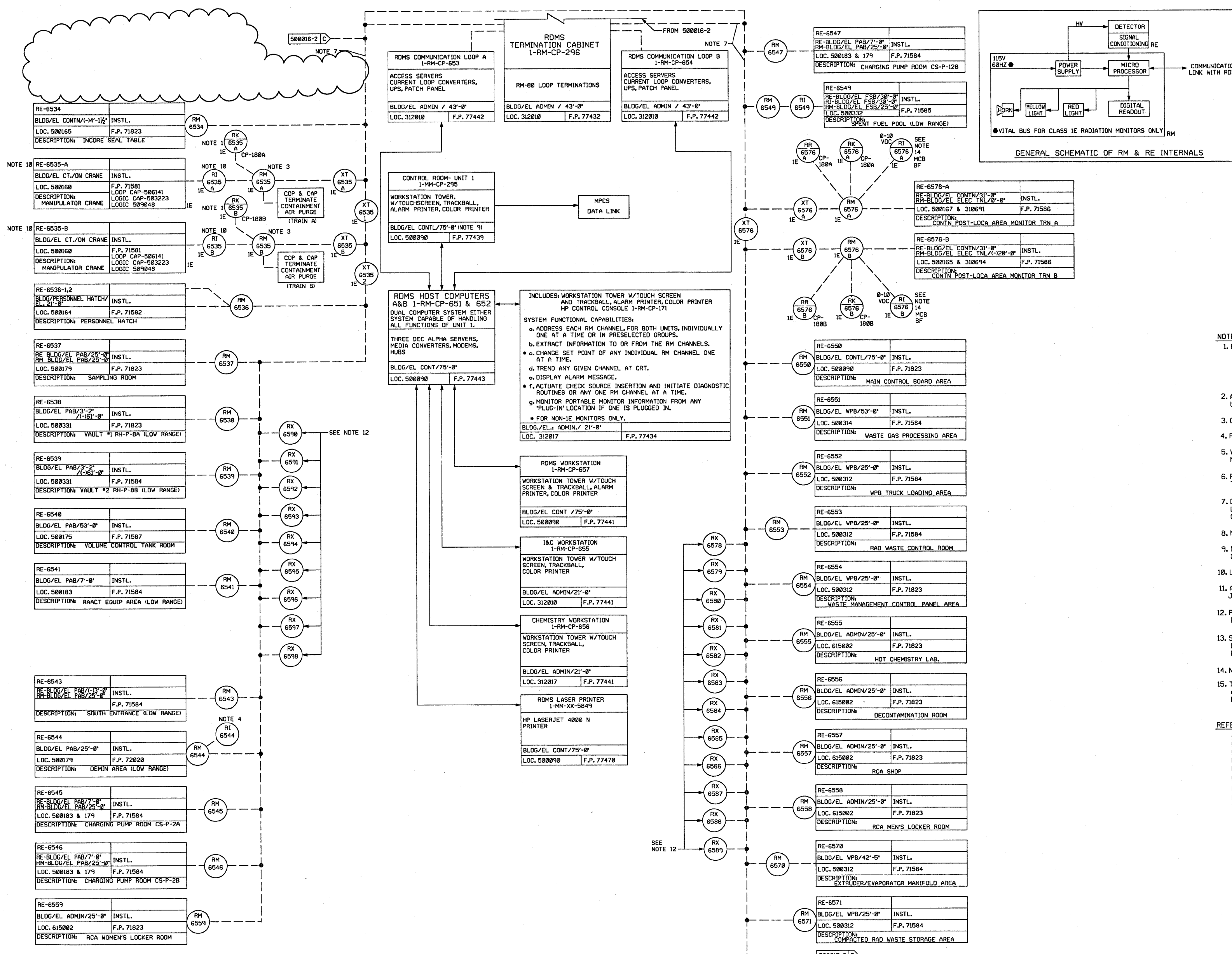


SECURITY-RELATED INFORMATION – WITHHELD UNDER 5 USC SECTION 552(b)(4) AND 5 USC SECTION 552(b)(7)(F)

