Appendix 12-A
File Index (Part 2)

9094. Air Dust Sample Results, 1950, *Lake Ontario Ordnance Works Air Dust Sample Results*; samples taken August 30, 1950 through November 9, 1950

9100. Urine Sample Results, September 1950-August 1951, *Lake Ontario Ordnance Works Urine Sample Results*; samples received September 7, 1950 through August 30, 1951

9107. Film Badge Results, 1952, *Lake Ontario Ordnance Works Film Badge Results*; results reported for all months in 1952

9108. Film Badge Results, 1953a, *Lake Ontario Ordnance Works Film Badge Results*; results reported for all months in 1953

9111. Film Badge Results, June 1949-January 1951, *Lake Ontario Ordnance Works Film Badge Results*; results reported June 20, 1949 through January 5, 1951

9295. AEC, 1973, *Radiation Survey and Decontamination Report on the Lake Ontario Ordnance Works Site*; Atomic Energy Commission (AEC) Oak Ridge Operations; January 18, 1973, pp. 45-78.

9295. Heatherton, 1950b, Lake *Ontario Ordnance Works Radiation, Radon, and Dust Survey of Operations Essential to the Storage of K-65 in the Tower*; Richard C. Heatherton; November 27, 1950, pp. 1-15

9756. Film Badge Results, January-June 1953, *Lake Ontario Storage Area*/*Lake Ontario Ordnance Works Film Badge Results*; results reported from January 5, 1953 through June 22, 1953

10751. Hershman, 1952; *Monthly Progress Report for October 1952*; H. J. Hershman; October 21, 1952

12418. Film Badge Results, January 1951-December 1954, *Lake Ontario Storage Area*/*Lake Ontario Ordnance Works Film Badge Results*, results reported January 1, 1951 through December 30, 1954

16404. Film Badge Results, August 1967, *Lake Ontario Ordnance Works Film Badge Results*, results reported for August 1, 1967

17335. Film Badge Results, July 1955-January 1956, *Lake Ontario Storage Area*/*Lake Ontario Ordnance Works Film Badge Results*; results reported from July 18, 1955 through January 30, 1956

17337. LOOW, 1949-1960, *Miscellaneous Dose Reports for K-65 Operations*; results from March 23, 1949 through February 16, 1960; Lake Ontario Ordnance Works (LOOW)

9094

Air Dust Sample Results, 1950, *Lake Ontario Ordnance Works Air Dust Sample Results*; samples taken August 30, 1950 through November 9, 1950

FORM N.Y.-99

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N. Y.

SAMPLE REQ. No. 2878
DATE SENT
DATE RECEIVED
DATE REPORTED 12/7/50

PLANT: LOOW

MAILING ADDRESS: P.O. Box 8 Kenmore 17 N.Y.

ROUTE RESULTS TO: HEATHERTON

* Universal pump-rotameter at top.

TYPE OF SAMPLE: Air Dust

METHOD OF DETERMINATION: Air U-FLUORIMETRIC

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY µ/SAMPLE	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
S-641	10-6	11:15a	GA Boiler house. Center of open area between boiler & control panel	LPM 25	45 ~~40~~ min	Ra. Total α	4.2		Total	163	520	pc/m/m3
									Ra		174	
* S-642		10:25	GA front of barrier on unloading platform. Putting covers on drums & painting over old numbers	30 LPM	40m	Ra Total α	3.1			142	420	
									Ra		200	
S-643		12:00	GA Same as S-641 Lunch hour men eating in room.	25	75m	Total Ra.	0.8			270	515	
									Ra		305	
* S-644		12:05	GA Same as S 642 No operation	30 LPM	75m	Total Ra	9.3			1268	2010	
									Ra		1400	
S-645 ~~S-644~~		1:15	GA Same as S-641	25	40m	Total Ra	1.5			132	470	
									Ra		315	

COLLECTED BY: HEATHERTON

ANALYZED BY: D. Thornton

U. J. Alexander - S.F.O.T.

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1.3
.7

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NEW YORK 23, N. Y.

SAMPLE REQ. No. 2880
DATE SENT
DATE RECEIVED
DATE REPORTED 12/11/50

PLANT: Loow

MAILING ADDRESS: P.O. Box 2 Kenmore 17, N.Y.

ROUTE RESULTS TO: Heatherton

TYPE OF SAMPLE: Air Dust

METHOD OF DETERMINATION: Lucite

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY u/SAMPLE	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS	UNITS
S-663	11-8	11:55	G.A. At bottom of shift Welders working in this location	25 LPM	80 MIN.	Tot α	0.3		Total	183	325	d/m/m³
						Ra			Ra		117	
S-664	11-9	2:20	Removing lids from 5 drums	30 LPM	4.0	Tot α	2.5			1	30	
						Ra			Ra →		350	
S-665	"	2:25	Same as S 664	30 LPM	4.0	Tot α Ra	2.8		475 d/m	24	715	
S-666	"	2:30	" " "	"	4.0	Tot α Ra	2.4		315	14	415	
S-667	"	3:00	" " "	"	3.5	Tot α Ra	1.1		380	15	510	
S-668	"	3:05	" " "	"	3.5	Tot α Ra	0.6		190	7	250	
S-669	"	3:09	G.A. Center of Platform Unloading Car & removing drum covers	25 LPM	26.0 MIN.	Tot α Ra	0.9		Total →	38	210	
									Ra →		180	
S-670	"	3:30	Control	—	—	Tot α Ra	0.2	Total 4 d/m Ra 5 d/m		1	0	

COLLECTED BY: Heatherton

ANALYZED BY: [illegible] Thornton
[illegible] O'Donnell + S. Fati

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SAMPLE REQ. No. 2879
DATE SENT
DATE RECEIVED
DATE REPORTED 12/7/50

PLANT: LOOW

MAILING ADDRESS: P.O. Box 8, Kenmore 17, N.Y.

ROUTE RESULTS TO: Heatherton

TYPE OF SAMPLE: Air Dust

METHOD OF DETERMINATION: Scint U-FLUORIMETRIC

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY of SAMPLE	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
* S646		1:20 P	GA Same location as S642. Door open to drive leading truck in them. Tests was now leaving shop	30 LPM	45 min	Total α	5.0		Total	800	2115	γ/m/m³
						Ra			Ra		1210	
S647		2:33	GA Center of comp ressor house	25 LPM	60 min	Total α	9.0			24	55	
						Ra			Ra		37	
* S648		2:12	GA Loading Hatch SW Corner	30 LPM	20 min	Total α	1.1			35	210	
						Ra			Ra		177	
* S649		2:32	GA Same as S648	30 LPM	60	Total α	5.6			572	1135	
						Ra			Ra		910	
S650		3:45	Same as S647	25 LPM	45 min	Total α	LOST			11	35	
						Ra.			Ra		LOST	
* S651		3:46	GA In Warehouse at head of H. Concrete	30 LPM	45 min	Total α	1.1			45	170	
						Ra			Ra		64	
S652			Control	—	—	Total α Ra.	0.4	Ra 5 d/m		0	0	

COLLECTED BY: Heatherton

ANALYZED BY: U-g. alpha + SFOTI D. H. Thornton

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SAMPLE REQ. No. 2881
DATE SENT
DATE RECEIVED
DATE REPORTED 11/8/50

PLANT: LOOW

MAILING ADDRESS: P.O. Box 8 Kenmore 17, N.Y.

ROUTE RESULTS TO: Heatherton

TYPE OF SAMPLE: Air Dust

METHOD OF DETERMINATION: Sint U-Fluorometer

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY γ/SAMPLE	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
S-671	11-9	3:35p	BZ. Dumping residual K-65 from drums into pans on loading dock (3 drums)	30 LPM	1.3 min.	Total α	1.0		Total	64	5800	
						Ra			Ra		3300	
S-672	"		BZ. Shoveling K-65 from pan into drum.	30 LPM	0.7 min.	Total α	0.6			8	1350	
						Ra					1100	

COLLECTED BY: Heatherton

ANALYZED BY: Ed. A. Thornton

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DATE REPORTED

PLANT: LOOW.

MAILING ADDRESS

ROUTE RESULTS TO

Copy of Results from Originals

TYPE OF SAMPLE: Air Dust

METHOD OF DETERMINATION

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY (Uranium µ/Samp)	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE (total alpha)	RESULTS UNITS
				LPM	min							
S-651			GA/ In thawhouse at head of #1 conveyor	30	45		1.1				120	d/m/m3
S-663			GA/ At bottom of deep for shaft	25	80		0.3				325	"
S-669			GA/ Center of unloading platform	25	26		0.9				210	"
S-664			BZ/ Removing lids from fire drums	30	4.0		2.5				30	"
S-665			BZ Same as S-664	"	"		2.8				715	"
S-666			BZ " " "	"	"		2.4 ~~2.8~~				415	
S-667			BZ " " "	"	3.5		1.1 ~~2.4~~				510	"
S-668			BZ " " "	"	3.5		0.6 ~~1.4~~				25	"
~~S-670~~			~~BZ/ Dumping residual K-65 from drums into pan~~									
S-671			BZ/ Dumping residual K-65 from drums into pan	30	1.3		1.0				5860	
S-672			BZ/ Shoveling K-65 from pan to drum	30	0.7		0.6				135	

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NEW YORK 23, N. Y.

SAMPLE REQ. No. 2817
DATE SENT
DATE RECEIVED
DATE REPORTED

PLANT LOOW

MAILING ADDRESS

ROUTE RESULTS TO

Substitute

TYPE OF SAMPLE

METHOD OF DETERMINATION

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	Uranium QUANTITY r/sample	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
				LPM	min.						total alpha	
S-641			GA/ Center of boiler house in tender area	25	45		4.2				520	d/m/m³
S-643			Same as S-641	25	75		0.8				515	"
S-645			" " "	25	40		1.5				470	"
S-642			GA/ On unloading platform in front of barrier	30	40		3.1				420	"
S-644			Same as S-642	30	75		9.3				2010	"
S-646			" " "	30	45		5.0				2115	"
S-647			GA/ Center of Compressor house	25	60		1.0				55	"
S-650			Same as S-647	25	45		Lost				35	"
S-648			GA/ SW Corner of unloading platform	30	20		1.1				210	"
S-649			Same as S-648	30	60		5.6				1135	"

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SAMPLE REQ. No. 2842
DATE SENT
DATE RECEIVED 9-1-50
DATE REPORTED 9-22-50

PLANT: LODW

MAILING ADDRESS: P.O. Box 8 Kenmore 17 N.Y.

ROUTE RESULTS TO: Heatherton Epp

TYPE OF SAMPLE: Air Dust

METHOD OF DETERMINATION: [illegible]

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
S553	8-30	3:35 p	G.A. Tower area 50' East of tower	.020	60.0					0	0	[illegible]
S554	8-31	9:45 a	G.A. Warehouse plat-form at tower. S side by railroad siding	.020	150.0					0	0	
S555	"	9:45 a	G.A. Warehouse plat-form. West end.	.020	150					1		
S-556	"	12:15 p	G.A. Warehouse platform Inside shield-ed partition	.020	90.0					1	1	
S-557	"	12:30 p	G.A. Tower area Center of boiler house	.020	90.0					0	0	
S-558	"	3:00 p	Control	—	—					0	0	

COLLECTED BY: RL

ANALYZED BY: [illegible]

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NEW YORK 23, N. Y.

SAMPLE REQ. No. 2840
DATE SENT
DATE RECEIVED 9-1-50
DATE REPORTED 9-22-50

PLANT: LOQW

MAILING ADDRESS: P.O. Box 8, Kenmore 17, N.Y.

ROUTE RESULTS TO: Heatherton, Epp.

TYPE OF SAMPLE: Air Dust

METHOD OF DETERMINATION: Dust

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
				cmm	min.							
S-546	8-30	9:27a	G.A. Center of Visitor's	.020	65	[redacted]				1	2	8/m3
			office, used as health &									
			safety office formerly									
S-547		9:35a	G.A. Center of laundry	.020	60					1	2	
			room SE corner of Bldg.									
S-548		9:35a	G.A. Center of locker	.020	90					1	1	1/m3
			room, Eastside of office bldg									
S-549		9:42a	G.A. Lunch Room	.020	80					1	1	
			in office bldg. SW corner									
S-550		12:00N	Control	—	—					0	0	
S-551		12:10p	G.A. 10' from NE corner	.020	80					0	0	
			of office outside									
S-552		1:32	G.A. outside 20' East	.020	60					0	0	
			of office building									

COLLECTED BY: DH

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9100

Urine Sample Results, September 1950-August 1951,
***Lake Ontario Ordnance Works Urine Sample Results*; samples received**
September 7, 1950 through August 30, 1951

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

MEDICAL DIVISION

70 COLUMBUS AVENUE
NEW YORK 23, N.Y.

SAMPLE REQ. No. 6716
DATE SENT 8-23-51
DATE RECEIVED
DATE REPORTED 10-11-51

PLANT LOOW

MAILING ADDRESS

ROUTE RESULTS TO

TYPE OF SAMPLE Urine

METHOD OF DETERMINATION Radiochemical

pg/cc

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
	—		E. H. M			Ra						.001
	8/13		Crown, A			"						.001
			Ringnalsk			"						.001

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NEW YORK 23, N.Y.

SAMPLE REQ. No. 6353
DATE SENT
DATE RECEIVED 7-11-51
DATE REPORTED 10-5-51

PLANT LOOW

MAILING ADDRESS P08 Kenmore, N.Y.

ROUTE RESULTS TO

TYPE OF SAMPLE URINE

METHOD OF DETERMINATION Radiochemical

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
												ug/ml
			Betts, H			Ra						.002
			Edelkomt, E.									.001
			Nando, E.									.005
			Schoonmaker, J.									.002

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SAMPLE REQ. No. 6717
DATE SENT
DATE RECEIVED 8-24-51
DATE REPORTED 10-11-51

PLANT Loew
MAILING ADDRESS
ROUTE RESULTS TO

TYPE OF SAMPLE Urine
METHOD OF DETERMINATION Radiochemical
pc/cc

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
			Arnold, C			Ra						.000
			Nude, E			"						.001
			Schwarz, J			"						.001

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SAMPLE REQ. No. 6700
DATE SENT 8-20-51
DATE RECEIVED
DATE REPORTED 10-24-51

PLANT LOOW

MAILING ADDRESS

ROUTE RESULTS TO

TYPE OF SAMPLE Urine

METHOD OF DETERMINATION Radiochemical γγ/mL

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
			Betts, H			Ra						.002
			Crum, A			"						.000
			Pingnelski, J			"						.001

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SAMPLE REQ. No. 6357
DATE SENT 7-30-51
DATE RECEIVED 8-6-51
DATE REPORTED 9-21-51

PLANT Dow
MAILING ADDRESS
ROUTE RESULTS TO

TYPE OF SAMPLE Urine
METHOD OF DETERMINATION [illegible]

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
			Amsdell, C.			Ra						.034
			Beths, H.			"						.007
			Whittaker, M.			"						.006

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SAMPLE REQ. No. 6699
DATE SENT 8-6-51
DATE RECEIVED 8-7-51
DATE REPORTED 8-21-51

PLANT Loow

MAILING ADDRESS Po. 8 Kenmore, NY

ROUTE RESULTS TO

TYPE OF SAMPLE URINE

METHOD OF DETERMINATION Radiochemical

dd/ac

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
			Bowman, C.			Ra						.006
			Fontanarosa			"						.003
			Nuda			"						.005
			Mead			"						.001

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SAMPLE REQ. No. 6352
DATE SENT
DATE RECEIVED 7-5-51
DATE REPORTED 8-30-51

PLANT LOOW

MAILING ADDRESS
PO 6 KENMORE NY

ROUTE RESULTS TO

TYPE OF SAMPLE URINE

METHOD OF DETERMINATION
Radiochemical
XU/mL

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
			Davis, F			RA						.001
			Malone, F			"						.002
			Ringnelski, J			"						.003
			Westervelt			"						.001

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ANALYZED BY
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NEW YORK 23, N.Y.

SAMPLE REQ. No. 6362
DATE SENT 6/14/51
DATE RECEIVED 7/31/51
DATE REPORTED 8/21/51

PLANT A.P.C. S.O.W.
MAILING ADDRESS P.O. Box 4 Kenmore 7, N.Y.
ROUTE RESULTS TO R. Heckelton

TYPE OF SAMPLE Urine Sample
METHOD OF DETERMINATION Radiochemical

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
1	6/14		Schoonmaker			Ra ~~Urine~~						.003
	6/14		Bowman			"						.001
	6/14		Ringelahi			"						.007
	6/14		Wistenwolf ~~Urine~~.			—						—

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NEW YORK 23, N.Y.

SAMPLE REQ. No. 6349
DATE SENT 6/25/51
DATE RECEIVED 7-2-51
DATE REPORTED 8/31/51

PLANT AEC - Lcow
MAILING ADDRESS PO Box 8 Kenmore 17, NY
ROUTE RESULTS TO

TYPE OF SAMPLE Urine
METHOD OF DETERMINATION Radiochemical
µc/ml

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
1	6/25		Amsd. II, C.			Ra						.002
2			Betts, H.			"						.001
3			Collins, W.			"						.002
4	"		Fontanarosa, G.			"						.071
5	"		Nudo, E.			"						.002
6			Empty									

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70 COLUMBUS AVENUE
NEW YORK 23, N. Y.

SAMPLE REQ. No. 2900
DATE SENT 5/22/51
DATE RECEIVED
DATE REPORTED 8-30-51

PLANT: A.E.C. L.O.O.W.
MAILING ADDRESS: P.O. Box 8, Kenmore 7 N.Y.
ROUTE RESULTS TO: R. Heatherton

TYPE OF SAMPLE: Urine
METHOD OF DETERMINATION: Radiochemical
DD/ml

SAMPLE NO.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
1			Fred Davis			Urine						.002

COLLECTED BY: [illegible]

ANALYZED BY: S. Fitt + E. Hardy

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FORM N.Y.-99

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N. Y.

SAMPLE REQ. No. 2898
DATE SENT 5/21/51
DATE RECEIVED
DATE REPORTED 8-29-51

PLANT: AEC L.O.W.
MAILING ADDRESS: P.O. Box 8, Vermont 7, N.J.
ROUTE RESULTS TO: R. Heathcote

TYPE OF SAMPLE: Urine
METHOD OF DETERMINATION: Radiochemical
X8/me

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
	[illegible]		[illegible] Sample			Ra						[illegible]
			Vine [illegible]			Ra						.002
	[illegible]		[illegible] Ringer [illegible]			Ra						.003
	[illegible]		[illegible] Hutchinson			Ra						.003

COLLECTED BY: R. N. [illegible]

ANALYZED BY: S. Fate & E. Hardy

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UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N.Y.

SAMPLE REQ. No. 6351
DATE SENT 5/28/51
DATE RECEIVED 5/28/51
DATE REPORTED 8-30-51

PLANT Loew

MAILING ADDRESS P.O. Box 8, Kenmore, N.Y.

ROUTE RESULTS TO Northrton

TYPE OF SAMPLE Urine

METHOD OF DETERMINATION Radiochemical

γγ/mL

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
	5/28		C. Bowman			Ra						.003
	5/28		E. Nude			"						.006
	5/28		S. Schumacher			"						—
	5/28		Whittaker			"						—

COLLECTED BY

ANALYZED BY S. Fd. + El Holy

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NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N.Y.

SAMPLE REQ. No. 6348
DATE SENT 6/4/51
DATE RECEIVED 6/1/51
DATE REPORTED 8-30-51

PLANT: Loow

MAILING ADDRESS: Po Box 8, Kenne, Mo

ROUTE RESULTS TO:

TYPE OF SAMPLE: Urine

METHOD OF DETERMINATION: Radiochemical Compass

DD/mL

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
	6/4	51	Ringnecski			Ra						.008
	"		Beths			"						.002
	"		Crown			"						.002
	"		Mead			"						.001

COLLECTED BY: Sutherland

ANALYZED BY: S Fitz & E Hinz

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UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

MEDICAL DIVISION

70 COLUMBUS AVENUE
NEW YORK 23, N.Y.

SAMPLE REQ. No. 6359
DATE SENT 6/11/51
DATE RECEIVED 6/11/51
DATE REPORTED 8-30-51

PLANT: U.S. Atomic Energy Com. Lab. U.W.

MAILING ADDRESS: P.O. Box 8 Kennewick, Wash.

ROUTE RESULTS TO: R. Heathcoat

TYPE OF SAMPLE: Urine

METHOD OF DETERMINATION: Radiochemical

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
1			Fontanrose			Urine						.002
1			Sutherland			"						.001
1			Malone			"						.001
			Nuclear Animal Leaver									—

COLLECTED BY: R. Sutherland

ANALYZED BY: J. F. H. E. Hardy

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UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N. Y.

SAMPLE REQ. No. 2892
DATE SENT 4/30/51
DATE RECEIVED 5/7/51
DATE REPORTED 8-29-51

PLANT ACC-Knolls
MAILING ADDRESS P.O. Box 5 Kesselring N.Y.
ROUTE RESULTS TO R. Hutchinson

TYPE OF SAMPLE Urine
METHOD OF DETERMINATION Radioch... a-spec
88/ml

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
	4/30/51		K. Kile			Ra						.003
	"		C. Bowman			Ra						.002
	"		E. Moda			Ra						.014
	"		H. Fontanazza			Ra						.003

COLLECTED BY

ANALYZED BY S. Fote + E Hardy

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NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N. Y.

SAMPLE REQ. No. 2894
DATE SENT 5/17/51
DATE RECEIVED 8-29-51
DATE REPORTED

PLANT ACC-Lodi
MAILING ADDRESS P.O. Box 5 Kimmore 17, NJ
ROUTE RESULTS TO R. Hutchinson

TYPE OF SAMPLE Urine
METHOD OF DETERMINATION Radiochemical Analysis pc/ml

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
			J. Ringnalda			Ra						.005
			C. Niedermeyer			Ra						.004

COLLECTED BY [illegible]

ANALYZED BY S. Foth + E. Hardy

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NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N. Y.

SAMPLE REQ. No. 2847
DATE SENT
DATE RECEIVED 1-4-51
DATE REPORTED 1-26-51

PLANT: H.A. AEC - 400W
MAILING ADDRESS: P.O. Box 8 Kanawizy
ROUTE RESULTS TO: F. J. Offe

TYPE OF SAMPLE: urine
METHOD OF DETERMINATION: U - FLUORIMETRIC
Ra - Radioactivity Assay

SAMPLE NO.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY U mg/L	TOTAL COUNT	COUNT TIME	COUNTS PER MIN Ra mg/liter	RESULTS VALUE	RESULTS UNITS
1	1/2/51		F. J. Offe			U & Ra	0.011			1.6		
2	"		F. Malone			" "	0.000			2.1		
3	"		E. Westendt			" "	0.004			1.6		
4	"		A. Kile			" "	0.000			2.0		
5	"		Wm Collins			" "	0.004			2.9		
6	"		M. Whittaker			" "	0.002			0.3		
7	"		F. Davis			" "	0.000			2.4		
8	"		C. Fiaks			" "	0.008			6.4		
9	"		J. Weiser			" "	0.006			0.5		
10	"		R. Sutherland			" "	0.000			7.9		
11	"		C. Brown			" "	0.000			2.0		
12	"		J. Shoemaker			" "	0.000			2.0		
13	"		H. Betts			" "	0.000			5.0		
14	"		A. Crown			" "	0.008			3.3		

COLLECTED BY: [illegible]

ANALYZED BY: U - J. Alexis Ra - S. Fot. [illegible]

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NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N.Y.

SAMPLE REQ. No. 6347
DATE SENT 5/14/51
DATE RECEIVED 5/17/51
DATE REPORTED 8-29-51

PLANT AEC Loow
MAILING ADDRESS Box 2
ROUTE RESULTS TO

TYPE OF SAMPLE Urine
METHOD OF DETERMINATION Radiochemical
γ8/ml

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
1	5/14		Deits H			Ra						.003
2			Collins A			Ra						.002
3			Crowe H			Ra						.002
4			Nolan C			Ra						.012

COLLECTED BY

ANALYZED BY Fole & E. Hardy

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FORM N.Y.-99

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N.Y.

SAMPLE REQ. No. 6356
DATE SENT
DATE RECEIVED
DATE REPORTED 9-12-51

PLANT L O D W

MAILING ADDRESS P.O. Kenmore, N.Y.

ROUTE RESULTS TO

TYPE OF SAMPLE URINE

METHOD OF DETERMINATION Radiochemical

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
1			Crow, C.			Ra						.004
2			Fontana, L.			Ra						.001
3			[illegible], E.			Ra						.003

COLLECTED BY

ANALYZED BY S. Foti and E. Hardy

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FORM N.Y.-99

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N.Y.

SAMPLE REQ. No. 6355
DATE SENT 7-20-51
DATE RECEIVED 7-23-51
DATE REPORTED 9-12-51

PLANT LOOW

MAILING ADDRESS

ROUTE RESULTS TO

TYPE OF SAMPLE Urine

METHOD OF DETERMINATION Radiochemical

μμ/ml

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
			Bowman, C.			Ra						.003
			Collins, W.			Ra						.001
			Ringnelski			Ra						.005

COLLECTED BY

ANALYZED BY S Toti and C. Hardy

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NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N. Y.

SAMPLE REQ. No. 2888
DATE SENT 4/9/51
DATE RECEIVED
DATE REPORTED 6/11/51

PLANT ACC - Lowe
MAILING ADDRESS Box 8
Kingsmere 17, Ny
ROUTE RESULTS TO Dick Hutchinson

TYPE OF SAMPLE Urine
METHOD OF DETERMINATION Radiochemical Analysis
88/L

SAMPLE NO.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
1	4/9		Fay Malone			Ra	3.5					
2			R. Sutherland sample				8.1					
3			Westerfelt				1.9					
4			Fako				2.9					
5			F. Davis Lowe				1.6					
6			C. Bowman				8.5					
7			A. Crowe				0.7					
8			E. Vujo				10.0					
9			G. Fontanarosa				2.8					
10			M. Whittaker				7.0					
11			K. Kile				1.2					
12			J. Ringelski				8.0					
13			Wm Collins				1.4					
14			H. Betts				8.3					

COLLECTED BY

ANALYZED BY S F. te

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FORM N.Y.-99

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N. Y.

SAMPLE REQ. No. 2890
DATE SENT 11/23/51
DATE RECEIVED 4/25/51
DATE REPORTED 6/11/51

PLANT ACC - Lowow
MAILING ADDRESS Box 5 Lawrence 17, Mass
ROUTE RESULTS TO Dick Hutchinson

TYPE OF SAMPLE Urine
METHOD OF DETERMINATION Radiochemical Analysis
88/L

SAMPLE NO.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
4/24/51	8:00 am		T. Malone			Ra	0.6					
"	"		H. Betts				1.3					
"	"		J. Kingalski				82					
"	"		W. R. Crowe				1.3					

COLLECTED BY

ANALYZED BY S Foto

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FORM N.Y.-99

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NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N.Y.

SAMPLE REQ. No. 4490
DATE SENT
DATE RECEIVED 3/6/51
DATE REPORTED

PLANT L.O.O.W.
MAILING ADDRESS KENMORE, N.Y.
ROUTE RESULTS TO D. HEATHERTON

TYPE OF SAMPLE URINE
METHOD OF DETERMINATION CHEM + SCINT. COUNTER.
μμg/liter

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
1	2/26/51		M. Whittaker			Ra	1.8					
2			G. WEISER				0.9					
3			F. Davis				0.0					
4			H. Betts				1.5					
5			E. Nudo				1.1					
6			C. Bowman				1.4					
7			J. Ringuiteki				1.3					
8			C. Fahs				0.9					
9			R. Sutherland				0.0					
10			S. Fontanarosa				1.1					
11			A. Crown				0.6					
12			K. Kile				0.3					
13			F. Malone				1.5					
14			Mr Collins				1.8					
~~COLLECTED BY~~ 15	↓		C. Westervelt				ANALYZED BY 0.0	S Fok	Counted by S. Garofalo			

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FORM N.Y.-99

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NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N. Y.

SAMPLE REQ. No. 2848
DATE SENT
DATE RECEIVED 1-4-51
DATE REPORTED 1-26-51

PLANT: U.A.C.C. - Lorain
MAILING ADDRESS: P.O. Box 8, Kenmore 17, N.Y.
ROUTE RESULTS TO: W. J. Eff

TYPE OF SAMPLE: urine
METHOD OF DETERMINATION: FLUORIMETRIC

SAMPLE NO.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY ~~mg/L~~ U	TOTAL COUNT	COUNT TIME	COUNTS PER MIN. Ra mμg/Liter	RESULTS VALUE	RESULTS UNITS
15	1/2/51		Emil Medo			U & Ra	0.000			5.9		
16	"		Gene Fontanarosa			" "	0.010			8.0		
17	"		J. Kingalski			" "	0.000			10.0		

COLLECTED BY: K Tile

ANALYZED BY: U - J Alencio Ra - S Foti
Counted by S Garofalo

SURVEYOR TO RETAIN LAST COPY — RETURN ALL OTHERS TO MEDICAL DIVISION, N.Y.O.O., N. Y.

FORM N.Y.-99

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NEW YORK OPERATIONS OFFICE
MEDICAL DIVISION
70 COLUMBUS AVENUE
NEW YORK 23, N. Y.

SAMPLE REQ. No. 2836
DATE SENT
DATE RECEIVED 9-7-50
DATE REPORTED 10/11/50

PLANT: LOOD
MAILING ADDRESS: PO Box 8 KENMORE, NY
ROUTE RESULTS TO: F. EPP

ATTENTION: J HARLEY

TYPE OF SAMPLE: URINE — Radium
METHOD OF DETERMINATION: S. Fotti
γ/Sample γ/cc

SAMPLE No.	DATE	HOUR	SAMPLE DESCRIPTION	SAMPLING RATE	SAMPLING TIME	ANALYZE FOR	QUANTITY	TOTAL COUNT	COUNT TIME	COUNTS PER MIN.	RESULTS VALUE	RESULTS UNITS
1	8/30	9 45	K. Kile			Ra	1.3×10^{-7} γ			9.8×10^{-10}		
2	"	"	F. Malone	—	—	"	1.2×10^{-7} γ			1.1×10^{-9}		
3	"	"	J. Schoonmaker	—	—	"	5.5×10^{-7} γ			4.3×10^{-9}		
4	"	"	F. Epp	—	—	"	0.5×10^{-7} γ			4.1×10^{-10}		
5	"	9 45	R. Sutherland	—	—	"	1.6×10^{-7} γ			2.1×10^{-9}		
6	"	"	J. Ringvelski	—	—	"	3.3×10^{-7} γ			4.1×10^{-9}		
7	"	"	J. Doody	—	—	"	0.7×10^{-7} γ			5.5×10^{-10}		
8	"	"	E. Westervelt	—	—	"	0			0		
9	"	"	C. Bowman	—	—	"	0.6×10^{-7} γ			6.7×10^{-10}		

COLLECTED BY: F Westervelt USAEC

ANALYZED BY: S Foti

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9107

Film Badge Results, 1952, *Lake Ontario Ordnance Works Film Badge Results*; Results reported for all months in 1952

N.Y. FORM 83
REV. 3-27-52

PLANT: 20 8-17

YEAR: 1952 Amsdill

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-7		320		4-7	40	80	
1-14	160			4-28		55	
1-21	160			5-5	170		
1-28	120			5-12	60	65	
2-4	340			5-26	60	80	
2-11	800			6-2	110	45	
2-18	175	230		6-9	75	100	
2-25	200			6-16	140		
3-3	50	55		6-23	90	140	
3-10		190		6-30		220	3 mos (13 wks) 795 + 885 = 1680 68 = 125
3-17	170			7-14	90		
3-24	70	50		7/21	110	80	190
3-31	170			7/28	150		

REV. 3-27-51

PLANT: 200W

YEAR: 1952

Card #2

NAME: Amedill

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
8/4	70	50					
8/11	40	230					
8/25	150	140					
9/1	40	230					
9/15	85	75					
9/22	220	350					
9/29		230					
11/10	120	20					
12/8	40						
12/22+29	155	30					

REV. 3-27-51

PLANT: 200W

YEAR: 1952

NAME: Anderson, R.V.

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
7/28	80						

N.Y. FORM 83
REV. 3-27-51

PLANT: L O S M

YEAR: 1952 Betts

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-21	130						
3-10	70						
6-2	75						
9/15	100	130					
11/10	35						

REV. 3-27-51

PLANT: 0027

YEAR: 1952

Borst

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
7/28	50	460					

N.Y. FORM 83
REV. 3-27-51

PLANT: L.O. 84

YEAR: 1952 Bowman

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-7	200			4-7	40	100	
1-14	130			4-14	120		
1-21	160			4-28		55	
1-28		75		55	140		
2-4	270			5-19	170		
2-11	60	230		5-26	60	190	
2-18	120	50		6-2	800	190	
2-25	95	130		6-9	95	100	
3-3	65			6-16	60	80	
3-10	95			6-23	75	48	
3-17	95	75		6-30	180		1740+765: 2505
3-24	50	40		7-14	135		59 193
3-31	140	360		7/21	190		

REV. 3-27-51

PLANT: 20027

YEAR: 1952

Bowman Card #2

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
7/28	130						
8/4		140					
8/11		110					
8/15	130						
8/25	70	170					
9/1		110					
9/8	100	100					
9/22		420					
9/29	220						
11/10	40						

N.Y. FORM 83
REV. 3-27-51

PLANT: L1 S17

YEAR: 1952 S. Bradere

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
3-24	40	45					

N.Y. FORM 83
REV. 3-27-51

PLANT: Bow

YEAR: 1952

NAME:

JOB: Brief

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
12/15	65	40					

REV. 3-27-51

PLANT: LOSA

YEAR: 1952

NAME: Carvitti

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
9/8	120						

N.Y. FORM 83
REV. 3-27-51

PLANT: 208 A

YEAR: 1952 Collins

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-7	110	150		8/4	60		
2-11	130			8/11	95		
3-31	55			8/18	65		
4-14	90	45		8/25	80		
4-28		40		9/8	100		
5-12	130			9/15		75	
5-19	110			9/22	170		
6-2	75			9/29	95		
6-9	130			11/10	40		
6-23	75						
6-30	120		640				
7/21	100						
7/28	80						

N.Y. FORM 83
REV. 3-27-51

PLANT: LO 8/14 Crown

YEAR: 1952

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-14	240			4-14	180		
1-21	250			4-28	60	65	
1-28	270			5-5	280		
2-4	400			5-12	160	55	
2-11	120	100		5-19	150	115	
2-18	210	150		5-26	170		
2-25	240			6-9	190	45	920 + 240 = 1160
3-3	500	55		7-14		420	18 89
3-10	120	70		7/28	130		
3-17	210			8/4		60	
3-24	170	100		8/11	190		
3-31	160	750		9/22	100		
4-7	110	80		10/20	95		

N.Y. FORM 83
REV. 3-27-51

PLANT: LOSA

YEAR: 1952

NAME:

JOB: Crawn

Card 22

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
11/10	40						
11/17	130						
12/1	110						
12/15	100	30					
12/22+29	80	30					

N.Y. FORM 83
REV. 3-27-51

PLANT: LOSA

YEAR: 1952

NAME: Davis

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
3-3	85						
3-10	60						
3-17	55						
~~8~~ 7/21	90						
8/4	50						
11/10	50						

N.T. FORM 63
REV. 3-27-51

PLANT: Zooow.

YEAR: 1952

Wetloff

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
7/28		460					

N.Y. FORM 83
REV. 3-27-51

PLANT:

YEAR: 1952 Edukonis

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-21	160						
1-28	100						
3-3	85						
3-10	70						
3-17	85						
3-24	125	50					
4/28		40					
8/4	70						
9/29	120						
11/10	45						

N.Y. FORM 83
REV. 3-27-51

PLANT: [illegible]

YEAR: 1952 Epp

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
3-17	55						
4-28	85						

N.Y. FORM 83
REV. 3-27-51

PLANT: L O 87A

YEAR: 1952 Fontanarosa

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-14	300			4-28	65	55	
1-21	250			5-5	190	80	
1-28	75	240		5-12	130	85	
2-4	130	170		5-19	140	75	
2-11		300		5-26	190		
2-18	280	310		6-2	170		
2-25	50	560		6-9	130	110	
3-3	190	65		6-16	40	65	
3-10	100	150		6-23	70	160	
3-17	120	110		6-30	150		1210 + 630 = 1840
3-24	110	50					48 142
4-7	100	130		7/21	300	35	
4-14	200			7/28	200		

N.I. FORM 5
REV. 3-27-51

PLANT: Loost Cardt #2 NAME:

YEAR: 1952 Fontanarosa JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
8/4	60	110		12/22+29	185	50	
8/11	150						
8/25	340	120					
9/1	80	50					
9/8	200	440					
9/15	100	110					
9/22	440						
9/29	95	270					
10/20	70	30					
11/3	115						
11/10	65						
12/1	50	35					
12/15	110	170					

REV. 3-27-51

PLANT: 2002

YEAR: 1952

HARPER

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
7/28		280					

REV. 3-27-53

PLANT: LOOW

YEAR: 1952

HERSHMAN

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
8/4		80					
8/11		75					
8/25	90						
9/8	120						
11/10	30						
11/24	110						

REV. 3-27-51

PLANT: L O [illegible]

YEAR: 1952 Kile

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
4/28		90					

N.Y. FORM 83
REV. 3-27-51

PLANT: L O ~~S~~ ~~H~~

YEAR: 1952 Malone

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
3-17	80						
4-28		40					
6-2	75						
7/21	150						

REV. 3-27-51

PLANT: 2002

YEAR: 1952

Ma Sale

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
8/4/52		95					

N.Y. FORM 83
REV. 3-27-51

PLANT: L O 8 8

YEAR: 1955 Mead

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
5-17	55						
6-2	75						
11/10	40						

N.Y. FORM 83
REV. 3-27-51

PLANT: 200 H

YEAR: 1952 Nudo

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-7	70	320		4-14	160		
1-14	160			4-28	45	50	
1-21	190			5-5	170		
1-28	140	150		5-12	95	75	
2-4	170	95		5-19	180		
2-11	200			5-26	180	100	
2-18	65	400		6-2	230	300	
2-25		560		6-9	65	100	
3-3	110	85		6-16	120		
3-10	100	120		6-23	55	150	
3-17	95	130		6-30	70	75	1320 + 850 = 2170
3-31	170	50		7-14	155		65 170
4-7	60	80		7/21	100		

REV. 3-27-51

PLANT: 0028

YEAR: 1952

NUDO Card 2.

