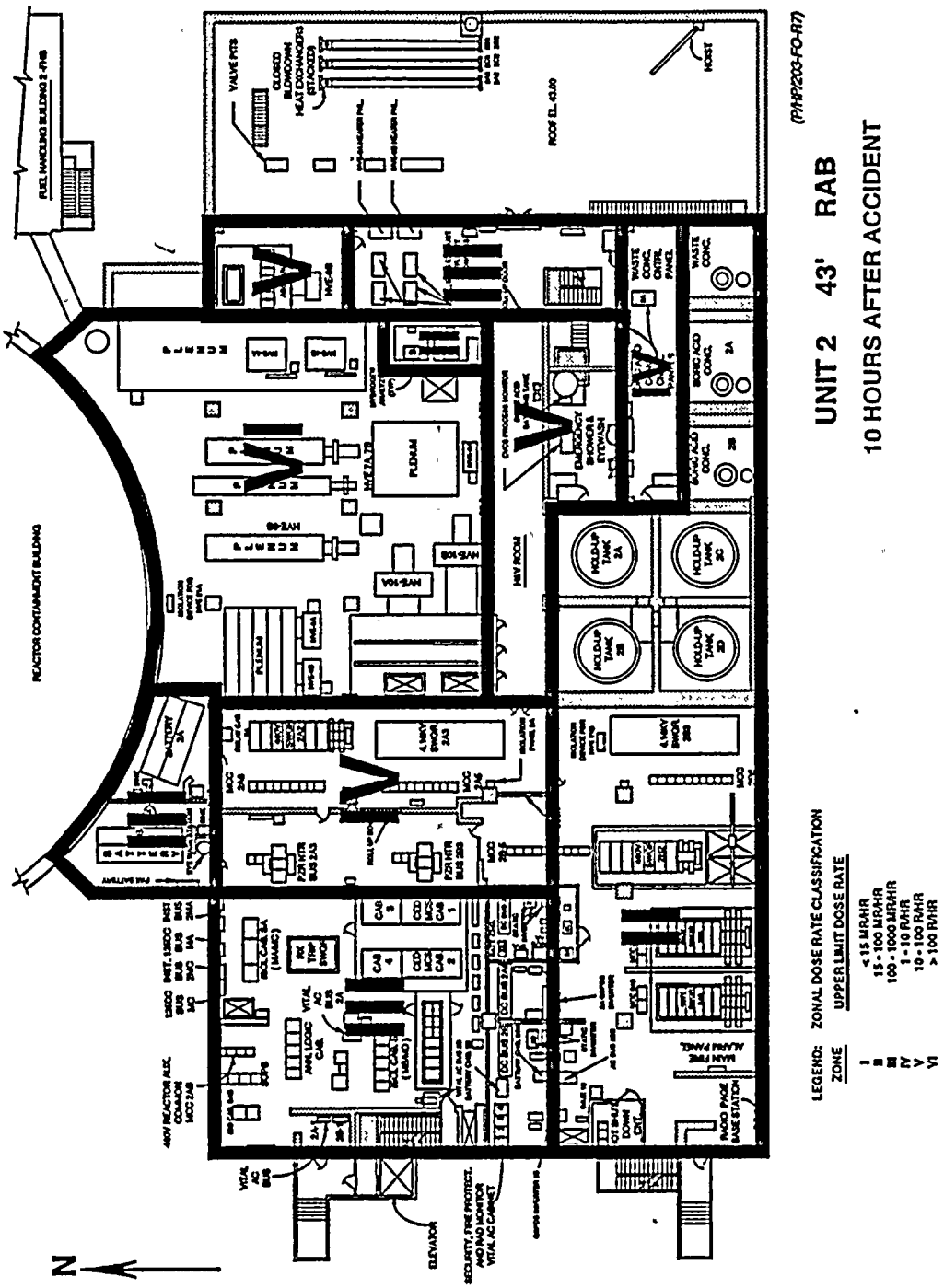

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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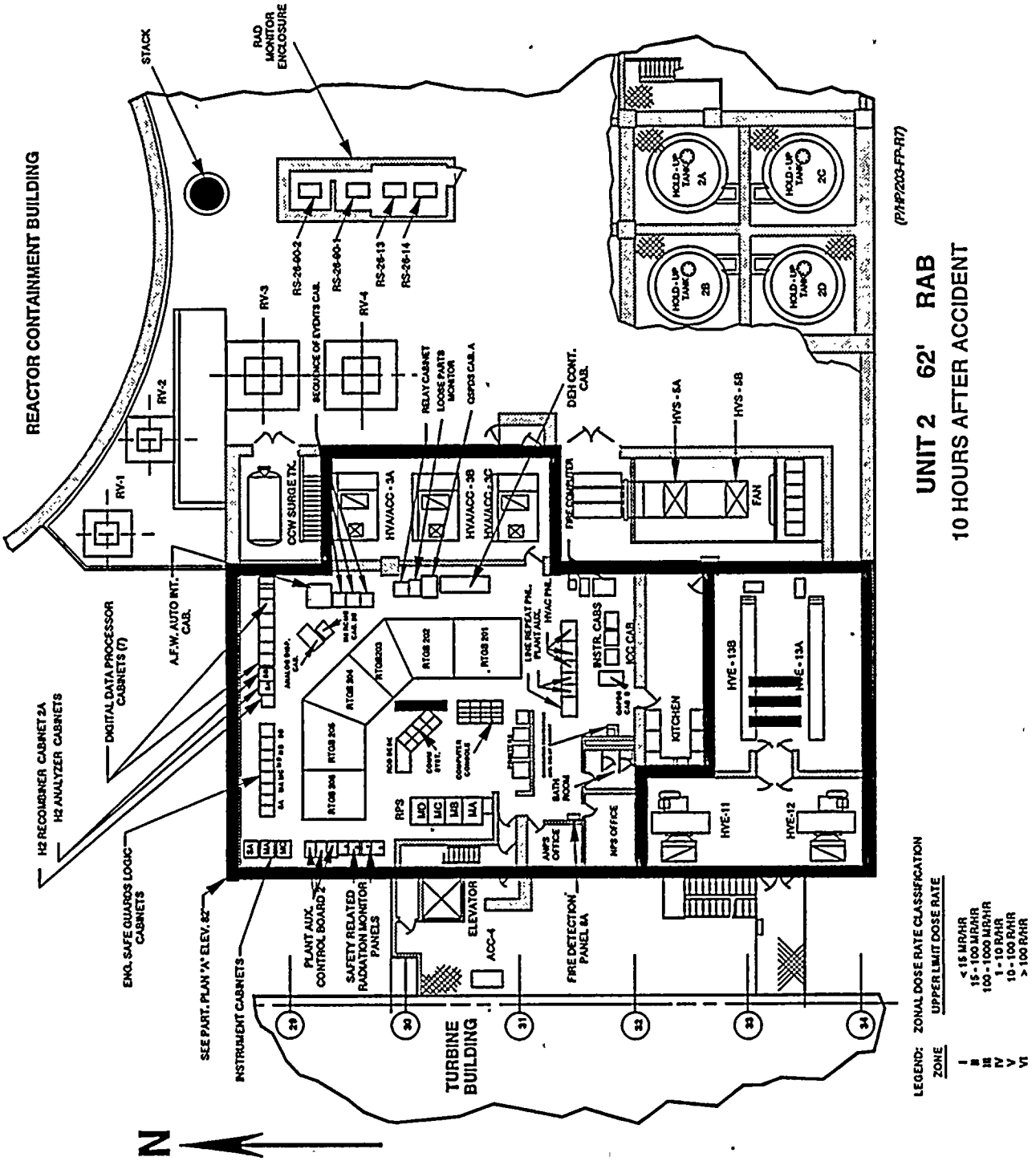