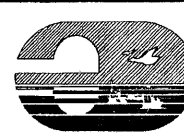
91 REV I-10009-AHN-I



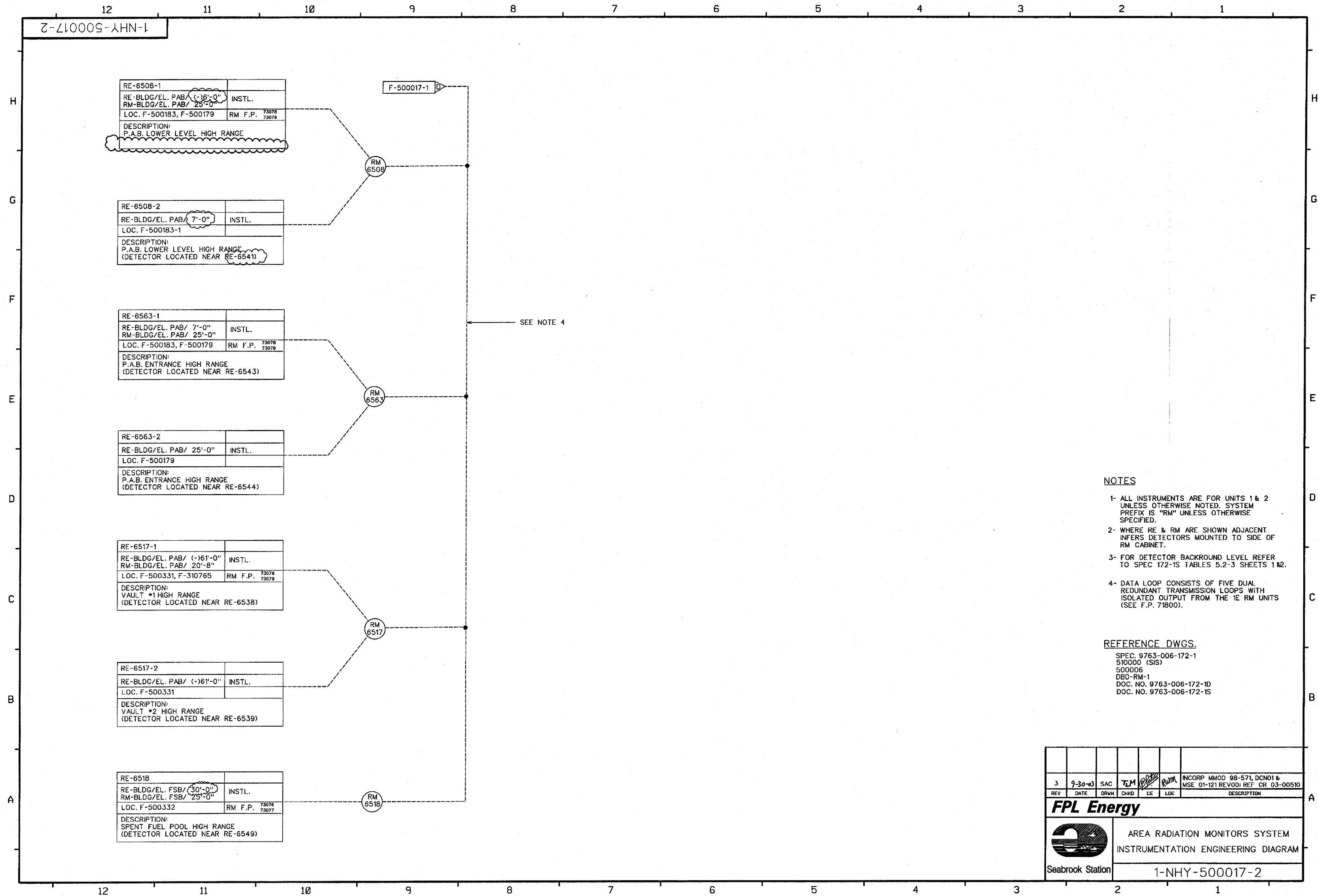
- NOTES:**
1. RK IS AN INTERFACE MODULE WITH A DIGITAL INDICATOR. THESE MODULES PROVIDE THE CAPABILITY FOR SETPOINT OR CONVERSION CONSTANT CHANGES FROM A REMOTE LOCATION. THESE ARE DESIGNATED AS IE ONLY TO ELIMINATE THE NEED FOR ADDITIONAL ISOLATION ELECTRONICS.
 2. ALL INSTRUMENTS ARE FOR UNIT 1. SYSTEM PREFIX IS RM UNLESS OTHERWISE SPECIFIED.
 3. CLASS IE POWER SUPPLIES REQUIRED.
 4. REPEATER STATION WITH INDICATION AND ALARMS.
 5. WHERE RE & RM ARE SHOWN ADJACENT INFERS DETECTORS MOUNTED TO SIDE OF RM CABINET.
 6. FOR DETECTOR BACKGROUND LEVEL REFER TO SPEC 172-1S TABLES 5.2-3 SHEETS 1 & 2.
 7. DATA LOOP CONSISTS OF FIVE DUAL REDUNDANT TRANSMISSION LOOPS WITH ISOLATED OUTPUT FROM THE IE RM UNITS (SEE FP-71800).
 8. NOT USED.
 9. IN ADDITION TO THE CAPABILITIES OF CP-171, CLASS IE SETPOINT CHANGES AND CHECK SOURCE ACTUATION IS AVAILABLE FROM CP-295.
 10. LOCATED ON CRANE.
 11. ALL FIELD TERMINATIONS FOR RM UNIT ARE MADE IN ADJACENT JUNCTION BOX SUPPLIED BY VENDOR.
 12. PLUG-IN MODULES FOR PORTABLE MONITORS ARE DESIGNATED RX. FOR LOCATIONS REFER TO TABLE 5.2-5, DOC. NO. 9763-006-172-1S.
 13. SOUND POWERED PHONE JACKS LOCATED AT THE FOLLOWING LOCATIONS:
RM JUNCTION BOX, RX, HP CONSOLE, IE CAB & RDMS HOST COMPUTER.
 14. NOT SUPPLIED BY RDMS VENDOR.
 15. THE INCANDESCENT LIGHT BULBS HAVE BEEN REMOVED FROM THE YELLOW ALERT AND THE RED HIGH RADIATION LIGHTS FOR THE CLASS IE RADIATION MONITORS, EXCEPT FOR RM-1-6535 A & B.