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
7/28	90	60					
8/4	50	110					
8/11	140						
8/18	180						
9/8	140	280					
9/15	110	100					
9/22	260	240					
9/29	160	240					
~~10~~ 10/27	80						
11/10	70						
12/8	40						
12/15	110	70					
12/22+29	95	40					

REV. 3-27-51

PLANT: 2003

YEAR: 1952

Quirk

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
7/28	50	500					

N.Y. FORM 83
REV. 3-27-51

PLANT: LOSA

YEAR: 1952

NAME: Ringvelski

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-7	85	150		4-14	80	45	
1-14	160			4-28		60	
1-21	190			5-5	250		
1-28		120		5-12		85	
2-11		1000		5-19	250		
2-18	115	190		5-26	60	110	
2-25		500		6-2	160	120	
3-3	90	55		6-9	85	180	
3-10	110	110		6-16	80	50	
3-17	110	65		6-23	80	150	
3-24	70	40		6-30	65	60	230+860=1090
3-31	130	75		7-14	115		66 8.1
4-7	160			7/21	120		

N.S. FORM 5
REV. 3-27-51

PLANT: Loop Card #2

YEAR: 1952 Pinquelski

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
7/28	150			12/22+29	125	30	
8/4	70	120					
8/11	140						
8/18	180						
8/25	220	65					
9/1	40	130					
9/8	80	250					
9/15	140	170					
9/22	220	240					
9/29	170	90					
11/10	65	60					
11/24	70						
12/8	35						

N.Y. FORM 83
REV. 3-27-51

PLANT: L O [illegible]

YEAR: 1952

NAME: Schoonmaker

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-21	100						
3-17	75						
3-31	70						
4-28		40					
6-2	75						
6-23	55	120					
6-30	120		250 + 160 = 410				
7/28	100						
9/22	90	110					
9/29	95	75					
11/10	30						

N.Y. FORM 83
REV. 3-27-52

PLANT:

YEAR: 195 2 A. Strumpf

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
3-24	50	95					

N.Y. FORM 83
REV. 3-27-51

PLANT: Lo & Sutherland

YEAR: 1952

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
3-10	60						
4-25		40					

N.Y. FORM 83
REV. 3-27-51

PLANT: Lorain

YEAR: 1952 Westervelt

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
3-17	65						
3-31	45						
4-28		40					
~~5~~ 7/21	180						
7/28	80						
8/4	50						
9/22	120						
11/10	30						

N.Y. FORM 83
REV. 3-27-51

PLANT: [illegible]

YEAR: 1952 Whittaker

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
3-17	55						
11/10	30						

N.Y. FORM 83
REV. 3-27-51 Los Alamos

PLANT:

YEAR: 1952 H. Zeitz

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
3-10	50						

9108

Film Badge Results, 1953a, *Lake Ontario Ordnance Works Film Badge Results*; Results reported for all months in 1953

N.T. FORM 8
REV. 3-27-51

PLANT: Lasco

YEAR: 1953

NAME:
JOB: Bowman

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
11-30	70						

REV. 3-27-51

PLANT: Loom

YEAR: 1953

NAME:

JOB: Crown

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
1/26	60						

N.T. FORM 63
REV. 3-27-51

PLANT: Loaw

YEAR: 1953

NAME:
JOB: Ringulski

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
1/5	35	30					
1/19	77						
3/2	90						

9111

Film Badge Results, June 1949-January 1951, *Lake Ontario Ordnance Works Film Badge Results*; Results reported June 20, 1949 through January 5, 1951

NUDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.M.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 12/26-1/5
+1/1/51

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total	
1080	KILE	MAIN. SUP'R.	.05	X	.05	100	X	100	
1081	SUTHERLAND	LABORER	.57	.32	.07	130	560	690	**
1082	BOWMAN	LABORER	.19	.145	X	X	260	260	*
1084	WHITTAKER	GUARD	.05	X	.05	100	X	100	
1085	DAVIS	"	.055	X	.055	110	X	110	
1086	AMSDILL	"	X	X	X				
~~1087~~	~~BROSNAN~~	"	X	X	X				
1088	SCHOONMAKER	LABORER	.31	.16	.09	170	290	460	*
1089	WESTERVELT	TON. OFFICE	.065	X	.065	120	X	120	
1090	EPP	"	X	X	X	X	X	X	
1091	MALONE	"	X	X	X	X	X	X	
1092	Crown	Laborer	.31	.16	.09	170	290	460	*
1093	COLLINS	JANITOR-LAUNDRYMAN	.06	X	.06	110	X	110	
~~1094~~	~~DOODY~~	LABORER	.04	X	.04	80	X	80	
1095	Ringvelski	"	.58	.4	.03	60	700	760	***
1096	Fontanarosa	"	.47	.29	.06	110	520	630	**
1070	Weisser	Guard	X	X	X	X	X	X	
1071	Fabs	"	X	X	X	X	X	X	
1072	Nudo	"	.58	.4	.03	60	700	760	***
1083	Betts	Laborer	.43	.24	.10	190	420	610	**

X less than 50 mr

6.9
34

668-669
1/24/51, Leo

NUDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT E.O.O.W.

FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 12/26-1/5

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.				100		100
1081	SUTHERLAND	LABORER				130	560	690**
1082	BOWMAN	LABORER					260	260*
1084	WHITTAKER	GUARD				100		100
1085	DAVIS	"				110		110
1086	AMSDILL	"						
~~1087~~	~~BROSNAN~~	"						
1088	SCHOONMAKER	LABORER				170	290	460*
1089	WESTERVELT	TON. OFFICE				120		120
1090	EPP	"						
1091	MALONE	"						
1092	Crown	Laborer				170	290	460*
1093	COLLINS	JANITOR-LAUNDRYMAN				110		110
~~1094~~	~~BOODY~~	~~LABORER~~				~~80~~		~~80~~
1095	Ringvelski	"				60	700	760***
1096	Fontanarosa	"				110	520	630**
1070	Weisser	Guard						
1071	Fahs	"						
1072	Nudo	"				60	700	760***
1083	Betts	Laborer				190	420	610**

* less than 50 mr

RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT L.O.O.N.
WEEK BEGINNING 12/18/50

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total	
1080	KILE	MAIN. SUPR.	.06	X	.06	90	X	90	
1081	SUTHERLAND	LABORER	.29	.15	.07	100	220	320	*
1082	BOWMAN	LABORER	.3	.18	.02	X	270	270	*
1084	WHITTAKER	GUARD	X						
1085	DAVIS	"	X						
1086	AMSDILL	"	X						
~~1087~~	~~BROSNAN~~	"	X						
1088	SCHOONMAKER	LABORER	.34	.18	.06	90	270	360	*
1089	WESTERVELT	TON. OFFICE	X	X	X	X	X	X	
1090	EPP	"	not found						
1091	MALONE	"	X	X	X	X	X	X	
1092	Crown	Laborer	.5	.31	.02	X	460	460	**
1093	COLLINS	JANITOR-LAUNDRYMAN	X						
1094	~~BOODY~~	LABORER	X						
1095	Ringvelski	"	.42	.27	X	X	625	625	***
1096	Fontanarosa	"	.52	.32	X	X	775	775	***
1070	Weisser	Guard	X						
1071	Fahs	"	X						
1072	Nudo	"	.41	.25	X	X	600	600	***
1083	Betts	Laborer	.35	.23	X	X	500	500	**

* less than 50 mr

664-665

1/19/51 LW

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.W.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING XXXX12/18/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUPR.				90		90
1081	SUTHERLAND	LABORER				100	220	320*
1082	BOWMAN	LABORER					270	270*
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
~~1087~~	~~BROSMAN~~	~~"~~						
1088	SCHOONMAKER	LABORER				90	270	360*
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"				NOT FOUND		
1091	MALONE	"						
1092	Crown	Laborer					460	460**
1093	COLLINS	JANITOR-LAUNDRYMAN						
~~1094~~	~~DOODY~~	~~LABORER~~						
1095	Ringvelski	"					625	625***
1096	Fontanarosa	"					775	775***
1070	Weisser	Guard						
1071	Fahs	"						
1072	Nudo	"					600	600***
1083	Betts	Laborer					500	500**

* less than 50 mr

MYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.W.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 12/11/50

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	KILE	MAIN. SUPR.	.045	X	.045	70	X	70
1081	SUTHERLAND	LABORER	Fogged. not readable					
1082	BOWMAN	LABORER	.18	.125	.01	X	160	160
1084	WHITTAKER	GUARD	X	X	X			
1085	DAVIS	"	X	X	X			
1086	AMSDILL	"	X	X	X			
~~1087~~	~~BROSNAN~~	"	X	X	X			
1088	SCHOONMAKER	LABORER	.085	.04	.025	X	65	65
1089	WESTERVELT	TON. OFFICE	X	X	X			
1090	EPP	"	X	X	X			
1091	MALONE	"	X	X	X			
1092	Crown	Laborer	.18	.1	.04	65	130	195
1093	COLLINS	JANITOR-LAUNDRYMAN	X	X	X			
~~1094~~	~~DOODY~~	~~LABORER~~	X	X	X			
1095	Ringvelski	"	.5	.37	.04	65	420	485 *
1096	Fontanarosa	"	Fogged not readable					
1070	Weisser	Guard	X	X	X			
1071	Fahs	"	X	X	X			
1072	Nudo	Laborer	.15	.085	.03	50	120	170
1083	Betts	"	.175	.105	.035	60	140	200

* less than 50 mr

660-661 1/4/51 Lw

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.M.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 12/11/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.				70		70
1081	SUTHERLAND	LABORER				NOT READABLE		
1082	BOWMAN	LABORER					160	160
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
1087	BROSNAN	"						
1088	SCHOONMAKER	LABORER					65	65
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"						
1091	MALONE	"						
1092	Crown	Laborer				65	130	195
1093	COLLINS	JANITOR-LAUNDRYMAN						
1094	DOODY	LABORER						
1095	Ringvelski	"				65	420	485*
1096	Fontanarosa	"				FOGGED - NOT READABLE		
1070	Weisser	Guard						
1071	Fahs	"						
1072	Nudo	Laborer				50	120	170
1083	Betts	"				60	140	200

* less than 50 mr

NYOO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT L.O.C.N.
WEEK BEGINNING 12/4/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			OW	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.	X	X	X	X	X	X
1081	SUTHERLAND	LABORER	.4	.25	.02	X	320	320
1082	BOWMAN	LABORER	.3	.18	.02	X	240	240
1084	WHITAKER	GUARD	X	X	X			
1085	DAVIS	"	X	X	X			
1086	AMSDILL	"	X	X	X			
1087	BROSNAN	"	.05	X	.05	80	X	80
1088	SCHOONMAKER	LABORER	.34	.22	X	X	290	290
1089	WESTERVELT	TON. OFFICE	.05	X	.05	80	X	80
1090	EPP	"	.05	X	.05	80	X	80
1091	MALONE	"	X	X	X	X	X	X
1092	Crown	"	.3	.14	.08	120	190	310 *
1093	COLLINS	JANITOR-LAUNDRYMAN	.05	X	.05	80	X	80
1094	DOODY	LABORER	.05	X	.05	80	X	80
1095	Ringvelski	"	.38	.28	X	X	360	360 *
1096	Fontanarosa	"	.5	.31	.02	X	400	400 *
1072	Fudo	"	.44	.27	.04	70	340	410 *
1071	Fahs	Guard	X	X	X			
1070	Weisser	"	X	X	X			
1083	Betts	Laborer	.34	.17	.07	100	230	330 *

* less than 50 mr

656-657 12/22/50 [illegible]

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.M.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 12/4/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUPR.						
1081	SUTHERLAND	LABORER					320	320
1082	BOWMAN	LABORER					240	240
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
~~1087~~	~~BROSNAN~~	~~"~~				~~80~~		~~80~~
1088	SCHOONMAKER	LABORER					290	290
1089	WESTERVELT	TON. OFFICE				80		80
1090	EPP	"				80		80
1091	MALONE	"						
1092	Crown	"				120	190	310*
1093	COLLINS	JANITOR-LAUNDRYMAN				80		80
~~1094~~	~~DOODY~~	~~LABORER~~				~~80~~		~~80~~
1095	Ringvelski	"					360	360
1096	Fontanarosa	"					400	400
1072	Nudo	"				70	340	410*
1071	Fahs	Guard						
1070	Weisser	"						
1083	Betts	Laborer				100	230	330*

* less than 50 mr

HYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT L.O.O.W.
WEEK BEGINNING 11/27 50

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	KILE	MAIN. SUP'R.	X	X	X	X	X	X
1081	SUTHERLAND	LABORER	.32	.16	.06	80	140	220
1082	BOWMAN	LABORER	.18	.14	.04	55	120	175
1084	WHITTAKER	GUARD	X					
1085	DAVIS	"	X					
1086	AMSDILL	"	X					
1087	BROSNAN	"	.04	X	.04	55	X	55
1088	SCHOONMAKER	LABORER	.195	.14	.055	75	120	195
1089	WESTERVELT	TON. OFFICE	X	X	X	X	X	X
1090	EPP	"	(replaced)			missing		
1091	MALONE	"	X	X	X	X	X	X
1092	Crown	"	.21	.115	.095	120	100	220
1093	COLLINS	JANITOR-LAUNDRYMAN	.05	X	.05	65	X	65
1094	DOODY	LABORER	X	X	X	X	X	X
1095	Ringvelski	"	.26	.23	.03	X	190	190
1096	Fontanarosa	"	.4	.31	.09	110	250	360 *
1072	Nudo	"	.42	.32	.10	120	260	380 *
1071	Fahs	Guard	X	X	X	X	X	X
1070	Weisser	Guard	not found					
1083	Betts	Laborer	.18	.12	.06	80	110	190

* less than 50 mr

652-653 12/14/50 Lew

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.N.

FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 11/27-50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.						
1081	SUTHERLAND	LABORER				80	140	220
1082	BOWMAN	LABORER				55	120	175
~~1084~~	~~WHITTAKER~~	~~GUARD~~						
1085	DAVIS	"						
1086	AMSDILL	"						
~~1087~~	~~BROSMAN~~	~~"~~				~~55~~		~~55~~
1088	SCHOONMAKER	LABORER				75	120	195
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"				REPLACED MISSING		
1091	MALONE	"						
1092	Crown	"				120	100	220
1093	COLLINS	JANITOR-LAUNDRYMAN				65		65
~~1094~~	~~BOODY~~	~~LABORER~~						
1095	Rinavelski	"					190	190
1096	Fontanarosa	"				110	250	360*
1072	Nudo	"				120	260	380*
1071	Fahs	Guard						
1070	Weisser	Guard				NOT FOUND		
1083	Betts	Laborer				80	110	190

* less than 50 mr

NUDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT: L.O.O.N.
WEEK BEGINNING 11/20/50

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total	
1080	KILE	MAIN. SUP'R.	.09	.08	.01	X	75	75	
1081	SUTHERLAND	LABORER	.43	.43	X	X	340	340	*
1082	BOWMAN	LABORER	.48	.42	.06	80	340	420	*
1084	WHITTAKER	GUARD	.07	.06	.01	X	58	58	
1085	DAVIS	"	.1	.095	X	X	90	90	
1086	AMSDILL	"	.06	.06	X	X	58	58	
~~1087~~	~~BROSNAN~~	"							
1088	SCHOONMAKER	LABORER	.43	.43	X	X	340	340	*
1089	WESTERVELT	TON. OFFICE	.12	.1	.02	X	90	90	
1090	EPP	"	.07	.075	X	X	70	70	
1091	MALONE	"	fogged - not readable						
1092	Crown	Laborer	.46	.28	.18	220	240	460	*
1093	COLLINS	JANITOR-LAUNDRYMAN	.1	.095	X	X	90	90	
~~1094~~ 1094	~~BOODY~~	LABORER	.07	.07	X	X	65	65	
1095	Ringvelski	Laborer	.31	.26	.05	65	220	285	
1096	Fontanarosa	"	.66	.61	.05	65	500	565	*
1072	Nudo	"	.06	.06	X	X	58	58	
1071	Fahs	Guard	.065	.06	X	X	58	58	
1070	Weisser	"	.06	.06	X	X	58	58	
1083	Betts	Laborer	.7	.56	.14	170	460	630	*

* less than 50 mr

652-653 LW 12/14/50

NUDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.W.

FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 11/20/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.					75	75
1081	SUTHERLAND	LABORER					340	340
1082	BOWMAN	LABORER				80	340	420*
1084	WHITTAKER	GUARD					58	58
1085	DAVIS	"					90	90
1086	AMSDILL	"					58	58
~~1087~~	~~XXXXXXXXXXXXXXXXX~~	"						
1088	SCHOONMAKER	LABORER					340	340
1089	WESTERVELT	TON. OFFICE					90	90
1090	EPP	"					70	70
1091	MALONE	"				FOGGED - NOT READABLE		
1092	Crown	Laborer				220	240	460*
1093	COLLINS	JANITOR-LAUNDRYMAN					90	90
~~1094~~	~~XXXXXXXXXXXXXXXXXXXXXXXXXX~~	LABORER					65	65
1095	Ringvelski	Laborer				65	220	285
1096	Fontanarosa	"				65	500	565*
1072	Nudo	"					58	58
1071	Fahs	Guard					58	58
1070	Weisser	"					58	58
1083	Betts	Laborer				170	460	630*

* less than 50 mr

~~EMDO~~ RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT L.O.O.N.
WEEK BEGINNING 11/6/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			~~Beta~~	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.	Replaced			missing		
1081	SUTHERLAND	LABORER	.44	.36	.08	95	300	395 *
			replaced					
1082	BOWMAN	LABORER	.33	.24	.09	100	200	300 *
1084	WHITTAKER	GUARD	X	X	X			
1085	DAVIS	"	X	X	X			
1086	AMSDILL	"	X	X	X			
1087	XXXXXXXXX	"	X	X	X			
1088	SCHOONMAKER	LABORER	.45	.39	.06	70	320	390 *
1089	WESTERVELT	TON. OFFICE	.055	X	.055	70	X	70
1090	EPP	"	.1	.09	.01	X	80	80
1091	MALONE	"	missing					
1092	Crown	Laborer	.68	.5	.18	200	400	600 *
1093	COLLINS	JANITOR-LAUNDRYMAN	.07	X	.07	85	X	85
1094	DOODY	LABORER	.43	.34	.09	100	280	380 *
1095	RINGVELSKI		.52	.44	.08	95	360	455 *
1096			X	X	X			
1070	Weisser		X	X	X			
1071	Fahs		X	X	X			
1083	Fetts		.51	.34	.17	180	280	460 *

* less than 50 mr

640-641 LCD 11/29/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT L.O.O.N.
WEEK BEGINNING 11/6/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.				REPLACED MISSING		
1081	SUTHERLAND	LABORER				95	300	395*
1082	BOWMAN	LABORER				100	200	300*
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
1087	XXXXXXXXX	"						
1088	SCHOONMAKER	LABORER				70	320	390*
1089	WESTERVELT	TON. OFFICE				70		70
1090	EPP	"					80	80
1091	MALONE	"				NOT FOUND		
1092	Crown	Laborer				200	400	600*
1093	COLLINS	JANITOR-LAUNDRYMAN				85		85
1094	DOODY	LABORER				100	280	380*
1095	RINGVELSKI					95	360	455*
1096								
1070	Weisser							
1071	Fahs							
1083	Fetts					180	280	460*

* less than 50 mr

NYPO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.W.
FILM-BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 11/13/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.	.01	.055	.045	50	45	95
1081	SUTHERLAND	LABORER	.32	.28	.04	45	220	265
1082	BOWMAN	LABORER	.29	.25	.04	45	190	235
1084	WHITTAKER	GUARD	X	X	X			
1085	DAVIS	"	X	X	X			
1086	AMSDILL	"	X	X	X			
1087	BROSNAN	"	X	X	X			
1088	SCHOONMAKER	LABORER	.19	.15	.04	45	120	165
1089	WESTERVELT	TON. OFFICE	.06	X	.06	70	X	70
1090	EPP	"	X	X	X			
1091	MALONE	"	X	X	X			
1092	Crown		.14	.085	.055	60	70	130
1093	COLLINS	JANITOR-LAUNDRYMAN	X	X	X	X	X	X
1094	DOODY	LABORER	.29	.23	.06	70	180	250
1095	Ringuelski		.29	.25	.04	45	190	235
1096	Fontanarosa	Laborer	.24	.2	.04	45	150	195
1070	Steisser		X	X	X			
1071	Fahs		X	X	X			
1083	Betts		.21	.18	.03	X	140	140

* less than 50 mr

644-645 Lev 12/1/50

NYBO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.W.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 11/13/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.				50	45	95
1081	SUTHERLAND	LABORER				45	220	265
1082	BOWMAN	LABORER				45	190	235
1084	~~WHITTAKER~~	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
1087	BROSNAN	"						
1088	SCHOONMAKER	LABORER				45	120	165
1089	WESTERVELT	TON. OFFICE				70		70
1090	EPP	"						
1091	MALONE	"						
1092	Craven					60	70	130
1093	COLLINS	JANITOR-LAUNDRYMAN						
1094	DOODY	LABORER				70	180	250
1095	Gingrelski					45	190	235
1096	Fontanarosa					45	150	195
1070	Heisser							
1071	Fabs							
1083	Betts						140	140

ALL READINGS LESS THAN 50 MREP UNLESS OTHERWISE MARKED.

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT I.O.O.W.
WEEK BEGINNING 10/30/50

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	KILE	MAIN. SUP'R.	.1	.1	X	X	70	70
1081	SUTHERLAND	LABORER	.40	.44	X	X	290	290
1082	BOWMAN	LABORER	.27	.18	.09	190	120	210
1084	WHITTAKER	GUARD	X	X	X	X	X	X
1085	DAVIS	"	.06	X	.06	60	X	60
1086	AMSDILL	"	X	X	X		X	
1087	~~BROSNAN~~	"	X	X	X			
1088	SCHOONMAKER	LABORER	.35	.35	X	X	230	230
1089	WESTERVELT	TON. OFFICE	.07	X	.07	70	X	70
1090	EPP	"	.12	.085	.035	X	60	60
1091	MALONE	"	.06	X	.06	60	X	60
1092	Crown	"	.1	.09	.01	X	60	60
1093	COLLINS	JANITOR-LAUNDRYMAN	.085	.085	X	X	60	60
1094	DOODY	LABORER	.38	.38	X	X	300	300
1095	Ringvelski		.64	.66	X	X	460	460 *
1096	A. Levine		.09	X	.09	90	X	90
1070	Weisser		.05	X	.05	50	X	50
1071	Fahs		.07	X	.07	70	X	70
1074			X	X	X	X	X	X
1083	Betts		.38	.3	.08	80	200	280

* less than 50 mr

636-637 Lem 11/16/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.W.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 10/30/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.					70	70
1081	SUTHERLAND	LABORER					290	290
1082	BOWMAN	LABORER				90	120	210
1084	WHITTAKER	GUARD						
1085	DAVIS	"				60		60
1086	AMSDILL	"						
1087	~~BROSNAN~~ XXXXXXXXX	"						
1088	SCHOONMAKER	LABORER					230	230
1089	WESTERVELT	TON. OFFICE				70		70
1090	EPP	"					60	60
1091	MALONE	"				60		60
1092	Crown	"					60	60
1093	COLLINS	JANITOR-LAUNDRYMAN					60	60
1094	DOODY	LABORER					300	300
1095	Ringvelski						460	460
1096	A. Levine					90		90
1070	Weisser					50		50
1071	Fahs					70		70
1074								
1083	Betts					80	200	280

* less than 50 mr

NYOO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.N.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 10-23

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	KILE	MAIN. SUP'R.	.11	.08	.03	X	90	90
1081	SUTHERLAND	LABORER	.16	.1	.06	X	110	110
1082	BOWMAN	LABORER	.145	.07	.075	55	80	135
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
1087	BROSNAN	"						
1088	SCHOONMAKER	LABORER	.31	.17	.14	100	190	280
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"						
1091	MALONE	"						
1092								
1093	COLLINS	JANITOR-LAUNDRYMAN						
1094	DOODY	LABORER	.17	.095	.075	55	110	165
1095	Ringwelski		.34	.21	.13	90	240	330 *
1096								
1070	Heisser							
1071	Fahs							
1074	Kohner		.095	.06	.035	X	70	70
1083	Betts		.3	.16	.14	100	180	280

* less than 50 mr

632-633 Lee 11/9/50

NYD RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT I.O.O.W.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 10/23

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.					90	90
1081	SUTHERLAND	LABORER					110	110
1082	BOWMAN	LABORER				55	80	135
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
~~1087~~	BROSNAN	"						
1088	SCHOONMAKER	LABORER				100	190	290
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"						
1091	MALONE	"						
1092								
1093	COLLINS	JANITOR-LAUNDRYMAN						
1094	DOODY	LABORER				55	110	165
1095	Ringvelski					90	240	330*
1096								
1070	Greiser							
1071	Fahs							
1074	Kahner	Webb Co.					70	70
1083	Betts					100	180	280

* less than 50 mr

HYDO-RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.W.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 10/16

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total	
1080	KILE	MAIN. SUP'R.	.05	X	.05	140	X	140	
1081	SUTHERLAND	LABORER	.1	.05	.05	140	140	280	
1082	BOWMAN	LABORER	X	X	X	X	X	X	
1084	WHITTAKER	GUARD							
1085	DAVIS	"	X	X	X	X	X	X	
1086	AMSDILL	"							
1087	BROSNAN	"							
1088	SCHOONMAKER	LABORER							
1089	WESTERVELT	TON. OFFICE							
1090	EPP	"	X	X	X				
1091	MALONE	"	X	X	X				
1092									
1093	COLLINS	JANITOR-LAUNDRYMAN	X	X	X	X	X	X	
1094	DOODY	LABORER	.19	.12	.07	180	270	450	X
1095	Gingvelski			.06	.04	120	160	280	
1096									
1070	Geisser								
1071	Faha								
1072	Heatherton								628-629
1073	Blatz								
1074	Brannigan		X	X	X				11/2/50
1083	Betta		X	X	X				Lew

The badges not marked were not distinguishable due to a defect in the X-Ray machine for that week.
Lew

* less than 50 mr

HYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.W.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 10/16

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.				140		140
1081	SUTHERLAND	LABORER				140	140	280
1082	BOWMAN	LABORER						
1084	WHITTAKER	GUARD				*	*	*
1085	DAVIS	"						
1086	ANSDILL	"				*	*	*
108[illegible]	BROSNAN	"				*	*	*
1088	SCHOONMAKER	LABORER				*	*	*
1089	WESTERVELT	TON. OFFICE				*	*	*
1090	EPP	"						
1091	MALONE	"						
1092						*	*	*
1093	COLLINS	JANITOR-LAUNDRYMAN						
1094	DOODY	LABORER				180	270	450*
1095	Reigelloki					120	160	280
1096						*	*	*
1072	Heatherton					*	*	*
1073	Blatz					*	*	*
1074	Brannigan					*	*	*
1071	Fako					*	*	*
1070	Heisser							
1083	Betts							

* THESE BADGES WERE NOT DISTINGUISHABLE DUE TO A DEFECT IN THE X-RAY MACHINE FOR THAT WEEK.

* less than 50 mr.

[illegible]DO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT I.O.O.W.
WEEK BEGINNING 10/9

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	KILE	MAIN. SUP'R.	.05	X	.05	75	X	75
1081	SUTHERLAND	LABORER	.21	.165	.045	70	240	310 *
1082	BONMAN	LABORER	.17	.115	.055	80	170	250
1084	WHITTAKER	GUARD	.06	.06	X	X	90	90
1085	DAVIS	"	X	X	X			
1086	AMSDILL	"	X	X	X			
~~XXXXX~~	~~XXXXXXXXX~~	"						
1088	SCHOONMAKER	LABORER	.25	.19	.06	90	280	370 *
1089	WESTERVELT	TON. OFFICE	.05	X	.05	75	X	75
1090	EPP	"	X	X	X			
1091	MALONE	"	X	X	X			
1092			X	X	X			
1093	COLLINS	JANITOR-LAUNDRYMAN	.055	X	.055	80	X	80
1094	DOODY	LABORER	.21	.145	.065	95	210	305 *
1095	RINGVELSKI	LABORER	.2	.145	.055	80	210	290
1096			X	X	X	X	X	X
1083	BETTS	LABORER	.165	.115	.05	75	170	245
1070	WEISSER	GUARD	X					
1071	FAHS	GUARD	X					

* less than 50 mr

624-625 Lin 10/31/50

HYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT I.O.O.W.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 10/9

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.				75		75
1081	SUTHERLAND	LABORER				70	240	310*
1082	BOWMAN	LABORER				80	170	250
1084	WHITTAKER	GUARD					90	90
1085	DAVIS	"						
1086	AMSDILL	"						
~~1087~~	~~BROSNAN~~	"						
1088	SCHOONMAKER	LABORER				90	280	370*
1089	WESTERVELT	TON. OFFICE				75		75
1090	EPP	"						
1091	MALONE	"						
1092								
1093	COLLINS	JANITOR-LAUNDRYMAN				80		80
1094	DOODY	LABORER				95	210	305*
1095	RINGVELSKI	LABORER				80	210	290
1096								
1083	BETTS	LABORER				75	170	245
1070	WEISSER	GUARD						
1071	FAHS	GUARD						

* less than 50 mr

MOUND RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT I.O.O.N.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 10/2/50

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	KILE	MAIN. SUP'R.	.075	X	.075	100	X	100
1081	SUTHERLAND	LABORER	.35	.24	.11	140	300	440 *
1082	BOWMAN	LABORER	~~.35~~ .3	.16	~~.19~~ .14	180	200	380 *
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
1087	BROSNAN	"						
1088	SCHOONMAKER	LABORER	.3	.14	.16	200	180	380 *
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"						
1091	MALONE	"						
1092								
1093	COLLINS	JANITOR-LAUNDRYMAN						
1094	DOODY	LABORER	.43	.27	.16	200	340	540 *
1095	Ringvelski, C.	Laborer	.35	.19	.16	200	240	440 *
1096			X	X	X	X	X	X
1083	a/c	J. Webb Co.	.38	.24	.14	180	300	480 *
1070	Weiser, John W.	Guard	X	X	X			
1071	Fahs, Chester E	Guard.	X	X	X			

* less than 50 mr

620-621 10/19/50 Lee

HYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.C.W.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 10/2/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.				100		100
1081	SUTHERLAND	LABORER				140	300	440*
1082	BOWMAN	LABORER				180	200	380*
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
1087	BROSNAN	"						
1088	SCHOONMAKER	LABORER				200	180	380*
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"						
1091	MALONE	"						
1092								
1093	COLLINS	JANITOR-LAUNDRYMAN						
1094	DOODY	LABORER				200	340	540*
1095	Ringuelski, J	Laborer				200	240	440*
1096								
1083	Gl	J Webb Co				180	300	480*
1071	Weiser, John W.	Guard						
1070	Zahs, Chester E.	Guard						

* less than 50 mr

RADIOLOGICAL LABORATORY, U.S.A.E.C.
BADGE REPORT LABORATORY DATA SHEET

PLANT L.O.O.W.
WEEK BEGINNING 9-25

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	KILE	MAIN. SUP'R.	.1	.055	.045	60	75	135
1081	SUTHERLAND	LABORER	.15	.03	.085	110	X	110
1082	BOWMAN	LABORER	.29	.16	.13	160	200	360 *
1084	WHITTAKER	GUARD	X					
1085	DAVIS	"	X					
1086	AMSDILL	"	X					
1087	BROSNAN	"	X					
1088	SCHOONMAKER	LABORER	X					
1089	WESTERVELT	TON. OFFICE	X					
1090	EPP	"	X					
1091	MALONE	"	X					
1092			.15	.08	.07	90	100	190
1093	COLLINS	JANITOR-LAUNDRYMAN	X	X	X	X	X	X
1094	DOODY	LABORER	.55	.35	.20	250	440	690 *
1095	Ringvelski		.56	.35	.21	260	440	700 **
1096			X	X	X	X	X	X
1083	Metzler		.22	.09	.13	160	110	270

* Please send in sheet with names using Badges 1070-1079 so we may make up a new data sheet for you. Thank you.

L. Watts

* less than 50 mr

616-617 Lin 10/12/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.C.W.

FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 9-2-5

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.				60	75	135
1081	SUTHERLAND	LABORER				110		110
1082	BOWMAN	LABORER				160	200	360*
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
1087	BROSNAN	"						
1088	SCHOONMAKER	LABORER						
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"						
1091	MALONE	"						
1092						90	100	190
1093	COLLINS	JANITOR-LAUNDRYMAN						
1094	DOODY	LABORER				250	440	690*
1095	Ringuelski					260	440	700*
1096								
1083	Metzger					160	110	270
	PLEASE SEND IN SHEET WITH NAMES USING BADGES 1070-1079 SO WE MAY							
	MAKE UP A NEW DATA SHEET FOR YOU. THANK YOU.							
				L. WATTS				

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LAKE ONTARIO ORDNANCE WORKS
WEEK BEGINNING: 9/18/50

Badge No.	Name	Job Description	Soc. Sec. No.			Exposure, mr Beta	Gamma	Total	
1080	W. Kile Lost	Maintenance Chief	replaced			missing			
1081	R. Sutherland,	Laborer	.25	.21	.04	75	290	365	*
1082	C. Bowman	Laborer	.28	.15	.13	190	210	400	*
1083	Al	J Webb Co	.19	.115	.075	120	170	290	
1084	M. Whittaker,	Guard	X	X	X				
1085	F. Davis	"	X	X	X				
1086	C. Amsdill	"	X	X	X				
1087	J. Brosnan	"	X	X	X				
1088	J. Schoonmaker	Laborer	.24	.14	.10	150	200	350	*
1089	E. Westervelt	TON. OFFICE	X	X	X	X	X	X	
1090	F. Epp	"	.07	.04	.03	60	75	135	
1091	F. Malone	"	not turned in			replaced		missing	
1092	~~R. Heatherton~~ Bob Hood	" J Webb Co	.26	.14	.12	170	200	370	*
1093	W. Collins	Janitor Laundryman	.04	X	.04	75	X	25	
1094	J. Doody	Laborer	.33	.17	.16	220	230	450	*
1095	J. Ringvelski	Laborer	.58	.37	.21	290	440	730	**
1096			X						
1097			X						
1098			X						
1072	A E Brandt	N900	X						
1073	Dr. Quigley	"	X						
1074	G. Hardie	AEC. Wash.	X						
1075	J. Sterner	"	X						
1070	Zahs	Guard	X						
1071	Heisser	"	X						

* less than 50 mr

62-613 Lew 10/4/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LAKE ONTARIO ORDNANCE WORKS
WEEK BEGINNING: 7/18/60

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. Kile Lost	Maintenance Chief		REPLACED MISSING		
1081	R. Sutherland,	Laborer		75	290	365*
1082	C. Bowman	Laborer		190	210	400*
1083	ae	J. Webb Co.		120	170	290
1084	M. Whittaker,	Guard				
1085	F. Davis	"				
1086	C. Amsdill	"				
1087	J. Brosnan	"				
1088	J. Schoonma ker	Laborer		150	200	350*
1089	E. Westervelt	TON. OFFICE				
1090	F. Epp	"		60	75	135
1091	F. Malone not turned in	"		REPLACED MISSING		
1092	Bob Hood R. Heatherton	J Webb Co.		17-0	200	370
1093	W. Collins	Janitor Laundryman		75		75
1094	J. Doody	Laborer		220	230	450*
1095	J. Ringvelski	Laborer		290	440	730**
1096						
1097						
1098						
1072	A.E. Brandt	NYOO				
1073	Dr Quigley	"				
1074	D. Hardin	A.E.C. Wash.				
1075	J. Sterner	"				
1070	Fake	Guard				
1071	Heraier	Guard				

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT L.O.O.W.
WEEK BEGINNING 9/11/50

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	KILE	MAIN. SUP'R.	.09	.055	.035	50	75	125
1081	SUTHERLAND	LABORER	.095	.045	.05	70	65	135
1082	BOWMAN	LABORER	.28	.19	.09	120	240	360 *
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
1087	BROSNAN	"						
1088	SCHOONMAKER	LABORER	.25	.17	.08	110	220	330 *
1089	WESTERVELT	TON. OFFICE	X	X	X	X	X	X
1090	EPP	"	.065	.045	.02	X	65	65
1091	MALONE	"	X	X	X	X	X	X
1092	HOOD, R.	J. WEBB CO.	.16	.11	.05	70	150	220
1093	COLLINS	JANITOR-LAUNDRYMAN	X	X	X	X	X	X
1094	DOODY	LABORER	.29	.20	.09	120	260	380 *
1095	RINGVELSKI, J.	"	~~.3~~ .28	~~.22~~ .21	.07	95	270	365 *
1096								
1070	FAHS, CHESTER E.	GUARD						
1071	WEISER, JOHN W.	"						

* less than 50 mr

608-609 Lew 9/29/10

ENYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT I.O.O.W.
WEEK BEGINNING 9/11/52

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.				50	75	125
1081	SUTHERLAND	LABORER				70	65	135
1082	BOWMAN	LABORER				120	240	360*
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
1087	BROSNAN	"						
1088	SCHOONMAKER	LABORER				110	220	330*
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"					65	65
1091	MALONE	"						
1092	HOOD, R.	J. WEBB CO.				70	150	220
1093	COLLINS	JANITOR-LAUNDRYMAN						
1094	DOODY	LABORER				120	260	380*
1095	RINGVELSKI, J.	"				95	270	365*
1096								
1070	FAHS, CHESTER E.	GUARD						
1071	WEISER, JOHN W.	"						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT I.O.O.F.
WEEK BEGINNING 9/4/50

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	KILE	MAIN. SUP'R.	.05	.04	.01	X	X	X
1081	SUTHERLAND	LABORER	.1	.07	.03	X	80	80
1082	BOWMAN	LABORER	.135	.09	.045	50	100	150
1084	WHITTAKER	GUARD	X	X	X			
1085	DAVIS	"	X	X	X			
1086	AMSDILL	"	X	X	X			
1087	BROSNAN	"	X	X	X			
1088	SCHOONMAKER	LABORER	.085	.055	.03	X	65	65
1089	WESTERVELT	TON. OFFICE	X	X	X			
1090	EPP	"	X	X	X			
1091	MALONE	"	X	X	X			
1092	Bob Hood	J. Webb Co	X	X	X			
1093	COLLINS	JANITOR-LAUNDRYMAN	X	X	X			
1094	DOODY	LABORER	.08	.05	.03	X	56	56
1095	Bugielski	"	.11	.07	.04	X	80	80
1096	R. Smith	N 900	X	X	X	X	X	X

* less than 50 mr

604-605 Lee 9/20/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT LABORATORY DATA SHEET

PLANT L.O.O.N.
WEEK BEGINNING 9/4/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.						
1081	SUTHERLAND	LABORER					80	80
1082	BOWMAN	LABORER				50	100	150
1084	WHITTAKER	GUARD						
1085	DAVIS	"						
1086	AMSDILL	"						
1087	BROSNAN	"						
1088	SCHOONMAKER	LABORER					65	65
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"						
1091	MALONE	"						
1092	Bob Hood	J. Webb Co						
1093	COLLINS	JANITOR-LAUNDRYMAN						
1094	DOODY	LABORER					56	56
1095	Ringveleski	"					80	80
1096	R. Smith	N900						

* less than 50 mr

NYOO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.N.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 8/28/50

Badge	Name	Remarks	Film Density Beta	Film Density Gamma	Film Density Total	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	KILE	MAIN. SUP'R.	.045	.035	.01	X	60	60
1081	SUTHERLAND	LABORER	.09	.04	.05	110	65	175
1082	BOWMAN	LABORER	.13	.085	.045	100	120	220
1084	WHITTAKER	GUARD	X	X	X	X	X	X
1085	DAVIS	"	.05	.03	.02	X	50	50
1086	AMSDILL	"	X	X	X			
1087	BROSNAN	"	X	X	X			
1088	SCHOONMAKER	LABORER	.1	.04	.06	130	65	195
1089	WESTERVELT	TON. OFFICE	X					
1090	EPP	"	X					
1091	MALONE	"	X					
1092			X					
1093	COLLINS	JANITOR-LAUNDRYMAN	.05	.04	.01	X	65	65
1094	DOODY	LABORER	.13	.08	.05	110	110	220
1095	Rengielski	Laborer	.17	.11	.06	130	150	280
1096			.035	.035	X	X	60	60

* less than 50 mr

600-601 Lee 9/13/50

NYPO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT L.O.O.W.
FILM BADGE REPORT LABORATORY DATA SHEET WEEK BEGINNING 8/28/50

Badge	Name	Remarks	Film Density			Exposure, mr		
			Beta	Gamma	Total	Beta	Gamma	Total
1080	KILE	MAIN. SUP'R.					60	60
1081	SUTHERLAND	LABORER				110	65	175
1082	BOWMAN	LABORER				100	120	220
1084	WHITTAKER	GUARD						
1085	DAVIS	"					50	50
1086	AMSDILL	"						
1087	BROSNAN	"						
1088	SCHOONMAKER	LABORER				130	65	195
1089	WESTERVELT	TON. OFFICE						
1090	EPP	"						
1091	MALONE	"						
1092								
1093	COLLINS	JANITOR-LAUNDRYMAN					65	65
1094	DOODY	LABORER				110	110	220
1095	Bengulski	Laborer				130	150	280
1096							60	60