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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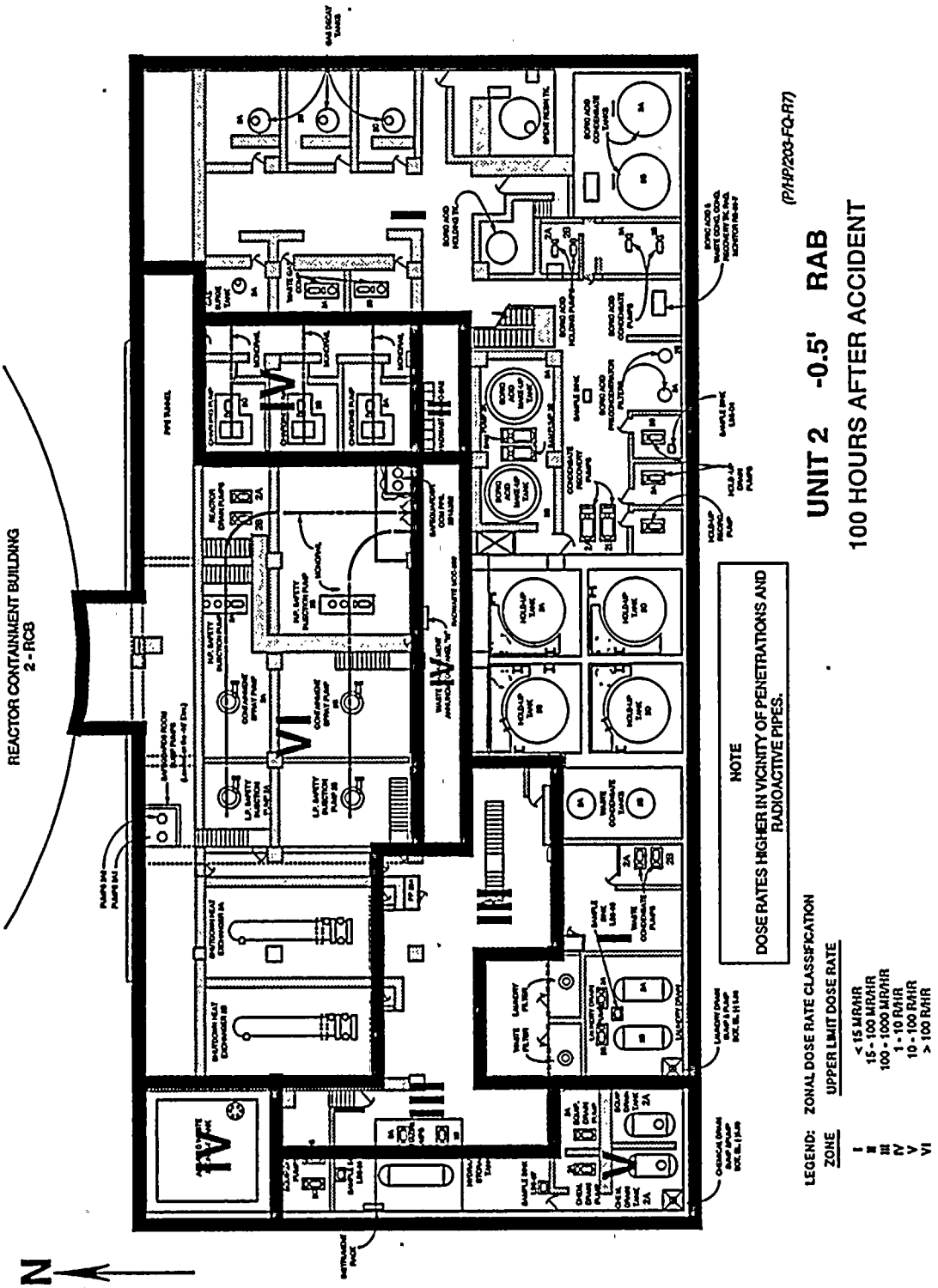

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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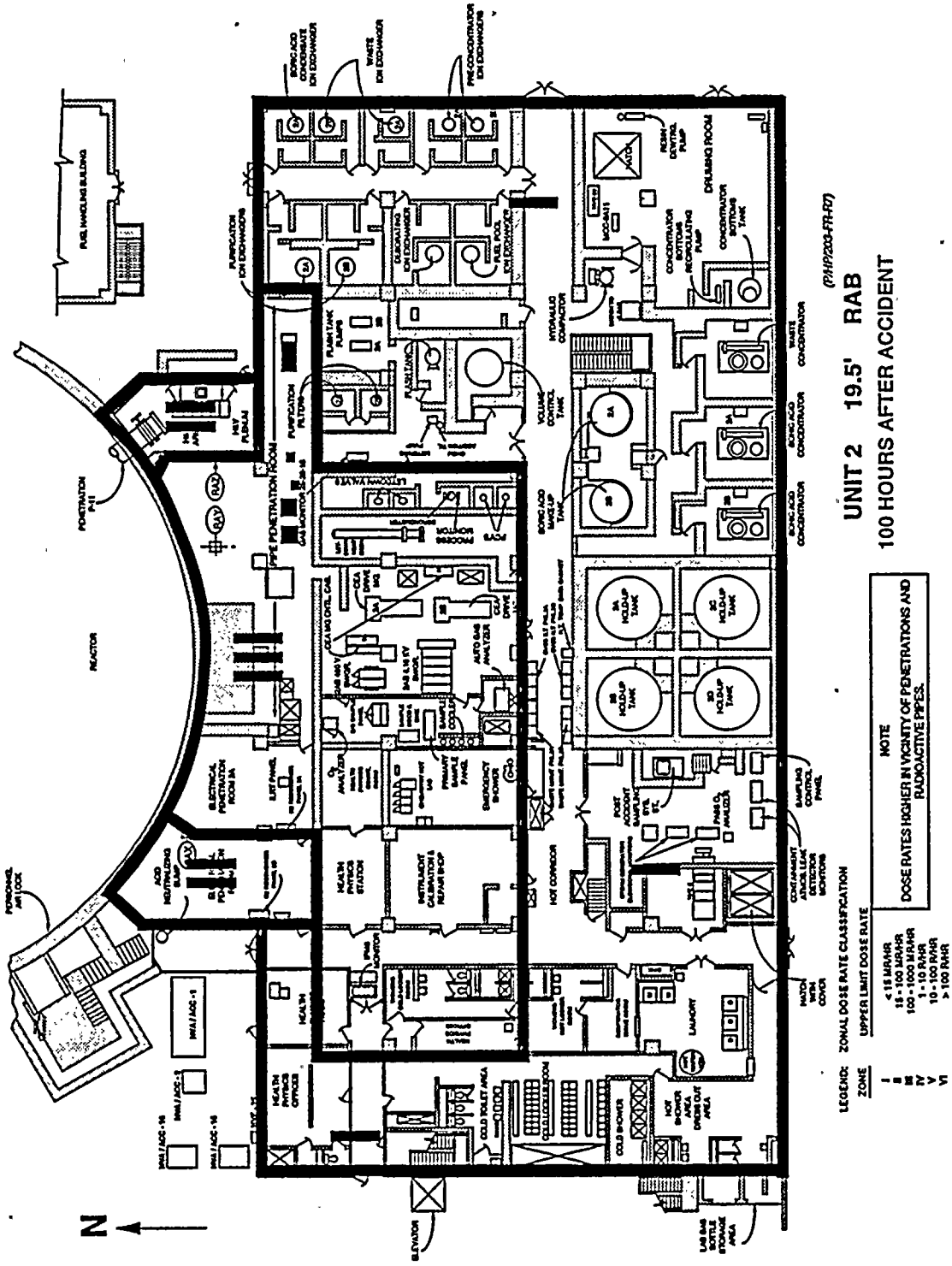