REFERENCE DWGS:

SPEC. 9763-006-172-1
510000 (SIS)
500006
DSD-RM-1
DOC. NO. 9763-006-172-1D
DOC. NO. 9763-006-172-1S
F.P. 71399 OUTLINE DWG. FOR RM-CP-180A & B.
F.P. 77470 OEM MANUAL
SPEC ESS: RDMS RM11 COMPUTER VIDEO DISPLAY REPLACEMENT

16	01/19/09	MRB	REP	REP	Ch	INCORP EC 12721
15	9/30/03	SAC	TLM	RCP	RWM	INCORP. DCR 92-016, DCN08; DCR 99-018, DCN09; MMD 98-571, DCN01; REF CR 03-00510
REV	DATE	DRWN	CHKD	CE	LDE	DESCRIPTION
FPL Energy						
						
Seabrook Station						
AREA RADIATION MONITORS SYSTEM INSTRUMENTATION ENGINEERING DIAGRAM						
1-NHY-500017-1						
REV 16						

NUCLEAR SAFETY RELATED



RE-6523	P&ID AAH-20004
BLDG/EL. ADMIN/55'-0"	INSTL. F.P. 72347
LOC. F-615002 & F-615011	LOOP M-506668 (AAH SYS)
DESCRIPTION:	RCA FUME HOOD FN-115

RE-6506-A1,A2	P&ID CBA-20303
BLDG DIESEL GEN BLDG EL-21'-6"	INSTL. F.P. 72032
LOC. F-500210	LOOP M-506151 (CBA SYS)
DESCRIPTION:	EAST OUTSIDE AIR INTAKE STRUCTURE

RE-6506-B1,B2	P&ID CBA-20303
BLDG DIESEL GEN BLDG EL-21'-6"	INSTL. F.P. 72032
LOC. F-500210	LOOP M-506151 (CBA SYS)
DESCRIPTION:	EAST OUTSIDE AIR INTAKE STRUCTURE

RE-6507-A1,A2	P&ID CBA-20303
BLDG CD EL-21'-6"	INSTL. F.P. 72032
LOC. F-500210	LOOP M-506151 (CBA SYS)
DESCRIPTION:	WEST OUTSIDE AIR INTAKE STRUCTURE

RE-6507-B1,B2	P&ID CBA-20303
BLDG CD EL-21'-6"	INSTL. F.P. 72032
LOC. F-500210	LOOP M-506151 (CBA SYS)
DESCRIPTION:	WEST OUTSIDE AIR INTAKE STRUCTURE