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LAKE ONTARIO ORDNANCE WORKS
WEEK BEGINNING: 8/21/50

Badge No.	Name	Job Description	Soc. Sec. No.			Exposure, mr Beta	Gamma	Total
1080	W. Kile	Maintenance Chief	X	X	X	X	X	X
1081	R. Sutherland,	Laborer	.2	.12	.08	120	180	300 *
1082	C. Bowman	Laborer	.15	.07	.08	120	110	230
1083			X	X	X			
1084	M. Whittaker,	Guard	X	X	X			
1085	F. Davis	"	X	X	X			
1086	C. Amsdill	"	X	X	X			
1087	J. Brosnan	"	X	X	X			
1088	J. Schoonmaker	Laborer	.145	.065	.08	120	100	220
1089	E. Westervelt	TON. OFFICE	X	X	X			
1090	F. Epp	"	X	X	X			
1091	F. Malone	"	X	X	X			
1092	R. Heatherton	"	X	X	X			
1093	W. Collins	Janitor Laundryman	To be fwd'd monday			Missing replaced.		
1094	J. Doody	Laborer	.22	.1	.12	180	150	330 *
1095	J. Ringvelski	Laborer	.08	X	.08	120	X	120
1096			X	X	X	X	X	X
1097								
1098								

* less than 50 mr

596-597 Lew 9/7/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING: 8/24/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1080	W. Kile	Maintenance Chief				
1081	R. Sutherland,	Laborer		120	180	300*
1082	C. Bowman	Laborer		120	110	230
1083						
1084	M. Whittaker,	Guard				
1085	F. Davis	"				
1086	C. Amsdill	"				
1087	J. Brosnan	"				
1088	J. Schoonma ker	Laborer		120	100	220
1089	E. Westervelt	TON. OFFICE				
1090	F. Epp	"				
1091	F. Malone	"				
1092	~~R. Heatherton~~	"				
1093	W. Collins	Janitor Laundryman	Sole fwd'd Monday			
1094	J. Doody	Laborer		180	150	330*
1095	J. Ringvelski	Laborer		120		120
1096						
1097						
1098						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LAKE ONTARIO ORDNANCE WORKS
WEEK BEGINNING: 8/14/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. Kile	Maintenance Chief	X X X	X	X	X
1081	R. Sutherland,	Laborer	Pink enclosed 8/21/50			
1082	C. Bowman	Laborer	.16 .07 .09	155	125	280
1083			X X X	X	X	X
1084	M. Whittaker,	Guard	X X X	X	X	X
1085	F. Davis	"	X X X	X	X	X
1086	C. Amsdill	"	X X X	X	X	X
1087	J. Brosnan	"	X X X	X	X	X
1088	J. Schoonma ker	Laborer	.16 .09 .07	125	155	280
1089	E. Westervelt	TON. OFFICE	X X X	X	X	X
1090	F. Epp	"	X X X	X	X	X
1091	F. Malene	"	X X X	X	X	X
1092	R. Heatherton	"	X X X	X	X	X
1093	W. Collins	Janitor Laundryman	X X X	X	X	X
1094	J. Doody	Laborer	.25 .15 .1	170	250	420 *
1095	J. Ringvelski	Laborer	E.O.D. 8/21/50 not enclosed			
1096			X X X	X	X	X
1097			X X X	X	X	X
1098			X X X	X	X	X

* less than 50 mr

592-5
8/29/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING: 8/14/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. Kile	Maintenance Chief				
1081	R. Sutherland,	Laborer	Card enclosed 8/2/50	155	125	280
1082	C. Bowman	Laborer				
1083						
1084	M. Whittaker,	Guard				
1085	E. Davis	"				
1086	C. Amsdill	"				
1087	J. Brosnan	"		125	155	280
1088	J. Schoonma ker	Laborer				
1089	E. Westervelt	TON. OFFICE				
1090	F. Epp	"				
1091	F. Malene	"				
1092	R. Heatherton	"				
1093	W. Collins	Janitor Laundryman		170	250	420*
1094	J. Doody	Laborer				
1095	J. Ringvelski	Laborer	E.O.D. 8/21/50	not enclosed		
1096						
1097						
1098						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT 600W
WEEK BEGINNING 8-7-50

Badge No.	Name	Job Description	T	Sec. Fed.	No. B	Exposure, mr Beta	Gamma	Total
1080	Kile, K.	Main Supr	X	X	X	X	X	X
1081	Sutherland R	Laborer (last)	(replaced)			missing		
1082	Bowman C.	"	.14	.09	.05	90	160	250
1084	Whittaker M.	Guard	.03	.03	X	X	55	55
1085	Davis, J.	"	.03	.03	X	X	55	55
1086	Ansdell C.	"	.03	.03	X	X	55	55
1087	Brasmal J.	"	.05	.04	.01	X	75	75
1088	Schoonmaker J.	Laborer	.14	.07	.07	130	130	260
1089	Westerveilt E.	Tor. Office	.05	.05	X	X	90	90
1090	Epp, O.	"	.04	.04	X	X	75	75
1091	Malone P.	"	.03	X	.03	55	X	55
1092	———	"	.06	.04	.02	X	75	75
1093	Collins W.	Janitor Laundryman	.05	.05	X	X	90	90
1094	Deadly J.	Laborer	.2	.1	.1	180	180	360 *
1095			.04	.03	.01	X	55	55
1096			X	X	X	X	X	X

* less than 50 mr

587-588 Lin 8/22/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Loop
WEEK BEGINNING 8-7-50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile, K.	Main Sup'r				
1081	Sutherland, R.	Laborer	lost - replaced - missing			
1082	Bowman, C.	"		90	160	250
1084	Whittaker, M.	Guard			55	55
1085	Davis, F.	"			55	55
1086	Amsdill, C.	"			55	55
1087	Brosman, J.	"			75	75
1088	Schoonmaker, J.	Laborer		130	130	260
1089	Westervelt, E.	Ton. Office			90	90
1090	Epp, F.	" "			75	75
1091	Malone, F.	" "		55		55
1092		" "			75	75
1093	Collins, W.	Janitor-Laundryman			90	90
1094	Doody, J.	Laborer		180	180	360 *
1095					55	55
1096						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 7/31/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile, K.	Guard	Vacation	X	X	X
1081	Sutherland, R.	Laborer	720-01-5434 .07 .06 .04	95	130	225
1082	Bowman, C.	"	117-14-4537 .075 .05 .035	X	110	110
1083	Dutton	Resigned	.04 .035 .005	X	90	90
1084	Whittaker, M.	Guard	118-05-4236	X	X	X
1085	Davis, F.	"	126-05-4236 .03 .03 X	X	80	80
~~1086~~ 1086	Amsdill, C.	"	072-07-379 X X X	X	X	X
~~1087~~ 1087	Brosnan, J.	"	133-20-8011 .03 .03 X	X	90	90
1089	Westervelt, E.	TON OFFICE	065-20-8323 .04 X .04	95	X	95
1090	Epp, F.	"	070-09-7702 .04 .04 X	X	95	95
1091	Malone, F.	"	118-05-5377 replaced recording			
1092	Heatherton, R.	"	332-10-9338 X X X			
1093	Collins, W.	Janitor-Laundrymn	080-10-9018 X			
1094	Doody, J.	Laborer	.05 .03 .02 096-16-3867	X	80	80
1088	Schoonmaker, J.	Laborer	108-01-5410 .08 .05 .03	80	110	190

Please do not type in the social security numbers.
Lee

* less than 50 mr

583-584 Lee 8/15/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 7/31/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile, K.	Guard	Vacation			
1081	Sutherland, R.	Laborer	720-01-5434	95	130	225
1082	Bowman, C.	"	117-14-4387		110	110
1083	Dutton	Resigned			90	90
1084	Whittaker, M.	Guard	118-05-4236			
1085	Davis, F.	"	126-05-4236		80	80
1086	Amsdill, C.	"	072-07-379			
1087	Brosnan, J.	"	133-20- 8011		90	90
1088						
1089	Westervelt, E.	TON OFFICE	065-20-8323	95		95
1090	Epp, F.	"	070-09-7702		95	95
1091	Malone, F.	"	118-05-5377	REPLACED MISSING		
1092	Heatherton, R.	"	332-10-9338			
1093	Collins, W.	Janitor-Laundrymn	080-10-9018			
1094	Doody, J.	Laborer	096-16-2867		80	80
1088	Schoonmaker, J.	Laborer	106-01-6411	80	110	190

PLEASE DO NOT TYPE IN THE SOCIAL SECURITY NUMBERS.

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT 7/24/50
WEEK BEGINNING LOOW

Badge No.	Name	Job Description	T	Soc. Sec. No. B		Exposure, mr Beta	Gamma	Total	
1080	Kile, K.	Guard	.06	.045	.015	X	80	80	
1081	Sutherland, R.	Laborer	28	.135	.145	270	250	520	*
1082	Bowman, C.	"	.135	.095	.04	70	170	240	
1083	Dutton, R.	"	X	X	X				
1084	Whittaker, M.	Guard	X	X	X				
1085	Davis, F.	"	X	X	X				
1086	Amsdill, C.	"	X	X	X				
1087	Brosnan, J.	"	X	X	X				
1088	Schoonmaker, J.	Laborer	X	X	X				
1089	Westervelt, E.	Office	X	X	X				
1090	Epp, F.	"	X	X	X				
1091	Malone, F.	"	X	X	X				
1092	Heatherton, R.	"	X	X	X				
1093	Collins, W.	Laundry & Janitor	X	X	X				
1094	Doody, J.	Laborer	.135	.08	.055	100	150	250	
	***Badges being forward under separate cover Registered No. 469836								

* less than 50 mr

579-580 Lin 8/8/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT 7/24/50
WEEK BEGINNING LOOM

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1080	Kile, K.	Guard			80	80
1081	Sutherland, R.	Laborer		270	250	520 *
1082	Bowman, C.	"		70	170	240
1083	Dutton, R.	"				
1084	Whittaker, M.	Guard				
1085	Davis, F.	"				
1086	Amsdill, C.	"				
1087	Brosnan, J.	"				
1088	Schoonmaker, J.	Laborer				
1089	Westervelt, E.	Office				
1090	Epp, F.	"				
1091	Malone, F.	"				
1092	Heatherton, R.	"				
1093	Collins, W.	Laundry & Janitor				
1094	Doody, J.	Laborer		100	150	250
	***Badges being forward under separate cover Registered No. 469836					

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT L O O W
WEEK BEGINNING 7/17/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5939	X	X	X
1081	Sutherland	Laborer	720-01-5434 045 03 015	X	95	95
1082	Bowman	"	117-14-4387			
1083	Dutton	"	117-14-1141			
1084	Whittaker	Guard	118-05-4236			
1085	Davis	"	126-05-4236			
1086	Amsdill	"	072-07-379			
1087	Brosnan	"	133-20-8011			
1088	Schoonmaker	Laborer	100-01-8311 04	120	95	215
1089	Westervelt	TON. OFFICE	085-20-8323			
1090	Epp	"	070-09-2702			
1091	Malone	"	118-05-5377			
1092	Heatherton	"	332-10-8338			
1093	Collins	Janitor Laundryman	080-10-9018			
1094						
1095						
1096						

* less than 50 mr

575-576 Lee 8/3/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT L O O W
WEEK BEGINNING 7/17/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5929			
1081	Sutherland	Laborer	720-01-5434		95	95
1082	Bowman	"	117-14-4387			
1083	Dutton	"	117-14-1141			
1084	Whittaker	Guard	118-05-4236			
1085	Davis	"	126-05-4236			
1086	Amsdill	"	072-07-379			
1087	Brosnan	"	133-20-8011			
1088	Schoonmaker	Laborer	106-01-6411	120	95	215
1089	Westervelt	TON. OFFICE	065-20-8323			
1090	Epp	"	070-09-7702			
1091	Malone	"	118-05-5377			
1092	Heatherton	"	332-10-9338			
1093	Collins	Janitor Laundryman	080-10-9018			
1094						
1095						
1096						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 7/9/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5928	X	100	100
1081	Sutherland	Laborer	720-01-5434	X	140	140
1082	Bowman	"	117-14-4387	X	130	130
1083	Dutton	"	117-14-1141	X	80	80
1084	Whittaker	Guard	118-05-8504	X	X	X
1085	Davis	"	126-05-4236	80	X	80
1086	Amsdill	"	072-07-379	X	X	X
1087	Brosnan	"	033-20-8011	X	80	80
1088	Schoonmaker	Laborer	106-01-6411			
1089	Westervelt	TON.OFFICE	065-20-8328			
1090	Epp	"	070-09-7702			
1091	Malone	"	118-05-5377			
1092	Heatherton	"	X X X			
1093	Collins	Janitor Laundryman	X X X			
1094			X X X			
1095			X X X			
1096			X X X			

* less than 50 mr

571-572 Lee 7/27/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 7/9/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1080	Kile	Guard	072-03-5929		100	100
1081	Sutherland	Laborer	720-01-5434		140	140
1082	Bowman	"	117-14-4387		130	130
1083	Dutton	"	117-14-1141		80	80
1084	Whittaker	Guard	118-05-8504			
1085	Davis	"	126-05-4236	80		80
1086	Amedill	"	072-07-379			
1087	Brosnan	"	133-20-8011		80	80
1088	Schoonmaker	Laborer	106-01-6411			
1089	Westervelt	TON.OFFICE	065-20-8323			
1090	Epp	"	070-09-7702			
1091	Malone	"	118-05-5377			
1092	Heatherton	"				
1093	Collins	Janitor Laundryman				
1094						
1095						
1096						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 7/3/50

Badge No.	Name	Job Description	Soc. Sec. No. T	Soc. Sec. No.	Soc. Sec. No. B	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	Kile, K		X	X	X			
1081	Sutherland R.	Laborer	X	vacation	X			
1082	Bowman, C	"	X	X	X			
1083	Dutton, R.	"	X	X	X			
1084	Whittaker, M.	Guard	X	X	X			
1085	Davis, F	"	X	X	X			
1086	Amsdill, C.	"	X	X	X			
1087	Brosnan, J	"	X	X	X			
1088	Schoonmaker, J.	Laborer	.07	.06	.01	X	85	85
1089	Westervelt, E	Office	.07	.03	.04	54	X	54
1090	Epp, F	"	X	X	X			
1091	Malone, F	"	X	Vacation	X			
1092	Heatherton, R	"	X	Cleveland	X			
1093	Collins, W	Laundry & Janitor	X	X	X			
1094	Control		X	X	X			
1095	"		X	X	X			
1096	"		X	X	X			

* less than 50 mr

567-568 Lee 7/19/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT L007
WEEK BEGINNING 7/8/60

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile, K					
1081	Sutherland R.	Laborer	vacation			
1082	Bowman, C	"				
1083	Dutton, R.	"				
1084	Whittaker, M.	Guard				
1085	Davis, F	"				
1086	Amedill, C.	"				
1087	Brosman, J	"				
1088	Schoonmaker, J.	Laborer			85	85
1089	Westervelt, E	Office		54		54
1090	Epp, F	"				
1091	Malone, F	"	Vacation			
1092	Heatherton, R	"	Cleveland			
1093	Collins, W	Laundry & Janitor				
1094	Control					
1095	"					
1096	"					

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING JUNE 26, 1950

Badge No.	Name	Job Description	Soc. Sec. No.			Exposure, mr Beta	Gamma	Total
1080	Kile K.		.095	.08	.015	X	150	150
1081	Sutherland, R.	Laborer	.16 (on vacation)	.095	.065	160	180	340 *
1082	Bowman, C.	"	.13	.1	.03	80	190	270
1083	Dutton, R	"	.135	.12	.015	X	230	230
1084	Whittaker, M.	Guard	.085	.085	X	X	160	160
1085	Davis, F.	"	.07	.07	X	X	130	130
1086	Amsdill, C.	"	.07	.07	X	X	130	130
1087	Brosnan, J.	"	.065	.065	X	X	120	120
1088	Schoonmaker, J.	Laborer	.12	.09	.03	80	170	250
1089	Westervelt, E	Office	.095	.095	X	X	180	180
1090	Epp, F	"	.08	.07	.01	X	130	130
1091	Malone, F.	"	.08	.07	.01	X	130	130
1092	Heatherton, R	"						
1093	Collins, W.	Laundry & Janitor	missing			replaced		
1094	"Control"		.08	.06	.02	X	110	110
1095	"							
1096	"		.075	.075	X	X	140	140
Note:								
1084	Whittker, M. (Blue, worn week of June 19, 1950)							

* less than 50 mr

563-564 Lee 7/12/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT LOOW
FILM BADGE REPORT WEEK BEGINNING JUNE 26, 1950

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile K.			x	150	150
1081	Sutherland, R.	Laborer	(on vacation)	160	180	340 *
1082	Bowman, C.	"		80	190	270
1083	Dutton, R	"		x	230	230
1084	Whittaker, M.	Guard		x	160	160
1085	Davis, F.	"		x	130	130
1086	Amsdill, C.	"		x	130	130
1 1087	Brosnan, J.	"		x	120	120
1088	Schoonmaker, J.	Laborer		80	170	250
1089	Westervelt, E	Office		x	180	180
1090	Epp, F	"		x	130	130
1091	Malone, F.	"		x	130	130
1092	Heatherton, R	"				
1093	Collins, W.	Laundry & Janitor		missing replaced		
1094	"Control"			x	110	110
1095	"					
1096	"			x	140	140
Note:						
1084	Whittker, M. (Blue, worn week of June 19, 1950)					

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT L O O W
WEEK BEGINNING 6/19/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5929	X	X	X
1081	Sutherland	Laborer	720-01-5434	X	X	X
1082	Bowman	"	117-14-4380	100	100	200
1083	Dutton	"	117-14-1141	Missing		
1084	Whittaker	Guard	118-05-8504	Missing		
1085	Davis	"	126-05-4236	X	X	X
1086	Amsdill	"	072-07-379	X	X	X
1087	Brosnan	"	133-20-8011	X	X	X
1088	Schoonmaker	Laborer	106-01-6411	X	X	X
1089	Westervelt	TON. OFFICE	065-20-8323	X	X	X
1090	Epp	"	070-09-7702	Missing		
1091	Malone	"	118-05-5377	X	X	X
1092	Heatherton	"	X X X	X	X	X
1093	Wm. Collins	Janitor-Laundryman	X X X	X	X	X
1094			X X X	X	X	X
1095			X X X	X	X	X
1096			X X X	X	X	X
	NOTE: # 1083 lost, # 1084 & ~~1090~~ will be sent in envelope as soon as they are turned in. (RCH.)					

7/5/50
059-060
82

° less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT L O O W
WEEK BEGINNING 6/19/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5939			
1081	Sutherland	Laborer	720-01-5434			
1082	Bowman	"	117-14-4387	100	100	200
1083	Dutton	"	117-14-1141	Missing		
1084	Whittaker	Guard	118-05-8504	Missing		
1085	Davis	"	126-05-4236			
1086	Amsdill	"	072-07-379			
1087	Brosman	"	133-20-8011			
1088	Schoonmaker	Laborer	106-01-6411			
1089	Westervelt	TON. OFFICE	065-20-8323			
1090	Epp	"	070-09-7702	Missing		
1091	Malone	"	118-05-5377			
1092	Heatherton	"				
1093	Wm. Collins	Janitor-Laundrymen				
1094						
1095						
1096						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 6/12/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-6929	X	X	X
1081	Sutherland	Laborer	008-01-4434.02	X	75	75
1082	Bowman	"	935-14-4387.035	65	X	65
1083	Dutton	"	114-14-P141.02	X	120	120
1084	Whittaker	Guard	118-05-8504.05	100	X	100
1085	Davis	"	126-05-4236	X	X	X
1086	Amsdill	"	072-07-379.03	58	X	58
1087	Brosnan	"	163-20-8011	X	X	X
1088	Schoonmaker	Laborer	006-01-5541.025	X	110	110
1089	Westervelt	TON OFFICE	265-20-8323			
1090	Epp	"	070-09-7702			
1091	Malone	"	118-05-5372			
1092	Heatherton	Not included	X X X			
1093			X X X			
1094			X X X			
1095			X X X			
1096			X X X			

* less than 50 mr

554-555 Lem 6/29/50

NYDO RADIOLOGICAL LABORATORY U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 6/12/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5929			
1081	Sutherland	Laborer	720-01-5434		75	75
1082	Bowman	"	117-14-4387	65		65
1083	Dutton	"	117-14-1141		120	120
1084	Whittaker	Guard	118-05-8504	100		100
1085	Davis	"	126-05-4236			
1086	Amsdill	"	072-07-379	58		58
1087	Brosnan	"	133-20-8011			
1088	Schoonmaker	Laborer	106-01-6411		110	110
1089	Westervelt	TON OFFICE	065-20-8323			
1090	Epp	"	070-09-7702			
1091	Malone	"	118-05-5377			
1092	Heatherton	Not included				
1093						
1094						
1095						
1096						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 6/5/50

Badge No.	Name	Job Description	Sec. 1	Sec. 2	Sec. 3	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	X	X	X			
1081	Sutherland	Labor er	X	X	X			
1082	Bowman	"	.045	.03	.015	X	90	80
1083	Dutton	"	.055	X	.055	140	X	140
1084	Whittaker	Guard	X	X	X	X	X	X
1085	Davis	"	X	X	X			
1086	Amsdill	"	X	X	X			
1087	Brosnan	"	X	X	X	X	X	X
1088	Schoonmaker	Laborer	.13	.1	.03	80	260	340 *
1089	Westervelt	TON. OFFICE	X	X	X			
1090	Epp	"	X	X	X			
1091	Malone	"	X	X	X			
1092	Heatherton	"	X	X	X			
1093	Wm Collins	Laundry & Janitor	X	X	X			
1094			X	X	X			
1095			X	X	X			
1096			X	X	X			

ss than 50 mr

550-551 Lee 6/22/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT L00W

WEEK BEGINNING 6/5/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard				
1081	Sutherland	Labor er				
1082	Bowman	"			80	80
1083	Dutton	"		140		140
1084	Whittaker	Guard				
1085	Davis	"				
1086	Amsdill	"				
1087	Brosnan	"				
1088	Schoonmaker	Laborer		80	260	340
1089	Westervelt	TON. OFFICE				
1090	Epp	"				
1091	Malone	"				
1092	Heatherton	"				
1093	Wm Collins	Laundry & Janitor				
1094						
1095						
1096						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 5/26/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5029	X	X	X
1081	Sutherland	Laborer	120-01-5434 .02	X	95	95
1082	Bowman	"	117-14-4387 .04	95	70	165
1083	Dutton	"	117-14-1141			
1084	Whittaker	Guard	118-05-8304			
1085	Davis	"	126-05-4236			
1086	Amsdill	"	072-07-579			
1087	Brosnan	"	153-20-8011			
1088	Schoonmaker	Laborer	106-01-8411 .005	X	85	85
1089	Westervelt	TON. OFFICE	065-20-8323 .035	85	X	85
1090	Epp	"	070-09-7702			
1091	Malone	"	118-05-8377			
1092	Heatherton	"	X X X			
1093			X X X			
1094			X X X			
1095			X X X			
1096			X X X			

* less than 50 mr

546-547 Lee 6/15/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT L00W
WEEK BEGINNING 5/26/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1080	Kile	Guard	072-03-5929			
1081	Sutherland	Laborer	720-01-5434		95	95
1082	Bowman	"	117-14-4387	95	70	165
1083	Dutton	"	117-14-1141			
1084	Whittaker	Guard	118-05-8504			
1085	Davis	"	126-05-4236			
1086	Amsdill	"	072-07-379			
1087	Brosnan	"	133-20-8011			
1088	Schoonmaker	Laborer	106-01-6411		85	85
1089	Westervelt	TON. OFFICE	065-20-8323	85		85
1090	Epp	"	070-09-7702			
1091	Malone	"	118-05-5377			
1092	Heatherton	"				
1093						
1094						
1095						
1096						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 5/22/50

Badge No.	Name	Job Description	Sec. 1	Sec. 2	Sec. 3	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	Kile		X	X	X			
1081	Sutherland		X	X	X			
1082	Bowman		X	X	X			
1083	Dutton		X	X	X			
1084	Whittaker		X	X	X			
1085	Davis		X	X	X			
1086	Amsdill		X	X	X			
1087	Brosnan		X	X	X			
1088	Schoonmaker		045	X	.045	120	X	120
1090	Epp		X	X	X			
1091	Malone		X	X	X			
1089 for Westervelt and 1092 for Heatherton not included will be fwd'd later.								

* less than 50 mr

542-543 Lee 6/7/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOOW
WEEK BEGINNING 5/22/50.

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile					
1081	Sutherland					
1082	Bowman					
1083	Dutton					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Brosnan					
1088	Schoonmaker			120		120
1090	Epp					
1091	Malone					
1089 for Westervelt and 1092 for Heatherton not included will be fwd'd later.						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ord. Wks.
WEEK BEGINNING 5-15-50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-05-5929	X	X	X
1081	Sutherland	Laborer	.07 .03 .04 720-01-5434	100	70	170
1082	Bowman	"	117-14-1341 Terminated	—		
1083	Dutton	"	.055 .085 .055 117-14-1141	140	X	140
1084	Whittaker	Guard	118-05-8504			
1085	Davis	"	126-05-4836			
1086	Amsdill	"	072-07-379			
1087	Brosnan	"	133-20-8011			
1088	Schoonmaker	Laborer	07 .045 .025 106-01-6411	X	110	110
1089	Westervelt	Ton. OFFICE	065-20-8325 Terminated	—		
1090	Epp	"	080-09-7702			
1091	Malone	"	118-05-5374			
1092	Heatherton	"				
1093						
1094	not included					
1095				X	X	X
1096						

* less than 50 mr

538-539 Lin 5/31/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ord. Wks.
WEEK BEGINNING 5-15-50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5929			
1081	Sutherland	Laborer	720-01-5434	100	70	170
1082	Bowman	"	117-14-4387			
1083	Dutton	"	117-14-1141	140		140
1084	Whittaker	Guard	118-05-8604			
1085	Davis	"	126-05-4836			
1086	Amadill	"	082-07-379			
1087	Brosnan	"	153-20-8011			
1088	Schoonmaker	Laborer	106-01-6411		110	110
1089	Westervelt	Ten. OFFICE	065-20-8323			
1090	Epp	"	080-09-7702			
1091	Malone	"	118-05-5377			
1092	Heatherton	"				
1093						
1094	not included					
1095						
1096						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works

WEEK BEGINNING 5/8/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5929			
1081	Sutherland	Laborer	720-01-5434			
1082	Bowman	"	117-14-4387 117-14-1141			
1083	Dutton	"	118-05-8504			
1084	Whittaker	Guard	126-05-4230			
1085	Davis	"	072-07-379			
1086	Amsdill	"	133-20-8011			
1087	Brosnan	"	106-01-6411			
1088	Schoonmaker	Laborer	~~036-20-5123~~			
1089	Westervelt	TON. OFFICE	~~XXXXXXXXX~~ 065-20-8323			
1090	Epp	"	070-09-7702			
1091	Malone	"	118-05-5377			
1092	Heatherton	"				
1093						
1094						
1095						
1096						

* less than 50 mr

534-535 Sen 5/25/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works

WEEK BEGINNING 5/8/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5929			
1081	Sutherland	Laborer	720-01-5434			
1082	Bowman	"	117-14-4387 117-14-1141			
1083	Dutton	"	118-05-8504			
1084	Whittaker	Guard	126-05-4236			
1085	Davis	"	072-07-379			
1086	Amsdill	"	133-20-8011			
1087	Brosnan	"	106-01-6411			
1088	Schoonmaker	Laborer	~~065-20-8093~~			
1089	Westervelt	TON. OFFICE	~~XXXXXXXXXX~~ 065-20-8323			
1090	Epp	"	070-09-7702			
1091	Malone	"	118-05-5377			
1092	Heatherton	"				
1093						
1094						
1095						
1096						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

Lake Ontario
PLANT Ordnance Works
WEEK BEGINNING 5/1/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	Kile	Guard	035-03-5929	X	58	58
1081	Sutherland	Laborer	120-01-3434	X	58	58
1082	Bowman	"	117-14-4887	X	58	58
1083	Dutton	"	117-14-4141			
1084	Whittaker	Guard	128-05-8504			
1085	Davis	"	126-03-4236			
1086	Amsdill	"	072-07-[illegible]			
1087	Brosnan	"	183-20-8611			
1088	Schoonmaker	Laborer	106-01-8411			
1089	Westervelt	TON. Office	065-20-8323			
1090	Epp	"	070-09-7702			
1091	Malone	"	128-05-[illegible]			
1092	Heatherton	"				
1093	Joe Selvaggio	Badges worn by Kulp-Waco employees Week of May 1.	.085 .045 .04	75	85	160
1094	Jess Waters	Barrel dumping contract	.08 .045 .035	70	85	155
1095	James Kennedy	Work compete - No badges issued for week of May 8.	.06 .04 .02	X	75	75
1096	Ray Kent		.1 .05 .05	95	95	190

* less than 50 mr

530-531 Lem 5/19/50

NYDO RADIOLOGICAL LABORATO[illegible] E.C.
FILM BADGE REPORT

Lake Ontario
PLANT Ordnance Works
WEEK BEGINNING 5/1/50

Badge No.	Name	Job Desc[illegible]	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	[illegible]-03-5929		58	58
1081	Sutherland	Laborer	[illegible]01-5434		58	58
1082	Bowman	"	[illegible]14-4387		58	58
1083	Dutton	"	[illegible]14-1141			
1084	Whittaker	Guard	118-05-8504			
1085	Davis	"	126-08-4236			
1086	Amsdill	"	072-07-379			
1087	Broman	"	133-20-8011			
1088	Schoonmaker	Laborer	106-01-6411			
1089	Westervelt	TON. Office	065-20-8323			
1090	Epp	"	070-09-7702			
1091	Malone	"	118-05-5377			
1092	Heatherton	"	[illegible]			
1093	Joe Selvaggio	Badges worn by Kulp-Waco employees week of May 1. Barrel dumping contract.		75	85	160
1094	Jess Waters			70	85	155
1095	James Kennedy	Work compete - No badges issued for week of May 2.			75	75
1096	Ray Kent			95	95	190

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING 4/24/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	~~072-03-5929~~			
1081	Sutherland	Laborer	~~120-01-5434~~			
1082	Bowman	"	~~117-14-4387~~			
1083	Dutton	"	117-14-1141	X	160	160
1084	Whittaker	Guard	~~118-05-8504~~			
1085	Davis	"	~~126-05-4236~~			
1086	Amsdill	"	~~072-07-379~~			
1087	Brosnan	"	~~133-20-8011~~			
1088	Schoonmaker	Laborer	106-01-6411			
1089	)		"		"	
1090	) These badges were missing when this set arrived				"	
1091	)		"		"	
1092	Heatherton	TON. OFFICE	X X X			
1093	Epp	"	~~070-09-4702~~			
1094	Malone	"	118-05-5377			
1095	Westervelt	"	~~065-20-8323~~			
1096			X X X			

Replaced) missing

* less than 50 mr

526-527 Lin 5/11/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING 4/24/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	Kile	Guard	072-03-5929			
1081	Sutherland	Laborer	720-01-5434			
1082	Bowman	"	117-14-4387			
1083	Dutton	"	117-14-1141		160	160
1084	Whittaker	Guard	118-05-8504			
1085	Davis	"	126-05-4236			
1086	Amsdill	"	072-077-379			
1087	Brosnan	"	133-20-8011			
1088	Schoonmaker	Laborer	replaced 106-01-6411	Missing		
1089	)			"		
1090	) These badges were missing when this set arrived					
1091	)					
1092	Heatherton	TON. OFFICE				
1093	Epp	"	070-09-7702			
1094	Malone	"	118-05-5377			
1095	Westervelt	"	065-20-8323			

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING 4-17-50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-06-5129	X	X	X
1081	R. Sutherland	Laborer	720-01-6394	56	90	146
1082	C. Bowman	Laborer	147-14-4587	X	X	X
1083	R. Dutton	Laborer	145-15-9141	X	210	210
1084	M. Whittaker	Guard	128-05-8802			
1085	F. Davis	Guard	X X X			
1086	C. Amsdill	Guard	072-07-3775			
1087	J. Blubaugh	Guard	143-20-8022			
1088	J. Schoonmaker	Laborer	708-01-6411	X	100	100
1089 *	E. Westervelt	TON. Office	065-20-8523			
1090	F. J. Epp	TON. Office	070-09-7702			
1091	F. Malone	TON. Office	128-05-8877			
1092	Issued		X X X			
1093			X X X			
1094			X X X			
1095			X X X			
1096			X X X			

* less than 50 mr

552-523 Lem 5/4/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING 4-17-50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-03-5929			
1081	R. Sutherland	Laborer	720-01-5434	56	90	146
1082	C. Bowman	Laborer	117-14-4387			
1083	R. Dutton	Laborer	117-14-1141		210	210
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosman	Guard	133-20-8022			
1088	J. Schoonmaker	Laborer	106-01-6411		100	100
1089 *	E. Westervelt	TON. Office	065-20-8323			
1090	F. J. Epp	TON. Office	070-09-7702			
1091	F. Malone	TON. Office	118-05-5377			
* Not Issued						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING: 4/10/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	K. G. Kile	Guard	~~012-03-5923~~	X	X	X
1081	R. Sutherland	Laborer	~~720-01-8434~~	X	100	100
1082	C. Bowman	Laborer	~~117-14-8587~~	X	90	90
1083	R. Dutton	Laborer	~~117-14-1142~~	90	X	90
1084	M. Whittaker	Guard	~~118-08-8504~~	80	X	80
1085	F. Davis	Guard	~~128-05-4235~~	70	X	70
1086	C. Amsdill	Guard	~~012-07-573~~	X	X	X
1087	J. Brosman	Guard	~~133-20-8012~~	70	X	70
1088	J. Schoonmaker	Laborer	~~108-01-8411~~	110	X	110
1089 *			X	X	X	X
1090	F. J. Epp	TON. Office	~~070-09-7702~~	70	X	70
1091	F. Malone	TON. Office	~~118-02-8377~~	X	X	X

* Not Issued

...ss than 50 mr

518-519 Lem 4/27/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING 2-4/10/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-03-5929			
1081	R. Sutherland	Laborer	720-01-5434		100	100
1082	C. Bowman	Laborer	117-14-4387		90	90
1083	R. Dutton	Laborer	117-14-1141	90		90
1084	M. Whittaker	Guard	118-05-8504	80		80
1085	F. Davis	Guard	126-05-4236	70		70
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosman	Guard	133-20-8011	70		70
1088	J. Schoonmaker	Laborer	108-01-6411	110		110
1089 *						
1090	F. J. Epp	TON. Office	070-09-7702	70		70
1091	F. Malone	TON. Office	118-05-5377			

* Not Issued

s than 50 mr

LAKE ONTARIO
ORDNANCE WORKS

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT.....
WEEK BEGINNING 4/3/50

Badge No.	Name	Job Description	Soc Sec No	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	~~072-03-5923~~			
1081	R. Sutherland	Laborer	~~730-01-5434~~			
1082	C. Bowman	Laborer	~~117-14-4557~~			
1083	R. Dutton	Laborer	~~117-14-1141~~			
1084	M. Whittaker	Guard	~~119-05-8502~~			
1085	F. Davis	Guard	~~123-05-4236~~			
1086	C. Amsdill	Guard	072-077-679			
1087	J. Brosman	Guard	~~133-20-8032~~			
1088	J. Schoonmaker	Laborer	~~106-01-8411~~ .05			
1089 *						
1090	F. J. Epp	TON. Office	~~070-09-7702~~	missing		
1091	F. Malone	TON. Office	~~119-05-5677~~	missing		
* Not Issued						
1092						

* less than 50 mr

514-515 Lin 4/19/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS
WEEK BEGINNING 4/3/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-03-5929			
1081	R. Sutherland	Laborer	720-01-5434			
1082	C. Bowman	Laborer	117-14-4387			
1083	R. Dutton	Laborer	117-14-1141			
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosnan	Guard	133-20-8021			
1088	J. Schoonmaker	Laborer	106-01-6411			
1089 *						
1090	F. J. Epp	TON. Office	070-09-7702	Missing		
1091	F. Malone	TON. Office	118-05-5377	Missing		
* Not Issued						
1092						

* less than 50 mr

also fdpa

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Loozu
WEEK BEGINNING 3/27/50

Badge No.	Name	Job Description	Body/Sec.			Exposure, mr Beta	Gamma	Total
1080			.035	X	.035	130	X	130
1081			.06	.04	.02	X	140	140
1082			.08	.04	.04	140	140	280
1083			.045	X	.045	160	X	160
1084			X	X	X	X	X	X
1085			.035	X	.035	130	X	130
1086			X	X	X	X	X	X
1087			X	X	X	X	X	X
1088			.06	X	.06	210	X	210
1089			X	X	X			
1090			X	X	X			
1091			X	X	X			
1092			X	X	X			
1093			X	X	X			
1094			X	X	X			
1095			.045	X	.045	160	X	160
1096			X	X	X	X	X	X

X less than 50 mr

510-511 Lzu 4/13/50

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Hooper
WEEK BEGINNING 3/27/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1080				130		130
1081					140	140
1082				140	140	280
1083				160		160
1084						
1085				130		130
1086						
1087						
1088				210		210
1089						
1090						
1091						
1092						
1093						
1094						
1095				160		160
1096						

* less than 50 mr

Registry No. 469773

LAKE ONTARIO ORDNANCE WORKS

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

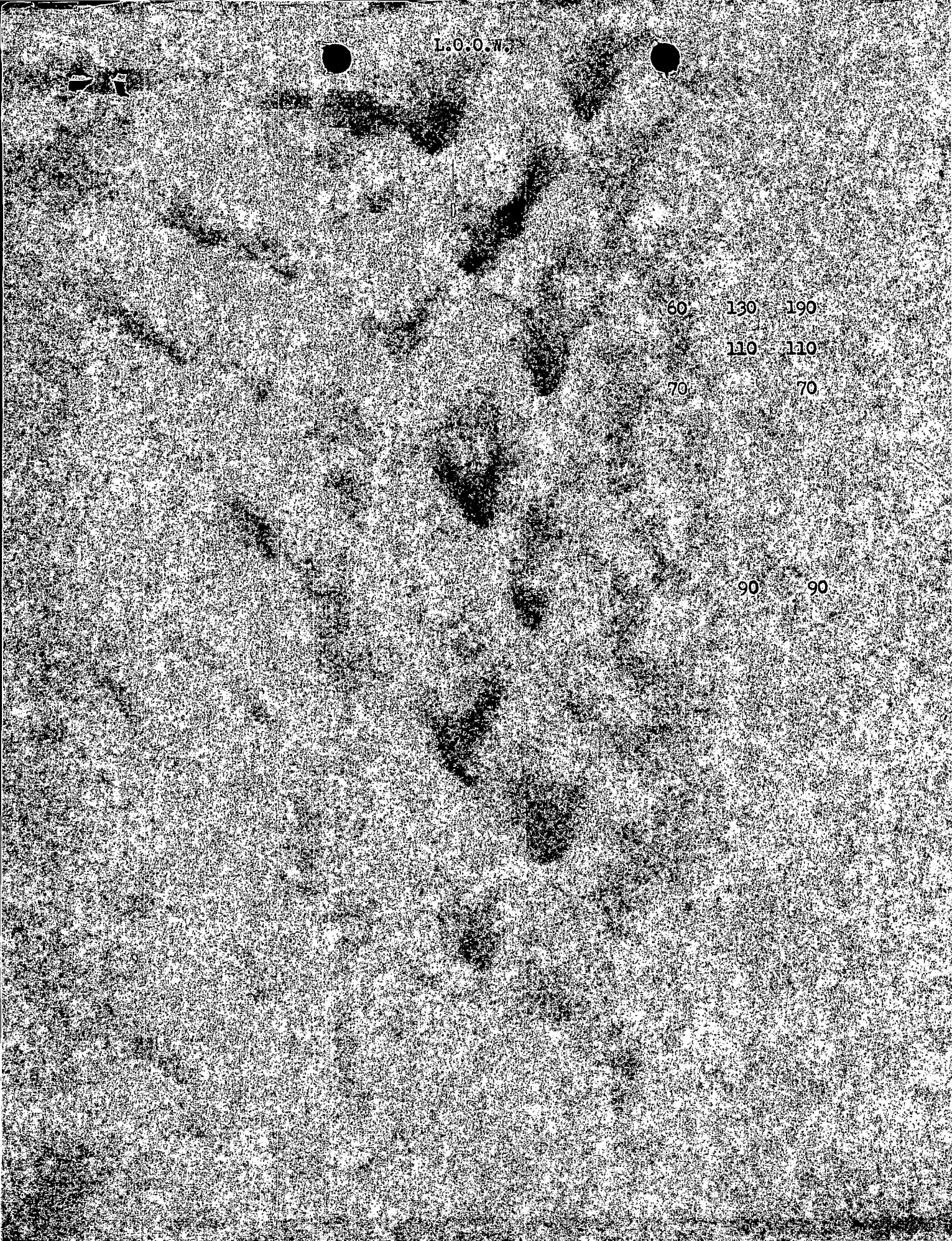
PLANT

WEEK BEGINNING 3/20/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	078-03-5929	X	X	X
1081	R. Sutherland	Laborer	.11 .075 .035 720-01-5434	60	130	190
1082	C. Bowman	Laborer	.085 .065 .02 117-14-4887	X	110	110
1083	R. Dutton	Laborer	.04 X .04 117-14-1141	70	X	70
1084	M. Whittaker	Guard	119-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-07-3579			
1087	J. Brosman	Guard	133-20-8031			
1088	J. Schoonmaker	Laborer	.06 .05 .01 106-01-8411	X	90	90
1089 *	E. Westervelt	Tonawanda Office	065-20-8323			
1090	F. J. Epp	TON. Office	070-09-7503			
1091	F. Malone	TON. Office	119-05-8877			
XXXXXXXXXXXX						
1092	R. Heatherton	Ton. Office	X X X	X	X	X

ss than 50 mr

504-505 L'ew 4/5/50


L.O.O.N.
60
130
190
110
110
70
70
90
90

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS 50 2 weeks

WEEK BEGINNING ~~[illegible]~~ 50 -3-6-50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	~~072-03-5929~~	X	X	X
1081	R. Sutherland	Laborer	100-01-5054	40	90	130
1082	C. Bowman	Laborer	114-14-4387	X	X	X
1083	R. Dutton	Laborer	107-14-1141	40	90	130
1084	M. Whittaker	Guard	~~118-05-5504~~	X	X	X
1085	F. Davis	Guard	~~126-05-4336~~	X	X	X
1086	C. Amsdill	Guard	~~072-07-8879~~	X	X	X
1087	J. Brosnan	Guard	~~133-20-8022~~	X	X	X
1088	J. Schoonmaker	Laborer	104-01-6411	70	90	160
1089 X	E. Westervelt	TON. Office	~~013-24-8313~~	X	X	X
1090	F. J. Epp	TON. Office	~~070-09-7702~~	X	X	X
1091	F. Malone	TON. Office	118-05-6377	missing		
~~Not Issued~~						
1092	R. HEATHERTON		~~332-10-9338~~	X	X	X

than 50 mr

40 90 130

40 90 130

70 90 160

MISSING

*NOTE: EXCEPT WHERE INDICATED, RADIATION RECEIVED WAS LESS THAN 50 mrep.