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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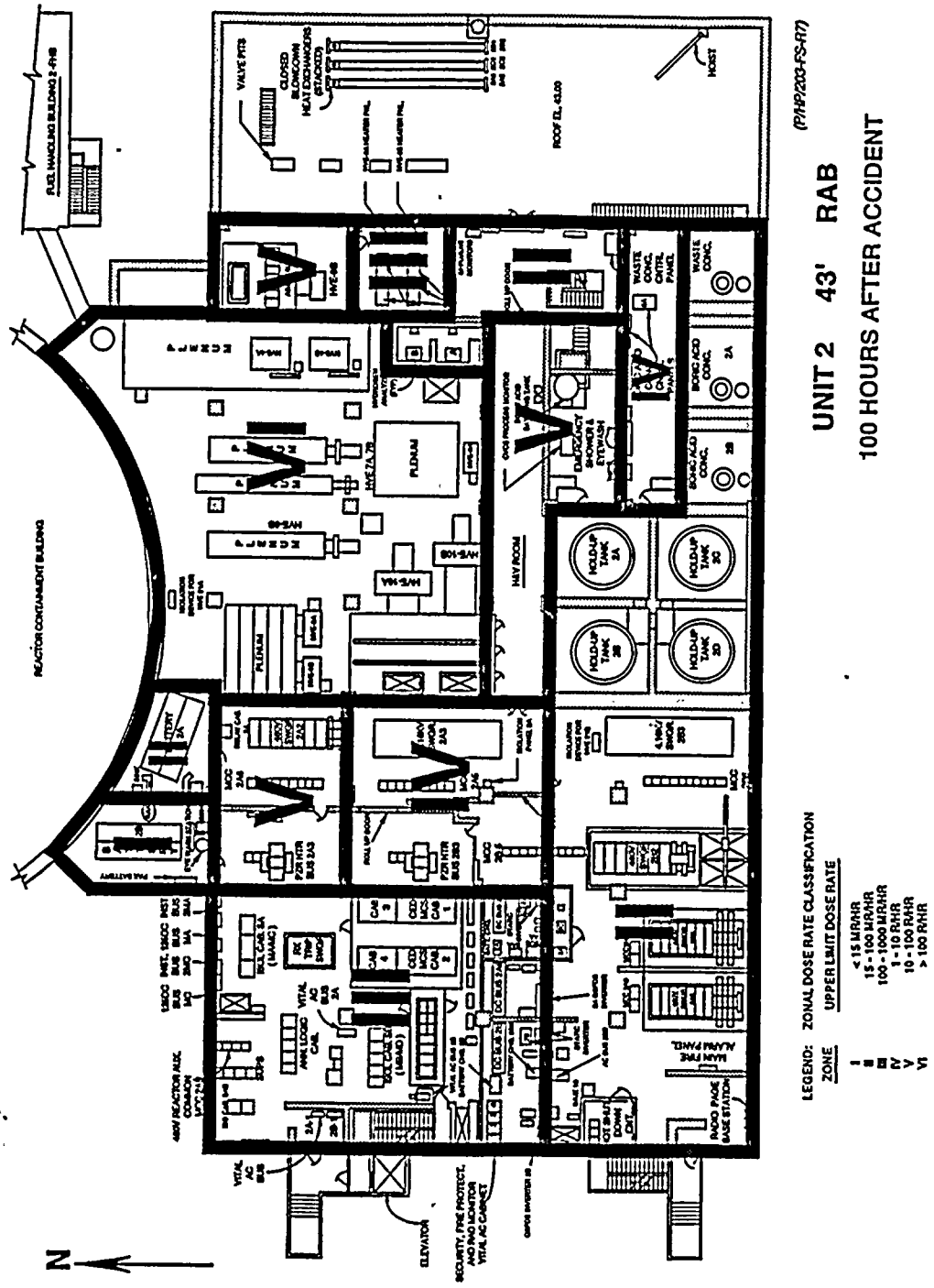

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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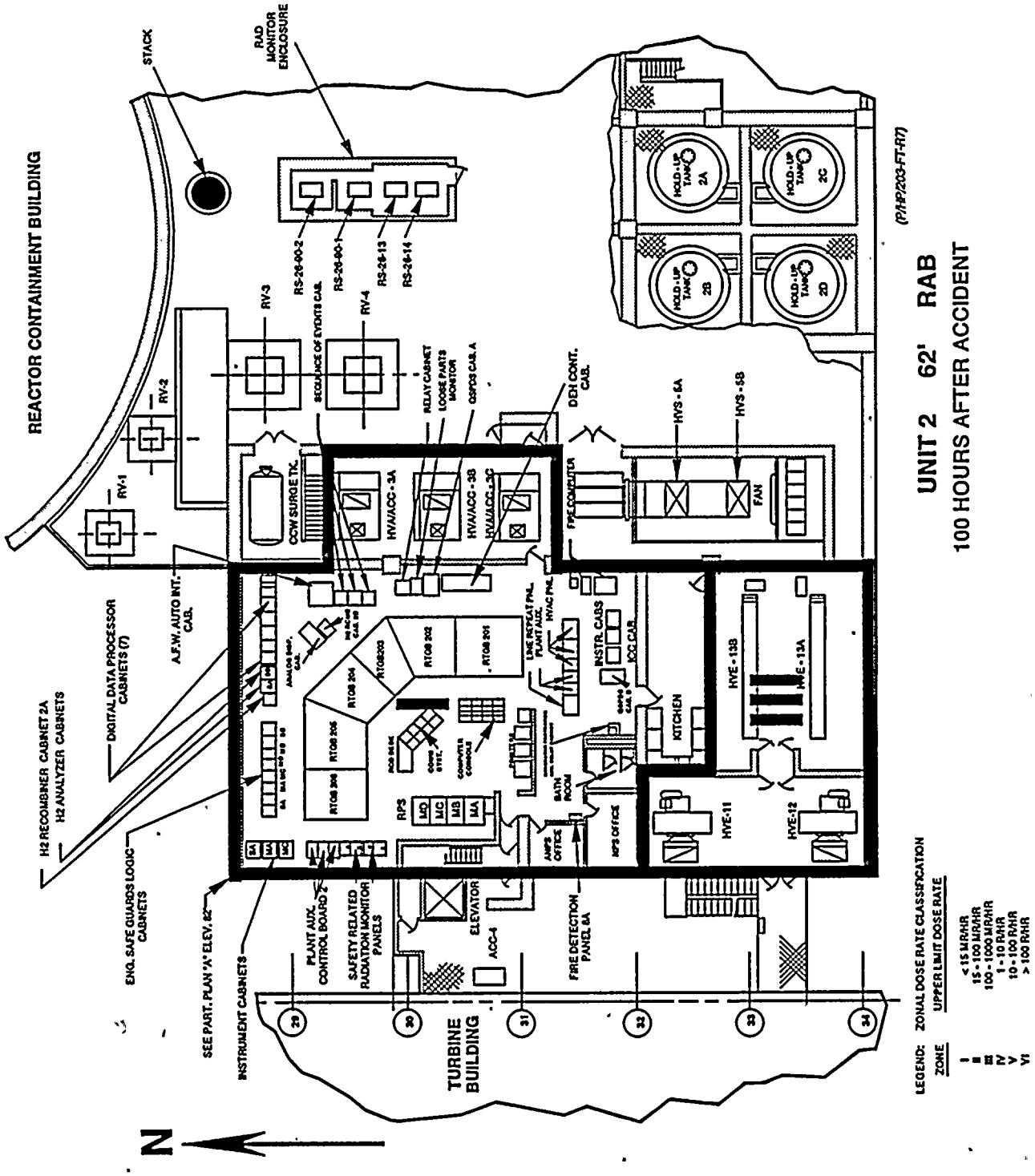