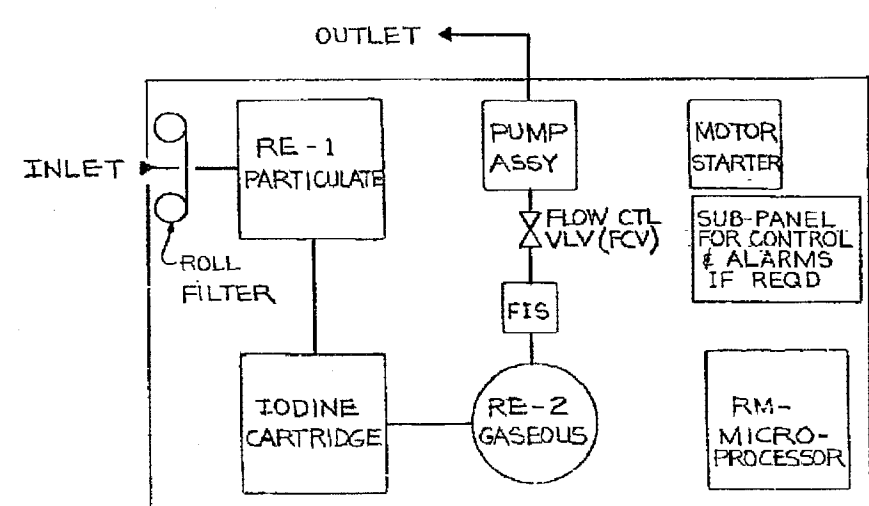
RE-6526-1	P&ID MAH-20504
BLDG INSTR. PPG. TNL EL-13'-0" AREA	INSTL.
LOC. F-500173	LOOP M-506135 (CAH SYS)
DESCRIPTION:	CONTAINMENT RECIRC. PARTICULATE

RE-6526-2	P&ID MAH-20504
BLDG INSTR. PPG. TNL EL-13'-0" AREA	INSTL.
LOC. F-500173	LOOP M-506135 (CAH SYS)
DESCRIPTION:	CONTAINMENT RECIRC. GASEOUS

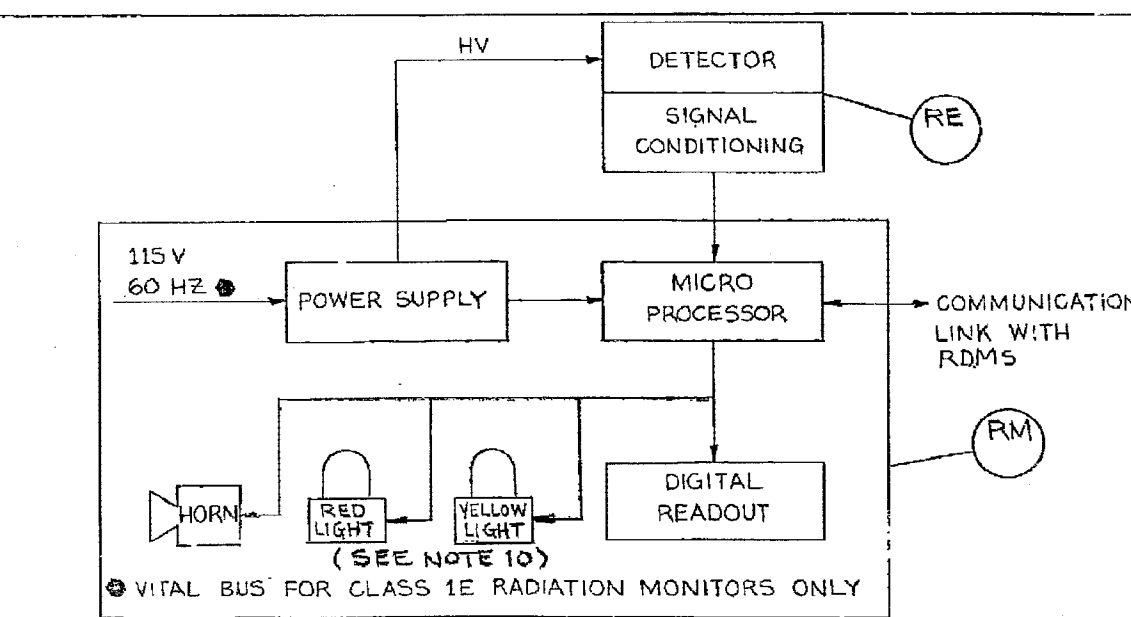
RE-6568	P&ID MAH-20504
BLDG/EL. PAB/53'-0"	INSTL. F.P. 72128
LOC. F-500175 & F-500178	LOOP M-506596 (PAH SYS)
DESCRIPTION:	CONTAINMENT ENCLOSURE AIR EXHAUST