Registry No. 469767

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING ~~XXXXX~~ 2/27/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-03-5329			
1081	R. Sutherland	Laborer	720-01-5434			
1082	C. Bowman	Laborer	117-14-4387			
1083 *	R. Dutton	Laborer	117-14-1141	Lost	missing	
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosman	Guard	133-20-8011			
1088	J. Schoonmaker	Laborer	106-01-6411			
1089 *	E. Westervelt	Tonawanda Office	065-20-8323			
1090/1	F. J. Epp	TON. Office	070-09-7702			
1091/0	F. Malone	TON. Office	118-05-5377			
~~XXXXXXXXXXXX~~						
1092	R. Heatherton	Ton. Office				

* less than 50 mr

494-495
3/14/80 RR

Missing

*NOTE: UNL EXCEPT WHERE INDICATED, RADIATION RECEIVED

WAS LESS THAN 50 mrep.

Registry no. 469767

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING 2/20/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	078-03-5929			
1081	R. Sutherland	Laborer	720-01-5434			
1082	C. Bowman	Laborer	117-14-4387			
1083	R. Dutton	Laborer	117-14-1141	*	220	220
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosman	Guard	133-20-8011			
1088	J. Schoonmaker	Laborer	105-01-6411	45	160	235
XXXXXXXX						
XXXXXXXX						
XXXXXXXX						
XXXXXXXX						

* less than 50 mr

3/17/50

RR 484-485

220 220

75 160 235

*NOTE: EXCEPT WHERE INDICATED, RADIATION RECEIVED WAS LESS THAN 50 mrep.

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING ~~8/10/50~~ 2/13/50

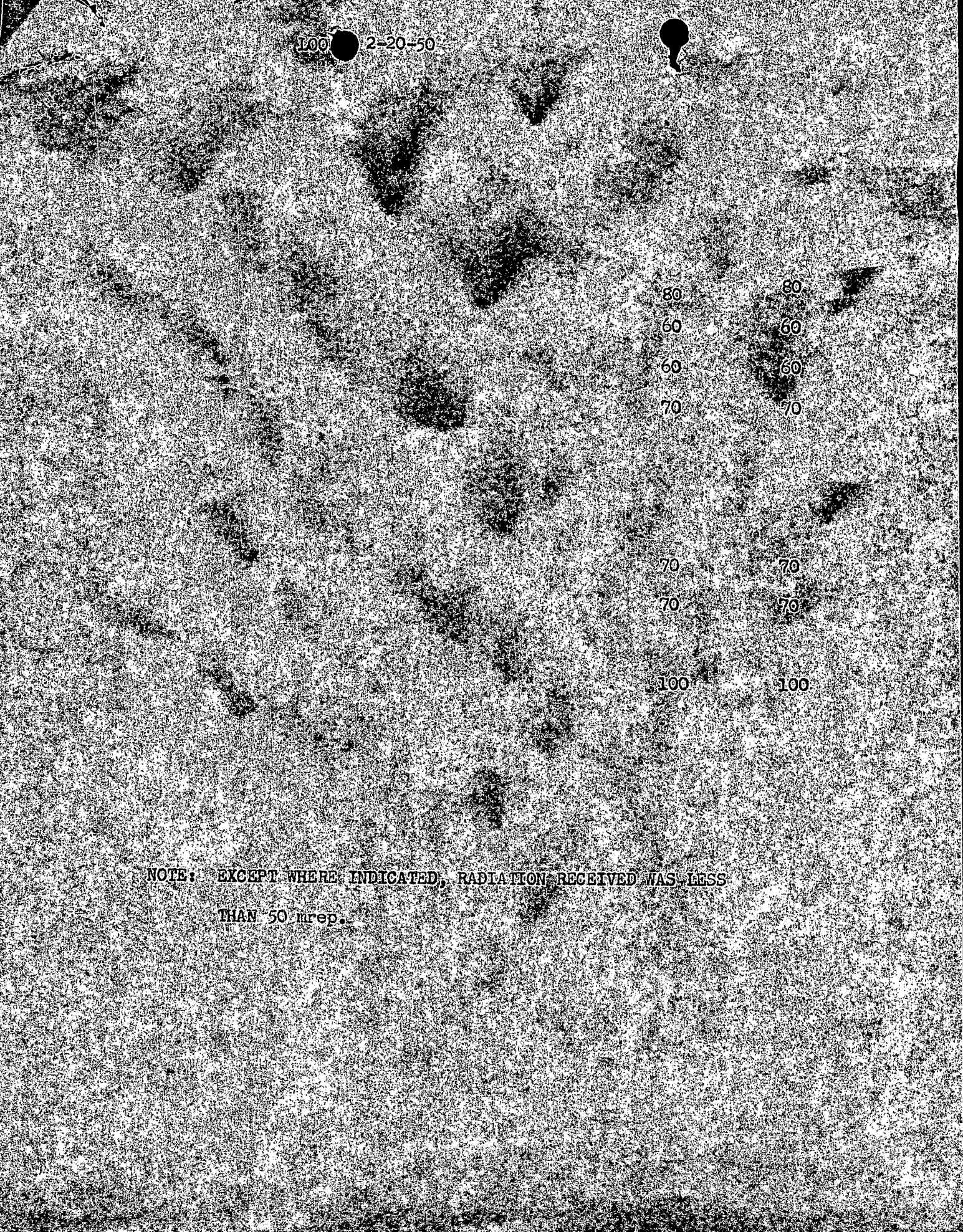
2/13/50 check

Badge No.	Name	Job Description	T / Soc Sec No	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	.04 X .04 072-03-5929	80	X	80
1081	R. Sutherland	Laborer	.03 X .03 720-01-5434	60	X	60
1082	C. Bowman	Laborer	.03 X .03 117-14-4387	60	X	60
1083	R. Dutton	Laborer	.035 X .035 117-14-1141	70	X	70
1084	M. Whittaker	Guard	X X X 118-05-8504			
1085	F. Davis	Guard	X X X 126-05-4236			
1086	C. Amsdill	Guard	X X X 072-077-579			
1087	J. Brosman	Guard	.035 X .035 133-20-8032	70	X	70
1088	J. Schoonmaker	Laborer	.035 X .035 109-01-6411	70	X	70
1089 *	E. Westervelt	TON. Office	X X X	X	X	X
1090	F. J. Epp	TON. Office	.05 X .05 070-09-7702	100	X	100
1091	F. Malone	TON. Office	X X X 118-05-5877	X	X	X
~~* Not Issued~~						

* less than 50 mr

490-491 Lw ~~2/15/50~~

(12)



NOTE: EXCEPT WHERE INDICATED, RADIATION RECEIVED WAS LESS THAN 50 mrep.

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING Feb. 6, 1950

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	~~072-03-5929~~	X	X	X
1081	R. Sutherland	Laborer	720-01-5434	.06 .04	140	150	290
1082	C. Bowman	Laborer	117-14-4387	.06 .04	140	150	290
1083	R. Dutton	Laborer	117-14-1141	.06 X .06	210	X	210
1084	M. Whittaker	Guard	~~178-05-5504~~	X	X	X
1085	F. Davis	Guard	~~126-05-1238~~	X	X	X
1086	C. Amsdill	Guard	~~072-077-379~~	X	X	X
1087	J. Brosman	Guard	~~183-20-6011~~	X	X	X
1088	J. Schoonmaker	Laborer	~~208-01-6411~~	X	X	X
1089 X	E. Westervelt	TA	X X X	X	X	X
1090	MISSING ~~XXXXXXXX~~	TON. Office	~~XXXXXXXXXXX~~	missing		
1091	F. Malone	TON. Office	~~118-05-5377~~	X	X	X
~~XXXXXXXXXXX~~						
0981	F. J. Epp		X X X	X	X	X
0982	R. Heatherton		X X X	X	X	X

* less than 50 mr

482-483
2/28/50

13

NYDO RADIOLOGICAL LABORATORY, U. S. A. E. C.

FILM BADGE REPORT

Plant: Lake Ontario Ordnance Works

Week Beginning: 1/30/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	.045 X .045 072-03-5929	130	X	130
1081	R. Sutherland	Laborer	.045 X 120-01-5454	X	130	130
1082	C. Bowman	Laborer	.06 .03 .03 117-14-4387	90	90	180
1083	R. Dutton	Laborer	.06 .055 .005 117-14-1141	X	160	160
1084	M. Whittaker	Guard	.045 .03 .015 118-05-8504	X	90	90
1085	F. Davis	Guard	.045 .04 .005 126-05-1236	X	120	120
1086	C. Amsdill	Guard	.035 .03 .005 072-077-379	X	90	90
1087	J. Brosnan	Guard	.04 .035 .005 133-20-8011	X	110	110
1088	J. Schoonmaker	Laborer	.09 .06 .03 106-01-6411	90	170	260
1089	E. Westervelt	Ton. Office	.04 .04 X	X	120	120
1090 *						
1091 *						
1013	F. J. Epp	Ton. Office	070-09-7702			
1014	F. Malone	Ton. Office	118-05-5377			
1015	R. Heatherton	Ton. Office				
*	Not issued					

1/30/50 478-479 Lee

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NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING 11/23/50

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	07[illegible]-03-5929			
1081	R. Sutherland	Laborer	720-[illegible]-5434			
1082	C. Bowman	Laborer	117-14-4387			
1083	R. Dutton	Laborer	117-14-1141			
1084	M. Whittaker	Guard	119-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosnan	Guard	133-20-8022			
1088	J. Schoonmaker	Laborer	10[illegible]-01-6411			
1089 X	E. Westervelt					
1090	F. J. Epp	TON. Office	076-09-7702	missing		
1091	F. Malone	TON. Office	108-05-5877	missing		
XXXXXXXXXXXX						

* less than 50 mr

474-475
12/13/50

Lake Ontario Ordnance Works

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT
WEEK BEGINNING 1/16/50

2 wks

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
0970	K. Kile		.08 .06 .02	55	150	205
0971	R. Sutherland		.11 .07 .04	110	170	280
0972	C. Bowman		.1 .07 .03	80	170	250
0973	R. Dutton		.08 .07 X	+	170	170
0974	M. Whittaker		.09 .06 .03	80	150	230
0975	F. Davis		.08 .05 .03	80	125	205
0976	C. Amsdill		.09 .07 .02	55	170	225
0977	J. Brosnan		.09 .06 .03	80	150	230
0978	J. Schoonmaker		.11 .08 .03	80	190	270
0980	F. J. Epp		.05 .03 .02	55	75	130
0981	F. Malone		.08 .07 X	+	170	170
0982	E. Westervelt		.1 .08 .02	55	190	245
0983	R. Heatherton			Screening		
	Kulp - Waco at LOOW					
0993	J. Wood		.08 .06 .02	55	150	205
0994	V. Lawson		.13 .08 .05	135	190	325 X
0995	D. Davey		.14 .08 .06	160	190	350 X
0996	H. Marcinkowski		.14 .1 .04	110	240	350 X

470-471
2/5/50

* less than 50 mr

16

(12)

Tuesday

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT The Lake Ontario Ordnance Works
WEEK BEGINNING 12/25/49 & 1/2/50

Badge No.	Name	Job Description	Exposure, mr Beta	Gamma	Total
1080	K. Kile				
1081	R. Sutherland				
1082	C. Bowman				
1083	R. Dutton				
1084	M. Whittaker				
1085	F. Davis				
1086	C. Amsdill				
1087	J. Brosnan				
1088	J. Schoonmaker				
1089	E. Westervelt				
1090	F. J. Epp				
1091	F. Malone				

Note: Other Blue Badges not worn.

* less than 50 mr

12/26/49 & 1/2/50 466-467 Lee

21

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT The Lake Ontario Ordnance Works
WEEK BEGINNING Dec. 19

Badge No.	Name	Job Description	Soc. Sec. No.			Exposure, mr Beta	Gamma	Total	
0970	Missing					missing			
0971	R. Sutherland		.065	.025	.04	140	100	240	
0972	C. Bowman		.055	X	.055	180	X	180	
0973	R. Dutton		.04	.025	.015	X	100	100	
0974	Whittaker M.		.025	X	.025	100	X	100	
0975	Missing					missing			
0976	C. Amsdill		X	X	X	X	X	X	
0977	J. Brosnan		.035	X	.035	130	X	130	
0978	J. Schoonmaker		.09	.04	.05	170	140	310	*
0979	Missing					missing			
0990	F. Epp		.025	X	.025	100	X	100	
0992	F. Malone		.11	.05	.06	200	170	370	*
0993	E. Westervelt		.05	.02	.03	110	80	190	
0994	R. Heatherton		.05	.03	.02	80	110	190	
KULP WACO AT LOOW- Badges worn 2 weeks- 12/19 & wk. of 12/26.									
0984	J. Wood		X	X	X				
0986	V. Lawson		X	X	X				
0987	D. Davey		X	X	X				
0988	H. Maninkowski		X	X	X				

* less than 50 mr

12/19/49 466-467 Lw

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING: Dec. 12, 49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
0970 XXXXX	K. G. Kile	Guard	~~072-03-5929~~ X	X	X	X
0971 ~~1081~~ XXXX	R. Sutherland	Laborer	~~133-02-5434~~ 03	65	170	235
0972 ~~1082~~ XXXXX	C. Bowman	Laborer	~~X17-14-4387~~	X	X	X
0973 ~~1083~~ XXXXX	R. Dutton	Laborer	~~X17-14-1141~~	X	X	X
0974 ~~1084~~ XXXX	M. Whittaker	Guard	~~118-05-8502~~	X	X	X
0975 ~~1085~~ XXXX	F. Davis	Guard	~~126-06-4234~~	X	X	X
0976 XXXXX	C. Amsdill	Guard	~~072-07-579~~	X	X	X
0977 XXXXX	J. Brosnan	Guard	~~133-20-8011~~	X	X	X
0978 ~~1088~~ XXXXX	J. Schoenmaker	Laborer	~~195-03-6411~~	X	X	X
XXXX ~~1089~~ *						
XXXX 0980 XXXX	F. J. Epp	TON. Office	~~070-09-7702~~ X	X	X	X
0981 XXXX	F. Malone	TON. Office	~~118-06-5377~~ X	X	X	X
XXXXXXXXXXXXXX ~~Not Issued~~						
0979	E. Westervelt	TON. Office	X X X	X	X	X
0982	R. Heatherton	TON. Office	X X X	X	X	X
	Kulp-Waco Employees on Barrel Dumping					
0984	J. Wood		X X X	X	X	X
0986	V. Lawson		X X X	X	X	X
0987	D. Davey		X X X	X	X	X
0988	H. Maninkowski		X X X	X	X	X
Note: Film Badges 1080 thru 1092 were late in arriving & were not worn.						

454-455
1/4/50

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING 12/5/49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-03-5929	X	X	X
1081	R. Sutherland	Laborer	020-01-5434	X	100	100
1082	C. Bowman	Laborer	117-14-4387	X	X	X
1083	R. Dutton	Laborer	117-14-1141	"Badge Lost"		
1084	M. Whittaker	Guard	118-05-8507	X	X	X
1085	F. Davis	Guard	126-05-4238	X	X	X
1086	C. Amsdill	Guard	072-07-373	X	X	X
1087	J. Brosman	Guard	133-20-8032	X	X	X
1088	J. Schoonmaker	Laborer	109-01-5111	75	125	200
1089 *			X X X	X	X	X
1090	F. J. Epp	TON. Office	070-09-7703	X	X	X
1091	F. Malone	TON. Office	118-05-5377	X	X	X
* Not Issued						

448-449
12/22/49

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING Nov. 28, 49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-03-5929	X	X	X
1081	R. Sutherland	Laborer	120-01-5434	X	X	X
1082	C. Bowman	Laborer	117-14-4387 .08 .05 .03	40	65	105
1083	R. Dutton	Laborer	117-14-1141 .05 .02 .03	40	X	40
1084	M. Whittaker	Guard	118-05-8604	X	X	X
1085	F. Davis	Guard	126-05-4236	X	X	X
1086	C. Amsdill	Guard	072-07-379	X	X	X
1087	J. Brosnan	Guard	133-20-8013	X	X	X
1088	J. Schoonmaker	Laborer	109-01-8411 .07 .03 .04	50	40	90
1089 *			X X X	X	X	X
1015 ~~1090~~	F. J. Epp	TON. Office	190-09-7702	X	X	X
1091	F. Malone	TON. Office	118-07-8877	X	X	X
* Not Issued						

* less than 50 mr

447-448
12/19/49 ch

LAKE ONTARIO
ORDNANCE WORKS

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT .....

WEEK BEGINNING Nov. 14, 1949

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
0970 ~~XXXX~~	K. G. Kile	Guard	~~072-05-5929~~			
0971 ~~XXXX~~	R. Sutherland	Laborer	.125 .1 .025 720-01-5434	X	150	150
0972 ~~XXXX~~	C. Bowman	Laborer	.08 .05 .03 117-14-4587	46	75	121
0973 ~~XXXX~~	R. Dutton	Laborer	~~117-14-1141~~			
0974 ~~XXXX~~	M. Whittaker	Guard	~~119-05-0504~~			
0975 ~~XXXX~~	F. Davis	Guard	~~124-05-4236~~			
0976 ~~XXXX~~	C. Amsdill	Guard	~~072-077-379~~			
0977 ~~XXXX~~	J. Brosnan	Guard	~~133-20-0011~~			
0978 ~~XXXX~~	J. Schoonmaker	Laborer	.165 .13 .035 109-01-8411	55	200	255
0979 ~~XXXX~~ *			.11 .09 .02	X	140	140
0980 ~~XXXX~~	F. J. Epp	TON. Office	~~070-09-7702~~			
0981 ~~XXXX~~	F. Malone	TON. Office	~~119-05-8377~~			

* Not Issued

~~Note:~~

Film Badges for LOOW did not arrive in time so the LAP extra badges were worn.

Film Badges for Electro Met. also were not worn.

* less than 50 mr

11/14/49 439-440 Law

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING 11-7-49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-03-5929			
1081	R. Sutherland	Laborer	720-01-5434			
1082	C. Bowman	Laborer	117-14-4387			
1083	R. Dutton	Laborer	117-14-1141			
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosnan	Guard	133-20-8031			
1088	J. Schoonmaker	Laborer	106-01-6411			
1089 *						
1090	F. J. Epp	TON. Office	070-09-7702			
1091	F. Malone	TON. Office	118-05-5377			
* Not Issued						

435-436
11/29/49

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING 10-31-49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	.055 .035 .02 072-03-8929	44	65	109
1081	R. Sutherland	Laborer	.13 .12 .01 720-01-5434	X	290	290
1082	C. Bowman	Laborer	.16 .13 .03 117-14-4387	65	230	295
1083	R. Dutton	Laborer	.155 .12 .035 117-14-1141	70	210	280
1084	M. Whittaker	Guard	.05 .04 .01 118-05-9504	X	70	70
1085	F. Davis	Guard	.065 .045 .02 126-05-4236	44	80	124
1086	C. Amsdill	Guard	.055 .05 .005 072-077-379	X	90	90
1087	J. Brosnan	Guard	.065 .045 .02 133-20-80[illegible]	44	80	124
1088	J. Schoonmaker	Laborer	.2 .16 .04 106-01-6411	85	280	365 *
1089 *			.06 .05 .01	X	90	90
1090	F. J. Epp	TON. Office	.23 .03 X 070-09-7702	X	58	58
1091	F. Malone	TON. Office	.04 X .04 118-05-5577	85	X	85
* Not Issued						
1091			.055 .03 .025	54	58	112

X less than 50 mr

11/21/49 431-432 Lee

Lake Ontario

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT L O O W
WEEK BEGINNING 10/24/49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080			.05 x .05	105	x	105
81			.16 .11 .05	105	165	270
82			.13 .09 .04	85	140	225
83			.12 .08 .04	85	125	210
84			x			
85			x			
86			x			
87			x			
88			.14 .08 .06	125	125	250
89			x			
90			x			
91			x			

429-428
11/05/49

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING Oct. 17, 1949

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	~~072-03-5929~~ X	X	X	X
1081	R. Sutherland	Laborer	~~120-01-5434~~ 105	105	240	390 X
1082	C. Bowman	Laborer	~~117-14-4387~~ 85	85	210	295
1083	R. Dutton	Laborer	~~118-14-1141~~ 85	85	70	155
1084	M. Whittaker	Guard	~~118-05-8504~~			
1085	F. Davis	Guard	~~126-05-4236~~			
1086	C. Amsdill	Guard	~~072-077-379~~			
1087	J. Brosnan	Guard	~~133-20-8011~~			
1088	J. Schoonmaker	Laborer	~~106-01-6411~~ 45	45	40	85
1089 *			X X X	X	X	X
1090 *	F. J. Epp	TON. Office	~~[illegible]~~ no badge			
1091	F. Malone	TON. Office	~~118-05-5377~~	X	X	X
* Not Issued						

* less than 50 mr

Y23-424
11/3/49 SR

LAKE ONTARIO
ORDNANCE WORKS

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT.....
WEEK BEGINNING 10/10/49.

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total	
1080	K. G. Kile	Guard	~~072-03-5929~~	x	x	x	
1081	R. Sutherland	Laborer	~~120-01-5434~~ 105	115	175	290	
1082	C. Bowman	Laborer	~~117-14-4387~~ 27 18 09	190	300	490	x
1083	R. Dutton	Laborer	~~169-14-1141~~ 16 14 06	135	175	310	x
1084	M. Whittaker	Guard	~~118-09-8504~~				
1085	F. Davis	Guard	~~126-06-4236~~				
1086	C. Amsdill	Guard	~~072-07-379~~				
1087	J. Brosman	Guard	~~133-20-8012~~				
1088	J. Schoonmaker	Laborer	~~216-02-5411~~ 216 21	~~5000~~	5600	5600	xxx LOOKS LIKE FOG check!
1089 *			+ + +				
1090	F. J. Epp	TON. Office	~~070-09-7702~~				
1091	F. Malone	TON. Office	~~118-05-5377~~				
* Not Issued							
1265*							

* less than 50 mr

415-416
10/27/49

LAKE ONTARIO
ORDNANCE WORKS

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT
WEEK BEGINNING 10-2-49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-03-5929	+	+	+
1081	R. Sutherland	Laborer	720-01-[illegible]	45	90	135
1082	C. Bowman	Laborer	117-14-[illegible]	45	90	135
1083	R. Dutton	Laborer	117-14-[illegible]	105	175	280
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-[illegible]236			
1086	C. Amsdill	Guard	072-077-375			
1087	J. Brosman	Guard	133-20-80[illegible]			
1088	J. Schoonmaker	Laborer	109-01-[illegible]	105	330	435
1089 *						
1090	F. J. Epp	TON. Office	370-09-7702			
1091	F. Malone	TON. Office	118-05-5377			

* Not Issued

* less than 50 mr

415-416
10/24/49

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING: ~~10-26-49~~ 9

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-03-5929	x	x	x
1081	R. Sutherland	Laborer	117-01-4454	130	240	370
1082	C. Bowman	Laborer	117-14-4387	70	120	190
1083	R. Dutton	Laborer	117-14-1141	70	100	170
1084	M. Whittaker	Guard	113-03-3504	x	x	x
1085	F. Davis	Guard	128-05-4336	50	x	50
1086	C. Amsdill	Guard	042-077-379	x	x	x
1087	J. Brosnan	Guard	133-20-8011	50	x	50
1088	J. Schoonmaker	Laborer	108-01-5711	150	360	510
1089 *			x x x	x	x	x
1090 *	F. J. Epp	TON. Office	070-09-7702	x	x	x
1091	F. Malone	TON. Office	118-05-5377	x	x	x

* Not Issued

* less than 50 mr

411-412
10/18/49

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING 9-16-49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	~~072-03-5929~~			
1081	R. Sutherland	Laborer	120-01-7543 03	70	140	210
1082	C. Bowman	Laborer	117-14-2387 03	70	120	190
1083	R. Dutton	Laborer	119-14-1241 03	70	120	190
1084	M. Whittaker	Guard	~~118-05-8504~~			
1085	F. Davis	Guard	~~126-05-4236~~			
1086	C. Amsdill	Guard	~~072-077-379~~			
1087	J. Brosnan	Guard	~~133-20-8011~~			
1088	J. Schoonmaker	Laborer	105-01-8410 04	90	350	440
1089 *						
1090	F. J. Epp	TON. Office	~~070-09-7702~~			
1091	F. Malone	TON. Office	118-05-5877 05 03 02	50	60	110

* Not Issued

* less than 50 mr

405-406
10/7/49

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING: 9-9-49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	109-06-03 ~~072-03-5929~~	105	145	250
1081	R. Sutherland	Laborer	~~130-01-8434~~			
1082	C. Bowman	Laborer	115-14-4304 ~~117-14-4387~~	130	260	390 *
1083	R. Dutton	Laborer	117-14-4104 ~~117-14-4141~~	130	145	275
1084	M. Whittaker	Guard	~~118-05-8504~~			
1085	F. Davis	Guard	~~126-05-4236~~			
1086	C. Amsdill	Guard	~~072-077-379~~			
1087	J. Brosnan	Guard	~~133-20-8033~~			
1088	J. Schoonmaker	Laborer	~~106-01-5411~~			
1089 *						
1090	F. J. Epp	TON. Office	~~070-09-7702~~			
1091	F. Malone	TON. Office	~~118-05-5377~~			

* Not Issued

* less than 50 mr

403-404
9/30/49

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LAKE ONTARIO ORDNANCE WORKS

WEEK BEGINNING 9-5-49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1080	K. G. Kile	Guard	~~072-03-8929~~			
1081	R. Sutherland	Laborer	120-01-5432	110	220	330
1082	C. Bowman	Laborer	117-14-4387			
1083	R. Dutton	Laborer	117-14-1141			
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4238			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosnan	Guard	133-20-8012			
1088	J. Schoenmaker	Laborer	166-01-5111	110	260	370
1089 *						
1090	F. J. Epp	TON. Office	070-09-7702	None issued		
1091	F. Malone	TON. Office	118-05-5377	None issued		

* Not Issued

* less than 50 mr

399-400
9/23/49

LAKE ONTARIO
ORDNANCE WORKS

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
ILM BADGE REPORT

PLANT
WEEK BEGINNING 8-29-49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	072-03-5929	+	+	+
1081	R. Sutherland	Laborer	120-01-5434 .05	135	210	345
1082	C. Bowman	Laborer	117-14-4387 .05 .03 .02	60	65	125
1083	R. Dutton	Laborer	117-14-1141 .04	110	+	110
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosnan	Guard	133-20-8011			
1088	J. Schoenmaker	Laborer	108-01-5411 .05 .05 .03	85	100	185
1089 *						
1090	F. J. Epp	TON. Office	070-08-7702			
1091	F. Malone	TON. Office	118-05-5377			

* Not Issued

* less than 50 mr

J75-344
9/14/49

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING 8-22-49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total	
1080	K. G. Kile	Guard	072-03-5929 ~~XXXXXXXXXX~~	135	160	295	
1081	R. Sutherland	~~XXXXX~~ Laborer	720-01-7464	250	1800	2050	xxx
1082	C. Bowman	Laborer	114-14-4387	135	250	385	
1083	R. Dutton	Laborer	135-14-0181 X	X	3800	3800	xxx
1084	M. Whittaker	Guard	X18-05-8504				
1085	F. Davis	Guard	X126-05-4236				
1086	C. Amsdill	Guard	X072-077-379				
1087	J. Brosnan	Guard	X33-20-8011				
1088 X	J. Schoonmaker	Laborer	X106-01-6411				
1089 *			X				
1090 X	F. J. Epp	TON. Office	X70-09-7702				
1091 X	F. Malone	TON. Office	X8-05-5377				
* Not Issued.							

* less than 50 mr

393-394
9/9/49

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING 8-15-49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total	
1080	K. G. Kile	Guard	23 19 04 118-05-8504	90	350	440	X
1081	R. Sutherland	~~Guard~~ Laborer	08 05 03 720-01-5434	70	100	170	
1082	C. Bowman	Laborer	17 14 03 117-14-4437	70	80	150	
1083	R. Dutton	Laborer	18 12 06 118-14-2141	130	~~230~~ 225	355	+
1084	M. Whittaker	Guard	~~118-05-8504~~				
1085	F. Davis	Guard	~~126-05-4236~~				
1086	C. Amsdill	Guard	05 072-07-379 05	110	X	110	Badge dropped near material.
1087	J. Brosman	Guard	~~133-20-8011~~ X	X	X	X	
1088 *	J. Schoonmaker	Laborer	23 17 06 106-01-6411	130	320	450	+
1089 *			X X X	X	X	X	
1090 *	F. J. Epp	Ton. Office	070-09-7702 - Missing				
1091 *	F. Malone	Ton. Office	X 118-05-5377				

* Not Issued.

* less than 50 mr

387-388
8/31/49

DISPATCHED AUG 22 1949

Lake Ontario
Ordnance Works

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT
WEEK BEGINNING 8/8/49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kilo	Guard	072-03-5929 ~~116-05-3604~~	X	X	X
1081	R. Sutherland	Guard	128-01-5430	170	220	390 X
1082	C. Bowman	Laborer	117-14-4387			
1083	R. Dutton	Laborer	117-14-1141			
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosman	Guard	133-20-8011			
1088 *	J. Schoonmaker	Laborer	106-01-6415	100	100	200
1089 *						
1090 *						
1091 *						
* Not Issued.						

* less than 50 mr

385-386
8/24/49

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING August 1, 49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	~~118-05-8504~~			
1081	R. Sutherland	Guard	715-01-5434 05	125	240	365
1082	C. Bowman	Laborer	211-14-0487 06	170	6000	~~6000~~ 6170
1083	R. Dutton	Laborer	112-14-0741 05	125	170	295
1084	M. Whittaker	Guard	~~118-05-8504~~			
1085	F. Davis	Guard	~~126-05-4236~~			
1086	C. Amsdill	Guard	~~072-077-579~~			
1087	J. Brosman	Guard	~~133-20-8011~~			
1088 *						
1089 *						
1090 *						
1091 *						

* Not Issued.

* less than 50 mr

Check on worker

8/12 Spp to report

Ask from Hanshaw for Heathcote

317-375-4
8/10/49

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING July 25, 1949

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	~~118-05-8504~~ X	X	X	X
1081	R. Sutherland	Guard	120-01-5434	75	190	265
1082	C. Bowman	Laborer	120-14-4687	120	400	520 X
1083	R. Dutton	Laborer	117-14-1141	120	190	310 X
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosnan	Guard	133-20-8011			
1088 *						
1089 *						
1090 *						
1091 *						
* Not Issued.						

* less than 50 mr

379-380
8/10/49

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING JULY 18, 1949

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	108-05-0402	50	110	160
1081	R. Sutherland	Guard	126-07-2234.00	130	360	490
1082	C. Bowman	Laborer	115-14-1287 03	70	200	270
1083	R. Dutton	Laborer	117-14-7141 03	70	125	195
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosnan	Guard	133-20-8011			
1088 *						
1089 *						
1090 *						
1091 *						
* Not Issued.						

* less than 50 mr

391-392
8/5/49

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING July 11, 49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	118-05-8504			
1081	R. Sutherland	Guard	720-01-5434			
1082	C. Bowman	Laborer	117-14-4387			
1083	R. Dutton	Laborer	117-14-1141			
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosnan	Guard	133-20-8011			
1088 *						
1089 *						
1090 *						
1091 *						
* Not Issued.						

* less than 50 mr

369-370
2/29/49 SEC

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING July 31, 49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1080	K. G. Kile	Guard	118-05-8504			
1081	R. Sutherland	Guard	720-01-5434			
1082	C. Bowman	Laborer	[illegible]			
1083	R. Dutton	Laborer	117-14-1141			
1084	M. Whittaker	Guard	118-05-8504			
1085	F. Davis	Guard	126-05-4236			
1086	C. Amsdill	Guard	072-077-379			
1087	J. Brosnan	Guard	135-20-8011			
1088 *						
1089 *						
1090 *						
1091 *						
* Not Issued.						

365-366
7/27/49

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING 6-27-49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1044	M. Whittaker	Guard	118-05-8504	+	+	+
1045	R. Dutton	Laborer	117-14-1141	—	—	
1046	C. Bowman	Laborer	412-14-0837-03	75	180	255
1047	R. Sutherland	Guard	424-01-3454-05	125	180	305 *
1048	K. G. Kile	Guard	678-05-5329-06	145	260	405 *
Note- Badge #1045 issued to R. Dutton is lost.						

+ less than 50 mr

359-360
7/19/49 SK

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING June 20, 1948

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1044	K. Kile	Guard	~~072-03-5929~~	*	*	*
1045	R. Sutherland	Guard	112 108 104	65	165	230
1046	C. Bowman	Laborer	116-14-4387 104	65	145	210
1048	J. Brosnan	Laborer	~~133-20-8011~~	*	*	*

* less than 50 mr

355-356
7/7/49
SL

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING June 20, 49

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1047	R. Dutton	Laborer	117-14-1141	65	65	130
1049	K. Kile	Guard	072-03-5929	65	85	150
1050	R. Sutherland	Guard				
1051	C. Bowman	Laborer	117-14-4387			
1052	M. Whittaker	Guard	118-05-8504			

* less than 50 mr

HYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Lake Ontario Ordnance Works
WEEK BEGINNING June 20, 49

Badge No.	Name	Job Description	~~Soc. Sec. No.~~ Density	Exposure, mr Beta	Gamma	Total
1047	R. Dutton	Laborer	017-14-0341 04	65	65	130
1049	K. Kile	Guard	08-07-0429 04	65	85	150
1050	R. Sutherland	Guard	X			
1051	C. Bowman	Laborer	X 117-14-4387			
1052	M. Whittaker	Guard	X 18-05-8504			

* less than 50 mr

355-356
7/12/49

H. Blatz, Chief, Radiation Section, NYO July 6, 1949

F. J. Epp, Chief, Tonawanda Sub-Office

FILM BADGE SERVICE, LOOW

REFER TO
SYMBOL: TAD:FJE

The enclosed badges were erroneously issued to the same employees who were given badge numbers: 1044, 1045, 1046, and 1048 during the week ending June 20, 1949.

In the future, all badges issued will correspond with the assigned to the employee previously.

LOOW will have them assigned

Enclosure:
Badge Nos. 1047, 1049, 1050, 1051, & 1052.
Also Nos. 1053, 1054, & 1049.

STANDARD FORM No. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : H. Blatz, Chief, Radiation Section, NYO DATE: July 6, 1949

FROM : F. J. Epp, Chief, Tonawanda Sub-Office FJE

SUBJECT: FILM BADGE SERVICE, LOOW

REFER TO SYMBOL: TAD:FJE

The enclosed badges were erroneously issued to the same employees who were given badge numbers: 1044, 1045, 1046, and 1048 during the week ending June 20, 1949.

In the future, all badges issued will correspond with those assigned to the employee previously.

Henceforth LOOW will have their own numbers assigned

Enclosure:
Badge Nos. 1047, 1049, 1050, 1051, & 1052.

Also Nos. 1053, 1054, & 1049.

DR:WHD

June 30, 1949

Mr. R. C. Heatherton, Health Physicist
Linde Air Products Company
Ceramics Plant
P. O. Box 95
Kenmore 17, N. Y.

Subject: FILM BADGE SERVICE

Dear Mr. Heatherton:

This is in answer to your letter of June 16 requesting film badge service for the Lake Ontario Ordnance Works. We will begin service immediately. Each week 12 badges will be sent to you separate from the badges regularly used at Linde. It would be preferable, from the viewpoint of report uniformity, to have all badges distributed on Monday morning. However, if operating conditions at Lake Ontario Ordnance Works will not permit this, you can issue them Friday as suggested in your letter.

Enclosed with this letter are two pre-cut stencils for your use in setting up film badge reports for L.O.O.W. You can return them to us and we will have a supply run off.

Very truly yours,

Hanson Blatz, Chief
Radiation Section

Enclosure:
2 Stencils

9295

Heatherton, 1950b, Lake *Ontario Ordnance Works Radiation, Radon, and Dust Survey of Operations Essential to the Storage of K-65 in the Tower*; Richard C. Heatherton; November 27, 1950, pp. 1-15

[redacted]

[redacted]

LOOW - 2

CLASSIFICATION CANCELLED
OR ~~CHANGED~~ TO
BY AUTHORITY OF DOE
BY [illegible] DATE 4/3/77

LAKE ONTARIO ORDNANCE WORKS

RADIATION, RADON AND DUST SURVEY OF OPERATIONS ESSENTIAL TO THE STORAGE OF K-65 IN THE TOWER

by

Richard C. Heatherton
Industrial Hygiene Branch
Health and Safety Division

Issued: November 27, 1950

REPOSITORY DOE GTN Records Holding Area
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5 - "
6 - File (R. C. Heatherton)

[redacted]

[redacted]

[redacted]

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Results

Recommendations

Summary

Special Review
Final Determination
Unclassified
By C. A. Walter
Date Aug. 6, 1980
C. F. Davis

TABLES AND FIGURES

Table I - Job Breakdown for Each Man (One Week)

Table II - Radiation Data Obtained While Unloading a Car. Man Operating Lift Truck.

