

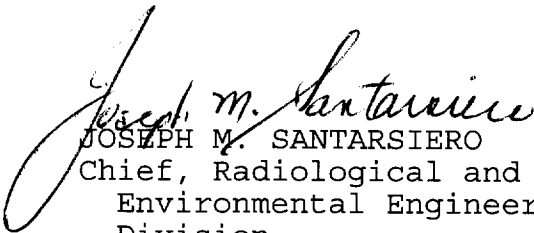
27 December 1995

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Annual Radioactive Source/Ionizing Radiation Producing Device Inventory

1. Reference AR 385-11, Ionizing Radiation Protection, 1 May 1980.
2. IAW the above reference, we are providing you with a copy of the subject inventory of radioactive sources used/stored on Fort Monmouth. Enclosure 1 lists the radioactive sources that have activity above the limits set forth in 10 CFR 30.71, Schedule B, that require reporting by the U.S. Nuclear Regulatory Commission. Enclosure 2 lists other low level radioactive sources used at Fort Monmouth. These sources have activities below the reporting limits set forth in 10 CFR 30.71, Schedule B.
3. A physical inventory of the listed items was completed on 6 December 1995.
4. Our POC is Mr. Al Perrella, Health Physics Technician, NSS-NUMANCO, Inc., AMSEL-SF-RER at x75370, Milnet (AMSEL-SF@MONMOUTH-EMH3.ARMY.MIL).
5. CECOM Bottom Line: THE SOLDIER.

2 Encls


JOSEPH M. SANTARSIERO
Chief, Radiological and
Environmental Engineering
Division

DISTRIBUTION:

Chief, Physical Security, SELFM-PMO-S (Welsh)
Chief, Fire Department, SELFM-PW-F (Payne)
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PAHC, ACC, ATTN: Ambulance Section

BLDG 9045

<u>ID</u>	<u>SOURCE TYPE</u>	<u>ISOTOPE</u>	<u>MILLICURIE</u>
K-08	MX-7338 (SN:N-0042)	Kr-85	5.00
K-09	MX-7338 (SN:K-10402)	Kr-85	5.00
K-10	MX-7338 (SN:K-3639)	Kr-85	5.00
K-11	MX-7338 (SN:K-2476)	Kr-85	5.00
K-12	MX-7338 (SN:K-777)	Kr-85	5.00
S-19	CALIBRATION STANDARD	Sr-90	1.50E-02

FIRE DEPARTMENT MAIN POST

K-03	MX-7338 (SN:K-4451)	Kr-85	1.70
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BLDG 9401

CO-03	AN/UDM-1 (SN:21)	Co-60	8.33E01
CO-04	GE SOURCE	Co-60	6.616E04
CO-10	POOL IRRADIATOR	Co-60	7.079E06
CS-01	AN/UDM-1A (SN:D3)	Cs-137	5.36E04
CS-02	AN/UDM-1A (SN:12)	Cs-137	5.71E04
CS-04	AMERSHAM	Cs-137	3.186E05
CS-05	LOW RANGE SRC SN:CS478	Cs-137	3.91
CS-07	JL SHEPHERD LOW RANGE	Cs-137	1.11E02
K-01	MX-7338 (SN:K-2410)	Kr-85	1.67
S-02	AN/UDM-2 (SN:106)	Sr-90	1.40E02
S-08	CHECK SOURCE	Sr-90	5.0E-03

BLDG 9383

CS-06	SMALL CALIB SOURCE	Cs-137	6.40E01
H-15	TRITIUM TARGET	H-3	7.37E03

BLDG 116

EX-09	H3 WATCH	H-3	1.50E01
EX-21	MX-7338 (SN: K-4902)	Kr-85	5.00
EX-22	MX-7338 (SN: K-12555)	Kr-85	5.00
EX-23	MX-7338 (SN: K-1205)	Kr-85	5.00
EX-24	MX-7338 (SN: K-1458)	Kr-85	5.00
EX-25	MX-7338 (SN: K-12025)	Kr-85	5.00