RE-6567	P&ID MAH-20494
BLDG/EL. PAB/53'-0"	INSTL. F.P. 72128
LOC. F-500175 & F-500178	LOOP M-506603 (PAH SYS)
DESCRIPTION:	PAB MISC. VENTILATION

RE-6532-2	P&ID RM-20510
BLDG/EL. PAB/81'-0"	INSTL. C-508102
LOC. F-500178	LOOP M-506598 (PAH SYS)
DESCRIPTION:	PRIMARY AUX. BLDG. FILTERED EXH. GASEOUS



TYPICAL AIRBORNE PARTICULATE & GASEOUS RAD MON SKID



GENERAL SCHEMATIC OF RM & RE INTERNALS

FROM F-500015
RDMS HOST COMPUTER CPU 1 & 2

TO F-500016-2

RE-6524	P&ID AAH-20004
BLDG/EL. ADMIN/55'-0"	INSTL. F.P. 72347
LOC. F-615002 & F-615011	LOOP M-506668 (AAH SYS)
DESCRIPTION:	RCA FUME HOOD FN-116

RE-6531-2	P&ID MAH-20498
BLDG/EL. WPB/86'-0"	INSTL.
LOC. F-500318	LOOP M-506885 (AAH SYS)
DESCRIPTION:	WASTE PROCESS BLDG. EXHAUST GASEOUS

RE-6562	P&ID MAH-20497
BLDG/EL. FSB/117'-0"	INSTL. F.P. 72347
LOC. F-500178 & F-500332	LOOP M-506452 (PAH SYS)
DESCRIPTION:	FUEL STORAGE BLDG. VENTILATION EXHAUST

RE-6566	P&ID MAH-20495
BLDG/EL. PAB/35'-2"	INSTL. F.P. 72128
LOC. F-500179	LOOP M-506607 (PAH SYS)
DESCRIPTION:	CONTAINMENT ENCLOSURE EMERG. EXHAUST

RE-6527-A1,A2	P&ID MAH-20504
RE BLDG/EL. PAB/83'-5"	INSTL. F.P. 72032
RM BLDG/EL. PAB/83'-5"	INSTL. F.P. 72032
LOC. F-500179	LOOP M-506211 (CBA SYS)
DESCRIPTION:	PURGE LINE MONITOR TRN A

RE-6527-B1,B2	P&ID MAH-20504
RE BLDG/EL. PAB/83'-5"	INSTL. F.P. 72032
RM BLDG/EL. PAB/83'-5"	INSTL. F.P. 72032
LOC. F-500179	LOOP M-506211 (CBA SYS)
DESCRIPTION:	PURGE LINE MONITOR TRN B

RE-6548	P&ID RM-B20510
BLDG. CONTAINMENT EL-0'-0"	INSTL. F.P. 73290
LOC. F-500166	LOOP M-506136 (CAH SYS)
DESCRIPTION:	CONTAINMENT GASEOUS BACKUP

RE-6525	P&ID AAH-20004
BLDG/EL. ADMIN/55'-0"	INSTL. F.P. 72347
LOC. F-615002 & F-615011	LOOP M-506668 (AAH SYS)
DESCRIPTION:	RCA FUME HOOD FN-117

REFERENCE DWG'S.
SPEC. 9763-006-172-1
M-510000 (SIS)
M-500006 (GEN. INFO. SHEETS)
DRL-RM-1

NOTES
1-RK IS AN INTERFACE MODULE WITH A DIGITAL INDICATOR. THESE MODULES PROVIDE THE CAPABILITY FOR SETPOINT OR CONVERSION CONSTANT CHANGES FROM A REMOTE LOCATION. THESE ARE DESIGNATED AS 1E ONLY TO ELIMINATE THE NEED FOR ADDITIONAL ISOLATION ELECTRONICS.