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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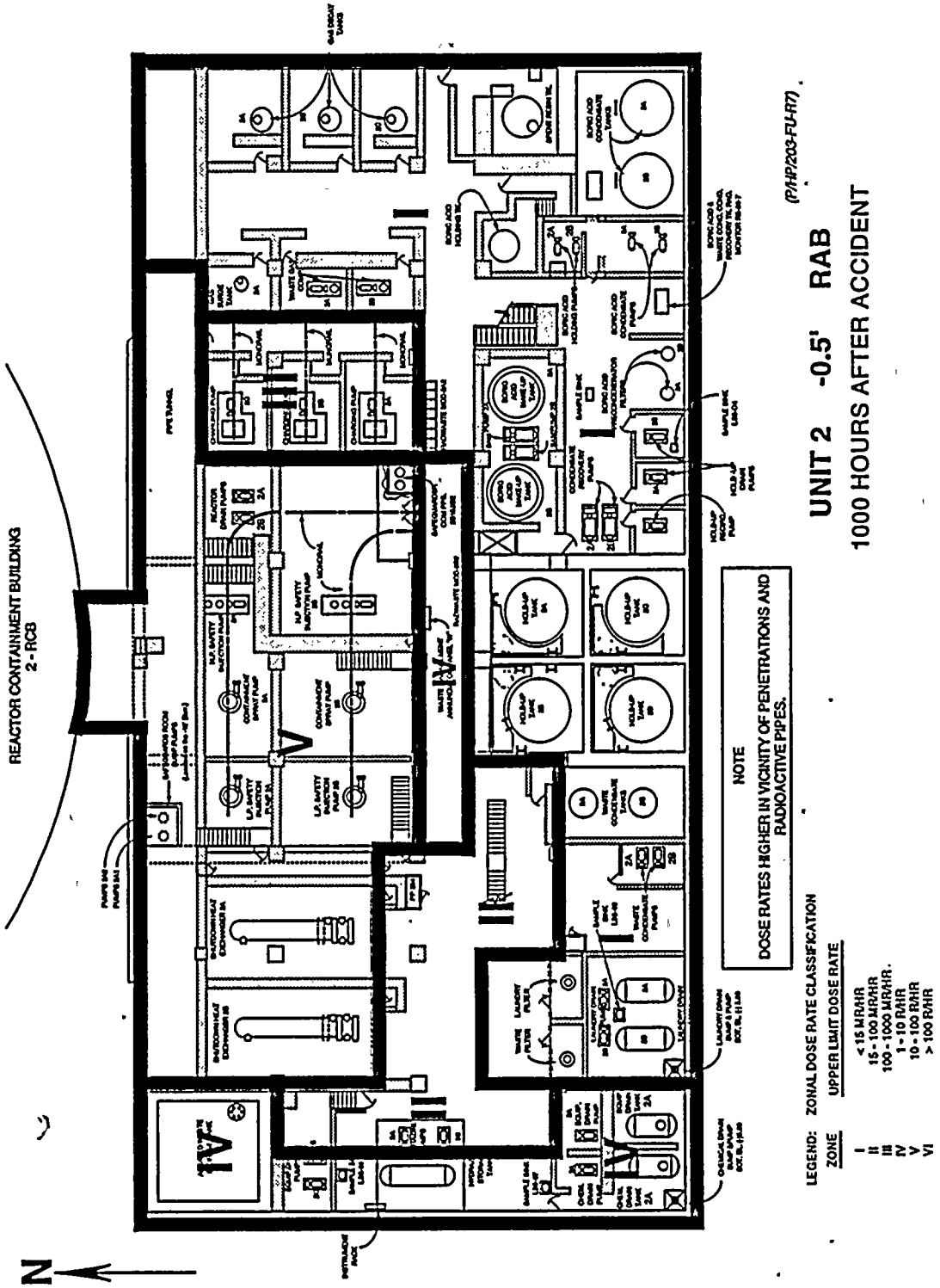

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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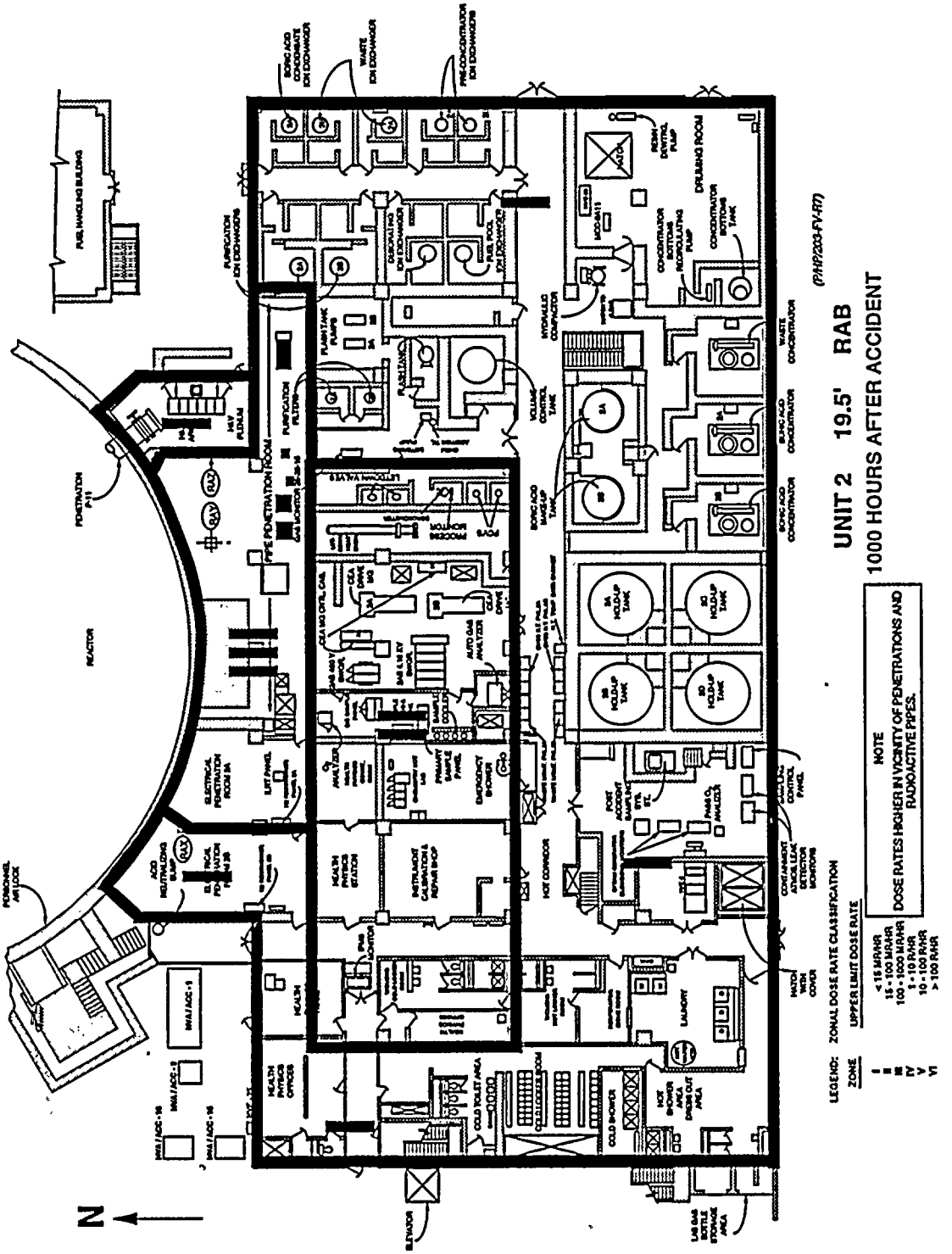