BLDG 9045

<u>ID</u>	<u>SOURCE TYPE</u>	<u>ISOTOPE</u>	<u>MILLICURIE</u>
A-03	VEX (SN:3841)	Am-241	9.90
A-05	VEX (SN:3842)	Am-241	9.90
A-06	CHECK SOURCE	Am-241	<2.5E-05
A-07	CHECK SOURCE	Am-241	<2.6E-05
A-08	M43A1 CHEM AGENT MON	Am-241	2.5E-01
A-09	CALIBRATION STANDARD	Am-241	1.3E-05
A-10	EPA QC SAMPLE	Am-241	9.14E-08
A-12	CALIBRATION STANDARD	Am-241	5.9E-03
A-13	M43A1 CHEM AGENT MON	Am-241	2.5E-01
A-14	CALIBRATION STANDARD	Am-241	1.47E-05
A-19	CALIBRATION SOURCE	Am-241	1.93E-05
A-20	CALIBRATION SOURCE	Am-241	1.88E-05
A-21	CALIBRATION SOURCE	Am-241	1.80E-05
A-22	CALIBRATION SOURCE	Am-241	1.91E-05
A-23	CALIBRATION SOURCE	Am-241	1.90E-05
C-02	SOURCE, NEN #048	C-14	5.0E-05
C-03	PACKARD STANDARD	C-14	<1.0E-04
C-05	PACKARD STANDARD	C-14	<1.0E-04
C-06	ULTIMA GOLD STANDARD	C-14	6.04E-04
C-07	ULTIMA GOLD STANDARD	C-14	6.04E-04
C-08	UNQUENCHED STANDARD	C-14	1.95E-04
C-09	UNQUENCHED STANDARD	C-14	1.86E-05
C-10	UNQUENCHED STANDARD	C-14	1.01E-04
C-11	UNQUENCHED STANDARD	C-14	5.60E-05
C-12	UNQUENCHED STANDARD	C-14	1.90E-05
C-13	UNQUENCHED STANDARD	C-14	5.65E-05
CS-08	CALIBRATION STANDARD	Cs-137	1.4E-05
CS-09	PICKER SOURCE	Cs-137	1.0E-03
CS-10	PICKER SOURCE	Cs-137	1.0E-03
CS-11	CALIBRATION SOURCE	Cs-137	1.25E-05
CS-12	CALIBRATION SOURCE	Cs-137	1.44E-05
EPA-19	EPA QC SAMPLE	ALPHA/BETA	<6.0E-07
EPA-20	EPA QC SAMPLE	H-3	<1.5E-05
EPA-21	EPA QC SAMPLE	H-3	<1.5E-05
EPA-22	EPA QC SAMPLE	ALPHA/BETA	<6.0E-07
EPA-23	EPA QC SAMPLE	H-3	<1.5E-05
EPA-24	EPA QC SAMPLE	H-3	<1.5E-05
EPA-25	EPA QC SAMPLE	H-3	<1.5E-05
EPA-26	EPA QC SAMPLE	ALPHA/BETA	<6.0E-07
EPA-27	EPA QC SAMPLE	H-3	<1.5E-05
EPA-28	EPA QC SAMPLE	H-3	<1.5E-05
EPA-29	EPA QC SAMPLE	ALPHA/BETA	<2.25E-06
H-02	6 QUENCHED STANDARDS	H-3	<1.0E-03
H-03	PACKARD STANDARD	H-3	<2.0E-04
H-07	PACKARD STANDARD	H-3	<2.0E-04
H-08	10 QUENCHED STANDARDS	H-3	1.16E-03
H-09	ULTIMA GOLD STANDARD	H-3	9.67E-04
H-10	ULTIMA GOLD STANDARD	H-3	9.67E-04
H-11	UNQUENCHED STANDARDS	MIXED	5.96E-05
H-12	UNQUENCHED STANDARDS	MIXED	1.72E-04
H-14	H3 GAS, OVERHOFF SOURCE	H-3	<1E-06
H-16	ULTIMA GOLD STANDARD	H-3	1.14E-03
H-17	UNQUENCHED STANDARD	H-3	3.84E-05
H-18	UNQUENCHED STANDARD	H-3	3.84E-05
H-19	UNQUENCHED STANDARD	H-3	1.30E-04
H-20	UNQUENCHED STANDARD	H-3	1.30E-04