3-CLASS 1E POWER SUPPLIES REQUIRED.
4-ALL INSTRUMENTS ARE FOR UNITS 1 & 2 UNLESS OTHERWISE NOTED.
SYSTEM PREFIX IS "RM" UNLESS OTHERWISE SPECIFIED.

5-TRANSFORMER 460/115V TO BE SUPPLIED BY RDMS VENDOR.
6-FOR DETECTOR BACKGROUND RADIATION LEVEL REFER TO SPEC 172-15, TABLE 5.2-4 A & B.
7-DATA LOOP CONSISTS OF FIVE DUAL REDUNDANT TRANSMISSION LOOPS WITH ISOLATED OUTPUT FROM THE 1E RM UNITS SEE PPT 71800.
8-ALL FIELD TERMINATIONS FOR RM UNIT ARE MADE IN ADJACENT JUNCTION BOX SUPPLIED BY VENDOR.
9-** NOT SUPPLIED BY RDMS VENDOR.
10-THE INCANDESCENT LIGHT BULBS HAVE BEEN REMOVED FROM THE YELLOW ALERT AND THE RED HIGH RADIATION LIGHTS FOR THE CLASS 1E RADIATION MONITORS.

NUCLEAR SAFETY RELATED

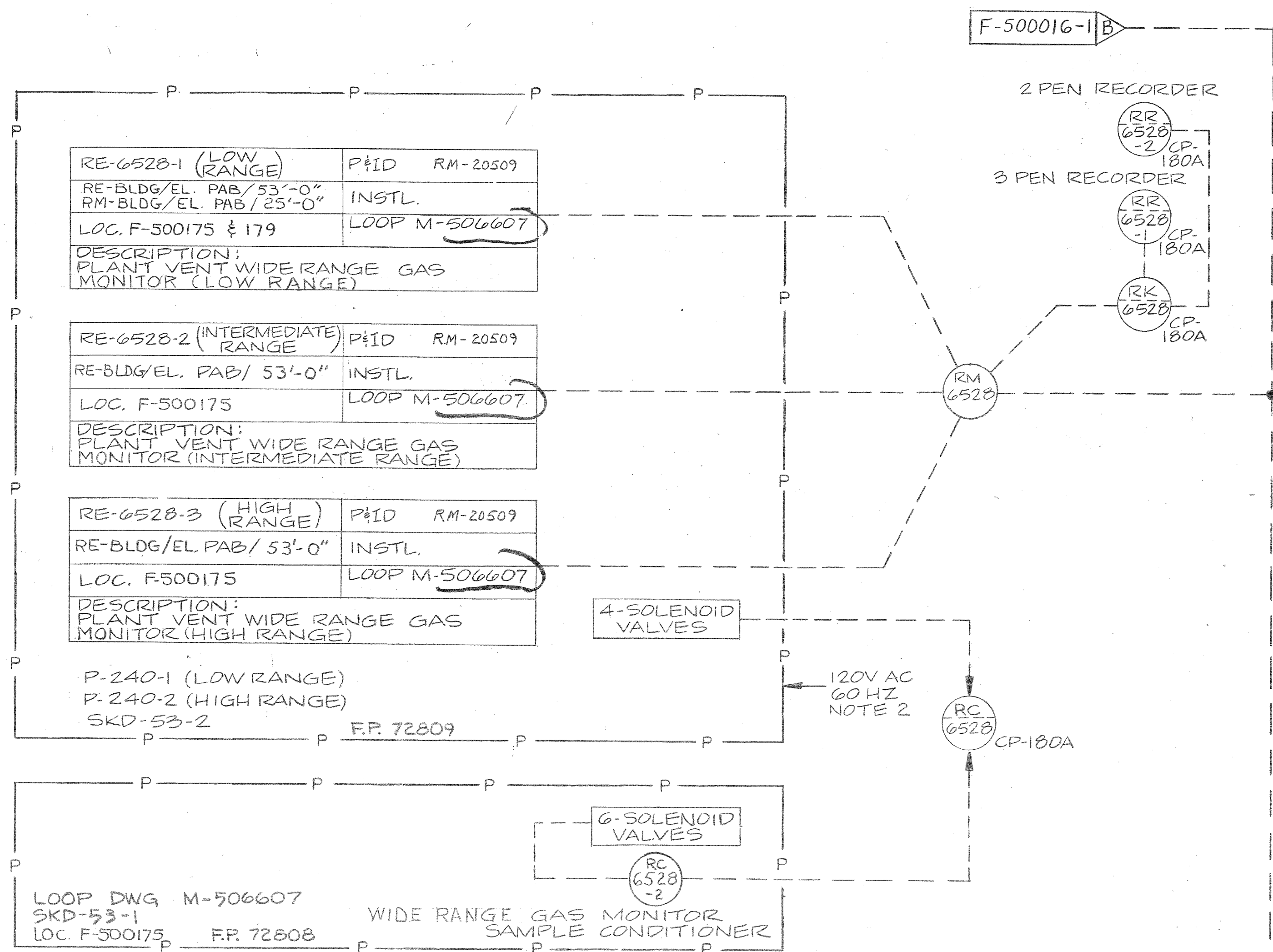
12/8/97	-	APL	RM	INCORP DCR 95-022, D0105
11/4/98	-	APL	RM	INCORP DCR 98-14, CA-18
REV	DATE	DRWN	CHKD	DESCRIPTION