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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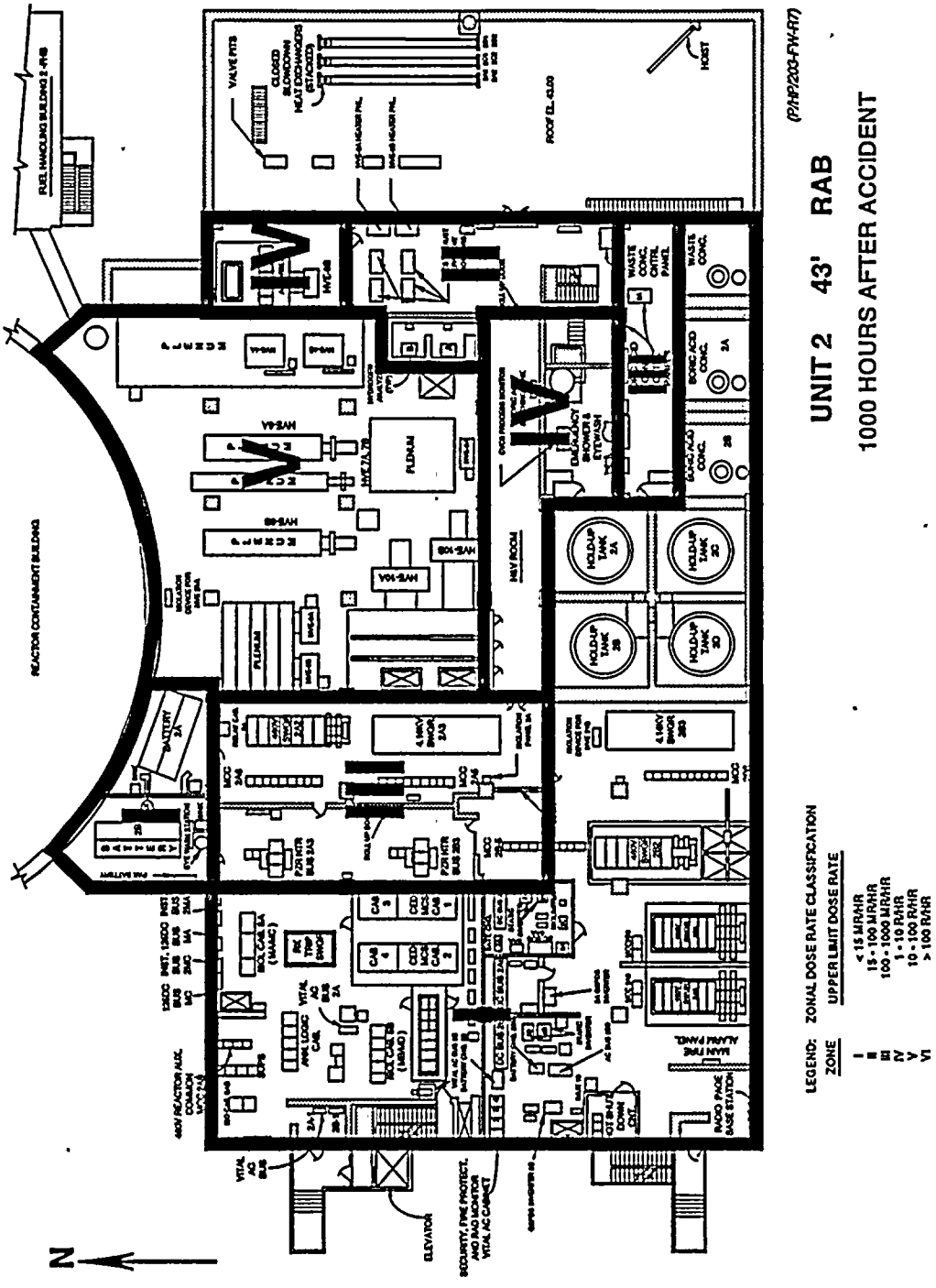

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ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-204, REVISION 4
IN-PLANT RADIATION AND CONTAMINATION SURVEYS DURING EMERGENCIES

ATTACHMENT B
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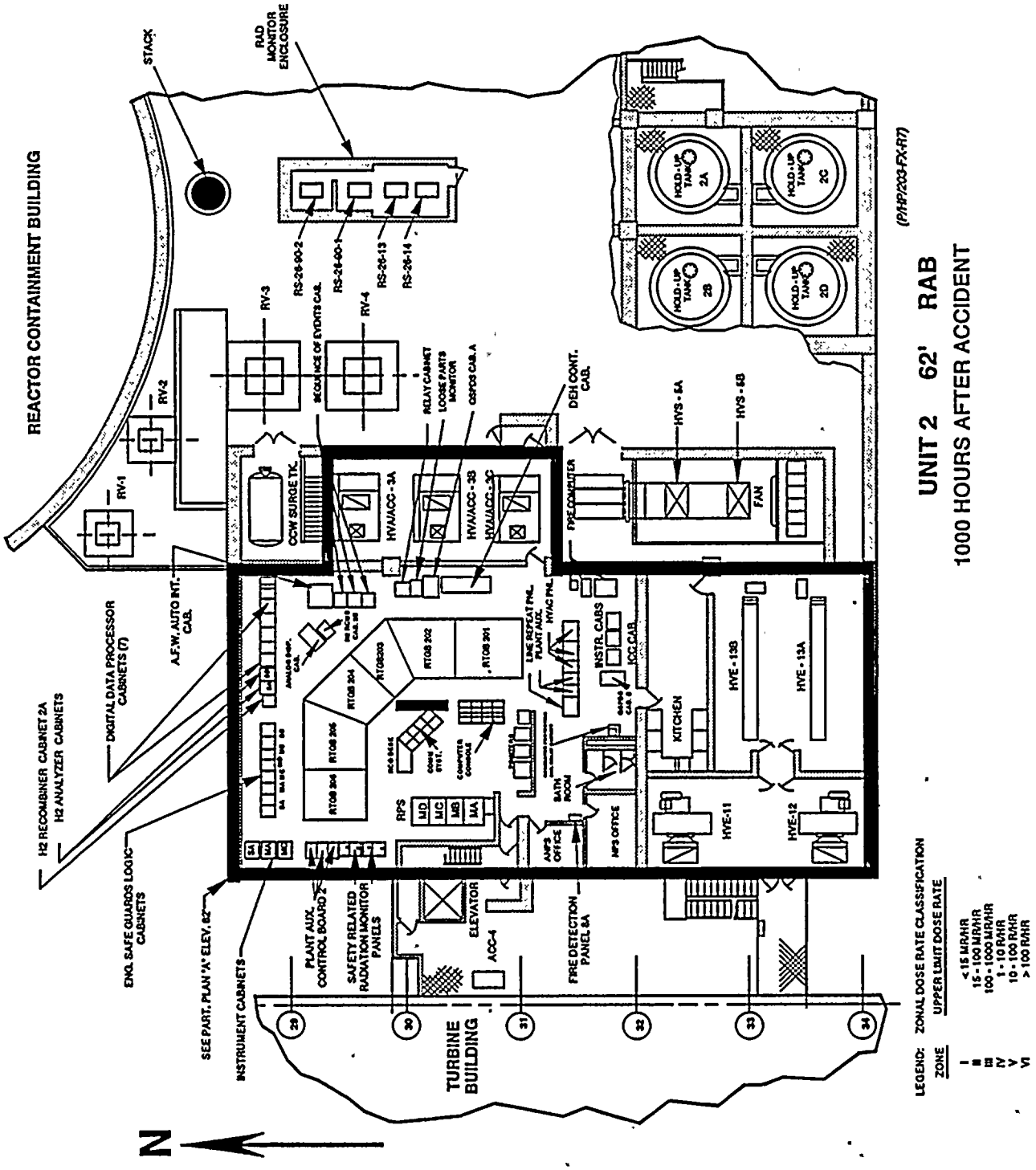