Table III - Film and Pocket Meter Data

Table IV - Radiation Measurements at Tower

Figure 1 - LOOW - K-65 Storage Tower

[redacted]

Purpose [redacted]

1. To measure the radiation exposure at each phase of the operation.

2. To determine the radiation exposure to each individual under present conditions of operation.

3. To estimate the radiation exposure to each operator under ideal usage of the present equipment.

4. To uncover sources of high radiation exposure so that recommendations may be made for eliminating overexposure.

5. To determine air radon and dust levels in order to estimate personnel exposure to these air contaminants.

Results

From the radiation study, it is estimated that each laborer will receive a minimum of 335 mr of gamma radiation per week under present operating conditions. Beta radiation will contribute another 100 mreps/week to each man's exposure making a total of 435 mreps beta-gamma/week. This estimate assumes that:

1. The tower will be operating at capacity.

2. The present staff of six men will do all the labor connected with the operation.

3. The K-65 stored on the average will give off radiation of the same intensity as the material used for this study.

Table I gives the operation breakdown and the exposures expected for each job. If the amount of K-65 dumped in one week is more than 30% of the capacity of the tower for handling the material, no significant reduction in radiation

[redacted]

exposure is anticipated. [redacted]

Minor improvements can be made which will reduce exposures to approximately 245 mr of gamma and 70 mreps of beta per week. This average exposure (315 minimum per week) would still exceed the maximum allowable exposure of 300 mreps total radiation. To reduce radiation exposures further will require either additional manpower or better equipment for handling the K-65.

Men working at the tower are exposed to approximately 0.5×10^{-10} curies per liter of radon under normal operating conditions. Occasional short term exposures to 4.3×10^{-10} curies/liter are likely to occur. Our present MAC value for air radon is 10^{-10} curies/liter but 0.1×10^{-10} curies/liter is widely recommended and is likely to be adopted as an AEC tolerance.

Results of the dust study will not be available for several days. When the samples have been analyzed for radium and total alpha activity, a separate report will be issued for that part of the survey.

Review
Determination
Walter
Aug. 6, 1980
T. F. Davis

Discussion

The following assumptions and calculations are made in determining the exposures in Table I:

1. Assume the tower is operating efficiently for 24 hours a day and five days a week. Approximately 1200 drums will be dumped in one week.

Time cycle (1 drum) = 6 minutes = 10 drums/hr.

24 x 5 = 120 hours per week

120 x 10 = 1200 drums per week = ideal capacity.

[redacted]

[redacted]

2. Assume three carloads of K-65 are received each week and the rest of the drums dumped will be from the backlog now stored along the roadways at LOOW.

3. Current shipments are 96 drums/carload.

3 x 96 drums per carload = 288/week

The remaining 900 drums will be loaded from the roadways on a truck and hauled to the tower.

18 truckloads x 48 drums per load = 864 drums

864 + 288 = 1152 drums per week = expected capacity.

4. Assume six men do all the work and perfect rotation of the men.

2 men/shift x 3 = 6 men per day

3 cars/week/6 = 1/2 car per man

18 truckloads/week/6 = 3 truckloads per man

1152 drums/week/6 = 192 drums/man.

5. Normal maintenance time of 12 hours per week is presumed.

6. Assume similar material is handled.

On the basis of the above assumptions, the figures presented in Table I are drawn. It should be pointed out, however, that several factors may mitigate to increase the maximum exposure while the chance of a reduction beyond that stated, is small. Some of these factors include:

1. Uneven distribution of exposure-load on rotation.

2. Substantial increase in maintenance time and other time spent near the tower.

3. Handling of considerably "hotter" material.

4. Possible substantial increase in radiation from tower as K-65 level rises.

[redacted]

[redacted]

Radiation exposures for the different jobs were measured with pocket dosimeters. Other exposures were estimated from radiation measurements made in work areas with survey meters. Both ionization chamber and Geiger counter type instruments were used for these measurements.

Review
Final Determination
Unclassified
By: K. A. Walter

Table II contains exposure data for a man operating a lift truck in unloading a carload of K-65. The man not only wore a pocket meter in front but meters were also taped to his back and to each arm above the elbow.

Measured radiation for the man removing the lids from 96 drums from behind a shield was 38 mr to the chest and to the left arm which is the side more often toward the drums. Measured radiation for a man loading the truck with 48 drums was 15 mr. The same exposure can be assumed for unloading. The measured radiation from the K-65 being handled was about average for current material. Some of the older material is two to three times "hotter".

Time studies were made of the various jobs. Times given in Table I are average and seem reasonable. However, time assumed for maintenance of equipment is for efficient operation. Under present operating conditions, much more time is spent on this phase of the work. If a man enters the thaw house or the elevator shaft or ascends to the top of the tower, short term exposures to 100 mr/hr or more of gamma radiation is expected. A man working to free a drum on the conveyor, elevator, or dumper may receive many times this exposure.

On the basis of the present operating scheme, it would be possible to reduce average exposures to some extent. Use of the eight-inch concrete barrier instead of the one-inch steel shield temporarily being used would reduce the gamma radiation exposure per man by 50 mr per week. Eliminating any necessity for leaving K-65 on the dock by improved dumping and provision of additional

[redacted]

[redacted]

storage space would reduce the gamma radiation exposure another 40 mr per man per week. The total estimated reduction resulting from these modifications is 120 mreps of beta-gamma/week. Thus the predicted average exposure could be lowered from 435 mr/wk to 315 mr/wk.

The original plans for the tower included the eight-inch concrete barrier to shield the man removing locking rims and lids from K-65 drums. To enable a man to do this work from behind the barrier required the design and installation of a mechanical rim and lid remover. The design detail for the mechanism was to be worked out by the Engineering Division. The concrete barrier was installed; the mechanism has not been installed. A recommendation has been made (report of November 1, 1950) for an improved dumping mechanism. Extension of the railroad siding to provide additional storage space for empty drums (recommendation #9, report of November 1, 1950) will not fulfill the requirements for space for full drums since these must be stored away from work areas.

The fact that the exposures given in Table I are a minimum expectable under best conditions, and also the improbability of noticing any appreciable reduction with a smaller workload are justified in the exposure records of individuals for the first six weeks of tower operation. In this time, about 2000 drums of K-65 were dumped. The tower was therefore operating at 30% of its rated capacity. For this period, film exposures for five to six men averaged 360 mreps of beta-gamma/week, with gamma radiation accounting for 70% of the total exposure.

[redacted]

Both pocket dosimeters and film badges are worn continuously during working hours. Complete film and pocket meter data are given in Table III. Although individual film and pocket meter results vary over a wide range, the average film and pocket meter readings compare closely. The beta exposure on the badge is probably due to scattered radiation or soft gamma which does not penetrate the walls of the pocket chamber.

Some radiation measurements made at the tower are given in Table IV. These measurements were made after 2000 drums of K-65 were dumped. This material, if leveled, would extend to a height of 12 feet above the tower floor which is 4 to 5 feet above the ground level. The material is probably piled in the middle but extends for a few feet up the wall on all sides.

As more material is dumped higher radiation in the vicinity is expected. Radiation at the outer surface of the tower is not expected to increase in proportion to the radiation at greater distances.

Recommendations

It is believed that adoption of the minor improvements numbered 1, 2, and 3 will reduce the average exposure to 315 mreps minimum beta-gamma per week under ideal operating conditions. Major improvements numbered 4 and 5 will reduce radiation so that with unusual exceptions no one would receive an average exposure in excess of 300 mreps/week. The recommended improvements are:

1. More shielding for the man removing the lids from drums and/or installation of a lid removing mechanism. (Recommendation #18)

2. Improved dumping or cleaning mechanism at the top of the tower so that drums are not returned with residual K-65 (Recommendation #10 - Nov. 1, 1950).

3. Storage facilities (either shielded or remote from work stations) for full drums of K-65 which cannot be dumped because the drums are badly damaged or the material is very wet (Recommendation #19). This may be accomplished either by:

a. Shielding a section of the loading platform on the west end for temporary storage of full drums, or preferably,

b. Cutting a hole in the west wall or north wall at the west end and extending the platform to accommodate 8 or 10 drums. The platform addition should extend for at least 30 feet beyond the present platform and should be no wider than 9 feet. It may be as narrow as 4-1/2 feet. The wall opening should be wide enough to permit the lift truck to pass through with reasonable clearance.

4. Use of crane with magnet or remotely operated hitching device for loading and unloading the truck. Adoption of this improvement would require the purchase of additional equipment. Two cranes would be needed; one for loading, another for unloading on the platform.

5. Hiring of additional labor - In view of past exposure records and assumptions for perfect operation, it is believed a reduction of exposure by one-third will be needed to provide a narrow margin of safety. It is recommended that three more laborers be hired for the K-65 storage operation (Recommendation #20).

Walter
Aug. 6, 1980
T. F. Davis

Summary

The estimated minimum average exposure which may be expected to six laborers at LOOW while K-65 is being stored in the tower under present operating

[redacted]

schedules is 435 mreps beta-gamma/week. This assumes almost perfect operation with a minimum amount of maintenance required. Since near perfect operation cannot be expected, adoption of recommendations numbered 9, 10, 18, 19, and 20 is necessary before exposures can be reduced to the point that no one receives an average exposure in excess of 300 mreps/week for any three-month period.

Parkway
Information
Center
1980

[redacted]

TABLE I [redacted]

JOB BREAKDOWN FOR EACH MAN (ONE WEEK)

Description of Work	Time Required to do work	Expected Gamma Radiation Exposure
1. Unload 1/2 car	0.75 hrs	15 mr
2. Load and unload truck 3 times, transport load.	6.0 "	90 "
3. Remove lids from 192 drums	3.0 "	80 "
4. Remove empty drums from conveyor, dump residue, replace lids, paint, load in cars or on truck.	14.0 "	70 "
5. Maintenance of Equipment	2.0 "	60 "
6. Watching controls	14.0 "	20 "
Total	39.75 hrs	335 mr

[redacted]

TABLE II [redacted]

RADIATION DATA OBTAINED WHILE UNLOADING A CAR. MAN OPERATING LIFT TRUCK.

No. of Drums Removed	Radiation Measured with Inst.		Pocket Meter Readings Cambridge Dosimeter			
	Center of car	Edge of Platform	Front	Back	Right Arm	Left Arm
0	125 mr/hr	100 mr/hr	15	2	5	5
8	70	35	20	7	*	9
16	35	18	25	10	15	10
24	30	18	28	13	18	17
32	-	-	32	13	23	20
60	19	16	34	20	27	25
96	3	5	40	32	34	25

* No reading taken

[redacted]

TABLE III [redacted]

FILM AND POCKET METER DATA

All readings are mreps/week.

Week Begin.	Film Badge Beta	Film Badge Gamma	Film Badge Total	Pocket Meter
	190	210	400	240
	150	200	350	340
9-18	75	290	365	290
	220	230	450	315
	290	440	730	420
	110	-	110	160
9-25	160	200	360	190
	250	440	690	355
	260	440	700	395
	140	300	440	325
	180	200	380	250
10-2	200	180	380	285
	200	340	540	380
	200	240	440	365
	70	240	310	120
	80	170	250	105
10-9	90	280	370	215
	95	210	305	155
	80	210	290	100
	75	170	245	120
	140	140	280	95
10-16	180	270	450	210
	120	160	280	160
	-	110	110	112
	55	80	135	129
10-23	100	190	290	250
	90	240	330	302
	100	180	280	245
	55	110	165	147
Average	136	223	359	234

Average Pocket meter gamma to film gamma ratio -- 1.05

Average Pocket meter gamma to film total radiation ratio -- 0.69

[redacted]

TABLE IV

[redacted]

RADIATION MEASUREMENTS AT TOWER

Locations as shown in Figure I.
Readings A through M taken on surface of structure.
All readings are mr/hr of gamma

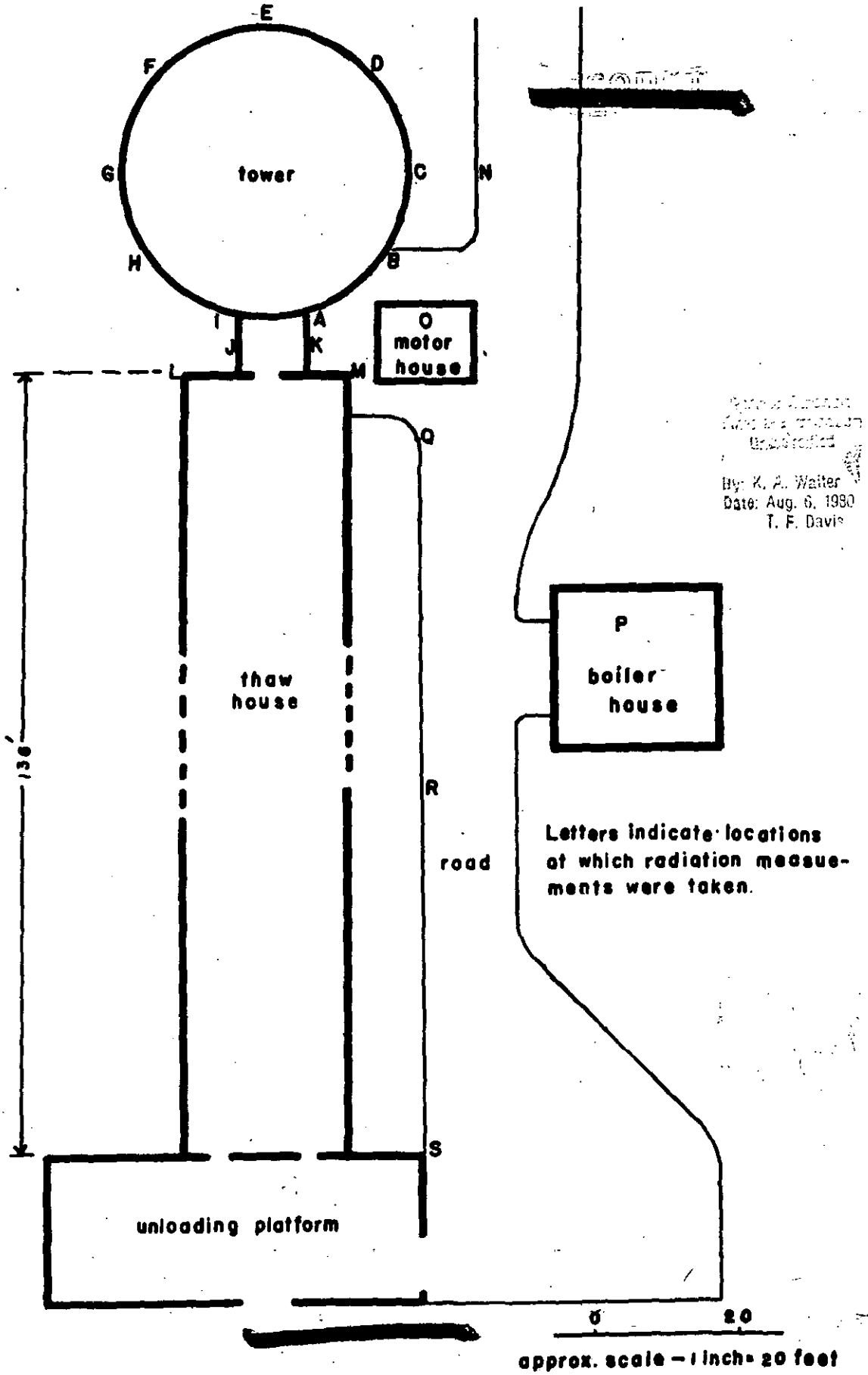
Instrument	Ion. Chamber		Geiger Counter	
Height above ground level	6'	8'	6'	8'
Location				
A	13	20	9	14
B	11	15	6	11.5
C	8	11	7.5	9.5
D	10	11	8	10
E	10	11	8	10
F	11	13	9	11.5
G	10	10	8.5	8.5
H	11	12	11	10.5
I	20	19	17.5	17.5
Average around base of tower	11.6	13.6	9.3	11.1
Height above ground	4'		4'	
J	15		15	
K	14		14	
L	11.5		8	
M	10		7	
N	3		2.5	
O	1.5		0.9	
P	2.5		3.0	
Q	4.0		2.5	
R	6.		7	
S	2		0.5	

Unclassified

[redacted]

Figure 1.

L.C.D.W. - K-65 STORAGE TOWER



Aerospace Report No.
ATR-82(7963-04)-1

Background and Resurvey Recommendations for the Atomic Energy Commission Portion of the Lake Ontario Ordnance Works

November 1982

Doe Germantown
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FOLDER LAKE ONTARIO ORDNANCE WORKS
NIAGARA FALLS

Prepared for

Public Safety Division
Office of Operational Safety
Assistant Secretary for Environmental Protection,
Safety, and Energy Prepardness
U.S. DEPARTMENT OF ENERGY

Prepared by

Environment and Conservation Directorate
Eastern Technical Division
THE AEROSPACE CORPORATION
Washington, D.C.

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remedial actions performed at the site, and a summary of the site's present condition (as determined from documentation available to the authors on August 1, 1982). The detailed information relevant to the proposed survey effort follows in the section describing the residues, scrap, and waste storage operations, which is followed by a summary of the disposal and storage areas, recommendations for categorizing plots for the upcoming survey, and a listing of relevant documents.

The Department of Energy Niagara Falls Storage Site is being managed under the Office of Nuclear Energy's Surplus Facilities Management Program. Because the site has fallen below Department of Energy guidelines for effluent release, the 191-acre site is considered high priority for the ongoing remedial action (HASC-97-14, pp. 320, 342, 414). Based on the available radiological survey data obtained from the 1971-1972 radiological survey of the offsite properties (Robinson, 1973), it would appear that the average exposure level would result in a whole-body dose within the guidelines established by the Federal Radiation Council (now within the purview of the Environmental Protection Agency). (Changes in land use can possibly increase or decrease the exposure levels and may result in internal dose; the effects of such changes in land use would have to be evaluated based on applicable soil or water contamination guidelines set by the Agency or on site-specific criteria developed by the Department.) The offsite properties are presently considered by the Department of Energy as low priority for radiological survey under the protocols of the Formerly Utilized Sites Program. However, some areas have never been adequately screened and others have undergone significant changes in topology due to landfill development. Although most soil disturbances tend to dilute residual material, the Department of Energy considers it prudent to objectively determine, on a statistical sampling basis, the present status of the offsite properties, particularly in areas once used for storage or burial of contaminated material.

The categories for the offsite properties survey activity recommended by the authors, presented in Appendix A, are tentative and subject to change as new information on potential contamination or occupancy is obtained. These factors may increase or decrease the potential for health effects.

The material presented in this report is based on available, but incomplete, records. The authors have used this available information to develop a historical view of the operations of the site and to determine the potential for contamination. It is the authors' belief that information in this report will prove to be an invaluable aid to those planning the survey activities and remedial actions, both on and off the Department's property.

OVERVIEW OF THE FORMER LAKE ONTARIO ORDNANCE WORKS

Operating History

Much of the uranium used during the early years of the atomic energy program was refined from pitchblende and concentrates mined

in the Belgian Congo (Robinson, 1970a). The ore was obtained through contracts with African Metals Corporation (Afrimet) of New York, New York, the U.S. subsidiary of Union Miniere du Haut Katanga of Brussels, Belgium. The procurement contracts were, with certain exceptions, only for the uranium in the concentrates. All other minerals were to remain the property of Afrimet/Union Miniere and were to be shipped to Belgium when conditions permitted.

In 1944, the Manhattan Engineer District requested and obtained a portion of the Lake Ontario Ordnance Works at Lewiston, New York, for storage of some low-grade radioactive residues* that resulted from the pitchblende ore processing at the nearby Linde Air Products facility. In 1948, when the Department of Defense decommissioned the Ordnance Works, the Atomic Energy Commission acquired 1511 acres of the site, which included the original storage areas.

Following World War II, Linde's Tonawanda refinery was decommissioned, and the contaminated plant equipment was disposed of at the Atomic Energy portion of the Lake Ontario Ordnance Works (Epp, 1949). Also during the late 1940s and early 1950s, contaminated materials including metal, concrete, ceramics, and lumber from the decommissioning of wartime plants and some post-wartime operations in St. Louis, Missouri; Canonsburg, Pennsylvania; Cleveland, Ohio; Deepwater, New Jersey; and Winchester, Massachusetts; were stored at the Lake Ontario Ordnance Works.

From 1946 through 1953, all African ore uranium refining operations for the Atomic Energy Commission were conducted at the new Mallinckrodt Chemical Works refinery in St. Louis, Missouri, commonly called the Destrehan Street Plant. Until April 1949, all high-grade Belgian Congo pitchblende residues (K-65) from the St. Louis plant, as well as the former processing facilities (Vitro Manufacturing Company, Canonsburg, Pennsylvania, and Eldorado Mining, Port Hope, Ontario) were returned to Afrimet. After April 1, 1949, part of the K-65 residues from the St. Louis refinery were shipped in 55-gallon drums to the site for storage.** From 1950 until 1952, the K-65 residues were transferred from the drums to a 165-foot-high reinforced concrete tower that was originally constructed at

---

* Low-grade ore residues owned by Afrimet were called L-30 and L-50 residues, and those owned by the Federal Government were termed R-10.

** Ore procurement contracts in effect at that time called for the Federal Government to store the Belgian Congo ore residues until 1958, at which time Afrimet had an option to accept the residues (both low- and high-grade) or abandon them. (Abandonment is not allowed by the terms of the present lease agreement, which expires in 1983.)

the Ordnance Works for water storage. Serviceable empty drums were returned to Mallinckrodt on returning box cars for reuse. Others were reportedly shipped to the Feed Materials Production Center in Fernald, Ohio, for recycling.

In the early 1950s, the Atomic Energy Commission portion of the Ordnance Works was also used as an interim storage site for incoming and outgoing uranium and thorium billets and rods being processed by various New York companies. In addition, radioactive materials from the University of Rochester and Knolls Atomic Power Laboratory were transferred to the storage site. The Knolls Atomic Power Laboratory wastes were moved from one location to another on the site in the early 1950s and were transferred to the Oak Ridge burial grounds in the late 1950s. The contents were described as contaminated materials (combustibles stored in wooden crates) and processing wastes stored in 55-gallon drums. Some of the barrels contained plutonium and fission products from the evaporator bottoms of the low-level processing plant at Schenectady. The University of Rochester materials were buried in an area segregated from the other residues. These materials were described as animal residue and waste along with miscellaneous contaminated material (Eisenbud, 1953).

The Atomic Energy Commission constructed a boron isotope separation plant at the Lake Ontario Ordnance Works during 1953 and 1954. The architect-engineer for the project was Singmaster-Breyer and the operating contractor was Hooker Electrochemical Company (McKeon, 1953). Prior to construction and following removal of the Knolls Atomic Power Laboratory wastes from Building 401 (Showalter, 1953), it was determined that some decontamination of KAPL waste from the planned boron plant area was necessary to ensure worker safety. The decontamination was conducted during construction operations (Health and Safety Laboratory, 1954), and the boron plant went into operation in 1954.

During this same period, the Navy was considering using the site to manufacture solid propellant, and a policy was adopted by the Atomic Energy Commission to cease use of the site for the storage of any additional contaminated material (Sparks, 1954). Also, a major cleanup of the entire site, involving the consolidation and removal of surface debris, was completed during 1954 and 1955. Hooker continued cleanup efforts onsite as part of its maintenance function while operating the boron plant. This effort included repackaging the Knolls Atomic Power Laboratory wastes, drumming the ashes from contaminated combustibles for shipment to Oak Ridge, as well as selling bulk metallic scrap.

In 1958, when the Atomic Energy Commission had stockpiled sufficient quantities of boron-10, the facility was placed on standby status (Carney, 1958). A maintenance contractor (Page Airways) was employed for routine surveillance and upkeep. In 1964, when the Atomic Energy Commission's supplies of boron-10 were running low, the

boron operation was restarted with the Nuclear Materials and Equipment Company as the operating contractor. The operation was again put on standby in July 1971, with National Lead Company of Ohio as the caretaker. Bechtel National, Inc., obtained the caretaker contract on October 1, 1981, and has been tasked with developing plans for remedial action on the site.

Responsibility for the storage site and the boron isotope plant was transferred from the Commission's New York Operations to Oak Ridge Operations in 1954, and in 1955, major portions of the Atomic Energy Commission site were declared excess. When the boron isotope plant was placed in standby in 1958, the site was returned to New York Operations. In 1964, when the boron operations restarted, the site reverted to Oak Ridge Operations (Thornton, 1970).

The original procurement contracts stipulated that the residues could be abandoned by Afrimet when the contracts terminated in 1958 (Duncombe, 1953), but Afrimet wished to retain the radium-rich residues stored at the Atomic Energy Commission storage site in Lewiston, New York, and the Feed Materials Production Center in Fernald, Ohio. The residue storage lease agreements negotiated in 1958 do not permit abandonment by Afrimet when the contracts expire on June 30, 1983.

The residues at the site were briefly controlled by Source Material Licenses C-4166 and C-4330 (effective July 1, 1960, and expiring June 30, 1961) (Delaney, 1960). In 1961, the Licensing Branch of the Atomic Energy Commission acceded to Afrimet's request to let the license lapse on the grounds that the residue was an unimportant source (as allowed by Section 40.13 of Title 10, Part 40, Code of Federal Regulations) (Cressy, 1962). After October 15, 1962, the State of New York had licensing authority as defined in Section 274 of the Atomic Energy Act of 1954, as amended (Johnson, 1971). The State of New York Department of Labor licensed the residue on August 1, 1975, and makes periodic inspections. The license (#2107-2218) expires on June 30, 1983.

History of Land Ownership and Use

The Atomic Energy Commission declared most of the 1511 acres excess in 1955, and by 1968, the General Services Administration was able to dispose of 1298 acres, leaving a 213-acre Atomic Energy Commission site (Robinson, 1970a). As of 1968, the surplus land had been acquired by the town of Lewiston (89 acres), Fort Conti Corporation (775 acres), Mr. M.W. Frank (199 acres), Niagara Mohawk Power Company (5 acres), and the U.S. Air Force (230 acres). After 1968, the properties of M.W. Frank were sold to S. Washuta (for proposed use as a landfill). Portions of the Fort Conti Corporation properties have been sold to Chem-Trol (240 acres), the Somerset Group, Inc. (133 acres), and SCA Services, Inc. (402 acres). The

Chem-Trol property and part of the Somerset property were subsequently sold to SCA Services, Inc. The SCA property is being used for the storage, treatment, and disposal of chemical wastes. The Air Force property south of the site (131 acres) reverted to the General Services Administration, which gave custody of it to the Department of Labor. The town of Lewiston has retained their original tract of land (used as a sanitary landfill and storage area). In 1975, the Energy Research and Development Administration (successor to the Atomic Energy Commission) declared a 22-acre sewage plant excess and transferred this plot to the town of Lewiston, New York, leaving the present 191-acre Department of Energy site (successor to the Energy Research and Development Administration) (Figures 3 and 4). The sewage treatment plant is not presently in service.

RADIOLOGICAL MONITORING

The 1970-1972 Decontamination Effort

Spot-check radiation surveys in October 1970 indicated that radioactivity exceeded the Atomic Energy Commission guidelines on land adjacent to the site (Thornton, 1970). This land was previously used for storage of uranium refinery residues and contaminated scrap. Cognizant local, state, and Federal agencies were notified, and further surveys of the areas were planned by the Commission, along with plans to decontaminate the areas where radioactivity exceeded the criterion of 50 microroentgens/hour, including background (Eriewine, 1971). This criterion was adopted following consultation with the Environmental Protection Agency (Dominick, 1972), based on the Surgeon General's guidelines for Grand Junction, Colorado, properties contaminated with mill tailings (Biles, 1973). In June 1971, the 1298 acres formerly held by the Atomic Energy Commission were surveyed, and it was shown that about 6.5 acres exceeded the criterion. Following a pilot study in which the sewage treatment plant was decontaminated in September 1971 by the town of Lewiston (Sapirie, 1971), the remainder of the decontamination was carrried out in 1972. Soil, gravel, and rubble were removed from local hot spots to a depth of about 1 foot. Some areas were backfilled. The total of about 15,000 to 20,000 cubic yards of radioactive soil and debris removed from the surrounding area was piled on top of the R-10 residue on the site. The June 1972 postdecontamination radiation survey indicated that only a few portions of the central drainage ditch and Sixmile Creek exceeded the 50 microroentgens/hour criterion, and beta-gamma levels measured at contact were less than 0.2 millirad/hour (Robinson, 1973). An aerial survey confirmed the ground survey results (EG&G, Inc. 1973).

Following a review of the Commission's survey data, the New York State Department of Health, which preferred a decontamination criterion of 20 microroentgens/hour, placed land-use restrictions on all of the excessed properties. The Department of Health believed that

DETAILED DISCUSSION OF HISTORICAL RESIDUE, SCRAP, AND WASTE STORAGE OPERATIONS

The former Lake Ontario Ordnance Works was an inactive Army base when the Manhattan Engineer District first requested permission to use it for residue storage. Most of the metal piping systems from the TNT operation had been removed for use in other wartime plants. Many of the original reinforced concrete tanks, pits, and vats were considered ideal bulk storage containers for residue. In later years, independent hydrogeological studies by the U.S. Geological Survey (Arnow, 1949; Simpson, 1953) revealed that the site was suitable for the storage of residues and the burial of contaminated scrap due to the low permeability of the clay soil. Surface runoff and erosion were the only likely means of radionuclide migration; therefore, a water sampling program was established to verify that the operations were not significantly affecting the offsite environment.

Besides the environmental studies,* engineering (Gailey, 1943) and economic (Winters, 1944) as well as health physics factors (Warren, 1944) were considered in the selection of sites (and locations on the sites) for residues, scrap, and waste storage operations. The former Lake Ontario Ordnance Works was generally found to be preferable to alternatives due to its proximity to production facilities, the low population in the surrounding area, the availability of storage buildings, and the low permeability of the soil.

In the early 1950s, a study was conducted to determine the feasibility of reprocessing the residues to extract the uranium, cobalt, nickel, and copper. Laboratory analysis by Kellex Corporation (Bain, 1952) and the New Brunswick Laboratory (Brown, 1953; Sandomire, 1953) revealed significantly less uranium than had been carried on the books. This discrepancy was noted in both the covered and uncovered residues, leading one analyst to conclude that the difference was due to the early unreliable analytical methods more than to weathering and loss to the environment (Beyer, 1953). After conducting pilot plant studies with the residues, the Chemical Construction Company of Linden, New Jersey, recommended that the Lake Ontario Ordnance Works be chosen for the construction of the waste residue recovery plant (Dasher, 1953). (K-65, however, was not considered for recovery because of its low uranium content.) When it became apparent that the cobalt-nickel-copper concentrate had no market, the plans for reprocessing the residues were dropped (Dodge, 1955).

In later years, the utilization of portions of the site by various federal agencies, the aging of the buildings, and the sale of some of the properties dictated that residue, scrap, and waste operations be curtailed. Some wastes were moved to other locations on the site, and some were shipped offsite.

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* Environmental studies, typical of the era, were concerned with gross degradation of the environment.

In this section, the history of the residue, scrap, and waste will be followed, with emphasis on storage locations, to assist the radiological survey team in planning its survey. (Appendix B provides further information on building usage, and Table B-1 lists reported data on the stored residues.) With knowledge of the material stored on each plot of land, it is possible that the radiological survey plans can be tailored to detect the most probable form of contamination, with considerable savings of time and effort.

L-30 Sludge

L-30 is the residue from Linde Air Products' processing of the 10,250 short tons of the 10 percent uranium ore procured under contract W-7405-eng-94 (May 27, 1943) with African Metals, Inc. The Government paid for 90 percent of the U_3O_8 content and had an option to buy the lead content; however, 95 percent of the radium content was guaranteed to be returned to African Metals. Under the terms of the contract, the residues were to be returned, on 6-months notice, to Antwerp in containers supplied by the Government (f.o.b. New York) on or before June 30, 1957. With the expiration of the contract on June 30, 1958, African Metals entered into a lease agreement (Contract AT-(40-1)-2427) for the storage of the residues and gave up its right to abandon them (Keller, 1978).

In December 1943, it was necessary for the Linde Air Products refinery to find an alternate location for the storage of L-30 sludge. Originally, the L-30 residue was packed wet in wooden barrels and stored at Linde's Utica Street Warehouse at 240 West Utica Street, Buffalo, New York (Robinson, 1945). The barrels were transported to Lake Ontario Ordnance Works and temporarily stored in structures in the Baker-Smith Area.

By the end of April 1945, it was noted that the barrels were deteriorating (Anderson, 1945) and identification by lot number was difficult (Robinson, 1945). Seventy-seven barrels were returned to Afrimet via Middlesex, New Jersey, and the rest moved to bulk storage as described below (Merritt, 1948).

It is likely that the warehouses used were Buildings 443, 444, and 445 (previously referred to as the welding, storage, and pipe shops, respectively). The pipe shop and machine shop (since removed) are referred to as the east and west warehouses in the 1947 survey report and can be inferred to be the L-30 storage buildings (Hayden, 1947).

Due to the shortage of manpower and metal containers during the war, it was believed that bulk storage would be more efficient than barrel storage. At the time, no gaseous or liquid effluent was considered hazardous. The drying of the sludge in a bulk container would also reduce the weight of the material eventually to be shipped (Gailey, 1943; Holladay, 1943).

The building chosen for the bulk storage of L-30 was the cooling water reservoir in the water treatment area (Building 411) (see Figure 7). The building consists of a reinforced concrete tank, approximately 200 feet long by 175 feet wide by 19 feet deep (with usable volume between 640,000 and 666,000 cubic feet). The bottom is 12-inch-thick reinforced concrete, and the sides are approximately 20 inches thick. Concrete pillars support a wooden roof (Gailey, 1943).

The cooling water storage tank was filled by dump trucks discharging their load from the earthen embankment around three sides of the building through holes in the roof.

The L-30 residues were transported to the Ordnance Works by William Young Transportation, Inc., whose storage warehouse was located at 1015 Willow Avenue, Niagara Falls, New York. There is at least one incident of sludge dripping from defective trucks along the highway from the Linde Ceramics Plant to the water treatment area; however, such residue was quickly dispersed as it dried (Newman, 1944a). Loaded trucks at the end of the day were sometimes kept overnight at the Young Trucking Company garage and continued their journey to the site the next day, a practice allowed at the request of the contractor (Newman, 1944b).

In July 1949, it was reported that water from a French drain ran from under Building 411 into the Central Drainage Ditch. Dye testing over a period of several days showed no leakage from inside the building to the ditch (Reichard, 1949b). Water monitoring was suggested and has revealed no direct contamination through the drain (Robinson, 1970a).

Based on the evidence that L-30 was never stored on the excessed offsite properties, there are no associated vicinity properties to be surveyed for L-30 residue.

L-50 Sludge

Similar to the L-30 sludge, L-50 sludge processed at the Linde refinery was derived from ore whose uranium content was purchased under contract number W-7405-eng-94 (May 27, 1943). The 2000 short tons contained 6 percent uranium. As with L-30, the radium-bearing residue is the property of African Metals, Inc. and is stored pursuant to the lease, which expires in 1983 (Keller, 1978).

The L-50 sludge was transported in bulk and stored in cylindrical tanks, variously referred to as accelerators, accelators (sic), or Buidings 413 and 414 in the water treatment area. These reinforced concrete structures are 62 feet in diameter and 19 feet high, with a capacity of 38,000 cubic feet. In addition to bulk storage, Building 412 contained three drums of L-50 near the door when inspected in 1965 (Keller, 1978) and 1979. The drums were subsequently moved to Building 411 in the autumn of 1979.

There are no associated vicinity properties related to the L-50 sludge that warrant a screening survey. However, it is suggested that the 42-inch raw water intake line and the 10-inch slurry pond pipe, though capped in the water treatment area, be sampled to determine whether they may have been a route of offsite migration.

Lead Cake: P-54, P-56, and P-58

P-54 is the code name for the lead sulfide cake from the processing of L-30 and L-50 ore at the Linde refinery; P-56 is the code name for the regenerated lead sulfate cake from the processing of L-30 and L-50 ores; and P-58 is the code name for the lead vanadate obtained by adding basic lead sulfate to the uranium-bearing carbonate liquors in the processing of L-19 ore to remove vanadium. These residues were stored by Linde at the Utica Street Warehouse in Buffalo, New York, in wooden barrels until 1946 when they were rebarreled and shipped to Lake Ontario Ordnance Works for long-term storage.

In November 1945, Linde's Utica Street Warehouse held 291 barrels of P-54, weighing 74,512 pounds (dry); with a 1 percent U_3O_8 content, it was estimated that 745 pounds of U_3O_8 were present (Robinson, 1945). By 1949, 632 pounds of the U_3O_8 were considered recoverable (Belmore, 1949b). The material was first stored in the filter building (410) in drums in the water treatment area of the Lake Ontario Ordnance Works. By 1965, the report by Peter W. Brown* indicated that the 300 drums of P-54, containing 37 tons of residue and 740 pounds of U_3O_8, were stored in the thaw house near the K-65 silo. This Afrimet-owned material is not present at the site today and was probably among the barreled material reported to have been shipped to Oak Ridge or West Valley for disposal (Robinson, 1970a).

The P-56 residues consisted of 25,272 pounds (net) in 30 barrels while stored at the Utica Street Warehouse in 1945 (Robinson, 1945). An estimated 1 percent U_3O_8 content suggested the presence of 177 pounds of U_3O_8. By 1953, the P-56 was considered to contain 0.68 percent U_3O_8 for a total of 176 pounds. The 1965 Peter W. Brown report claims that 6 tons of P-56 in barrels were located in the

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* Peter W. Brown's 1965 report (Keller, 1978) on the residue and scrap storage at the former Lake Ontario Ordnance Works has been used as the basis for various alternative action analyses. In some cases, the figures given are inconsistent with historical documentation. Because no available documentation establishes the credentials of Peter W. Brown, this report will compare historical figures with those provided by Brown so that the reliability of Brown's report may be properly questioned.

thaw house near the K-65 silo (434) or in the filter building (410). Despite the apparent decrease in quantity, 176 pounds of U_3O_8 were still considered present. The Brown report states that P-56 contains no radium. This Afrimet-owned material is not on the site today and was probably among the barreled material reported to have been shipped to Oak Ridge or West Valley for disposal (Robinson, 1970a).

The P-58 residue consisted of 228 barrels containing 115,097 pounds (dry) of residue with a 2.1 percent U_3O_8 content, or 2417 pounds U_3O_8 (Robinson, 1945). In 1965 according to the Brown report, this residue was stored in 23* drums in an open pit in the southeast corner of the second floor of Building 410. The 58 tons, reportedly containing 2412 pounds of U_3O_8, were labeled chemical sand on the drums and on a sign at the top of the pit and contained no radium. (In the northeast corner, Middlesex Sand and miscellaneous sludge were incorrectly labeled P-58.) This material owned by the Atomic Energy Commission is not on the site today and was probably among the barreled material reported to have been shipped to Oak Ridge for disposal. The 1970 Task Force Report (Robinson, 1970a) states that 200 to 300 drums from the Manhattan Engineer District era were moved to the West Valley, New York, burial area. (Records to substantiate this claim are not readily available, and it is not clear as to which residue was involved.)

Based on the evidence that the lead cake residue was never stored on the excessed offsite properties, there are no associated vicinity properties to be surveyed for lead cake residues.

R-10 Sludge, R-10 Iron Cake, and the Spoil Pile

R-10 sludge is the residue from Linde Air Products refinery processing the (up to) 12,000 short tons of 2.6 percent uranium ore purchased from African Metals, Inc., under Contract No. W-7405-eng-279 (December 5, 1943). R-10 iron cake is the sludge from a filter press used in the refining process. It was reported by Peter W. Brown in 1965 that the R-10 iron cake contained no radium and that the R-10 sludge had undergone cyanide treatment in the Belgian Congo for precious metal removal prior to purchase by the Federal Government (Keller, 1978). The recent Battelle Columbus Laboratory survey report indicates that the R-10 contains 3 nCi/g Ra-226 (Battelle Columbus Laboratories, 1981).

Using the accepted practice of ground storage of Government-owned residues, the R-10 sludge and iron cake were stored on the ground northwest of Building 411 in the water treatment area, with the iron cake in a separate pile to the west of the sludge (Figure 7).

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* The number of barrels reported by Brown is significantly different than the number reported earlier; it may be a typographical error.

The residue remained uncovered until 1964 when plans for reprocessing the residue were no longer active. The residue was covered with clean fill and seeded to prevent additional erosion, which had been noted as early as mid-1947, into the Central Drainage Ditch (Hayden, 1947; Reichard, 1949b). Following the 1972 cleanup of the offsite area, contaminated soil and debris were stored on top of the R-10. The volume of the spoil pile has been estimated by Battelle Columbus Laboratories in 1979 as 15,000 cubic yards.