15	10/20/09	APL	RM	INCORP'D EC 12704
14	3/17/09	TLM	JWB	INCORP'D EC 12720
13	3/17/09	TLM	JWB	INCORP'D EC 12627
REV	DATE	DRWN	CHKD	DESCRIPTION

FPL Energy Seabrook Station

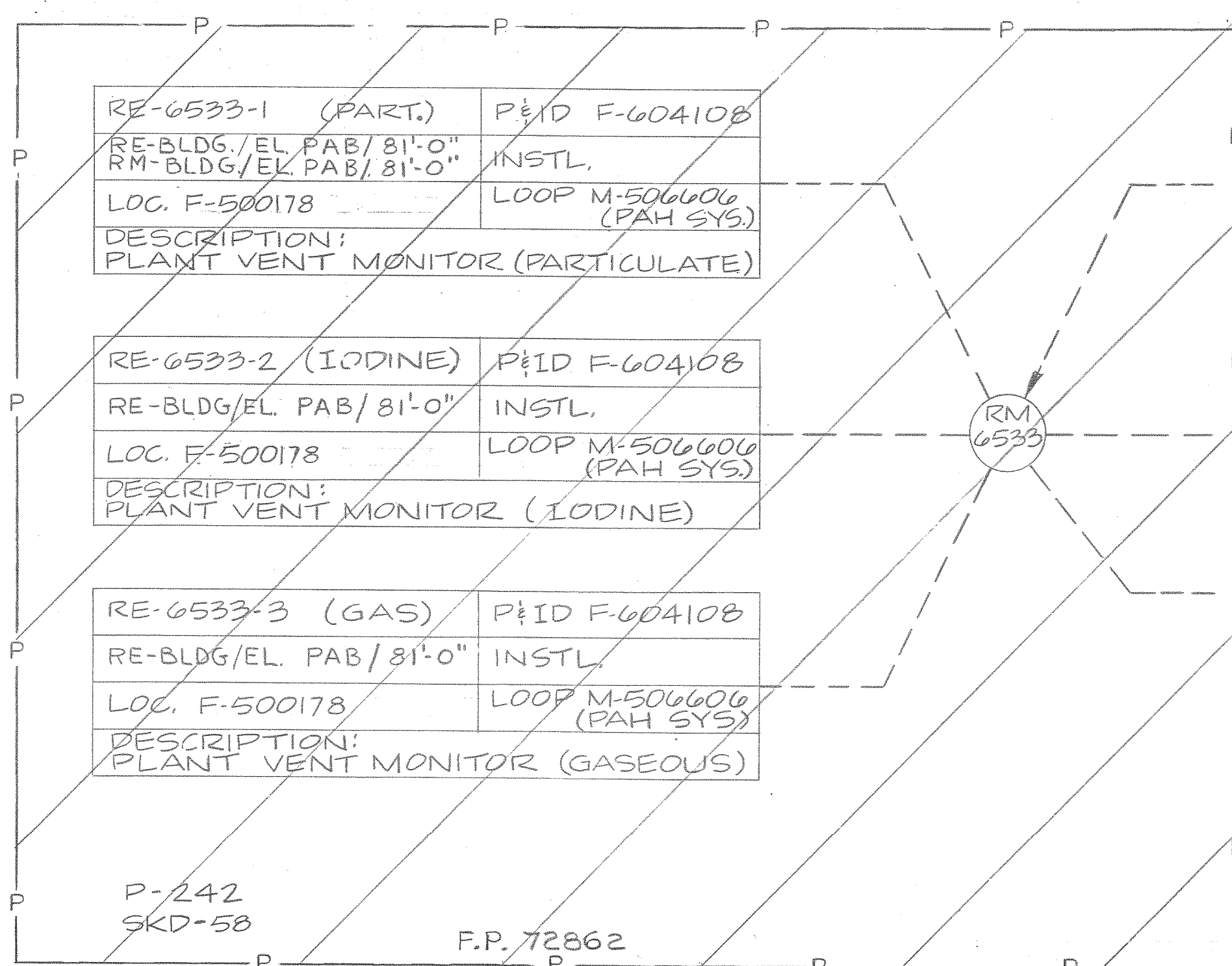
AIRBORNE RADIATION MONITORING SYSTEM
INSTRUMENTATION ENGINEERING DIAGRAM

1-NHY-500016-1 REV 15



FROM F-500016-1

RDMS HOST COMPUTER
CPU 1 & 2



SEE NOTE 5

TO F-500017-1

F-500017-1

REFERENCE DWG'S.

SPEC 9763-006-172-1
M-510000 (SIS)
M-500006 (GEN. INFO. SHEETS)
D&D-RM-1

F.P. 72848 ISO KINETIC NOZZLE - UNIT 1
F.P. 72849 ISO KINETIC NOZZLE - UNIT 1
F.P. 72847 ISO KINETIC NOZZLE - UNIT 2
F.P. 72857 ISO KINETIC NOZZLE - UNIT 2

NOTES

1. RK IS AN INTERFACE MODULE WITH A DIGITAL INDICATOR. THESE MODULES PROVIDE THE CAPABILITY FOR SETPOINT OR CONVERSION CONSTANT CHANGES FROM A REMOTE LOCATION.
2. CLASS 1E POWER SUPPLIES REQUIRED.
3. ALL INSTRUMENTS ARE FOR UNITS 1&2 UNLESS OTHERWISE NOTED. SYSTEM PREFIX IS "RM" UNLESS OTHERWISE SPECIFIED.
4. FOR DETECTOR BACKGROUND RADIATION LEVEL REFER TO SPEC 172-15, TABLE 5.2-4 A & B.