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FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-205
REVISION 3

1.0 TITLE:

EMERGENCY IN-PLANT AIR SAMPLING

2.0 REVIEW AND APPROVAL:

Reviewed by Facility Review Group February 1, 1982

Approved by J. H. Barrow (for) Plant Manager February 4, 1982

Revision 3 Reviewed by F R G 7/10 1990

Approved by [signature] Plant Manager 8-8 1990

3.0 PURPOSE:

This procedure provides guidelines for in-plant air sampling under accident conditions.

4.0 PRECAUTIONS AND LIMITS:

4.1 Higher than normal radiation levels and airborne concentrations may be experienced during accidents requiring the use of the Emergency Plan. Therefore, any in-plant air sampling shall be performed in a manner such that personnel exposures are maintained ALARA and within the guidelines of Health Physics Procedure HP-201, 'Emergency Personnel Exposure Control'. /R3

4.2 In areas of the plant where high concentrations of noble gases might be found, silver zeolite (AgX) cartridges for radioiodine sampling shall be used unless permission from the Radiation Team Leader (RTL) is obtained to use charcoal cartridges. /R3

4.3 Appropriate protective clothing, dosimetry and respiratory equipment shall be worn during air sampling as specified by the HP Supervisor in the Operational Support Center (HPOSC). /R3

4.4 Contamination control practices shall be used to minimize the possibility of cross contaminating the air samples.

4.5 Low volume continuous air samples should be used whenever possible.

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-205, REVISION 3
EMERGENCY IN-PLANT AIR SAMPLING

4.0 PRECAUTIONS AND LIMITATIONS: (continued)

4.6 In the event of a loss of coolant accident (LOCA), the affected Reactor Containment Building (RCB) continuous air monitor shall not be used unless specifically authorized by the Emergency Coordinator (EC). /R3

4.7 Dose rates from iodine sample cartridges and gas bottles may be such that shielding of the samples may be required prior to and following analysis.

5.0 RELATED SYSTEM STATUS:

None

6.0 REFERENCES:

6.1 St. Lucie Plant Radiological Emergency Plan (E-Plan) /R3

6.2 E-Plan Implementing Procedures (EPIPs) /R3

6.3 HP-2, 'FP&L Health Physics Manual' /R3

6.4 HP-22, 'Air Sampling' /R3

6.5 NUREG 0737, III.D.3.3, 'Improved Inplant Iodine Monitoring' /R3

7.0 RECORDS REQUIRED:

7.1 The following document when completed shall be maintained in the plant files in accordance with QI 17-PR/PSL-1 "Quality Assurance Records" /R3

1. Form HP67, 'Air Sample Data Sheet' /R3

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-205, REVISION 3
EMERGENCY IN-PLANT AIR SAMPLING

8.0 INSTRUCTIONS:

8.1 As soon as possible after an accident, low volume and continuous air monitors should be placed in general access routes and areas of the affected Reactor Auxiliary Building (RAB) where entries are probable. Example locations are: /R3

1. RAB - 19.5' hallway near the primary sample room and hydrogen analyzer panel,
2. RAB - 0.5' hallway,
3. Hot chemistry lab, and
4. RAB 43' switchgear room.

8.2 Particulate and iodine air sampling shall be performed in accordance with Health Physics Procedure HP-22, 'Air Sampling,' except as modified by the Radiation Team Leader such as use of AgX cartridges instead of charcoal. /R3

8.3 Record air sampling information on HP67, 'Air Sample Data Sheet' (See HP-22). /R3

8.4 Gas samples should be taken with 1000 ml marinelli to reduce dead time problems during analysis.

8.5 Each air sample cartridge taken should be placed in separate poly bags with the following information affixed to the bag:

1. Date and time of sample
2. Location of sample
3. Name of individual taking sample
4. Air sampler number
5. Flow rate of sampler
6. Duration of sample

8.6 All air samples shall be taken to the radiation team counting area for analysis.

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-206
REVISION 6

1.0 TITLE:

ANALYSIS OF EMERGENCY IN-PLANT AIR SAMPLES

2.0 REVIEW AND APPROVAL:

Reviewed by Facility Review Group February 1, 1982

Approved by J. H. Barrow (for) Plant General Manager February 4, 1982

Revision 6 Reviewed by F R G 12/10 1992

Approved by G. J. Boissy Plant General Manager 12/22 1992

3.0 PURPOSE:

This procedure provides instructions for the handling and analysis of high activity air samples.

4.0 PRECAUTIONS AND LIMITS:

4.1 This procedure is limited to in-plant air sample analysis. Refer to Health Physics Procedure HP-202, "Environmental Monitoring During Emergencies" for instructions on off-site monitoring and analysis.

4.2 Dose rates from iodine sample cartridges and gas Marinelli's may be such that shielding of the samples will be required prior to and following analysis.

4.3 In the event airborne activity levels or direct radiation fields become so high that the existing counting room equipment is ineffective, at the discretion of the Radiation Team Leader (RTL), the unaffected Unit's Health Physics count room can be used and/or the affected Unit's MCA-GeLi system can be moved to a designated (as needed) area. In addition, Gamma Spectroscopy capability is available at the Nuclear Training Center.

4.4 All counting equipment removed from the Reactor Auxiliary Building (RAB) shall be treated as contaminated until surveyed and determined to be clean.

4.5 A controlled surface contamination area should be set up in the designated area prior to transferring counting equipment.

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-206, REVISION 6
ANALYSIS OF EMERGENCY IN-PLANT AIR SAMPLES

4.0 PRECAUTIONS AND LIMITS: (continued)

4.6 Analysis of air samples shall be performed in accordance with the normal Health Physics operating procedures HP-10C, "Calibration and Operation of the Series 85 Multichannel Analyzer" and HP-22, "Air Sampling," utilizing the guidelines indicated in this procedure for high activity samples.

5.0 RELATED SYSTEM STATUS:

NONE

6.0 REFERENCES:

6.1 St. Lucie Plant Radiological Emergency Plan (E-Plan)

6.2 E-Plan Implementing Procedures (EPIPs)

6.3 HP-2, "FPL Health Physics Manual"

6.4 HP-10C, "Calibration and Operation of the Series 85 Multichannel Analyzer."

6.5 HP-22, "Air Sampling"

6.6 HP-202, "Environmental Monitoring During Emergencies"

6.7 HP-205, "Emergency In-Plant Air Sampling"

6.8 NUREG 0737, III D.3.3, "Improved Inplant Iodine Monitoring"

7.0 RECORDS REQUIRED:

7.1 The following completed documents shall be filed in accordance with QI 17-PR/PSL-1, "Quality Assurance Records":

1. Forms similar to HP-67, "Air Sample Data Sheet"

2. Forms similar to HP-67.1 "Gamma Isotopic Analysis Form" /R6

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-206, REVISION 6
ANALYSIS OF EMERGENCY IN-PLANT AIR SAMPLES

8.0 INSTRUCTIONS:

8.1 Set up and operate MS-3 or equivalent and GM detector in the designated area. Have an ionization type survey instrument available (RO-2A or equivalent).