Because the R-10 and spoil pile are considered the primary contributors to offsite radionuclide migration through wind and water erosion, the area west of the spoil pile is recommended for a screening survey. The Battelle Columbus Laboratories survey report revealed contamination on the Niagara Mohawk Power Company land out to the West Ditch (as far as they surveyed). Although such contamination is probably due to the water runoff from the spoil pile across Lutts Road before the construction of the Lutts Road Ditch (early 1970s), the possibility of airborne migration across the ditch should be evaluated.

F-32 Sludge

F-32 is the residue from the Q-20 ore (torbernite) purchased from African Metals under contract number W-7405-eng-280 (December 5, 1943) (Keller, 1978; Merritt, 1949). As amended, the contract provided 181 tons of 50 percent uranium ore and 275 tons of 20 percent ore. The residue is the property of African Metals and is stored in accordance with the lease agreement in the recarbonation pit (between the L-30 and L-50 storage locations) in the water tratment area (Morgan, 1949b). The F-32 sludge was shipped to the Lake Ontario Ordnance Works from Middlesex, New Jersey (Babcock, 1949). Dumping was completed in early 1950 (Epp, 1950), and the reusable drums were returned to Middlesex; others were sent to the drum graveyard onsite (location unknown).

According to the recent survey report by Battelle Columbus Laboratories, the once-sealed sluice gate appeared to be leaking and may have been a source of radionuclide migration to the Central Drainage Ditch. The roof was replaced by National Lead Company of Ohio in fall 1980 to reduce the water flow through the recarbonation pit.

Except for possible ditch contamination and provided the drum graveyard was located on the present storage site, there are no associated vicinity properties to be surveyed as a result of F-32 sludge storage.

K-65 (Radium Cake)

K-65 is the code name for the residue from Q-11 high-grade pitchblende ore purchased under Contract TAB No. 2 (Rev.) resulting

from the operations at the Mallinckrodt Chemical Works in St. Louis, Missouri. Until April 1949, the residues were returned to African Metals, Inc., at approximately the rate produced. In accordance with a provision in the contract, African Metals, Inc., then asked the Government to accumulate the residue for later shipment. The K-65 is now stored under the terms of the lease agreement.

In April 1949, six carloads (96 drums each) of K-65 were delivered to Lake Ontario Ordnance Works. Two carloads were placed in open air storage on macadam surfaces covered by tarpaulins. Arrangements were made for test storage in an igloo originally built for munitions storage, north of Balmer Road. With the approval of the War Assets Administration, four carloads were loaded into the igloo (No. 9050) (Heatherton, 1949; Wolf, 1949). One car was unloaded at a platform near the igloo, and the others were unloaded at a platform near the open-air storage area. Drums were touched up with paint in an empty building near the igloo unloading platform prior to storage (Reichard, 1949a).

As it became apparent that African Metals was not about to call for shipment of the residue in the near future, plans for bulk storage of the K-65 were developed. (Experience with drums indicated a limited drum life due to the corrosive processing chemicals in the residue; therefore, the igloo storage experiment was not pursued beyond mid-1949.) After considering several sites, the Lake Ontaro Ordnance Works was chosen for the K-65 storage due to its location, the low population density, and the availability of several concrete structures suitable for residue storage (Belmore, 1949a; Kelley, 1949a; Merritt, 1949; Reichard, 1949b). Engineering studies recommended the use of the cooling water storage tower (Building 434), now called the K-65 tower (silo) (Reichard, 1949c). The tower consisted of a 275,000-gallon tank (about 38 feet inside diameter and 35 feet high) supported by a 110-foot concrete tubular base capable of holding 725,000 gallons (Kelley, 1949a). The Preload Company, the original architect of the tower, was contracted to reinforce the base with wire wrapping bound by gunite (Ryan, 1949). The bottom section was fitted with four flanged 6-inch pipes to assist in emptying the tower using water jets to slurry the residue to a centrifuge (Kelley, 1949b; Gidlow, 1959). A 2-1/4-foot-thick floor was placed in the bottom section, about 3-1/2 feet off the ground and painted white on the underside so that any leakage would be clearly visible from the manhole below (Heatherton, 1951).

Drums were delivered to the tower from a railroad siding and platform on the south side of the tower. The drums were fed by gravity conveyors through a thaw house (heated in the winter by the nearby boiler house) capable of holding two carloads of drums. The drums were loaded onto a drum elevator, which raised the drums and dumped them into a chute positioned to feed through either the top or bottom section manhole of the tower. The drums were lowered and

returned to the loading platform by gravity conveyor. After the residue was dumped, the lids were replaced, and the drums were painted and loaded on boxcars to be returned to St. Louis for reuse (Koenig, 1950). When drum dumping ran ahead of receipts (K-65 shipments ceased in February 1951), they were trucked to onsite buildings (Malone, 1953) or were stored in a scrap pile running for approximately 0.5 mile along the railroad H-line (north of M Street). These drums (1200 to 1500 tons) were to be sold as scrap by the General Services Administration on an "as is, where is" basis except for 2000 usable drums to be shipped to Middlesex, New Jersey, and those considered highly (i.e., visibly) contaminated (Carberry, 1951). (A mid-1953 report mentions the presence of 2000 drums in the K-65 drum storage area, indicating that the shipment was not made (Eisenbud, 1953). Because of their contamination, they were to be moved to within the new site boundaries to Building 420. Their final disposition has not been verified.)

The bottom section of the tower was filled from September 1950 to April 1951; the chute was then modified for filling the top section (Tonawanda Area Progress Reports, 1951). The tower was filled to its approved capacity by November 1951 with about 4700 drums still in open air storage (Nininger, 1951). The Stearns-Rogers Company had performed engineering studies to determine whether the settling of the residue in the bottom section and the strength of the tower would allow the loading of an additional 1000 tons (Malone, 1951b). Two hundred tons were authorized in November 1951 and an additional 226 tons in February 1952. Data from 1953 indicate that the silo holds 7,748,762 pounds (3,874.4 tons) of K-65 containing 11,006.24 pounds of U_3O_8 (Hershman, 1953a). Other reports of the era (Neil, 1959) indicate that the bottom section had 2499 tons and the top section had 1166 tons prior to the loading of the last 226 tons giving a total of 3891 tons. (Some contend that the 226 tons were put in the top section instead of the bottom section.) The 1965 Brown report states that the tower is one-third filled and holds 1757 tons of material containing 10,582 pounds of U_3O_8 (Keller, 1978). Maintenance documents from the 1959-1960 era indicate that the bottom section is filled to about 70 feet above the floor (Duncan, 1959; Cressy, 1959).

All the drummed K-65 remaining onsite was shipped to Fernald, Ohio, from August to November 1952 (Barry, 1952). A total of 5149 drums were shipped (Hershman, 1953b), about 2000 of which required redrumming (because of corrosion) prior to shipment. Redrumming was performed on Castle Garden Road, east of Building 421, using remote handling devices. Open barrels drying in the thaw house were retrieved, using a winch to reduce exposure to the laborers. Residue remaining in the empty drums was dried by placing the drums upside down on two-by-fours on a tarpaulin in the dump area. The dried drums were emptied by beating them over another tarpaulin by workers wearing respiratory protection devices. The lumber was disposed of in the dump (Schumann, 1952).

The roads used for K-65 storage (consisting of the triangle formed by Vine Street, Castle Garden Road, and O Street (Epp, 1949), the macadam surfaces in the warehouse area (near Buildings 420 and 421), and H Street) were vacuum cleaned, scraped with street brooms, and hosed with 90 pounds of water pressure. The thaw house was vacuumed and hosed. This decontamination effort left the area below 0.75 milliroentgen/hour surface (gamma) and averaging below 0.4 milliroentgen/hour at 3 feet, well within the 1-milliroentgen/hour guideline in use at that time (Schumann, 1952).

K-65 drums appear to have been stored along the H-line tracks north of M Street (1200 to 1500 tons of drums along a half-mile of the track), in Building 420 (General Storehouse), in the water treatment area (200 tons), and the heavy equipment building (possibly Building 444) in the Baker-Smith area (about 2 tons) (Eisenbud, 1953).

In 1960, in order to reinforce the wire and gunite, the W.E. Caldwell Company put five 1-inch and sixty-one 7/8-inch metal bands on the bottom section of the tower to reinforce it (Cressy, 1959; Sapirie, 1966). In 1965, B.M. Heede, Inc., covered the lower 110 feet with about 6 inches of concrete, sealing the bottom section access port (located at about the 100-foot level).

Properties associated with the K-65 residue that were considered for a radiological survey include the igloo (No. 9050), the area along the H-line tracks, H Street, and the triangular roadway section formed by Vine Street, O Street, and Castle Garden Road. The igloo was the object of a screening survey in 1981; no contamination above guidelines was found. Remedial action was performed on Vine Street in 1981; only minor contamination remains (Oak Ridge Associated Universities, 1981).

Miscellaneous Residues

The available documentation occasionally mentions the presence of a residue of minor importance, or one for which the history cannot be adequately traced. For example, at the end of 1948, it was recorded that Lake Ontario Ordnance Works contained 4992 pounds (recoverable) of uranium in Mallinckrodt Chemical Works tailings (Production Division, 1948). It is believed that these were stored at the Robertson Airport near St. Louis. Another example is the mention of residue in the northeast storage bin on the second floor of Building 410. It is described in the Brown report (Keller, 1978) and the Battelle Columbus Laboratories survey report as 2 tons of Middlesex Sands containing 176 pounds of U_3O_8 underneath some miscellaneous sludge from Vitro (Armstrong, 1955).

The 1965 Brown report states that eight drums of AJ-4, P-78, R-10(Fe), and L-50 were in the storage bay of Building 410 (Keller, 1978). These may have been the material returned from Kellex pilot

plant studies (Bain, 1952) and may be the barrels sighted on top of the L-30 in the east bay of Building 411 (National Lead of Ohio, 1979).

These and other mentions of ore and residue are being investigated through continuing records searches.

Knolls Atomic Power Laboratory Waste

The Knolls Atomic Power Laboratory wastes were semisolid neutralized radioactive waste, consisting of fission products from evaporator bottoms of a pilot plant fuel reprocessing operation placed in stainless steel and carbon steel drums. Crates of combustible and noncombustible waste were also received at Lake Ontario Ordnance Works from January 1952 until September 1954 (Sparks, 1954). Plutonium waste was placed inside 1-gallon cans and packed inside drums that were specially marked (Manieri, 1958).

The first shipment of Knolls waste was stored in a 41- x 96-foot blockhouse (Building 845-1) 20 feet north of M Street in the compressor house area (James, 1952). Later receipts were stored in two adjacent wooden buildings (Greenhalgh, 1952) and the boiler house (Building 401) (Eisenbud, 1953; Showalter, 1953).

With the plans to convert the boiler house to a boron-10 plant and the proposed use of the northern sector by the U.S. Navy, the Knolls wastes were moved in late 1953 (Malone, 1953; Klevin, 1955; Sapirie, 1953). Although documentation suggests outside storage of the drums near the pumping station of the sewage treatment plant (Building 435) (Gorman, 1953), it appears that the only buildings used for storage were those marked on the Hooker Electrochemical Company chart (A-D-353, Rev. 2, April 30, 1957; see Appendix B, Figure B-2) in the Baker-Smith area (Buildings 443, 444, 445, 446, 447, and 448).

By 1957, the Baker-Smith area buildings were in a state of disrepair and without adequate fire protection facilities. It was suggested that the Knolls wastes in Building 445 (Pipe Shop) be moved to the thaw house next to the K-65 tower or to Building 421 (Hanner, 1957a). However, in the same month, it was decided to send the 38,500 cubic feet of waste (350,000 pounds) in Buildings 446 and 448 to the Oak Ridge disposal grounds (Hanner, 1957b; Seager, 1957); therefore, it is unlikely that the move to the thaw house took place.

Based on studies and experimental contaminated-waste burning conducted on an open cement pad at the Lake Ontario Ordnance Works, it was discovered that significant volume reduction of combustible wastes could be attained (Harris, 1954; Weinstein, 1954). The Atomic Energy Commission instructed Hooker Electrochemical Company to burn low-level (6 milliroentgens/hour or less) crates and barrel the ashes for shipment to Oak Ridge (Carney, 1958; Hanner, 1958a). The

burning was to be done on a cement pad or in the incinerator (Buiding 419). Hooker suggested using a loose cinder block concrete outdoor fireplace erected on an existing concrete pad. A metal backstop used for indoor pistol practice was modified to contain a fan-operated water scrubbing arrangement to remove particulate matter that might be carried up the stack (Walker, 1957). It is possible that the pad used for burning the combustible wastes was the change house south of the locomotive shop on Castle Garden Road where Oak Ridge National Laboratory discovered cesium-137 in the soil (Haywood, 1981). No plutonium-bearing waste or unmarked waste was to be burned. (Ashes in crates sent from the Knolls Atomic Power Laboratory were to be buried onsite because they were uncontaminated. It is not clear why this uncontaminated waste was sent to the Ordnance Works (Hanner, 1958b).)

Building 444 waste crates were described as so weathered that the markings were undecipherable. As a precaution, the crates were shipped to Oak Ridge, rather than risk the inadvertent burning of plutonium-contaminated waste (Sweeney, 1958; Hanner, 1958b). Reports indicate that 494 carbon steel drums were so rusted that they had to be placed in larger drums prior to shipment (Sweeney, 1957). (The location of the redrumming operation has not been ascertained.)

Buildings 401 and the block house in the compressor house area were decontaminated to background levels (stated as less than 0.63 milliroentgen/hour). Buildings 446 and 448 were released for unrestricted use in mid-1958. Building 444 (burned, with only a concrete pad remaining on the present Lake Ontario Ordnance Works site) was discovered to be contaminated (1 to 60 milliroentgens/hour) in the 1970 screening survey. A ditch flowing east from the pad was described as contaminated up to 2 milliroentgens/hour for 200 to 300 feet. Cesium-137 (a fission product) was found by analysis to be present. The cesium-137 was again identified in the 1978 aerial radiological survey report (EG&G, Inc., 1979) and in the 1979 Battelle Columbus Laboratories radiological survey with several areas as high as 70 milliroentgens/hour at 1 centimeter.

Offsite vicinity properties associated with the Knolls waste are the buildings in the compressor house area (due north of the K-65 tower on M Street) and those in the sewage treatment plant area. The location of the waste incineration has not been ascertained, but could possibly be a pad south of the locomotive shop on Castle Garden Road or the incinerator (Building 419).

University of Rochester Waste and Cesium/Strontium Gaps

The University of Rochester was given the task of performing research in support of radiation safety during the Manhattan Engineer District era. In 1951, the graveyard was established for the burial of

contaminated carcasses and waste from laboratory animals (Malone, 1952a). The location of the graveyard is well marked on the 1957 Hooker Electrochemical Company Chart A-D-353, Rev. 2 (see Figure B-2). During the 1954 survey, the graveyard was found to be at background except for some process material reading as high as 40 millireps/hour.* The screening survey in 1970 found the area to read 30 milliroentgens/hour (Thornton, 1970). In the 1972 decontamination, 512 cubic yards, containing drums and debris, were removed from a 10-foot deep excavation and placed in the spoil pile onsite (Robinson, 1973).

In February 1949, Model 1 gaps (strontium-90) and Model 3 gaps (cesium-137) were sent to Lake Ontario Ordnance Works for storage or burial (Hayden, 1949). The next documented evidence of the gaps' location is found in descriptions of the 1954 decontamination of the Castle Garden Dump area (Showalter, 1954). Some were reported to be found in drums and strewn about the surface. One reading 11 milliroentgens/hour on contact was removed from the Rochester burial area.

Uranium, Thorium, and Radium Storage

Several production facilities in the New York area were engaged in uranium metal production for the Hanford reactors. From August 1950 until mid-1953, Lake Ontario Ordnance Works received uranium ingots from the Mallinckrodt Chemical Works and the Bendix Corporation, Kansas City Division. The site also received uranium rods and billets from Joslyn Manufacturing and Simonds Saw and Steel Corporation. Lake Ontario Ordnance Works was the uranium accountability station for Bethlehem Steel, Allegheny-Ludlum, and Simonds Saw and Steel Corporation (Braiden and Gustavson, 1950; Bate, 1952). Ingots were rolled into billets at Allegheny-Ludlum in Watervliet, rolled into rods at Bethlehem Steel in Lackawanna, and machined into slugs at the American Machine and Foundry Company facility in Brooklyn.

Lake Ontario Ordnance Works first stored the uranium rods in Building 421, but nitric acid in the dirt floor pitted the rods (Tonawanda Area Progress Report, November 1950); the floor dirt was analyzed and revealed that it contained 1.6 percent uranium in the surface soil (over 500 pounds U_3O_8) (Consiglio, 1952). The corroded rods were taken outside and brushed to remove the oxide and then taken inside a building to be sawed into 8-inch pieces for recasting as billets (Heatherton, 1951). A Progress Report (Tonawanda Area, April

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* Millirep -- an obsolete unit, representing 1 one-thousandth of a roentgen equivalent physical, or 0.93 millirad.

1951) states that sawing, once done in the garage, was moved to a new building. (The documentation identifies Building 722-1 as the 20 x 40 foot rod saw house, formerly known as the riggers shop (Hershman, 1952b). A shop north of X Street between Buildings 428 and 430 was listed as Shop Building 7221 on the as-built 1945 drawing and is a likely candidate for the rod saw house.) The dirt floor of Building 421 was to be barreled and carried on inventory; however, records substantiating its disposal are not readily available.

Because of the corrosion problem, concrete vaults were constructed by spring 1951 for the storage of uranium rods. These were designated as Vault A (90 x 14 x 17 feet) and Vault B (43.67 x 14 x 17 feet) (Epp, 1951). When these vaults were filled in 1952, Building 420 was used for uranium metal storage (Malone, 1952b). (These vaults are probably the vaults used for miscellaneous material storage during the later boron-10 operations, labeled Buildings 431 and 432 on 1966 charts.)

Records indicate that warehouse 430 was used for storage of long ingots and uranium metal scrap. By the end of 1948, several tons of contaminated uranium oxide had accumulated, probably from Electromet (Production Division, 1948). By the end of 1949, several tons of floor sweepings had accumulated, probably from Simonds Saw and Steel Company (Production Division, 1949). In early 1950, this scrap was shipped from Building 430 and future receipts of uranium scrap were to be accumulated in the water treatment area. In late 1951, dry and pure oxides and uranium scrap were to be sent to Mallinckrodt (Malone, 1951d), and Vitro was to receive the impure scrap (such as turnings packed under oil to prevent oxidation) (Smith, 1951). Some solid uranium scrap from Joslyn and Knolls was sent to Hanford for recasting into billets (Smith, 1952). Other sources of uranium scrap shipped to the site were Bethlehem Steel and Bliss-Laughlin (Malone, 1951d).

Based on available records, thorium metal operations paralleled the uranium operations from late 1951 until beyond spring 1953 (Rothenberg, 1951; Bate, 1952). Thorium ingots from Ames Laboratory were forged and rolled at the Syracuse Plant of Crucible Steel Company. The thorium rods were then stored at the Lake Ontario Ordnance Works.

Lake Ontario Ordnance Works was used as a transshipment point for radium sources in 1953. Hooker Electrochemical Company had protective custody of the sources stored in hose house 433, referred to as the radium vault. Because the sealed sources never left their shipping containers, they were not a source of contamination (Malone, 1953; Sparks, 1953).

Documentation indicates the presence of polonium on three occasions: in 1953, a source in transit is mentioned; buried polonium is listed as a contaminant in the University of Rochester waste (Klevin,

1953); and in 1955, the polonium-beryllium neutron source was most likely used to check boron-10 purity during the operation of the plant (Klevin, 1955). Of these, only the University of Rochester waste can be considered as a potential contaminant.

Based on the evidence that neither uranium nor thorium metal were ever stored on the excessed properties, there are no associated vicinity properties to be surveyed due to the uranium operations at the Lake Ontario Ordnance Works.

Slag (C Material)

Recoverable uranium from the metal casting operations of the Electro-Metallurgical Company (Electromet) of Niagara Falls, New York, adhering to the graphite reduction bomb liners and crucibles, was stored southeast of the Fire Reservoir (Building 409) (NYOO Medical Division, 1949). The earliest shipment arrived in late 1944 from Linde's Utica Street Warehouse and, by mid-1955, 18,132 kilograms of uranium were deemed recoverable. Based on the 1970 task force report (Robinson, 1970a), the material was shipped to the Y-12 Plant at Oak Ridge in the late 1950s. The Battelle Columbus Laboratories survey report indicates that some of the material remains.

It is recommended that the radiological survey of the offsite properties determine whether any of this material has migrated from the site due to wind or water erosion.

Scrap Metal

Available records indicate that scrap metal first began to be accumulated at Lake Ontario Ordnance Works with the bulk storage of the L-30, L-50, and F-32 residues. A drum graveyard was created. Scrap metal from other sites, mostly wartime plants being dismantled, began to arrive in 1949. Known scrap shippers include National Research Corporation (Morgan, 1949a), Linde Air Products, Vitro Manufacturing Company (Quidor, 1949), Mallinckrodt Chemical Company (Malone, 1951a; Hershman, 1952a), Harshaw Chemical Company (Braiden and Gustavson, 1950), Dupont Chambers Works (Malone, 1951c), and Bethlehem Steel (Malone, 1954).

By fall 1950, scrap was arriving at a rate that justified the use of a 5-ton magnet to empty the gondola cars along the tracks. The main areas used for bulk storage of scrap metal were the acid area dump (along the H-line tracks north of M Street), on either side of the D-line tracks (east of the K-65 tower), and in the classification yard (bounded by Track Street in the southeastern section of the site). In addition, about 200 tons of rusted drums were stored in the water

treatment area, special equipment was stored in the Baker-Smith area, stainless steel was stored south of Building 409, and reusable, uncontaminated scrap was stored in Building 430.

Reusable, uncontaminated equipment was transferred to the Buffalo Board of Education, Canisius College, 136th Fighter Squadron of the U.S. Army East Air Command, and the Atomic Energy Commission facilities. Some was sold to scrap dealers by sealed bid (Baum, 1951a).

By mid-1951, most of the contaminated equipment stored in the Baker-Smith area had rusted due to the state of disrepair of the buildings. The rusted equipment was removed to the contaminated scrap area (probably along the H-line tracks) (Malone, 1951b).

By fall 1951, there was a shortage of scrap metal. A study revealed that contamination was removed with the remelt sludge in recycled steel. The Atomic Energy Commission directed that all, except heavily (visibly) contaminated, scrap was to be made available to industry (Baum, 1951b). Within a month, the Atomic Energy Commission had made arrangements with the General Services Administration to provide 1000 tons of scrap at a rate of 10 tons/day for magnesium recovery to the Diamond Magnesium Company of Luckey, Ohio (Carberry, 1951). In a 600-pound test melt of contaminated metal, it was found that fission products, yellow salt, and concrete flooring were separated as slag (Rothenberg, 1951). (The disposition of the slag is under investigation.)

Several buildings, on and off the present site, were used in 1952 for storage of the useful material, not all of which was contaminated (Hershman, 1952b):

New Building No.	Old Building No.	Name	Size (ft)	Used For
-	814-1	Box Factory	70 x 240	Harshaw Material
458	707-3	Change House	29 x 35	Safety Equipment
-	822-6	Change House	20 x 40	Electromet Warehouse
-	877-6	Change House	30 x 81	Electromet Warehouse
-	877-4	Change House	30 x 81	Linde Warehouse
403	709	Fire House	45 x 49	Miscellaneous Storage
428	722-2	Millright Shop	40 x 60	Motor & Pump Storage
460	718-1	Locomotive Shop	31 x 106	Locomotive Storage
422	725-1	Parking Garage	92 x 124	Miscellaneous Storage
421	714-1	Material Shop	44 x 90	General Storage
430	717-1	Combined Shops	80 x 402	Machinery Storage
423	716-1	Garage & Repair	42 x 101	Motor Vehicle Storage
425	733-1	Meeting House	30 x 32	Janitor Supplies & Storage
428	722-1	Laundry Building	21 x 61	General Storage

By fall 1953, the boiler house was being converted to the boron-10 plant and the northern sector was to be transferred to the U.S. Army (which gave the Navy use of the land) (Robinson, 1970a). Hooker Electrochemical Company was directed to clean up the area. In the Castle Garden Dump area, combustible material and wooden agitators from Linde stored in the Baker-Smith area were to be burned on a pad north of M Street and the ashes shoveled into drums and removed. Approximately 800 tons of contaminated materials were to be moved from the eastern portion of the site to Oak Ridge (Dowling, 1954). The burial areas near the block house in the compressor house area north of M Street were removed to 12 inches and backfilled. The Castle Garden Dump was decontaminated to below 0.63 milliroentgen/hour (considered to be background). Ballast between the railroad ties on the siding north of M Street was removed. In addition, the sewers were to be cleaned and checked for contamination (Walker, 1955).

It is believed that all materials were deposited in the contaminated material dump area around the western portion of Building 455, located south of N Street and northeast of the radium vault (Building 433). This area, referred to as the "New Naval Waste Area," contains 28,000 square yards. The 1965 Brown report (Keller, 1978) states that this area contained about 20 badly deteriorated drums and a few piles of scrap. The 1970 radiological survey revealed gamma levels up to approximately 125 milliroentgens/hour and alpha as high as 50,000 disintegrations/minute (Thornton, 1970). The Battelle Columbus Laboratories survey report indicates beta-gamma readings (at 1 centimeter) below 4 milliroentgens/hour. Only one drum was found in the 1979 survey.

It is recommended that the proposed radiological survey recheck the offsite waste areas indicated on the 1957 Hooker Chart (A-D-353) (see Figure B-1) because it is not known from available documentation whether the 1972 decontamination cleaned up these areas to meet today's standards.

SUMMARY OF DISPOSAL AND STORAGE AREAS

The preceeding section followed the history of the various residues, scrap, and wastes stored at the site, which, in some cases, contaminated soil, buildings, and surface waters. In this section, the disposal areas are described by location, with emphasis on the type of material found there in previous cleanup operations or surveys. During the cleanup efforts in the mid-1950s and early 1970s, much of the contaminated material was moved to within the present site boundaries. However, available records do not establish that all contaminated material was removed from offsite areas. Therefore, the disposal areas are described to guide the survey team in their survey of the area as to what residues or scrap may be present.

Following the description of the offsite disposal areas, the onsite storage areas are described insofar as their presence may affect offsite measurements or be a source of offsite radionuclide migration.

Offsite Disposal and Storage Areas

A review of reports and records from the early to late 1950s identified a number of areas that contained rubble or debris or were used as burial sites for wastes. Over this same period and into the 1960s, efforts were made to clean up exposed contaminated material, but little or no documentation was found to describe these efforts. Figure 8* shows the location of areas previously known to contain rubble, debris, or contaminated wastes before cleanup operations in the 1950s and the 1970s. Landfills and lagoons used for chemical waste treatment have significantly changed the topography in certain areas (see Figure 4); therefore, it is unlikely that all previously identified burial sites will be found. The available information on each of the areas is discussed below.

E'1, Burial Ground North of M Street Along the Railroad -- Records indicate that this area contained various types of contaminated and uncontaminated scrap including pipe, drums, stainless steel, cylinders, Mallinckrodt building rubble, transite and residue, and Q-11 material (high-grade pitchblende). It is possible that, while contaminated materials on or near the surface were removed from this site, some buried material was not removed and remains in the area (Malone, 1953; Klevin, 1955; Walker, 1955; Thornton, 1971). A concrete block house in the compressor house area located in the central portion of this plot was formerly used for the storage of the Knolls Atomic Power Laboratory wastes (Eisenbud, 1953; Health and Safety Laboratory, 1954). These wastes were moved onsite to the area in Figure 8 marked storage site 4. The plot is now part of the aqueous waste treatment area operated by SCA Services, Inc.

E'2, Area North of M Street Between the Campbell Street and Castle Garden Road Intersections -- Rubbish, drums (some from Q-11), wood, and contaminated ashes were identified on and around a concrete pad in this area. There is no specific record of burials made in this area. It is believed that the drums and ashes were removed in the 1950s (Walker, 1955). Some additional decontamination was done during the 1972 cleanup effort. SCA Services, Inc., now uses the area for aqueous waste treatment.

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* The alphanumeric code used in Figure 8 to describe the disposal sites is based on the plots defined in the 1971-1972 survey of the site. The plots are labeled in Figure 9.

G1, University of Rochester Burial Grounds and Surrounding Areas -- This area includes the site of the University of Rochester burial grounds and a contaminated metal burial site (Malone, 1953; Health and Safety Laboratory, 1954). The Rochester area, located in the central to southeastern portion of the area as marked in Figure 8, contained contaminated animal residue and wastes along with miscellaneous contaminated material including cesium gaps, which measured 10 milliroentgens/hour (Klevin, 1955; Walker, 1955). The contaminated metal area and other areas in the northwest portion of the G1 site contained contaminated metal, drums (some from K-65 residue), boxes, and yellow process material. A carboy was unearthed in this region, indicating that waste from facilities other than the University of Rochester may have been deposited here. In 1972, decontamination to a depth of 10 feet was performed, and the material was removed to the spoil pile onsite (Robinson, 1973).

G2, Castle Garden Dump Area -- This area is located south of M Street and west of Castle Garden Road. The dump area contained contaminated and uncontaminated debris and building rubble (some from the Linde plant), ashes, acid bricks, residue, process material, drums, cesium gaps, transite, insulation, and various pieces of equipment (Malone, 1953). The cleanup of surface debris in the 1950s reduced exposure levels to below 0.63 milliroentgen/hour (gamma) (Walker, 1955). During the 1971-1972 cleanup, areas in and around this dump were excavated, generally to depths of about 1 foot. The records available do not detail the boundaries of the dump sufficiently to determine whether the entire dump has been removed. However, the construction of ponds in this area may have diluted any residual material to undetectable levels.

C'1, Scrap Metal Storage Area Along the Railroad -- This area is located along the railroad spur east of MacArthur Street. It is described as containing miscellaneous scrap metal (Hooker Electrochemical Company Chart A-D-353, revised April 30, 1957). This area may have been cleaned up for sale of the scrap metal during the mid-1950s. The storage area is in a swampy area and may be inaccessible.

N1, Area South of O Street, Northwest of the Vine Street Railroad Spur -- This area was described as containing residue and equipment from hafnium/zirconium processing conducted by Titanium Alloys Manufacturing Company (Malone, 1953). The wastes were believed to be pyrophoric (Hershman, 1953b). Coring to 8 feet by the New York State Department of Health in 1980 indicated that the residues had been removed (O'Brien, 1980). Test wells have been drilled in the general area by the current owner in preparation for future land use.

N'1, Scrap Metal Disposal Area -- This area is located along the railroad tracks in the area denoted as N'. The area contained scrap metal and waste prior to the surface cleanup conducted in the 1950s

(Quidor, 1953). Some decontamination of this area was also conducted during the 1972 cleanup. Building rubble remains along the railroad track, which was refurbished in the 1970s for tank car access to the SCA Services, Inc., waste treatment facility.

X1, Area Along the Western Atomic Energy Commission Site Boundary in Sewage Treatment Area -- Miscellaneous contaminated material was located in this area in the early 1950s. Following the scrap metal removal in the mid-1950s, wastes of the Knolls Atomic Power Laboratory were stored in buildings along West Patrol Road until their removal in the late 1950s (Malone, 1953). The sewage treatment area was decontaminated to below 50 microroentgens/hour under Atomic Energy Commission guidance prior to transfer of the facility to the town of Lewiston (Sapirie, 1971). The sewage treatment facility is not in operation and is unoccupied.

Onsite Disposal and Storage Areas

The Office of Nuclear Energy actively maintains the facilities on the storage site in accordance with the terms of the lease agreement with the African Metals Corporation and the license requirements of the State of New York. For completeness, a short description of the storage areas (numbered in Figure 8) is presented in this section.

Area 1, K-65 Storage Area -- The Department of Energy storage site is used to store large quantities of radioactive materials. As indicated in Figure 8, the K-65 (high-grade pitchblende residue) is located in the tower on the northeastern portion of the site (Area 1).

Area 2, Water Treatment Storage Area -- The L-30, L-50, F-32, and R-10 residues (low-grade pitchblende) are located in the southwestern portion of the facility (Area 2). The spoil pile from the 1972 cleanup is also in this area. A comprehensive survey of the site conducted in 1979 for the Department of Energy documents the location and amounts of material located in these areas in detail along with other spots of minor contamination (Battelle Columbus Laboratories, 1981).

Area 3, Navy Waste Area -- This area contains wastes from the Navy Mathieson area (possibly material removed from area E'1 and G2). It is not clear whether wastes were buried here or just dumped on the surface, but the 1979 radiological survey indicated contamination to a depth of 16 feet (Battelle Columbus Laboratories, 1981).

Area 4, Warehouse Storage Area -- The Knolls wastes were transferred from area E'1 and the boiler house (Building 401) to this area and other temporary buildings along West Patrol Road (Malone, 1953), and later to Oak Ridge burial grounds (Hanner, 1958b). The Knolls wastes contained plutonium and fission products.

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AEC, 1973, *Radiation Survey and Decontamination Report on the Lake Ontario Ordnance Works Site*; Atomic Energy Commission (AEC) Oak Ridge Operations; January 18, 1973, pp. 45-78

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E-162

UNITED STATES
ATOMIC ENERGY COMMISSION
OAK RIDGE OPERATIONS
P.O. BOX E
OAK RIDGE, TENNESSEE 37830

January 18, 1973

Mr. T. K. DeBoer, Director
Technological Development Programs
State of New York Atomic Energy Council
Department of Commerce, 112 State Street
Albany, New York 12207

Dear Mr. DeBoer:

RADIOLOGICAL SURVEY AND DECONTAMINATION REPORT ON LAKE ONTARIO ORDNANCE WORKS SITE

Attached is a report which describes the history and cleanup actions connected with the low-level radioactive contamination on privately-owned property formerly a part of the LOOW reservation. Also enclosed is radiological survey data before and after decontamination (Appendix I) and an updated plot plan of the area (Appendix II). Appendix III included with the report is the documentation of the Aerial Radiological Survey (EGG-1183-1554).

Information presented in the report and its attachments should resolve the majority of the questions posed in your October 30, 1972, letter. Elevated readings in Areas C, F, N, L, and immediately west of the Water Treatment Plant may be attributed primarily to the radiation from radium residues which are the property of African Metals Corporation and labeled K-65, L-30, and L-50 on the plot plan.

Instrument measurements exceeding 50 micro R/hr. are indicated for a portion of the central drainage ditch and six mile creek. The AEC retains an easement on the central drainage ditch. It is our intent to complete decontamination of the six mile creek bed.

We will be glad to arrange a meeting to discuss any further questions on this project, along with the policy matters discussed in your

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October 30 and December 26, 1972, correspondence at a time convenient to all parties and following agreement on agenda items.

Sincerely,

Berwyn M. Robinson

Berwyn M. Robinson, Chief
Waste Management Branch
Research & Technical Support Div.

ORW:BMR

Enclosures:
1. Report
2. Appendix I
3. Appendix II
4. Appendix III

cc: W. J. O'Brien, N.Y. State Dept. of Labor
Earnest Gedeon, Niagara County Health Dept.

3.1

A 2065

RADIATION SURVEY AND DECONTAMINATION REPORT OF THE LAKE ONTARIO ORDNANCE WORKS SITE

18 JAN 1973

UNITED STATES ATOMIC ENERGY COMMISSION

OAK RIDGE OPERATIONS

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I. Introduction and Summary

Efforts have been underway to define the magnitude and extent of offsite radioactivity residuals resulting from AEC activities at the Lake Ontario Ordnance Works Site, since recognition of the need in October 1970. This report summarizes the AEC effort referencing previous reports and describing decontamination operations and final radiation survey data for property previously excessed from AEC control. With a minor exception noted in Section V.B.2. all contamination areas have been cleaned to gamma radiation levels not exceeding 50 μR/hr including background as measured at 3 ft. above the ground surface. Beta-gamma levels measured at contact with the ground were less than 0.2 mrad/hr.

II. Historical Chronology

On October 16, 1970, it was confirmed by spot check radiation surveys that radioactive contamination exceeding informal AEC working standards for unrestricted property disposal, existed on land adjacent to the AEC Niagara Falls Site. This land was previously part of the Lake Ontario Ordnance Works and was utilized during World War II for the storage of radium-bearing uranium refinery residue and contaminated building rubble from dismantled uranium processing buildings. Representatives of New York State agencies were alerted to the situation at a meeting in Albany, New York, with AEC-HQ and ORO representatives on November 17, 1970. A press release was issued following the meeting with the concurrence of those in attendance. Further survey of the offsite areas was planned, and on November 30, 1970, a ten-man radiation survey team was assembled. The survey was conducted using G-M survey meters in nominal contact with the ground surface and concentrated on areas suspected of having a history of use of radioactive material storage. Snow and icing conditions existing on December 7, 1970, necessitated discontinuing the effort. About 300 acres had been checked. In areas where higher beta-gamma levels were found, soil samples were collected for radioisotope analysis. With the exception of a sample from Area G-7 (see map, Appendix I) which evidenced some Cs-137, all samples indicated only uranium and/or radium to be of significance. Additional details of LOOW-Site history, and the radiation surveys of October 16, and November 30, 1970, were compiled in the Task Force Report dated January 15, 1971. This report was provided to New York State and Niagara County representatives during a January 19, 1971, meeting at Niagara Falls, New York. At this time, AEC-HQ and AEC-ORO representatives met with State and local agency representatives to further inform them of contamination

found on non-AEC property and to advise regarding AEC intentions to complete the surveys and to decontaminate all areas exceeding the informal working standards listed in Table 1.

Subsequently, by letter dated April 20, 1971, the State conveyed to ORO its recommendations regarding acceptable criteria for unrestricted use of the involved land. These recommendations were made in terms of gamma dose rate at 3 ft. above ground surface and suggested decontamination of any area exceeding 10 microroentgens/hr (μR/hr) above natural background. Natural background in this area is approximately 10 μR/hr. Technical discussion of decontamination criteria is presented in Section III.

During June 7-20, 1971, about 1,298 acres of land formerly under AEC control was surveyed using gamma sensitive meters capable of detecting dose rate fluctuations in the μR/hr range. Results of this survey revealed about 95 acres exceeding the State's recommended level of 20 μR/hr. About 6.5 acres exceeded 50 μR/hr and included all areas previously identified by beta-gamma contact measurements as exceeding Table 1 levels. Information on survey techniques, instrumentation, calibration as well as radiation data collected during the survey was provided to State and County representatives by letter dated October 22, 1971, and discussed with them at a meeting in Niagara Falls on December 2, 1971. Tentative decontamination plans were also discussed. By letter dated January 28, 1972, AEC-ORO formally indicated to State and County its plans to proceed with decontamination in spring as soon as weather permitted, and that only areas exceeding 50 μR/hr (including background) would be included in the cleanup effort. Predecontamination radiation survey information is included in Section V.A.

On April 25, 1972, invitations were issued to 14 area contractors to bid on the decontamination contract. Bids were received from 7 contractors and opened on May 18, 1972. The contract was awarded to John H. Gross Plumbing and Heating Company of Niagara Falls and decontamination began on May 30, 1972. Contractor operations and final radiation surveys were completed by June 23 and June 28, 1972, respectively. Further details of the operation are found in Section IV. Final radiation data is discussed in Section V.B.