BLDG 9045 continued

<u>ID</u>	<u>SOURCE TYPE</u>	<u>ISOTOPE</u>	<u>MILLICURIE</u>
H-22	UNQUENCHED STANDARD	H-3	3.83E-05
H-23	UNQUENCHED STANDARD	H-3	1.20E-04
MG-01	AMERSHAM-MARINELLI	MIXED	1.2E-03
MG-02	AMERSHAM-UK	MIXED	1.0E-03
MG-03	MIXED GAMMA SOURCE	Eu-154	5.0E-03
MG-04	MIXED GAMMA SOURCE	MIXED	1.50E-03
MG-05	MIXED GAMMA SOURCE	MIXED	1.54E-03
MG-06	MIXED GAMMA SOURCE	MIXED	1.53E-03
MG-07	MIXED GAMMA SOURCE	MIXED	1.53E-03
MG-08	MIXED GAMMA SOURCE (W)	MIXED	1.0E-03
MG-09	MIXED GAMMA SOURCE (S)	MIXED	1.0E-03
MG-10	MIXED GAMMA SOURCE	MIXED	9.75E-02
MG-11	MIXED GAMMA SOURCE	MIXED	1.00E-03
MG-12	MIXED GAMMA SOURCE	MIXED	9.98E-02
N-01	PLASTIC SOURCE	Ni-63	<2.0
N-02	CHEM AGENT MONITOR	Ni-63	1.0E01
PM-02	SOURCE NEN #064	Pm-147	5.1E-05
PM-03	DETECTOR, LAW	Pm-147	1.23E-03
PO-01	CALIBRATION STANDARD	Po-210	1.158E-05
PO-02	CALIBRATION STANDARD	Po-210	1.387E-05
PO-03	CALIBRATION SOURCE	Po-210	1.369E-05
PO-04	CAL SOURCE	Po-210	1.22E-05
PO-05	CAL SOURCE	Po-210	1.46E-05
PO-06	CAL SOURCE	Po-210	2.79E-05
PO-07	CAL SOURCE	Po-210	2.79E-05
PO-08	CALIBRATION STANDARD	Po-210	1.31E-05
PO-10	CALIBRATION STANDARD	Po-210	1.32E-05
PU-05	EBERLINE 94-1 SN:AOO26	Pu-239	1.4E-03
PU-06	AN/UDM-6 (SN:A1003)	Pu-239	1.4E-03
PU-09	AN/UDM-6 (SN:A1160)	Pu-239	1.4E-03
PU-10	CALIBRATION STANDARD	Pu-238	9.74E-05
PU-11	CHECK SOURCE CS-1-1	Pu-239	1.00E-07
PU-12	CHECK SOURCE CS-1-1	Pu-239	1.00E-07
R-07	METER MOVEMENTS	Ra-226	<3.0E-03
R-08	RADON STANDARD	Ra-226	8.1E-05
S-05	MODEL 3FIG	Sr-90	3.582E01
S-12	CHECK SOURCE	Sr-90	<2.0E-05
S-13	CHECK SOURCE	Sr-90	<2.0E-05
S-14	SOURCE, NEN #046	Sr-90	5.0E-05
S-16	EPA QC SAMPLE	Sr-90	1.3E-07
S-20	CALIBRATED STANDARD	Sr-90	1.8E-05
S-22	CALIBRATION STANDARD	Sr-90	1.39E-05
SET-03	GAMMA CHECK SET	MIXED	<1.0E-02
SET-04	BETA CHECK SET	MIXED	<1.0E-02
SET-06	BETA CHECK SET	MIXED	<1.0E-02
SET-07	GAMMA CHECK SET	MIXED	<8.0E-03
SET-09	BETA REFERENCE SET	MIXED	<1.0E-02
SET-10	GAMMA REFERENCE SET	MIXED	<8.0E-03
TC-01	BETA CAL SOURCES	Tc-99	1.53E-05
TH-02	CHECK SRCE IN PLASTIC	Th-232	2.94E-03
TH-03	CHECK SRCE IN PLASTIC	Th-232	2.94E-03
TH-06	CALIBRATED DISK	Th-232	1.00E-03
TH-07	EBERLINE CALIB. DISC	Th-230	<1.0E-03
TH-08	OPTICS	Th-232	UNK
TH-09	CHECK SOURCE (CS-1)	Th-230	<2.0E-05

BLDG 9045 continued

<u>ID</u>	<u>SOURCE TYPE</u>	<u>ISOTOPE</u>	<u>MILLICURIE</u>
TH-10	CHECK SOURCE (2039)	Th-232	1.00E-07
TH-11	CHECK SOURCE (cs-12-1)	Th-232	1.00e-07
U-02	CALIBRATED STANDARD	U-238	1.23E-06
U-03	CALIBRATED STANDARD	U-238	1.23E-06
U-04	CALIBRATION SLAB	U-238	<1.0

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A-04	VEX (SN:3843)	Am-241	9.90
A-16	CALIBRATION SOURCE	Am-241	3.25E-5
A-17	CALIBRATION SOURCE	Am-241	1.27E-5
A-18	CALIBRATION SOURCE	Am-241	1.30E-5
R-01	RA-BE NEUTRON SOURCE	Ra-226	1.97E01
S-06	CHECK SOURCE	Sr-90	3.0E-04
S-07	CHECK SOURCE	Sr-90	3.0E-04
S-09	CHECK SOURCE	Sr-90	3.0E-04
SET-01	CHECK SET	MIXED	<1.0E-02
SET-08	GAMMA CHECK SET #15G	MIXED	1.0E-03
TH-04	METAL SLUGS-2 EACH	Th-232	2.18E-02
X-15	INDUSTRIAL X-RAY UNIT	N/A	N/A