8.2 Radio Iodines

1. Charcoal cartridges may contain significant quantities of noble gases and shall be purged using a high volume air sampler for 5 minutes at 2 cfm prior to counting.

2. Silver zeolite (AgX) cartridges should not contain significant quantities of noble gases; however, they should be purged with air at a flowrate of 2 cfm for 5 minutes prior to counting. /R6

> NOTE
> The retention efficiency for AgX cartridges is 85% for radioiodines.

3. Count sample on top shelf, if dead time is greater than 20% note on printout and inform HP Supervisor in the Operational Support Center (HPOSC) the results may be inaccurate. If the multichannel analyzer (MCA) saturates, proceed to Section 8.2.4.

> NOTE
> Extremely high activity samples can "saturate" the MCA. Indication of this problem is no data acquisition and 0% dead time indicated on the MCA.

4. Rough estimates of gross radioiodine concentration can be determined by the following method.

A. Survey cartridge with the GM system indicated in Step 8.1. Record gross count rate, cpm. /R6

B. Correct for resolving time:

TCR = True Count Rate ICR = Indicated Count Rate

$$TCR = \frac{ICR}{1 - (ICR * 1.67\ E\text{-}6)}$$

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-206, REVISION 6
ANALYSIS OF EMERGENCY IN-PLANT AIR SAMPLES

8.0 INSTRUCTIONS:

8.2 (continued)

4. (continued)

C. Estimate gross iodine concentration:

$$\text{Gross I } \mu\text{Ci/ml} = \frac{\text{TCR}}{\text{Volume } (FT^3)} * 1.87 \text{ E-10}$$

NOTE
This is a ROUGH ESTIMATE.

D. Survey the cartridge with the ionization survey instrument, Beta window closed at one foot. Record the exposure rate, mR/hr.

E. For the appropriate time after trip, use the factor in the equation.

Factor; within 24 hours = 5 E-3 After 24 hours = 1.5 E-2

$$\text{Gross Iodine } \mu\text{Ci/ml} = \left[\frac{\text{Exposure Rate}}{\text{Volume, } FT^3} \right] \text{X Factor}$$

NOTE
This is a ROUGH ESTIMATE.

8.3 Noble Gas

1. If excessive dead times are encountered on gas samples, the sample can be diluted by withdrawing 10 or 100 cc from the gas bottle with a syringe and injecting it into an unused sample bottle.

NOTE
Care should be taken to insure the appropriate dilution factor is applied to the results of the analysis.

2. If the equipment for dilution is not available, a rough estimate may be found using the following method.

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-206, REVISION 6
ANALYSIS OF EMERGENCY IN-PLANT AIR SAMPLES

8.0 INSTRUCTIONS: (continued)

8.3 (continued)

2. (continued)

A. Survey the container with the ionization survey instrument, Beta window closed, at one foot. Record the exposure rate, mr/hr. /R6

B. For the appropriate time after trip, use the factor in the equation.

Factor, within 24 hours = 323.0 After 24 hours = 5555

$$\text{Gross Noble Gas } \mu\text{Ci/ml} = \left[\frac{\textit{Exposure Rate}}{\textit{Volume, ml}} \right] X \textit{ Factor}$$

/R6

NOTE
This is a ROUGH ESTIMATE.

8.4 Particulate Filters

1. Particulate filters should be handled with extreme care. They can be a source of contamination.

2. If the sample leads to excessive dead time on the MCA system, an estimate of the gross activity can be found by the following steps:

A. Survey the particulate filter with a GM count rate meter. Record the gross count rate, cpm.

NOTE
If gross count rate exceeds 500,000 cpm, proceed to Step 8.2.4.D. /R6

B. Correct for resolving time.

TCR = True Count Rate ICR = Indicated Count Rate

$$\text{TCR} = \frac{\textit{ICR}}{1 - (\text{ICR X } 1.67 \text{ E-6})}$$

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-206, REVISION 6
ANALYSIS OF EMERGENCY IN-PLANT AIR SAMPLES

8.0 INSTRUCTIONS: (continued)

8.4 (continued)

2. (continued)

C. Estimate gross particulate concentration

$$\text{Gross } \mu\text{Ci/ml} = \left[\frac{TCR}{Volume,\ ft^3} \right] \text{X } 1.87 \text{ E-10}$$

/R6

D. Survey the filter with the ionization survey instrument, Beta window closed, at one foot. Record the exposure rate, mr/hr. /R6

E. For the appropriate time after trip, use the factor in the equation. Factor, within 24 hours = 5 E-3, After 24 hours = 1.5 E-2. /R6

$$\text{Gross Iodine } \mu\text{Ci/ml} = \left[\frac{Exposure\ Rate}{Volume,\ ft^3} \right] \text{X Factor}$$

/R6

NOTE This is a ROUGH ESTIMATE.

/R6

8.5 Record air sample analysis data on HP 67, "Air Sample Data Sheet" (see HP-22).

8.6 All particulate and iodine air samples should be saved for future reference. If samples are rebagged for storage, the sample collection data or an air sample number referencing that data shall be indicated on the bag.

8.7 All air sample analysis data shall be reported directly to the HPOSC.

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
HEALTH PHYSICS EMERGENCY PROCEDURE NO. HP-207
REVISION 7

1.0 TITLE:

MONITORING EVACUATED PERSONNEL DURING EMERGENCIES

2.0 REVIEW AND APPROVAL:

Reviewed by Facility Review Group February 1, 1982

Approved by J. H. Barrow (for) Plant General Manager February 4, 1982

Revision 7 Reviewed by F R G 12/10 1992

Approved by G. J. Boissy Plant General Manager 12/22 1992

3.0 PURPOSE:

This procedure provides guidelines for monitoring all plant personnel during emergencies.

4.0 PRECAUTIONS AND LIMITATIONS:

4.1 This procedure shall be used during site evacuations.

4.2 Every effort shall be made to minimize personnel contamination and radiation exposure.

4.3 Personnel monitoring check points should be established outside of the affected area. They should be in an area of low background radiation and contamination.

4.4 Caution should be exercised early in the event to verify the check point is sufficiently equipped and arranged to prevent the spread of contamination.

5.0 RELATED SYSTEM STATUS:

None

ST. LUCIE PLANT
HEALTH PHYSICS EMERGENCY PROCEDURE NO. HP-207, REVISION 7
MONITORING EVACUATED PERSONNEL DURING EMERGENCIES

6.0 REFERENCES:

6.1 St. Lucie Plant Radiological Emergency Plan (E-Plan).

6.2 HP-2, 'FP&L Health Physics Manual.'

6.3 HP-30, 'Personnel Monitoring.'

6.4 HP-70, 'Personnel Contamination Monitoring and Decontamination Procedure.'

6.5 HP-208, 'Personnel Decontamination During Emergencies.'

6.6 E-Plan Implementing Procedure 3100026E, 'Criteria for and Conduct of Evacuations.'

7.0 RECORDS REQUIRED:

7.1 Completed copies of the below document shall be maintained in the plant files in accordance with QI 17-PR/PSL-1 "Quality Assurance Records".