5. DATA LOOP CONSISTS OF FIVE DUAL REDUNDANT TRANSMISSION LOOPS WITH ISOLATED OUTPUT FROM THE 1E RM UNITS (SEE F.P. 71800).
6. ALL FIELD TERMINATIONS FOR RM. UNIT ARE MADE IN ADJACENT JUNCTION BOX SUPPLIED BY VENDOR.

ISSUED-FOR-CONSTRUCTION

AIRBORNE RADIATION
MONITORING SYSTEM
INSTRUMENTATION ENGINEERING DIAGRAM

North Atlantic
Energy Service Corporation

Seabrook
Station

1-NHY-500016-2

4 1/10/79 - RPL RPL INCORP DCR 90-005, CA-0
REV. DATE (DRWN) CHKD CE LDE 9763-F-500016-2
SUPERCHG DES U&C DWG.

REV.	DATE	DESCRIPTION	PC	OWN	CHKD	BY	DATE	DISCIPLINE	CHKD	BY	DATE
1	11/1/79	THIS DWG. REVISED TO INCORP MINI ENDO CARGO DOCUMENT D&D-RM-1 (SIS) 172-15, TABLE 5.2-4 A & B.	EP	TJD	EP	TJD	11/1/79	EP	EP	TJD	11/1/79
2	2-11-84	RECA-05/110694C	EP	TJD	EP	TJD	2-11-84	EP	EP	TJD	2-11-84
3	11/1/79	RECA-05/110694C	EP	TJD	EP	TJD	11/1/79	EP	EP	TJD	11/1/79
4	11/1/79	RECA-05/110694C	EP	TJD	EP	TJD	11/1/79	EP	EP	TJD	11/1/79

DISCIPLINE	CHKD	BY	DATE	DISCIPLINE	CHKD	BY	DATE
STRUCT.	NA	NA	NA	INST. & CONTR.	NA	NA	NA
MECH.	NA	NA	NA	ELECT.	NA	NA	NA
NUCLEAR	PRD	EP	11/1/79	MECH. SVCS.	NA	NA	NA

1

4

3

2

A

B

C

D