BLDG 9383

A-15	CALIBRATION SOURCE	Am-241	1.79E-05
H-21	TRITIUM WASTE	H-3	3.84E-02
S-15	CALIBRATION STANDARD	Sr-90	1.3E-05
S-21	CALIBRATION STANDARD	Sr-90	1.35E-05
TH-12	LENSES	Th-232	5.0E-03
U-01	M829, PENETRATOR	DU	1.97E1

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EX-01	IM-174/PD S/N 8528	Ra-226	0.001
EX-02	IM-174/PD S/N 5312	Ra-226	0.001
EX-05	ANNUC ANTI-INTRSN 7196	Pm-147	UNK
EX-06	ANNUC ANTI-INTRSN 7187	Pm-147	UNK
EX-07	ANNUC ANTI-INTRSN 7016	Pm-147	UNK
EX-08	REC/TRANS RT 66-GRC	Ra-226	5.00E-05
EX-10	IM-174/PD S/N 8528A	Ra-226	0.001
EX-11	M43A1 S/N Z03-D-23671	Am-241	.25
EX-12	M43A1 S/N Z03-D-19594	Am-241	.25
EX-13	M43A1 S/N Z03-D-27765	Am-241	.25
EX-14	M43A1 S/N Z03-D-00523	Am-241	.25
EX-15	M43A1 S/N Z03-D-01682	Am-241	.25
EX-16	M43A1 S/N Z03-D-01303	Am-241	.25
EX-17	M43A1 S/N Z03-D-24825	Am-241	.25
EX-18	M43A1 S/N Z03-D-01586	Am-241	.25
EX-19	M43A1 S/N Z03-D-24817	Am-241	.25

BLDG 116 continued

<u>ID</u>	<u>SOURCE TYPE</u>	<u>ISOTOPE</u>	<u>MILLICURIE</u>
EX-20	M43A1 S/N Z03-D-24914	Am-241	.25
EX-26	IM-70 (P)/PD	Ra-226	1.00e-03
EX-27	AN/PVS-1	Th-232	7.81E-03
EX-28	AN/PVS-2B	Th-232	7.81E-03
EX-29	AN/PVS-3	Th-232	3.41E-03
EX-30	AN/PVS-2A	Th-232	7.81E-03
EX-31	AN/GRC-106	Ra-226	4.19E-03
EX-32	AN/GRC-106	Ra-226	4.19E-03
EX-33	AN/TVS-2	Th-232	7.81E-03
EX-34	AN/TVS-2	Th-232	7.81E-03

BLDG 2700

C-04	CHECK SOURCE-PHOTOMETER	C-14	2.0E-01
CO-02	MOSSBAUER SOURCE	Co-57	1.9E-01

The following represents a listing of x-ray producing devices. These devices only produce ionizing radiation when energized.

BLDG 2700

X-02	SPECTROMETER DBL CRYST.	N/A	N/A
X-05	SEM AMRAY 1610	N/A	N/A
X-06	FLUOROSCOPE	N/A	N/A
X-08	ION ACCELERATOR	N/A	N/A
X-09	STEM, PHILLIPS	N/A	N/A
X-10	ION IMPLANTER	N/A	N/A
X-11	X-RAY IRRADIATOR	N/A	N/A
X-12	SEM ISI WB-6	N/A	N/A
X-13	SEM AMRAY 1700	N/A	N/A
X-14	DIFFRACTOMETER	N/A	N/A
X-16	ELECTRN BM LITHOGRAPHY	N/A	N/A
X-17	TEM, JEOL	N/A	N/A

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X-18	X-RAY, RAD MOBILE	N/A	N/A
X-19	X-RAY, RAD MOBILE	N/A	N/A
X-20	X-RAY, RF	N/A	N/A
X-21	X-RAY, RADIO	N/A	N/A
X-22	X-RAY, RF	N/A	N/A
X-23	X-RAY, MAMMOGRAPHY	N/A	N/A

BLDG 814

X-24	X-RAY, DENTAL-ORAL	N/A	N/A
X-25	X-RAY, DENTAL-PANO	N/A	N/A
X-26	X-RAY, DENTAL-ORAL	N/A	N/A