1. Form HP207.1, 'Personnel Monitoring/Frisking Log.'

ST. LUCIE PLANT
HEALTH PHYSICS EMERGENCY PROCEDURE NO. HP-207, REVISION 7
MONITORING EVACUATED PERSONNEL DURING EMERGENCIES

8.0 INSTRUCTIONS:

8.1 Jaycee Park or alternative offsite assembly area: /R7

1. Immediately following a site evacuation order, the Radiation Team Leader (RTL) will direct personnel to establish check points at Jaycee Park, unless alternate locations are specified. A radio equipped vehicle should be used by HP personnel.

2. Take additional copies of HP207.1, 'Personnel Monitoring/Frisking Log' and HP13, 'Personnel Skin and Clothing Contamination Report' for use at assembly areas.

3. Locate the check point in a convenient area to allow entry and exit without spread of contamination.

4. Personnel should be kept near the entrance until they can be monitored to prevent the spread of contamination.

5. If personnel are expected to be contaminated, they should be kept still and away from others until they have been monitored and declared clean.

6. All personnel shall be monitored using a Count Rate Meter and Beta Sensitive Probe and results recorded on form HP207.1.

7. Contaminated personnel shall be segregated and decontaminated in accordance with HP-208, 'Personnel Decontamination During Emergencies.'

8. Results of personnel monitoring shall be communicated to the Radiation Team Leader.

9. Records of personnel monitoring shall be retained and forwarded to the RTL upon his request.

10. If additional HP support is required, contact the Radiation Team Leader.

8.2 Operational Support Center (OSC):

1. Following activation of the OSC, HP Supervisor in the OSC (HPOSC) will direct Health Physics personnel to establish a check point at the OSC.

2. The check point will be located in a convenient area to allow entry and exit without spread of contamination.

ST. LUCIE PLANT
HEALTH PHYSICS EMERGENCY PROCEDURE NO. HP-207, REVISION 7
MONITORING EVACUATED PERSONNEL DURING EMERGENCIES

8.0 INSTRUCTIONS: (continued)

8.2 (continued)

3. Personnel entering the OSC from other plant areas will be kept near the entrance until they can be monitored to prevent the spread of contamination.

4. If personnel are expected to be contaminated, they should be kept still and away from the normal entrance until they can be monitored. Use Anti-C's and remote monitoring to prevent spread of contamination to the normal OSC entrance.

5. All personnel entering the OSC shall be monitored using a Count Rate Meter and Beta Sensitive Probe or Dose Rate Instrument and results recorded on form HP207.1.

6. Contaminated personnel shall be segregated and decontaminated in accordance with HP-208.

7. Results of personnel monitoring shall be kept in the OSC. The Radiation Team Leader shall be informed of any contaminated individuals being found.

8.3 Technical Support Center (TSC):

1. Traffic in and out of the TSC shall be kept to a minimum.

2. If traffic is necessary, a frisking record shall be initiated.

3. Personnel attempting to enter the TSC and are found contaminated shall be denied entrance to the TSC. They should be sent to the OSC for decontamination processing. Notify OSC of situation.

ST. LUCIE PLANT
HEALTH PHYSICS EMERGENCY PROCEDURE NO. HP-207, REVISION 7
MONITORING EVACUATED PERSONNEL DURING EMERGENCIES

HP 207.1
PERSONNEL MONITORING/FRISKING LOG

NAME, SSN	ASSEMBLY LOCATION	DATE/TIME	READING[1] CPM	INSTRUMENT USED MODEL/SER.NO.	SURVEYOR INITIALS
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[1]If reading is above background refer to HP-208, 'Personal Decontamination During Emergencies'.

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-208
REVISION 5

1.0 TITLE:

PERSONNEL DECONTAMINATION DURING EMERGENCIES

2.0 REVIEW AND APPROVAL:

Reviewed by Facility Review Group February 10, 1982

Approved by C. M. Wethy Plant Manager February 10, 1982

Revision 5 Reviewed by F R G 09/17 1991

Approved by G. J. Boissy Plant Manager 10/21 1991

3.0 PURPOSE:

This procedure provides guidelines for the decontamination of personnel during emergencies.

4.0 PRECAUTIONS AND LIMITATIONS:

4.1 Lifesaving measures shall not be hindered by decontamination procedures.

4.2 Personnel involved in decontamination shall employ good Health Physics work practices to prevent their own contamination and the spread of contamination.

4.3 Radioactive waste generated during decontamination shall be surveyed, posted and maintained in accordance with Health Physics Procedure HP-42, "Storage of Radioactive Waste."

5.0 RELATED SYSTEM STATUS:

None

S__OPS
DATE
DOCT PROCEDURE
DOCN HP-208
SYS
COMP COMPLETED
ITM 5

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-208, REVISION 5
PERSONNEL DECONTAMINATION DURING EMERGENCIES

6.0 REFERENCES:

6.1 St. Lucie Plant Radiological Emergency Plan (E-Plan)

6.2 E-Plan Implementing Procedures (EPIP's)

6.3 HP-2, "FP&L Health Physics Manual"

6.4 HP-70, "Personnel Contamination Monitoring and Decontamination Procedure"

6.5 HP-42, "Storage of Radioactive Waste"

7.0 RECORDS REQUIRED:

7.1 The following document when completed is to be maintained in the plant files in accordance with QI 17-PR/PSL-1, "Quality Assurance Records."

1. Form HP13, "Personnel Skin and Clothing Contamination Report."

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-208, REVISION 5
PERSONNEL DECONTAMINATION DURING EMERGENCIES

8.0 INSTRUCTIONS:

8.1 Any individual suspected of being contaminated, and all individuals exiting evacuated areas following re-entry shall be monitored in accordance with Health Physics Procedure HP-207, "Monitoring Evacuated Personnel During Emergencies."

8.2 If contamination is found, the individual shall be escorted to a decontamination area as directed by the HP Supervisor in the Operational Support Center (HPOSC), or the Radiation Team Leader (RTL).

8.3 If clothing contamination is found, check the individuals skin for contamination.

8.4 If substantial amounts of contamination are found, or if ingestion is suspected, whole body counting and a bio-assay shall be performed.

8.5 Personnel decontamination shall be performed in accordance with Health Physics Procedure HP-70, "Personnel Contamination Monitoring and Decontamination Procedure," with special precautions as directed by the HPOSC.

8.6 Health Physics form HP13, "Personnel Skin and Clothing Contamination Report," shall be completed on all individuals undergoing decontamination. The following decontamination areas may be used as directed by the HPOSC or Radiation Team Leader: /R5

1. Reactor Auxiliary Buildings - Hot Shower Room

2. Site Assembly Station

3. Jaycee Park

8.7 During the decontamination process solid rad waste may be generated. This should be placed in labelled containers as per Health Physics Procedure HP-42, "Storage of Radioactive Waste" and stored away from the general area where personnel are congregating until it can be disposed of properly.

ST. LUCIE PLANT
HEALTH PHYSICS PROCEDURE NO. HP-208, REVISION 5
PERSONNEL DECONTAMINATION DURING EMERGENCIES

8.0 INSTRUCTIONS: (continued)

CAUTION
Treating life threatening medical injuries takes priority over decontaminating the individual.

8.8 Severely injured individuals shall be transported to an offsite Medical Facility for medical treatment at the direction of the Emergency Coordinator in consultation with the Radiation Team Leader. Onsite decontamination of the personnel should not be attempted if there is a possibility of further aggravation of the injury.

8.9 Care should be exercised when decontaminating areas of the body suspected of being contaminated with radioiodines. Skin abrasions, hot water or open wounds provide ready pathways for the absorption of radioiodines into the system.