III. Decontamination Criteria

The basis for criteria used by AEC in decontaminating the property, which was formerly a part of AEC's LOOW-Site, was presented in a letter dated January 28, 1972, to Mr. T. K. DeBoer of New York State Department of Commerce. Following are pertinent sections of that letter:

> "The criteria proposed by the AEC in connection with the LOOW decontamination plan are fully as stringent as the most restrictive criteria proposed to date on any other similar AEC land clearance action. The land in question will be decontaminated and re-surveyed to assure that peak gamma radiation levels, attributable to surface deposits, do not exceed 40 μR/hr above background as measured three feet above the surface. Decontamination to peak levels of 40 μR/hr will render average radiation levels substantially below 40 μR/hr judging from results of the pilot decontamination project on the sewer plant land. From a practical point of view, the actual radiation received by any future occupants of the land will be far less than 40 μR/hr due to the lower average and because any civil improvements on the properties will either further dilute or remove or shield such residual contamination. Thus, possible future exposure to the public will be well within the Federal Radiation Protection Guidelines for the general public.
>
> "With respect to any potential radon problem, as you know our sampling to date has not indicated ambient radon concentration on private property significantly above natural background. As you also know, radon and gamma ray analysis are not yet sufficient to make quantitative correlations between direct gamma radiation and radon daughter level inside of buildings, or between radon daughter concentrations inside and outside of buildings. However, for an order of magnitude approximation, our studies indicate that radon diffusion through the basement floor and walls of an average residential structure will result in a reduction in concentration by a factor of approximately 1,000 from the outside to the inside. Applying this reduction factor to the maximum equilibrium concentration of radon

daughters associated with a 40 μR/hr direct gamma field and also attenuating the 40 μR/hr direct gamma component through the floor and walls of a typical structure leads to predicted radiation levels inside any future buildings on the former Lake Ontario Site that will be extremely low as compared to national standards.

"Regarding public risk that might be associated with these very low residual radiation levels, we have estimated that the maximum potential risk of cancer of all types will not exceed 0 to 1 case above normal occurrences in 20 years, assuming that the radiation level around all areas in question are the peak 40 μR/hr above background, that the area is occupied continuously with a population density equal to that of Buffalo, New York (about 20/acre), and that 100 such cancer cases of all types occur per million man-rem population exposure. All of these assumptions reflect protective conservatism and, accordingly, we would expect any actual risks to be vanishingly small."

IV. Decontamination Operations

Contractor operations were begun at the former LOOW Site on May 30, 1972, under the surveillance of an AEC health physicist. About 8-10 acres of land were actually involved in the cleanup operation. It is estimated that 15,000 - 20,000 cubic yards of dirt, debris, etc., were removed from non-AEC property to the spoil area on AEC property. About 70% of this material was relocated pursuant to a lump-sum contract as originally bid. The remaining 30% came from miscellaneous additional excavation required in certain areas to meet the cleanup criteria. Contractor costs totalled about $88,000. A rough estimate of the total cost including pre- and post-decontamination surveys, AEC and prime contractor expenses, and equipment costs would be $150,000. Contamination in the material removed was generally quite low so that vehicle decontamination was easily effected by conventional water washing procedures. All pieces of equipment involved in this job were surveyed and if necessary washed before leaving the site. Contractor operations were completed on June 23, 1972, and no spread of contamination during these operations was detected.

V. Radiation Surveys

A. Pre-decontamination Radiation Survey

1. Description of Survey Operations

During the period June 7-20, 1971, a team of ten radiation surveyors was assembled at the Niagara Falls Site to survey all property previously under AEC control (which had been sold to private parties or transferred to other Government agencies).

a. Instrumentation and Equipment

The survey was accomplished using low-level NaI scintillation survey instruments, Model NE 148A, marketed in the USA by Baird-Atomic. Each instrument was equipped with head phones for audible indication. Three ranges of response are provided corresponding to 0-30., 0-300, and 0-3000 micro R/hr.

b. Calibration

The middle and high range scales of each instrument were calibrated against an NBS standardized radium gamma source by the Health Physics Division of the Oak Ridge National Laboratory. The low range scale was calibrated at the radiation background level found in the Oak Ridge Area (~10 uR/hr) as determined by the integrated response of a scaler readout fed by a shielded G-M detector which had been calibrated against an NBS standardized Radium gamma source. This technique, it is estimated, may permit an overestimation of the gamma background levels by as much as 15-20% if a significant portion of the gamma spectrum were in the energy range less than 200 Kev. Several areas on the LOOW Site, where higher levels of contamination had been found and where a variety of source configurations

are involved, were used to cross check the NE 148A against a Victoreen 440 ionization chamber and confirmed agreement well within the above stated limits. Frequent field calibration checks were made against a secondary metallic uranium source.

2. Field Procedure

The survey was conducted by spacing the surveyors at fifty-foot intervals and traversing a given area at a pace approximately 1 to 1-1/2 mile/hr and logging the radiation level at three feet above the ground surface every fifty feet. Appendix II includes a map defining the area segments of the survey identified by letters A thru W.

In areas where general contamination was suspected or found, the spacing was reduced to a twenty-foot interval between surveyors and readings logged every twenty feet. Area segments identified as C', E', G', H', and N' were surveyed according to this procedure.

By monitoring the audible indication of the instrument any significant increase in the background level between the specified logging points could be detected and was recorded.

A random selection of about one-third of those areas found to be contaminated in the range of 20-50 μR/hr was surveyed at contact with an open window G-M detector and it was confirmed that the radiation levels found were well below 0.2 mrad/hr.

Conditions under which the survey was conducted provided a rather severe test of both men and equipment. Sections of several areas were impassable due to their swampy condition. Dense growth over most of the area made location of data points quite difficult and approximate in some instances. These instances were for the most part in areas of very low (<20 μR/hr) background.

3. Survey Data

Data collected from areas surveyed on fifty-foot centers are tabulated in Table II. Estimates, using 2500 sq.ft. per reading except as noted, are made of the area exceeding 20 μR/hr, 50 μR/hr, and 100 μR/hr for purposes of comparison.

Table III is similar data for areas surveyed on twenty-foot centers and area estimates are based on 400 sq.ft. per reading.

Table IV is a summary of the surface area exceeding the above-stated radiation dose rate levels.

Radiation levels at the existing boundary fences of the present AEC site were surveyed and found to be in the range of 30 to 70 μR/hr around the K-65 silo area. The fence just west of the L-30, L-50, and R-10 residue areas was found to measure 100 to 450 μR/hr for about 2,000 feet. These radiation levels may be overestimated quite significantly since the storage configuration involves depths of material on the order of ten feet resulting in a degraded radium daughter energy spectrum. These levels of radiation are attributable to the residue stored onsite by African Metals Corporation under a lease agreement with the USAEC which expires in 1983.

B. Post Decontamination Survey

1. Description of Operation

Instrumentation used and its calibration were identical to that used in the pre-decontamination survey as previously described. The field survey procedure in areas requiring decontamination involved essentially continuous monitoring over the area in order to assure that no isolated high readings remained. Data readings including background for these areas are reported generally, however, on 20-foot centers in Appendix I. Soil samples were collected from most areas upon

completion of cleanup. Gross alpha, gross beta, and radium analyses were made on these samples and data results are included in Table V.

On June 24, 1972, an aerial radiation survey was conducted by EG&G. The results of this survey within the limits of their sensitivity are in close agreement with the ground survey. The results of the aerial survey are included in Appendix III.

2. Survey Data

Table V summarizes the result of decontamination operations. The identified areas may be located on the map in Appendix II. Information on maximum, minimum and average radiation levels before and after cleanup and backfill is included. The average radiation level is an arithmetic average of all the readings within the specified area. It will be noted that only in portions of the central drainage ditch and in Six Mile Creek do radiation levels exist which exceed 50 μR/hr. Maximum levels are 120 μR/hr and 80 μR/hr, respectively. These ditches drain large areas including the existing AEC site. Since the AEC retains drainage easement rights on the central drainage ditch, future control of the area is assured and no significant hazard to public health appears credible.

Details of the area radiation survey are included in Appendix I. Decontaminated areas are identified by dashed line boundaries. Post decontamination readings for the areas inside dashed boundaries are also presented. All radiation levels recorded in Appendix I, unless otherwise specified, are in μR/hr and include background.

3. Unusual Areas

Additional details on the following unusual areas are presented for further clarification:

Area E'

Below the surface contamination, an old railroad bed was unearthed in the northern portion of Area E' and found to be contaminated. It was removed to a depth of about 3 feet. Four catch basins were found to be contaminated and were completely removed. Some burned debris (valves, conduit, gasket material, drum lids, etc.) was found in Area (E-3) and its removal required an excavation to about 3-4 feet. In Area E-2 the contaminated areas, found previously, could not be relocated for decontamination because Chem-Trol development activities had covered over or otherwise obscured the readings.

Area G

The excavation of the old burial area (Area G-7) was accomplished with no surprises. The material removed from a ten-foot deep hole was mostly old empty drums or drums containing tar.

Six Mile Creek

During the survey of June 1971, water in Six Mile Creek was about 18 inches deep and the radiation levels recorded at that time were shielded thereby. During the cleanup campaign in June 1972, Six Mile Creek was found to be essentially dry and new readings were taken. About 300 feet of the creek bed was decontaminated.

Central Draining Ditch

Approximately 1,800 feet of the central draining ditch was cleaned from the northern AEC boundary to "L" Street. It will be noted that not all radiation levels in this section are below 50 μR/hr. In fact about 8% of the ditch area reads between 50 and 120 μR/hr. Very little water was standing in the ditch at the time of final survey. The section of ditch from "L" Street to Balmer Road was found to be in the range of 50 to 70 μR/hr.

4. Spoil Area

All material removed from offsite areas was placed in the AEC site spoil area as shown on the map in Appendix II. The areas encompassed about one acre in which the elevation increased about 15 feet above previously existing grade. The area is drained on the east by the central drainage ditch and on the west by a lateral ditch which flows into the central ditch before leaving the AEC site. Water flow in the ditch is sampled quarterly for radioactivity. A radiation survey of the spoil area indicated a maximum reading of 3.5 mr/hr at 3 feet above the surface of the pile. A grid survey is shown in Appendix I. Readings at the west boundary fence ranged up to 0.45 mr/hr. Details of these readings are also in Appendix I.

PROPOSED PRELIMINARY SURVEY PLAN FOR SWAMP AREAS OF OFF-SITE PROPERTIES B AND C' AT THE FORMER LAKE ONTARIO ORDNANCE WORKS LEWISTON, NEW YORK

INTRODUCTION

Beginning in 1944, the Manhattan Engineer District and its successor, the Atomic Energy Commission (AEC), used portions of the Lake Ontario Ordnance Works (LOOW), Lewiston, New York, for storage of radioactive wastes. These wastes were primarily residues from uranium processing operations, however, they also included: contaminated rubble and scrap from decommissioned facilities, biological and miscellaneous wastes from the University of Rochester, and low-level fission-product waste from contaminated liquid evaporators at the Knolls Atomic Power Laboratory (KAPL). Receipt of radioactive waste was discontinued in 1954, and, following cleanup activities by Hooker Chemical Co., 525 hectares of the original 612 hectare LOOW site were declared surplus. This property was eventually sold by the General Services Administration to various private, commercial, and governmental agencies. The Department of Energy (DOE) has determined that portions of these properties still contain low-level radioactive residues from earlier operations.

Service Corporation of America and Modern Landfill, Inc., both of Lewiston, New York, are the current owners of off-site properties B and C' at the former LOOW site (Figure 1). Both of these properties have a history of use for storage or burial of contaminated scrap and were decontaminated during the 1972 cleanup efforts. However, due to inaccessibility, the swampy portions of the property have never been surveyed. Elevated radiation levels and soil contamination have been identified on other portions of these two properties.

The non-swampy areas of property B are presently being used for storage of toxic chemical waste. Area C' has been designated by the state of New York as a "wetland" and future development is therefore unlikely.

Because of the inaccessibility of the swampy areas during warmer weather surveys of these areas would best be performed during the winter, when the surface is frozen.

Prepared by the Manpower Education, Research, and Training Division of Oak Ridge Associated Universities (ORAU), Oak Ridge, TN, under Contract DEAC05-76OR00033 with the U.S. Department of Energy.

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FOLDER NY LAKE ONTARIO ORDNANCE WORKS, NIAGRA FALLS

December 1, 1982

SURVEY PLAN

Objective

The objective of the survey is to provide a preliminary assessment of the radiological conditions and associated potential health effects, if any, on swampy areas of the property. Radiological information collected will include:

1. direct radiation exposure rates,

2. locations (if any) of elevated surface residues, and

3. concentrations of radionuclides in water and sediment.

The findings of this preliminary survey will be used to evaluate the need for a comprehensive radiological survey of the swamp areas.

Procedures

1. Walkover surface scans will be conducted over the swampy areas. Traverses will be at 5-10 m intervals. Portable gamma-ray scintillation survey meters will be used for the scans. Locations of elevated contact radiation levels will be noted.

2. Gamma-ray measurements will be made at the surface and 1 m above the surface at approximately 40 m intervals, and at locations of elevated readings (see item 1), using a portable gamma-ray scintillation survey meter. Conversion of these measurements to exposure rates in microroentgens per hour will be in accordance with cross calibration with a pressurized ionization chamber.

3. Surface (0-15 cm) soil samples will be collected from 15-20 representative locations and as available from areas of elevated surface contact levels identified by the walkover scan (item 1 above).

4. Auger holes will be made through the ice in 15-20 locations and samples of water and sediment obtained.

5. Samples of water, soil, and sediment have been collected from the Lewiston area (but not on former LOOW property) to provide baseline concentrations of radionuclides for comparison purposes. Direct background radiation levels were measured at locations where baseline soil samples were collected. Between 6 and 10 samples of each type of media have been obtained; locations selected included at least one sampling site from each of the four major directions from the property being surveyed. Sampling was from areas accessible by the general public.

Sample Analysis and Interpretation of Results

Soil and sediment will be analyzed by gamma spectrometry. Major radionuclides of interest in this analysis are Ra-226, Cs-137, and U-235; however, spectra will be reviewed for other gamma emitters. Additional analyses will be performed if gamma spectrometry and direct radiation measurements suggest possible significant concentrations of other radionuclides, e.g. Sr-90, U-238. Water samples will be analyzed for gross alpha and gross beta levels. If these levels indicate that EPA drinking water standards may be exceeded, further analysis for specific radionuclides will be conducted. Results of this survey will be compared to applicable guidelines for formerly utilized radioactive materials handling sites (refer to attached table).

SCHEDULE

SWAMP AREAS PROPERTIES B AND C'

ACTIVITY	MONTH - 1983						
	JAN	FEB	MAR	APR	MAY	JUN	JUL
WALKOVER SAMPLING							
SAMPLE ANALYSIS							
REPORTING				D			

December 1, 1982

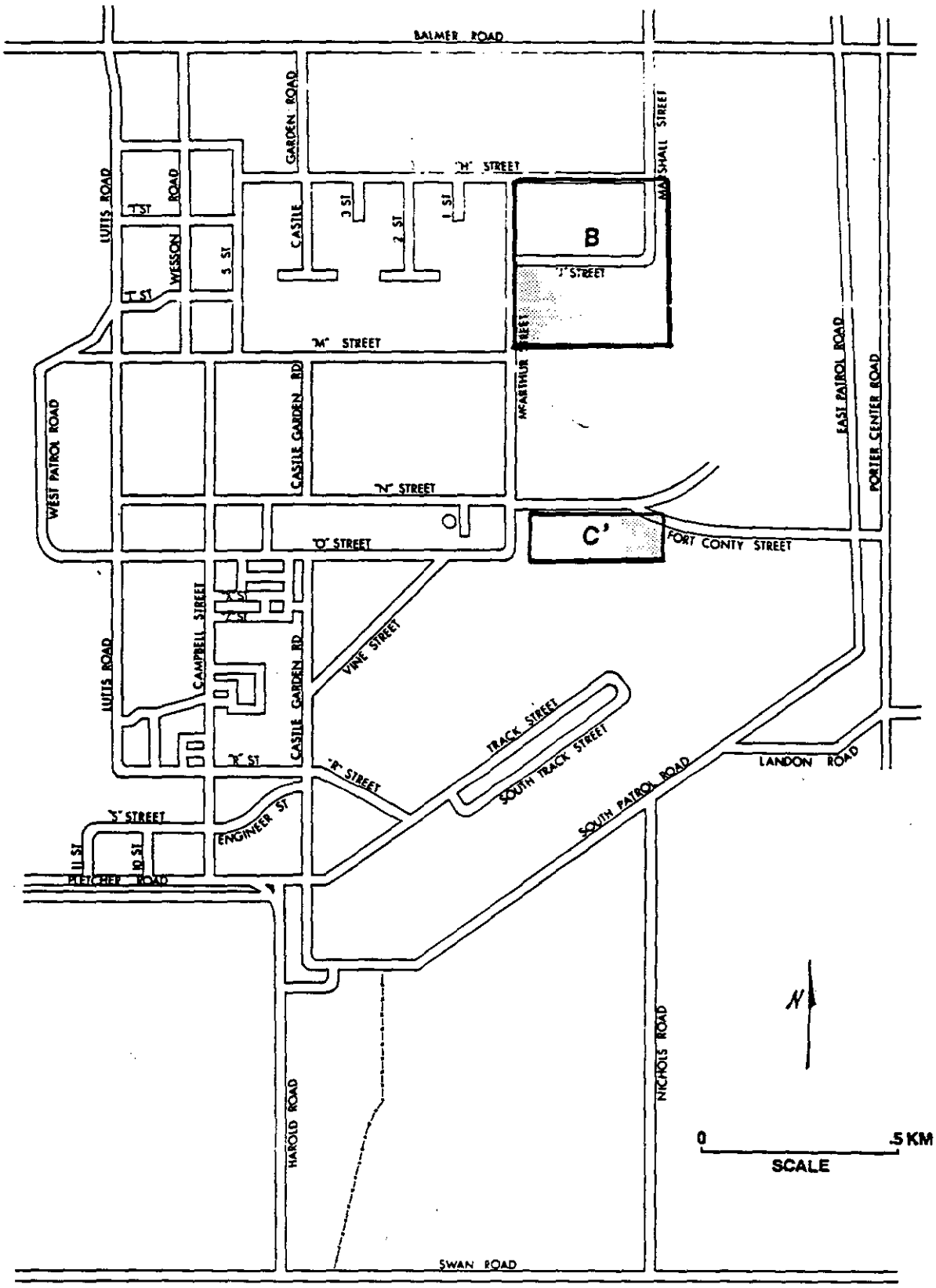

FIGURE 1. LOOW Site Indicating the Location of Off-Site Properties B and C'. Shaded areas are swampy portions of the properties.

SUMMARY OF RADIATION GUIDELINES
APPLICABLE TO OFF-SITE PROPERTIES AT THE FORMER LOOW SITE

Mode of Exposure	Exposure conditions	Guideline value	Guideline source
1. External gamma radiation	Continuous exposure to individual in general population (whole body)	60 μR/hr	Nuclear Regulatory Commission (NRC) Standards for Protection Against Radiation (10 CFR 20.105)
	Indoor gamma reduction (above background)	20 μR/h	EPA Interior Standards for Uranium Mill Tailings (40 CFR 192.12)
2. Surface alpha contamination[a]	Ra-226 contamination fixed on surfaces	100 dpm/100 cm^2	NRC Guidelines for Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for By-product, Source, or Special Nuclear Material (Adapted from NRC Reg. Guide 1.86)
	Removable Ra-226	20 dpm/100 cm^2	
3. Surface beta contamination[a]	Removable beta-gamma	1000 dpm/100 cm^2	Same as number 2
4. Beta-gamma dose rate	Average dose rate on an area no greater than 1 m^2	0.20 mrad/h	Same as number 2
	Maximum dose rate in any 100 cm^2 area	1.0 mrad/h	Same as number 2
5. Exposure to radon	Maximum permissible concentration of Rn-220 in air in unrestricted areas	3.0 pCi/l	NRC 10 CFR 20.103, Appendix B, Table II
	Average annual radon daughter concentration (including background)	0.015 WL	EPA Interim Standards (40 CFR 192.12)
6. Radionuclides in water	Maximum contaminant level for combined Ra-226 and Ra-228 in drinking water	5 pCi/l	EPA Interim Standards 40
	Maximum permissible concentration of the following radionuclides in water for unrestricted area:		NRC 10 CFR 20.103 Appendix B, Table II
	Ra-220	30 pCi/l	
	U-238	40,000 pCi/l	
	Th-230	2,000 pCi/l	
	Pb-210	100 pCi/l	
7. Radionuclides in soil	Ra-226 concentrations averaged over 100 m^2 (above background)	5 pCi/g	EPA Interim Standards (40 CFR 192.12)

[a] Applicable to building and equipment surfaces only.

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FOLDER NY LAKE ONTARIO ORDNANCE WORKS NIAGRA FALLS

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JOB # 8701
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FOLDER LAKE ONTARIO ORDNANCE WORKS NIAGARA FALLS

SCOPE AND PURPOSE

At the request for assistance made by Mr. C. W. Showalter to Mr. W. B. Harris in a memorandum dated September 24, 1954, re Radioactive Contaminated Materials..., a visit was made to the Niagara Falls site on October 12-13, 1954. The objectives of this visit were:

1. To determine the degree of contamination of material buried or unburied in the property being released to Mathieson-Navy.

2. To assist in accurately locating on maps all measurable buried and stored radioactive contaminants.

3. To recommend need to bury, move or abandon the constituents based on radiological measurements.

HISTORY

The land shown on Map A-53 which includes the areas bounded by Cambell Street, Wesson Street on the east; "H" Street on the north; McArthur Street on the west; and the line 100 feet north of "N" Street was used by the Commission in the past as a burial or as an above ground dump. This area is included in the land being turned over to Mathieson-Navy. Both the site representative and Mathieson-Navy management personnel desire to be informed of exact locations and measurements of all radioactive scrap and waste in order to include all pertinents in the land disposition papers.

PROCEDURES

Direct radiation measurements were taken at locations where many types of scrap and wastes were stored, dumped or buried, using a nuclear instrument 2610A Beta-Gamma Survey Meter (SGM 4B) and a Samson Survey Meter (SIC 49A) in contact with material unless otherwise specified. A meter reading of less than 0.63 mr/hr has been used as the maximum permissible level. This level is based on the opinion of the National Committee of Radiation protection that non-occupational exposures should not be greater than 0.1 the level permitted to controlled population.

RESULTS

Table I contains a tabulation of the radiation measurements made of stored or unburied scrap and waste materials. Figure 1 depicts an area layout of the Lake Ontario Storage Area. The area above or north of the heavy solid black line is the land to be released to Mathieson-Navy. Number 1-78 located on Figure 1 identify the locations of radioactive measurements tabulated in Table I. Figure 2-4 depict in greater detail the type, location and radiation measurement numbers shown in Figure 1. A brief summary of the results of radiation measurements made in the areas identified in the Figures 1-4 follows:

(a) Compressor House Area

Measurements taken in Building 8212 were found to be satisfactory (background). Behind Building 8212 a reading of 5 mreps/hr beta was found in contact with drum and residue.

(b) Burial Ground North of "M" Street

Scrap materials and other solid materials found half exposed or on top of the earth burial ground were monitored. Readings ranged from 0.13 to 26 mr/hr beta-gamma. The highest reading found was primarily due to Q-11 contamination on stainless steel.

(c) Cement Compressor Building

Three feet level and contact measurements revealed no readings in excess of background. This building was previously used to store highly irradiated Schenectady drummed waste which had since been removed to the Baker-Smith area. The area northwest of the cement building showed radiation measurements from 0.1 to 20 mr/hr beta-gamma. In this area, rubble and nuisance scrap provided the high, spotty contamination readings.

(d) Rochester Burial Area-East of Cambell, South of "M" Street

Rochester animal burial ground located south of Castle Garden Road showed readings equal to background. However, measurements taken in contact with a pile of process material revealed 40 mreps/hr beta, 8.0 mr/hr gamma. In addition, cesium gaps found strewn about the area individually measured 10-11 mr/hr gamma in contact.

(e) Castle Garden Dump, West of Castle Garden Road

Measurements taken on two piles of rubble and waste comprising the dump area ranged from 0.03 mr/hr beta gamma to 60 mr/hr beta-gamma. The latter reading was taken on process material found on a stove or oven. Process material found on reinforced concrete measured from 0.2 to 20 mreps/hr beta. Ashes from burned wooden agitators and other wooden process equipment revealed 5.6 mreps/hr beta and 0.4 mr/hr gamma. Process material found on transite pipe showed 30 mreps/hr beta. Two drums of cesium gaps revealed as much as 20 mr/hr at 3" from the side and open top while gaps loosely strewn on the ground were found to emit 10 mr/hr gamma at contact with the individual gaps. Contaminated process material found in this area revealed as much as 16 mreps/hr beta and 0.8 mr/hr gamma.

The following personnel were actively engaged in the contaminated waste monitoring operation and are cognizant of the findings:

William Robinson	-	Project Engineer, Mathieson Chem. Co.
Everett Bray	-	Safety, Mathieson Chemical Co.
Paul Seager	-	Hooker Chemical Company
David Fetterman	-	AEC, Niagara Falls Site
C. W. Showalter	-	AEC, Niagara Falls Site
P. B. Klevin	-	AEC, HASL, NYOO

At the conclusion of the survey a meeting was held to discuss the findings. The following was agreed:

1. All SF material should be recovered by hand or manual scooping, taking normal health and safety procedures in performing said operations.

2. Empty K-65, Q-11 drums, cesium gaps, etc., although constituting no great value, are a definite radiation hazard and need to be removed from the area.

3. After removal of all process material found in the two piles of rubble, waste, concrete, etc., in the Castle Garden Dump, the remaining rubble will consist of non-hazardous bulk, contaminated material.

4. Semi-hazardous contaminated attractive nuisance (i.e. nuts, bolts, stainless steel pieces) which are scattered above the burial area and tracks north of "M" Street need to be manually recovered and buried.

CONCLUSION

The results of this survey showed sources of waste contamination exceeding the permissible level had been found on that portion of land being released to the U. S. Navy. However, there is no health and safety objection to the release of the land if the following recommendations concerning the wastes now stored on that land are observed:

1. Compressor House Area

The building proper (Building 8212) can be used without any restrictions. However, drum and residue behind building should be recovered and removed to the AEC area. All other materials (Items 15-16) should be handpicked and buried.

2. Burial Ground North of "M" Street

(a) Inasmuch as all waste materials have already been buried and since average 3 feet radiation readings taken over the covered burial area were only 0.05 mr/hr, it is my opinion that excavation of such wastes to another storage area would cause unnecessary safety hazards, radiation exposure and labor costs. However, there was found, as shown in the Table, items which include nuts, bolts, etc., need to be manually recovered and buried.

(b) The U. S. Navy and any future land owner should be informed of the exact burial locations of the contaminated wastes. Figures 1-4 attached, and any additional information should be transmitted with the property deed.

3. Rochester Burial Area

(a) The radiation hazard signs can be removed from the area surrounding the Rochester experimental animal burial ground.

(b) The cesium gaps, process material found adjacent to the Rochester burial should be manually recovered. The process material should be channelled to the proper production facilities while the gaps should be removed from the area, and processed for burial on land or sea.

4. Castle Garden Road Waste

This large dump area as shown by the survey findings is composed of excessively hazardous, semi-hazardous, and non-hazardous bulk contaminated materials. The following action should be taken:

(a) Excessively contaminated materials such as gaps, process material, pipe, K-65 drums, etc., should be manually removed and either processed for burial or for materials recovery.

(b) Semi-hazardous contaminated material, especially that which may be attractive, should be recovered and processed for eventual burial on land or sea.

(c) Non-hazardous bulk material, i.e. concrete piles, transite etc., can be used for fill by the contractor with no restrictions.

After removal of materials and waste showing high radiation reading, this area can be released without any restrictions.

Personnel protection, i.e. film badges, pocket meters, and other protective measures should be utilized when recovering radioactive materials and scrap from the individual dump areas and during ultimate processing of these wastes.

An individual delegated with the responsibilities of health and safety should be present during waste recovery and processing operations to curb any overexposures and accidents.

TABLE I

RADIATION MEASUREMENTS- LOSA

Identification Number	Location	Item	Reading β mreps/hr	Reading γ mr/hr	Remarks
	Compressor House Area				
1	Compressor House Area-Bldg. 8212	Bldg 3' level	Background		
		Empty drum	0.12	.03	Side contact
	Burial ground North of "H" Street				
2		Drum Q-11	0.7	0.08	
3		Metal bracket	0.6	0.4	
4		Drum cover	0.6	0.4	
5		Machine screws on cover	9.5	0.5	
6		Q-11 material	5.0	0.5	Recover
7		T-pipe	0.5	0.5	
8		Q-11 and transite	10	5.5	
		3' level	1.0	1.0	
9		Along RR tracks	0.7	0.1	
10		1½" stainless steel (Q-11)	13.0	13.0	
11		Cylinder	0.13	-	
12		Flat metal north of tracks	0.5	-	
13	Behind Building 8212	Drum and residue	5.0	-	Recover
		3' level	0.05	-	
14		Wood drum near tracks	0.07	-	
15		Rubber gloves	.6	.03	
16		Residue near gloves	2.0	.05	
17	Behind Cement Building	Contact	2.5	.05	
18		Process material	30.0	0.4	Recover
19		Barrel and motor	1.0	-	
20	Cement Compressor Building	Building proper	-	-	Can be used
		3' level	-	-	without any restrictions.

(Continued-2)

Identification Number	Location	Item	Reading γ mreps/hr	Reading γ mr/hr	Remarks
21	South of Cement Building	Drum cover	0.5	-	
22	North west of Cement Building	3' level	.05	.05	
23		Stainless steel wire and plate	0.3	0.5	
24		Rubber gasket	1.0	1.0	
25		Flattened metal	0.5	0.5	
		bkgd area-3' level	.2	.17	
26		Old film badge holders	1.5	5.0	
27		White powder material South of badges	0.1	0.5	
28		On tracks 3' level	.17	0.4	
29		RR tracks	1.0	1.0	
30		Wooden ties	0.4	.12	
31		Rubble north side tracks	6.0	14.0	
[illegible]		End of tracks near locomotive	-	0.25	Background
[illegible]		Locomotive	.07	-	
[illegible]		Drum behind locomotive	0.2	0.3	
[illegible]		Stainless steel box	0.25	0.25	
[illegible]		RR tracks piled near road	-	0.1	
[illegible]		Q-11 drum near road	0.6	0.1	
		Rubbish near pear trees	.07	.03	
		Wood box of rubbish on concrete pad	0.3	0.3	
		Drum on pad	0.4	0.6	
		Ashes north pad	1.0	1.0	
		Drum Q-11 on pad	4.0	.13	
[illegible]		Nickel valve north pad	2.6	1.4	

(Continued-3)

Identification Number	Location	Item	Reading β mrep/hr	Reading γ mr/hr	Remarks
	Rochester Burial Area East of Campbell, South of "h"				
44		Ties south of burial area	-	-	
		Background- 3' level	-	-	
45		Wood and 5 gal. drum	.3	-	
46	Rochester Burial Ground	Contact	-	-	
		Road 3' level	-	-	
47		Furnaces (bottom)	0.6	-	
		K-65 drum	0.03	.03	
48		Cesium gaps		10.0	
49		Upheaved drum	-	0.17	
		Area ground measurement	.06	.09	
50		Carboy	0.07	0.10	
		Drum and Box	0.1	0.6	
		Pils Process material (yellow)	40	8.0	
		Ground about material	0.1	19.0	
	Castle Garden Dump West of Castle Garden Road				
51		Nails & burned ashes	.02	.03	
52		Fitting near conduit	.05		
53		Ashes	.02	.02	
54		Stovepipe under tree (inside)	0.15	-	
55		Drum cover west of cans	0.2	0.1	

(Continued-4)

Identification Number	Location	Item	Reading β mreps/hr	Reading γ mr/hr	Remarks
56		Light colored residue on tar	0.38	.12	
		On top of pile		.08	
		Metal on west side pile	-	.03	
		Cesium gaps (strewn on ground)	-	11	
		3' level		0.15	
		Furnace north side pile	.05	.05	
		Black block of process material	7.0	.05	300,000 Alpha
		Near charred 2 x 4	2.0		
		Roofing	.25	.05	
		Grate and surrounding ground	0.6	-	
57		Pile of transite	0.02	-	
58		Stove pipe and sand	-	0.3	
59		6" process pipe (inside)	5.5	-	
		3' level	.1	.02	
60		Process material on stoves	50.0	.9	Samson
			20 @ 3"	-	2610A
			11 @ 6"	-	2610A
61		Over pile near SS funnel	2.0	-	
		Floor Linde plant	3.0	-	
		Transite	5.0	-	
		Background Pile	.15	-	
62		Process material on concrete	10.0	0.2	
63		Pile west of large concrete blocks (base)	0.8	-	
		Pile west of large concrete blocks (on top)	0.3	-	
		Large concrete block	1.5	-	
64		Asphalt flooring	0.2	-	
		Small pieces asphalt	1.2	-	

(Continued-5)

Identification Number	Location	Item	Reading β mreps/hr	Reading γ mr/hr	Remarks
65		Concrete piles south of above	0.2 to 20.0 Beta		
		Hot spot on concrete	50		
		Mastic pile	Neg. to 2.0 Beta		
66		Bricks	0.2		
67		Old gap storage area	0.1		
68		Cotton insulation	0.1		
		3' level	0.1		
69		Acid brick pile	0.2 to 0.6 Beta		
70		Transite east of brick pile	0.5 to 0.2 beta		
		Concrete rubble	0.4		
		Background 3' level	0.08		
71		Drum of gaps (outside)	16.0		
		@ 1'	7.0		
72		Drum of gaps (side) at			
		3"	20.0		
		12"	10.0		
		24"	2.0		
		Open end of drums at			
		3"	20.0		
		12"	10.5		
[illegible]		Ashes from agitator	5.6	0.4	
		Charred agitator timber	1.1	0.4	
		16" SS flange & nipple	2.6	0.4	
		Steel agitator top	2.6	0.4	
		Ashes	5.0	1.0	
		Yellow material near steel agitator	16.2	0.8	
		Insulated pipe outside	0.2	.2	
74		Transite pipe north of gap area	30	0.2	Process material on pipe
		Other transite pipe showing no material staining	-	-	

(Continued-6)

Identification Number	Location	Item	Reading β mreps/hr	Reading γ mr/hr	Remarks
75		Transite hood east of gap area	2.5	-	
76		RR ties near road	0.08	0.1	
77		50' south of main dump area 3' level	.08		
		Transite	.03		
		Concrete	.02		
78	50' South of Main Dump East side of road	K-65 Drum	7.2	0.6	Remove

POST REMEDIAL ACTION SURVEY

PROPERTY OF MODERN LANDFILL, INC.
FORMER LOOW SITE
LEWISTON, NEW YORK

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September 17, 1981

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under Contract DE AC05-7670R00033
with the
U. S. Department of Energy

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Appendices:

Appendix A: Instrumentation and Analytical Procedures

Appendix B: Report of Surveys Data in Support of Remedial Action

Appendix C: Guidelines for Decommissioning of Facilities

Appendix D: Evaluation of Radiation Exposures at Portions of the Modern Landfill, Inc. Property Lewiston, New York

POST REMEDIAL ACTION SURVEY
PROPERTY OF MODERN LANDFILL, INC.
LEWISTON, NEW YORK

INTRODUCTION

Beginning in 1944, the Manhattan Engineering District and its successor, the Atomic Energy Commission (AEC), utilized portions of the Lake Ontario Ordnance Works (LOOW), Lewiston, New York, for the storage of radioactive wastes. These wastes were primarily residues from uranium processing operations, however, they also included: contaminated rubble and scrap from decommissioned facilities, biological and miscellaneous wastes from the University of Rochester, and low-level fission product waste from contaminated liquid evaporators at the Knolls Atomic Power Laboratory (KAPL). Receipt of radioactive waste was discontinued in 1954, and following cleanup activities by Hooker Chemical Co., 525 hectares of the original 612 hectare LOOW site were declared surplus. This property was eventually sold by the General Services Administration to various private, commercial, and governmental agencies.[1]

Modern Landfill, Inc. is the current owner of a 81 hectare tract from the former LOOW property (see Figure 1). A triangular shaped section, 6.5 hectares in area, located in the northwest corner of this tract has undergone radiological assessment, followed by remedial action to remove radioactive residues. That section is the subject of this survey report.

Site Description

The site is bounded on all sides by paved roads--Castle Garden Road on the west, "O" Street on the north, and Vine Street on the southeast. The actual property boundaries lie 50 ft east and south respectively of the centerlines of Castle Garden Road and "O" Street. A chain link fence along the west and north boundaries separates Modern Landfill property from the Department of Energy's Niagara Falls Storage Site. The land is level with alternating open and sparsely wooded areas. Surface features include a railroad track with three spurs, a drainage ditch ("K" ditch), and concrete foundations of four buildings (706, 707-E, 707-F, and 718) which were previously demolished. There are also several piles of brush and debris from land clearance during an earlier radiological survey. Figure 2 is a plot plan of the site.

Radiological History

Records and past aerial photographs indicate that containers of radioactive wastes were handled and/or stored on the Modern Landfill property. These wastes were primarily K-65 residues from the high-grade African ores. Drums of this material were temporarily stored along Vine Street awaiting transfer into the concrete tower located on the DOE property north of "O" Street. Limited storage and

Castle Garden Rd and O St.

as shipment to Fernald Ohio

handling of fission product wastes from KAPL is also believed to have occurred in the vicinity of buildings 707-F and 718, near Castle Garden Road. Radiological surveys, conducted by the Oak Ridge Operations Office of the AEC in June 1972, showed elevated direct radiation levels along Vine Street near its intersection with Castle Garden Road and at the northeast corner of the property.[2] These latter levels are due primarily to the K-65 residues stored in the nearby tower. Limited removal of surface soil was performed as a follow-up to that survey, with the result that the radiation levels were reduced to less than 50 μR/hr above background at three feet above the surface--the guideline used by the AEC for decommissioning excess properties.

Reduce Radiation from tower by soil removal? Due To Contaminated Soil

In October 1978, an aerial radiological survey of LOOW was conducted by EG&G. This survey did not identify significant gamma radiation levels on the Modern Landfill property.[3] However, a mobile scan of accessible LOOW roads, performed by Oak Ridge National Laboratory in November 1980, confirmed the earlier AEC findings.[4] In January 1981, a comprehensive survey of the Modern Landfill site was conducted by Oak Ridge National Laboratory.[5] The survey indicated that the central portion of the property contained no radioactive residues, but that surface soil near building foundations 707-F and 718 contained elevated levels of Ra-226 and Cs-137 and that there were elevated concentrations of Ra-226 along portions of Vine Street. The possibility of buried containers of pyrophoric zirconium scrap near building foundations 707-E and 706 was also raised.

Remedial action to remove areas of soil, exceeding the release criteria, was performed in mid June 1981, by the property owner. Radiological support for this action was provided by the Eberline Instrument Corp., Albuquerque, New Mexico. Ground penetrating radar surveys were also conducted around pads 707-E and 706 to identify subsurface metalic deposits which might be buried zirconium or other wastes -- none were found (refer to Appendix B.) Following the remedial action on June 25-27, 1981, this post-remedial action survey of the property was performed by Oak Ridge Associated Universities.

Date of Remedial Action

SURVEY PROCEDURE

Objectives

The objectives of this survey were to verify the adequacy of remedial action, including confirmation of survey data collected in support of the remedial action, and to evaluate the current radiological status of the property with respect to the guidelines for release for unrestricted use.

9756

Film Badge Results, January-June 1953*, Lake Ontario Storage Area/ Lake Ontario Ordnance Works Film Badge Results*; Results reported from January 5, 1953 through June 22, 1953

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 6-22-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081	Mc Walters						
1082	Bowman						
1083	Cummings						
1084	Whittaker						

ALL READINGS LESS THAN 100 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
JUL 6 1953
A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT Lasla

WEEK BEGINNING 6/15/53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
JUL 2 1953
A M P M
7 8 9 10 11 12 1 2 3 4 5 6

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 6-8-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

JUN 29 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT L OOW

WEEK BEGINNING 6-1-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman	ONE BADGE for the week 5-18-53					
1083							
1084	Whittaker						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
JUN 19 1953
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT 70A

WEEK BEGINNING May 25

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
JUN 12 1953
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT Loza

WEEK BEGINNING May 18/53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman		(replaced)	missing			
1083							
1084	Whittaker						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
JUN 4 1953
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 5-11-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	[redacted]						
1071	[redacted]						
1072	[redacted]						
[redacted]	Edukonis						
1074	[redacted]						
1075	[redacted]						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						
1089	Westeevelt						
1091	MAFFUCCI						
1093	Collins						
1095	Ringuelski						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
MAY 29 1953
A M 7 8 9 10 11 12 1 2 3 4 5 6 P M

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Jan
WEEK BEGINNING 4/27
5/4

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Sdukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Ansdill					
1087	Mead					
1088	Schoonmaker			missing		
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Colli[illegible]					
1094						

[illegible] THAN 150 [illegible] OF [illegible] [illegible] OVEREXPOSE [illegible]

* less than 50 mr

NYDO RADIOLOGICAL SUPERVISORY PROJECT

FILM BADGE REPORT

PLANT Grow

WEEK BEGINNING 4/27/74 5/4

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pinevelski					
1096	Pontanarosa					

ALL READINGS LESS THAN 160 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
MAY 22 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

NYCO RADIOGRAPHIC LABORATORY [illegible]
FILM BADGE REPORT

PLANT Gov
WEEK BEGINNING 4/27

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pinevelski					
1096	Fontenerosa					

NYDO RADIOLOGICAL [illegible] PLANT LOSA
FILM BADGE REPORT WEEK BEGINNING 4/20

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Udukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

* Less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 4/20

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pinevelski					
1096	Fontanarosa					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

* less than 50 mr

RECEIVED
TONAWANDA AREA
MAY 7 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

1953

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 4/13

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Hudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	~~Hamilton~~					
1092	Crown					
1093	Collins					
1094						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

J Maffucci

* less than 50 mr

RECEIVED
TONAWANDA AREA
MAY 1 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 4/6

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Ansdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 4/6

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pinevelski					
1096	Fontanarosa					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

* less than 50 mr

RECEIVED
TONAWANDA AREA
APR 23 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 3/23

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Hudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 3/2

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pinevelski					
1096	Fontanarosa					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

* less than 50 mr

RECEIVED
TONAWANDA AREA
APR 17 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

[illegible] RADIATION [illegible]
FILM BADGE READING

LOSA
[illegible] 3/9
3/16

Badge No.	Name	[illegible]	[illegible]	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Ludo					
1073	Educanis					
1074						
1075						
1076						
1077						
[illegible]						
[illegible]9						
[illegible]						
[illegible]1						
[illegible]2	Pessaro					
[illegible]3	[illegible]					
[illegible]4	[illegible]					
[illegible]	[illegible]					
[illegible]6	[illegible]					
[illegible]7	[illegible]					
[illegible]	[illegible]					
[illegible]9	[illegible]					
[illegible]0						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 3/9
3/16

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Ringvelski					
1096	Fontanarosa					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

* less than 50 mr

RECEIVED
TONAWANDA AREA
APR 3 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

NYDO RADIOLOGICAL [illegible]
FILM BADGE REPORT

PLANT 203A
WEEK BEGINNING 2/23

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Sittekor					
1085	Davis					
1086	Amsdill					
1087	Lead					
1088	Schocamaker					
1089	Sutterwelt					
1090						
1091	Marshall					
1092	[illegible]					
1093	[illegible]					
1094						

ALL READINGS LESS THAN 100 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 3/2

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Ringvelski					
1096	Fontanarosa	--				

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

* less than 50 mr

RECEIVED
TONAWANDA AREA
MAR 19 1953
A M P M
7 8 9 10 11 12 1 2 3 4 5 6

[illegible] 4054 [illegible] 3/2

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	[illegible]					
1073	[illegible]					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
[illegible]	[illegible]					
[illegible]	[illegible]					
1084	[illegible]					
[illegible]						
[illegible]	[illegible]					
[illegible]	[illegible]					
[illegible]	[illegible]					
1089	[illegible]					
[illegible]						
[illegible]	[illegible]					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

NIGO RADIATION [illegible] PLANT LOSA
FILM BADGE RECORD [illegible] 2/23

Badge No.	[illegible]	[illegible]	[illegible]	Exposure, mr Beta	Gamma	Total
1095	[illegible]					
1096	[illegible]					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
MAR 12 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/16

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Tittaker					
1085	Davis					
1086	Amsdill					
1087	Lead					
1088	Schoenmeker					
1089	Westervelt					
1090						
1091	Hersh					
1092	Crom					
1093	Collins					
1094						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
MAR 6 1953
A M 7 8 9 10 11 12 1 2 3 4 5 6 P M

NYDO RADIOLOGICAL [illegible]
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/9/53

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill	1 Gitra clear previously reported missing				
1087	Lead					
1088	Schoonmaker					
1089	Webtervelt					
1090						
[illegible]	[illegible]					
1092	[illegible]					
93	Collins					
94						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

NYDO RADIOLOGICAL [illegible] PLANT LOS A
FILM BADGE REPORT WEEK BEGINNING 2/4

Badge No.	Name	[illegible]	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	[illegible]					
1096	[illegible]					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
FEB 27 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

NYDO RADIOLOGICAL [illegible] PLANT LOSA
FILM BADGE REPORT WEEK BEGINNING 2/2

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076	Amsdill					
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill	Nat Red (Issued 1076) missing				
1087	Lead					
1088	Schoenmaker					
1089	Wittervolt					
1090						
1091	Hershman					
1092	[illegible]					
1093	Collins					
1094						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA, NY
FEB 20 1953
A.M. P.M.
7 8 9 10 11 12 1 2 3 4 5 6

[illegible] PLANT LOSA
FILM BADGE REPORT [illegible] 2/2

Badge No.	Name	Job Classification	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	[illegible]					
1096	Forbenrose					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
FEB 20 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

NYDO RADIOLOGICAL [illegible] U.S. A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/26

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervolt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

NYCO RADIOLOGICAL [illegible]
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/26

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	Pinczolski					
1096	Portaperosa					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
FEB 12 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

NYDO RADIOLOGICAL [illegible]
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/19

Badge No.	Name	Job Description	Soc Sec No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill					
1087	Lead					
1088	Schoonmaker					
1089	Wottervolt					
1090						
1091	Her[illegible]					
1092	Crown					
1093	Collins	Not received			replaced	
1094						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/19

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pinevelski					
1096	Montanarosa					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
FEB 5 1953
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

NYDO RADIOLOGICAL [illegible], U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/12

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amadill					
1087	Lead					
1088	Schoonmaker					
1089	Wettervolt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

C Bowman

NUCLEAR BIOLOGICAL LABORATORIES, INC.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/12

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	Vanevalski					
1096	Portenarosa					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

OK.

RECEIVED
TONAWANDA AREA
JAN 29 1953
AM 7|8|9|10|11|12|1|2|3|4|5|6 PM

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/5

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill	Lost	replaced			
1087	Lead					
1088	Schoonmaker					
1089	Wettervolt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT 205 17
WEEK BEGINNING 1/5

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pinevelski					
1096	Fontanarosa					

ALL READINGS LESS THAN 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

RECEIVED
TONAWANDA AREA
JAN 23 1953
A M 7 8 9 10 11 12 1 2 3 4 5 6 P M

10751

Hershman, 1952; *Monthly Progress Report for October 1952*; H. J. Hershman; October 21, 1952

Bliss & Laughlin U Machining

Hooker Case File
Env. Prot. Bureau
N.Y.S. Department of Law
New York, New York

FOIA MATERIALS FROM DOE

NY-54-3

Roll 122

NY.17
NY.54

[redacted]

Office Memorandum • UNITED STATES GOVERNMENT

[redacted]

TO : R. J. Smith, Jr., Chief, Operations Branch
Production Division, NYOO

DATE: October 21, 1952

FROM : H. J. Hershman, Chief, Tonawanda Sub-Office

SUBJECT: TRANSMITTAL OF MONTHLY PROGRESS REPORT FOR OCTOBER

SYMBOL: TA:HJH:GH

Tons ORGANIZATION & MANAGEMENT 8-1

Enclosed is the Monthly Progress Report for October 1952 covering activities under the Tonawanda Sub Office for this month.

Encl.:
Report, cys 1A & 2A

CLASSIFICATION CANCELLED
OR CHANGED TO .....
BY AUTHORITY OF DOE 1/72
BY KAW DATE 1975

Special Rereview
Final Determination
Unclassified
By: K. A. Walter
Date: Aug. 6, 1980
T. F. Davis

WHEN SEPARATED FROM ENCLOSURES
HANDLE DOCUMENT AS UNCLASSIFIED

COPY NO. 1A

[redacted]

~~RESTRICTED DATA~~

TO FILE
NOV 13 1952
ORO 65157

UNCLASSIFIED
Wayne Hankins
ORO Classification Team
Critique 3/4/04
Date this page only

Hooker Case File
Env. Prot. Bureau
N.Y.S. Department of Law
New York, New York

FOIA MATERIALS FROM DOE

ROLL 122

[redacted]

TONAWANDA AREA

PROGRESS REPORT [redacted]

OCTOBER 1952

CLASSIFICATION CANCELLED
OR CHANGED TO 1/72
BY AUTHORITY OF DOE
BY KAW DATE 1978

II. PRODUCTION:

1. K-65

To date 33 carloads of K-65 sludge have been shipped to the National Lead Company of Ohio at Fernald. Since National Lead officially took over the shipment of K-65 exactly one month ago, they have shipped 26 carloads of K-65 or a little better than one carload per working day. There remain approximately 20 carloads of material still to be shipped to Fernald. Approximately 40% of these drums are expected to be redrummed.

Equipment for rebarrelling non-shippable drums was completed and ready for operation October 14, 1952. Dumping operations are proceding, however, progress is slow. The average time to rebarrell a drum is six minutes. Based upon full operation, it is estimated that complete repackaging and shipment of the remaining K-65 at LOOW would take approximately 45 days. Minor improvements are continually being made to the dumping equipment, and other means of shipping questionable drums are being considered by National Lead personnel.

The National Lead Company of Ohio has been rendered assistance from the NYOO Health & Safety Division through start up testing of the rebarrelling equipment.

2. Uranium

Approximately 17,000 pounds of uranium turnings stored at LOSA from the now defunct station XRO have been shipped by tractor-trailer to Fernald for special sampling and analysis to verify the uranium content. The XRO oxides delivered last month to Vitro Mfg. Company have not as yet been sampled because of the recent plant strike. Sampling of this material has been scheduled for the last week in October.

Thirty-one beams of uranium rods were loaded and shipped to Bliss & Laughlin, Buffalo, New York, for machining and consignment to NLO.

All uranium turnings resulting from the Bliss & Laughlin operations have been returned via AEC truck to LOOW for packaging under oil and reconsignment from LOOW to Fernald.

NLO conducted rolling operations at Bethlehem Steel Company on October 19th. Approximately 60 tons of material were rolled. The entire production was shipped directly to Fernald Area.

Special Review
Final Determination
Unclassified
By: K. A. Walter
Date: Aug 6, 1980
T. F. Davis

RESTRICTED DATA [redacted]

ORO C[1157

UNCLASSIFIED
Wayne Hankins WH
ORO Classification Team
Critique 3/4/04
Date 3 pages

Hooker Case File
Env. Prot. Bureau
N.Y.S. Department of Law
New York, New York

FOIA MATERIALS FROM DOE

Roll 122

[redacted]

Simonds Saw & Steel Company rolling operations scheduled to start Monday, October 27 with three carloads of billets from Mallinckrodt Chemical Works and two carloads of recast billets from Hanford and approximately ten tons of billets left over from previous rolling which are now stored at LOOW.

240 tons of combustible and non-combustible contaminated scrap has been shipped into LOSA via Schenectady Operations Office in accordance with arrangements made between Schenectady, NYOO and Washington. This material is being stored in the old boiler house contingent on any future use that the NYOO may want to make of the building.

ADMINISTRATION:

Negotiations have been under way during the month between the U. S. Army Headquarters stationed outside LOSA gates and the USAEC for transferring to them the Baker-Smith Area complete with existing buildings, the 'box factory' and the interconnecting parcel of land at the LOSA site. Transfer of the large parcel of land to the Army would relieve the Commission of an enourmous maintenance expense. The Army has been very optimistic up to this point about taking it over.

Surplus railroad ties and roadway balast has been donated to the Army for the construction of Anti-Aircraft gun emplacements in this area.

Mr. J. S. Quidor, NYO Administrative Director, visited the area concerning negotiations with the U. S. Anti Aircraft Command concerning the general utilities supply in this area. Discussions were held with the City Manager, Niagara Falls on the overall water supply problem.

Three stainless steel tanks and a filter press were shipped to NLO at Fernald Area from LOOW surplus.

An emergency shipment of stainless steel plate was made by AEC truck to a fabricator in Cleveland, Ohio for use in the expansion of the Harshaw refinery. A trucking strike in the State of New Jersey necessitated the use of AEC truck to pick up steel plate at Perth Amboy, New Jersey.

Representatives of NYOO property section visited LOOW to discuss plans for the disposition or sale of all surplus equipment remaining on location during the last week in October. Representatives of the N. Y. State Department of Education will visit LOSA for selection of non-contaminated surplus scrap equipment for donation to State Universities.

Buildings are being prepared for the storage of all equipment to be moved out of the Baker-Smith Area. All material must be moved out of the Baker-Smith Area before heavy snows since buildings may collapse at any time.

[redacted]

Special Review
Final Determination
Unclassified
By: K. A. Walter
Date: Aug. 6,

Hooker Case File
Env. Prot. Bureau
N.Y.S. Department of Law
New York, New York

FOIA MATERIALS FROM DOE

Roll 122

[redacted]

A program has been instituted to get all equipment into tip top operating condition and to repair buildings adjacent to the main office building for maximum utility.

IMPORTS & EXPORTS:

Three carloadds offused dolomite were imported from Norton Company for Fernald Area.

One carload of metal was exported to the Canadian Atomic Energy Commission, Chalk River for St. Louis Area.

30 radium sources were imported for Sandia Area, New Mexico, from Eldorado

One carload of ore was imported from Eldorado for Mallinckrodt Chemical Works, St. Louis, Mo.

One package of 10 radium sources was imported from Eldorado for Sandia Base, Albuquerque, N. M.

[redacted]

Special Rereview
Final Determination
Unclassified

By: K. A. Walter
Date: Aug 6, 1980
T. F. Davis

12418

Film Badge Results, January 1951-December 1954, *Lake Ontario Storage Area/ Lake Ontario Ordnance Works Film Badge Results,*
Results reported January 1, 1951 through December 30, 1954

Site Database/Data Capture
Key Words List

- [ ] External Dosimetry
- [ ] criticality beta dose
- [ ] detection limit
- [ ] exchange frequency
- [ ] film badge
- [ ] personnel information
- [ ] pocket ionization chamber (PIC)
- [ ] TLD

- [ ] Medical X-rays
- [ ] photofluorography
- [ ] X-ray

- [ ] Internal Dosimetry
- [ ] bioassay
- [ ] detection limit
- [ ] intake
- [ ] in vitro
- [ ] urinalysis
- [ ] whole body count (WBC)
- [ ] fecal

- [ ] Incident/Accident Reports
- [ ] criticality

- [ ] Workplace Monitoring Data
- [ ] Radiological Survey

Radionuclide(s)

- [ ] Americium
- [ ] Californium
- [ ] Cesium
- [ ] Cobalt
- [ ] Iodine
- [ ] Radon
- [ ] Radium
- [ ] Strontium
- [ ] Plutonium
- [ ] Technetium
- [ ] Thorium
- [ ] Tritium (H-3)
- [ ] Uranium
- [ ] _____
- [ ] _____
- [ ] _____

Other Key Words

- [ ] containment
- [ ] dose
- [ ] lower limit of detection (LLD)
- [ ] minimum detectable activity (MDA)
- [ ] photon
- [ ] remediation
- [ ] solubility
- [ ] uncertainty analysis

- [ ] Environmental Monitoring
- [ ] dispersion model
- [ ] dust sample

NY-FORM-84
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UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 12/20/54-12/30/54

BADGE NO.	NAME		DENSITY O. W.	DENSITY S.		EXPOSURE, MR E P BETA	GAMMA	TOTAL
1070	Walker		.07	.04			45	45
1071	Westervelt		.09	.09			90	90
1072	Ringvelski		.15	.14			140	140
1073								
1074								
1075	Collins		.12	.095			95	95
1076								
1077								
1078								
1079								
1080			.145	.11			110	110
1081								
1082	Bowman		.17	.13			130	130
1083								
1084								

UNCLASSIFIED
W. J. Lemmon WJL
Critique Jone 2/22/04
Date
Class. Office 51 Pages

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

1/11/55
LW

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6/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 12/13/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

Part Mean

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

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UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 12/6/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

Not used

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

LW

NY-FORM-84
6/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 11/29/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

Not Issued

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

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6/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 11/22/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

Not Issued

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

12/7/54
Sa

NY-FORM-84
6/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 11/15/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker	Not Used						
1071	Westervelt	Not Used						
1072	Ringvelski							
1073		Not Used						
1074								
1075	Collins							
1076		Not Used						
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								
		Not Used						

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

11/30/54
SR

NY-FORM-84
0/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 11/7/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins		.16	.115			130	130
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman		.165	.11			125	125
1083								
1084	Balzjewski		.145	.105			120	120

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

11/22/54 LW

NY-FORM-64
8/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 11/1/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	~~Boebenreit~~							
1072	~~Bingewski~~							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080	BALJEWSKI							
1081	SEAGER							
1082	Bowman							
1083	BINGVELSKI							
1084	WESTERVELT							

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

11/16/54 [illegible]

NY-FORM-84
6/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 10/25/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

NY-FORM-64
6/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 10/18/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

NY-FORM-84
9/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 10/11/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

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NY-FORM-84
6/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 10/4/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

10/19/54 LW

NY-FORM-84
5/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 9/27/54

BADGE NO.	NAME		DENSITY			EXPOSURE MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

10/12/54

NY-FORM-84
9/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 9/20/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

10/5/54 LW

NY-FORM-84
5/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 9/13/54

BADGE NO.	NAME		DENSITY			EXPOSURE MR E P		
			O. W.	G.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

9/29/54 [illegible]

NY-FORM-84
5/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 9/6/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

9/29/54 LW

NY-FORM-84
6/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 8/30/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150-mr or equivalent.

9/14/54 Lew

NY-FORM-84
6/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 8/23/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

9/9/54 LW

NY-FORM-84
8/53

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 8/16/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150-mr or equivalent.

8/31/54 RW

NY-FORM-94
6/53

UNITED STATES ATOMIC ENERGY COMMISSION

NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.

NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 8/9/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR & P		
			O. W.	S.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								
	[illegible]							

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

8/24/54 Lev

NY-FORM-84
8/53

UNITED STATES ATOMIC ENERGY COMMIS N
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORTORY LOSA WEEK BEGINNING 8/2/54

BADGE NO.	NAME		DENSITY			EXPOSURE, MR E P		
			Q. W.	G.		BETA	GAMMA	TOTAL
1070	Walker							
1071	Westervelt							
1072	Ringvelski							
1073								
1074								
1075	Collins							
1076								
1077								
1078								
1079								
1080								
1081								
1082	Bowman							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150-mr or equivalent.

8/17/54 Lw

NY-FORM-84
6/52

[illegible]

[illegible] DIVISION

[illegible]

[illegible] REPORT

PLANT OR LABORATORY NYRA WEEK BEGINNING 7/26/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	[illegible]							
1071	[illegible]							
1072	[illegible]							
1073								
1074								
1075	[illegible]							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is [illegible] (50 mr or equivalent).

U. S. Government Printing Office—1952—219767

8/10/54 [illegible]

NY-FORM-64
6/52

UNITED STATES ATOMIC ENERGY COMMISSION
[illegible]
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ALBANY STATION
NEW YORK 59, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 7/19/54

Badge No.	Name		Density O.V.	Density S.	Density	Exposure, mr e p Beta	Exposure, mr e p Gamma	Exposure, mr e p Total
1070	WALKER							
1071	ROSEVELT							
1072	MINKOWSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								
	PLEASE SEND ME A MASTER OF THIS FORM							
		H.H. Betts						

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent

U. S. Government Printing Office—2952—219767

7/4/54 Lw

NY-FORM-84
8/52

UNITED [illegible]

[illegible]

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ARGONNE 97[illegible]

NEW YORK [illegible] N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 7/12/54

Badge No.	Name		Density O.W.	Density S		Exposure, mr e p Beta	Exposure, mr e p Gamma	Exposure, mr e p Total
1070	WALKER							
1071	ROOSEVELT							
1072	KINNEVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

WILL YOU PLEASE SEND ME A MASTER SO I CAN RUN OFF SOME MORE FORMS.

THANKS.

H.H.Betts

*NOTE: Where no exposure figure is given, the measured exposure is [illegible] 150 mr or equivalent

U. S. Government Printing Office—1952—219167

7/27/54 Lew

NY-FORM-84
6/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 7/5/54

Badge No.	Name		Density			Exposure, mr e p		
			Q.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

7/20/54 Lw

NY-FORM-84
6/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 6/28/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

KJB 7-13-54

NY-FORM-54
6/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 6/21/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

KOB 7-7-54

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING June 14, 1954

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

6/29/54 LW

NY-FORM-64
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 6/7/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

6/22/54 [illegible]

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 5/31/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

6/15/54 [illegible]

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 5/24/54

Badge No.	Name		Density O.W.	Density S.	Density (B)	Exposure, mr e p Beta	Exposure, mr e p Gamma	Exposure, mr e p Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079	A. Linton							
1080	S. Desso							
1081	T. Scanlon		.075	x	075	75	x	75
1082	~~[illegible]~~ C. Deyo							
1083	C. Johnpier							
1084	W. Jensen (LOst)		(replaced)					

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

6/8/54 [illegible]

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 5/17/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

6/2/54 LW

NY-FORM-84
9/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 5/10/54

Badge No.	Name		Density O.W.	Density S.		Exposure, mr e p Beta	Exposure, mr e p Gamma	Exposure, mr e p Total
1070	WALKER							
1071	WESTERVELT							
1072	KINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

5/25/54 LW

NY-FORM-64
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 5/3/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

5/18/54 Lw

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 4/26/54

Badge No.	Name		Density O.W.	Density S.		Exposure, mr e p Beta	Exposure, mr e p Gamma	Exposure, mr e p Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

5/11/54 Lw

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8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 4/19/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

5/4/54 [illegible]

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 4/12/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

4/27/54 ch Lew

NY-FORM-84
6/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 4/5/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

4/20/54 Ch. Lw

NY-FORM-64
8/32

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 3/29/54

Badge No.	Name		Density O.W.	Density S.	Density	Exposure, mr e p Beta	Exposure, mr e p Gamma	Exposure, mr e p Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

4/13/54 ch. LW

NY-FORM-84
9/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 3/22/54

Badge No.	Name		Density O.W.	Density S.		Exposure, mr e p Beta	Exposure, mr e p Gamma	Exposure, mr e p Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

4/5/54
RR

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8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 3/15/54

Badge No.	Name		Density O.W.	Density S.		Exposure, mr e p Beta	Exposure, mr e p Gamma	Exposure, mr e p Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

3/30/54 Ch. Lew

NY-FORM-64
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 3/8/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

Checked
3/22/54

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 3/1/54

Badge No.	Name		Density			Exposure, mrem		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

3/16/54 ch. [illegible]

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 2/22/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

3/10/54 ch. Lee

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 2/15/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

3/1/54
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NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 2/8/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

2-24-54 See chart

NY-FORM-84
9/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 2/1/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

2-16-54 chart fw

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 1/25/54

Badge No.	Name		Density O.W.	Density S.		Exposure, mrem Beta	Exposure, mrem Gamma	Exposure, mrem Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

2/9/54 chart Lw

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 1/18/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

2/2/54 chart Lin

NY-FORM-64
6/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 1/11/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

1/26/54 Lew

NY-FORM-54
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 1/4/54

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

1/19/54 Chart Lw

N.Y. FORM 83
REV. 3-27-51

PLANT:
YEAR: 195 1

NAME: Nudo
JOB: 1078

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
7-2	145	42		10-8	170		
7-9	290			10-15	90		
7-16		260		10-22	60	120	
7-23	65	40		10-29	75	260	
7-30	110	200		11-19	170	130	
8-6	60	220		12-3		220	
8-13		210		12-17	300	900	
8-20	170			12-31	100	400	
9-3	70						
9-10	40	120					
9-17	100	90					
9-24	120						
10-1	100	120					

UNCLASSIFIED
W. J. Lemmon WJL
Critique 1000 2/27/04
Date
Chief Office
29 Pages

PLANT: NAME:

YEAR: 1951 Nudo JOB: 1072

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-1	60	700		4-2	180	160	
1-8		520		4-9	120	320	
1-15		130		4-16	70	230	
1-22	75	220		4-25	65	150	
1-29	55	170		4-30	80	260	
2-5		80		5-7	80	230	
2-12	140	210		5-14	150	200	
2-19		140		5-21	55	160	5480
2-26		330		5/25		190	
3-5	80	180		6/4	85	240	
3-19		230		6-11	50	320	
3-11	60	320		6-18	80		
3-26		540		6-25	60	380	

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 12/21 & 12/28/53

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076								
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

UNCLASSIFIED
W. J. Lemmon WJL
Critique ORO 2/27/04
Date
Class. Office 84 Pages

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

C8
1/12/54

NY-FORM-84
6/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 12/14/53

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073	Raffle							
1074	Munsall							
1075	COLLINS							
1076	Showalter							
1077	Malone							
1078	Dembitz							
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

C7
12/30/53

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING 12/7/53

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076	R. [redacted] Hubbell							
1077								
1078								
1079								
1080								
1081								
1082	BOWMAN							
1083								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—2197

12/22/53 Chart Lw

NY-FORM-64
9/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING November 30, 1953

Badge No.	Name		Density O.W.	Density S.	Density	Exposure, mr e p Beta	Exposure, mr e p Gamma	Exposure, mr e p Total
1070	XXXXXX R. Raffel							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076	R. Hubbell							
1077	J. Munsall							
1078								
1079								
1080								
1081								
1082	BOWMAN		.07	X	-07	70	X	70
1083								
1084								

ALL READINGS [illegible] 150 MR OR EQUIVALENT UNLESS OTHERWISE MARKED.

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

C 6
12/14/53
SR

NY-FORM-84
6/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING November 23, 1953

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070	XXXXXX B. Raffel							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074								
1075	COLLINS							
1076	R. Hubble							
1077	J. Munsell							
1078	N. Webb							
1079	F. Unonites							
1080								
1081	W. Kendrick							
1082	BOWMAN							
1083	A. Berta							
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

C 12/8/53 gr

NY-FORM-84
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE

HEALTH AND SAFETY DIVISION

P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY LOSA WEEK BEGINNING November 16, 1953

Badge No.	Name		Density O.W.	Density S.	Density	Exposure, mr e p Beta	Exposure, mr e p Gamma	Exposure, mr e p Total
1070	WALKER							
1071	WESTERVELT							
1072	RINGVELSKI							
1073								
1074	J. Jarrett							
1075	COLLINS							
1076								
1077	Lavern Webb							
1078	Norman Webb							
1079	F. Uonites							
1080								
1081	W. Kendrick							
1082	[redacted] Martin							
1083	A. Berti							
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

C4
11/30/53

NY-FORM-86
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY Lab WEEK BEGINNING 11-2-53

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—

11/17/53 Chas Lee

NY-FORM-34
8/52

UNITED STATES ATOMIC ENERGY COMMISSION
NEW YORK OPERATIONS OFFICE
HEALTH AND SAFETY DIVISION
P. O. BOX 30, ANSONIA STA.
NEW YORK 23, N. Y.

FILM BADGE REPORT

PLANT OR LABORATORY Lowe WEEK BEGINNING 10/26/53

Badge No.	Name		Density			Exposure, mr e p		
			O.W.	S.		Beta	Gamma	Total
1070								
1084								

*NOTE: Where no exposure figure is given, the measured exposure is less than 150 mr or equivalent.

☆U. S. Government Printing Office—1952—219757

11/10/53 L.W. chart

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT 2 OSA

WEEK BEGINNING 9-7-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076	Brado	Guard					
1077							
1078	Di Ramio	Scaifari					
1079	Webb	"					
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

2118 9
9-21-53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 8-31-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076	Brode	A.E.C.					
1077	Freihauth	S & B					
1078	Di Ramio	Serafari					
1079	Webb	"					
1080	Biggie	Cretin					
1081	Rosenberger	Cretin					
1082	Bowman						
1083	Miller	Cretin					
1084	Whittaker						

2114-5
9/15/53
SR

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 8/17/53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076	Beado	AEC					
1077	Freishman	S & B					
1078	Di Ramio	Scrufari					
1079	Webb	Scrufari					
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

2110-2111
9-1-53
92

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOOW

WEEK BEGINNING 8-10

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr		
				Beta	Gamma	Total
1070	Maffucci					
1071	Westervelt					
1072	Ringvelski	Lost - Replaced				
1073	Edukonis					
1074	Meade					
1075	Collins					
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083						
1084	Whittaker					

21067
8-25-53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 7-27-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr		
				Beta	Gamma	Total
1070	Maffucci					
1071	Westervelt					
1072	Ringvelski					
1073	Edukonis					
1074	Meade					
1075	Collins					
1076	BRADO					
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083						
1084	Whittaker					

2098-99 8/11/-

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA.

WEEK BEGINNING 7-26-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076	Brooks						
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

2094-95

8/4/53 Lw

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT 200W

WEEK BEGINNING 7-13-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

2088-89
7/27/53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 7-6-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Naffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

2084-85
7/20/53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 6-27-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski	Lost			missing		
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

280-81 7/14/53

Lw

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT Lasa

WEEK BEGINNING Oct 19/53

Badges not worn from 9/21 - 10/19

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077	Mr. A.E. Lorman						
1078							
1079							
1080							
1081							
1082	Bowman						
1083	Dr. Renn						
1084	Whittaker						

2142-3
11/2/53
SR

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT L OSA

WEEK BEGINNING 9-14-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Dembitz ~~Mattucci~~	S+B					
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077	Renick	S+B					
1078	De Ramio	S+B					
1079	Webb	S+B					
1080							
1081	Munsell	S+B					
1082	Bowman						
1083							
1084	Whittaker						

9/29/53
SR
2122-3

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING ~~8/24/53~~ 8/17/53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076	Brodo	AEC. Guard					
1077	Fischmacth	Eng. Segmente + Bergen					
1078	Di Romio	Cont. Scrufari					
1079	Webb	" Scrufari					
1080	Biggins	Chreten					
1081	Rosenberger	Chreten					
1082	Bowman						
1083	C Miller	Chreten					
1084	Whittaker						

2112-3
9-9-53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT L.O.S.A

WEEK BEGINNING 8-3-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076	Beado	Guard					
1077	Krofcka	Eng.					
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

21020-03 8/18/53

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NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 6-22-5

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr		
				Beta	Gamma	Total
1070	Maffucci					
1071	Westervelt					
1072	Ringvelski					
1073	Edukonis					
1074	Meade					
1075	Collins					
1076						
1077						
1078						
1079						
1080						
1081	McWaltrew					
1082	Bowman					
1083	Cummings					
1084	Whittaker					

2076-77
7/7/53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT 205a

WEEK BEGINNING 6/15/53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

2074-75

4/30/53 Lu

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 6-8-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						

2070-71 6/24/53

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NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT 200W

WEEK BEGINNING 6-1-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	Maffucci						
1071	Westervelt						
1072	Ringvelski						
1073	Edukonis						
1074	Meade						
1075	Collins						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman	ONE BADGE for the week				5-18-53	
1083							
1084	Whittaker						

2064-5
6-15-53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT TOA

WEEK BEGINNING May 2

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr		
				Beta	Gamma	Total
1070	Maffucci					
1071	Westervelt					
1072	Ringvelski					
1073	Edukonis					
1074	Meade					
1075	Collins					
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083						
1084	Whittaker					

2060-61
6/8/53
SR

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT Lossa

WEEK BEGINNING May 18/53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr		
				Beta	Gamma	Total
1070	Maffucci					
1071	Westervelt					
1072	Ringvelski					
1073	Edukonis					
1074	Meade					
1075	Collins					
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman		(replaced)	Lessard		
1083						
1084	Whittaker					

2058-59

6/2/53

LW

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.

FILM BADGE REPORT

PLANT LOSA

WEEK BEGINNING 5-11-53

Badge No.	Name	Job Description	Soc. Sec.	Exposure, mr			
				Beta	Gamma	Total	
1070	~~Maffucci~~						
1071	~~Westerveit~~						
1072	~~Ringvelski~~						
1073	Edukonis						
1074	~~Moody~~						
1075	~~Collins~~						
1076							
1077							
1078							
1079							
1080							
1081							
1082	Bowman						
1083							
1084	Whittaker						
1089	Westervelt						
1091	Maffucci						
1093	Collins						
1095	Ringvelski						

2052-53
5/26/53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Zon
WEEK BEGINNING 4/27 5/4

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Ansdill					
1087	Mead					
1088	Schoonmaker			missing		
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

2098-49 5/19/53

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT Tom
WEEK BEGINNING 4/27 5/4

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	Pinevelski					
1096	Fontanarosa					

2048-49
5/19/53
OR

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSD
WEEK BEGINNING 4/20

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Hudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

2040 - 41 - 53
5 - 5 R

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 4/20

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	Pingvelski					
1096	Fontanarosa					

2040-41
5-5-53

* less than 50 mr

1953

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 4/13

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Hudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	~~Hershman~~ J Maffucci					
1092	Crown					
1093	Collins					
1094						

* less than 50 mr

2038-39 4/28/53 Lur

1953

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 4/13

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Bingvelski					
1096	Fontanarosa					

* less than 50 mr

2039-39 4/28/53 LW

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 4/6

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

2032-2033 4-21-7

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 4/6

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Ringvelski					
1096	Fontanarosa					

2022-2033
4-21-53
SR

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 4/6

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSB
WEEK BEGINNING 4/6

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Rinevelski					
1096	Fontanarosa					

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 3/30

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

2028 9
4-13-53
R

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 3/30

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1095	Ringvelski					
1096	Fontanarosa					

2028
4-13-57
52

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 3/23

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

2024-6-53

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSH
WEEK BEGINNING 3/23

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Ringvelski					
1096	Fontanarosa					

20 ve 5-5-53
4-6-53

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 3/23

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 3/23

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Ringvelski					
1096	Fontanarosa					

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSH
WEEK BEGINNING 3/9 + 3/16
(2 weeks)

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whittaker					
1085	Davis					
1086	Amsdill					
1087	Mead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

2020-2021
3-30-63

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LOSA
WEEK BEGINNING: 3/9 & 3/16

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	Ringvelski					
1096	Fontanarosa					

2020-2021
3-30-53

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT L03A
WEEK BEGINNING 3/9 + 3/16

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Muño					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whitaker					
1085	Davis					
1086	Amsdill					
1087	Lead					
1088	Schoonmaker					
1089	[illegible]					
[illegible]						
[illegible]	[illegible]					
[illegible]	[illegible]					
[illegible]	[illegible]					

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSH
WEEK BEGINNING 3/9 & 3/16

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Ringvelski					
1096	Fontanarosa					

* less than 50 mr

HYDO RADIOLOGICAL [illegible]
FILM BADGE REPORT

203A
DATE RECEIVED 3/2

Badge No.	Name	[illegible]	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1770						
1771						
1772	[illegible]					
1773	[illegible]					
1774						
1775						
1776						
1777						
1778						
1779						
1780						
1781						
1782	[illegible]					
1783	[illegible]					
1784	[illegible]					
1785	[illegible]					
1786	[illegible]					
1787	[illegible]					
1788	[illegible]					
1789	[illegible]					
1790	[illegible]					

2012-13
3-16-53
R

.29 x .29 360 x 360

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 3/2

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Ringvelski		.075 x .175	90	x	90
1096	Fontanarosa		x x x	x	x	x

2012-13
3-16-57
8h

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY U.S.A.E.C.
FILM BADGE REPORT

PLANT 405A
WEEK BEGINNING 3/2

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Rudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whitaker					
1085	Davis					
1086	[illegible]					
1087	Lamb					
1088	[illegible]					
1089	[illegible]					
1090						
1091	[illegible]					
[illegible]	[illegible]					

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT 2037
WEEK BEGINNING 3/2

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Ringvelski					
1096	Fontanarosa					

* less than 50 mr

NYDO RADIOLOGICAL LABORATORY, [illegible] PLANT LOSA
FILM BADGE REPORT WEEK BEGINNING 2/23

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nude					
1073	Sokonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Whitaker					
1085	Davis					
1086	Sandial					
1087	Lead					
1088	Schoonmaker					
1089	Vestal					
[illegible]						
[illegible]	[illegible]					
[illegible]	[illegible]					
[illegible]	[illegible]					

2008-9
3-9-53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT *LOSA*
WEEK BEGINNING *2/23*

Badge No.	Name	[illegible]	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	[illegible]					
[illegible]	[illegible]					

2008-9
3-9-53

NYDO RADIOLOGICAL LABORATORY, U.S. A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/23

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Petts					
1084	Vitraker					
1085	Davis					
1086	Amadill					
1087	Lead					
1088	Schoenwaber					
1089	Vastarella					
1090						
[illegible]	[illegible]					
[illegible]	[illegible]					
[illegible]	[illegible]					

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/23

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	[illegible]					
1096	Herbajarosa					

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/16

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Sdukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Pittaker					
1085	Davis					
1086	Amadill					
1087	Lead					
1088	Schoonmaker					
1089	Westerwelt					
[illegible]						
[illegible]	[illegible]					
[illegible]	[illegible]					
[illegible]	[illegible]					

200 4-5-63
3-3-8

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/16

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1096	[illegible]					
1096	Fontenrose					

2004-3-17
3-3-4

HYDO RADIOLOGICAL LABORATORY, U.S. A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/16

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill					
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Herstman					
1092	Green					
1093	Collins					
1094						

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/16

Badge No.	Name	[illegible]	[illegible]	Exposure, mr		
				Beta	Gamma	Total
1095	[illegible]					
1096	Porterfield					

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/9

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Sittaker					
1085	Davis					
1086	Amadill	Extra clear film only - Gontbl monitoring				
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Gerelman					
1092	Green					
1093	Collins					
1094						

2000-01-27
2-24-77

NYDO RADIOLOGICAL LABORATORY, U.S. A.E.C. PLANT LOS 72
FILM BADGE REPORT WEEK BEGINNING 2/9

Badge No.	Name	[illegible]	[illegible] No.	Exposure, mr Beta	Gamma	Total
1095	[illegible]					
1098	Fontanarosa					

2000-01
2-24-53
CR

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/9

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Retta					
1084	Whittaker					
1085	Davis					
1086	Amsdill	Extra clear previously reported missing				
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Dreslman					
1092	[illegible]					
[illegible]	[illegible]					
[illegible]						

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/9

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Minnelski					
1096	Porterosa					

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/2

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076	Amsdill					
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill	Nat Reid. (Issued 1076) Missing				
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Gerstlow					
1092	[illegible]					
1093	[illegible]					
1094						

1096 ↗ 53
2-16-58

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT: LOSA
WEEK BEGINNING: 2/2

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Exposure, mr Gamma	Exposure, mr Total
1095	[illegible]					
109[illegible]	[illegible]					

1096-7
2-16-53
[illegible]

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/2

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076	Amsdill					
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Kittaker					
1085	Davis					
1086	Amsdill	Not Rec'd (Issued 1076) missing				
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Jerstman					
1092	[illegible]					
[illegible]	[illegible]					
[illegible]						

NYDO RADIOLOGICAL LABORATORY, U.S. A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 2/2

Badge No.	Name	Job Title	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	[illegible]					
1096	[illegible]					

...TDO RADIOLOGICAL LABORATORY, U.S. A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/26

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amadill					
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown		15	5.60	x	60
1093	Collins					
1094						

1094 3

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT *LOSA*
WEEK BEGINNING *1/26*

Badge No.	Name	Job [illegible]	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	[illegible]					
109[illegible]	Fontanarosa		.05 × .05	×	60	60

10[illegible]

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/26

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill					
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Gershman					
1092	[illegible]					
[illegible]	Collins					
[illegible]						

HYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/26

Badge No.	Name	Job Designation	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	[illegible]					
1096	Northeyrass					

JO RADIOLOGICAL LABORATORY, U.S.A.E.C. PLANT LOSH
FILM BADGE REPORT WEEK BEGINNING 1/19

Badge No.	Name	Job Description	Soc Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074			41 x .11	120	x	120
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill					
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Gerstman					
1092	Crown					
1093	Collins					
1094						

1088 - 1089
2 - 2 - 53
RC

Not received replaced

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/19

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1095	Pincvelski		107 X 107	77	X	77
1096	Fontanarosa		X	X	X	X

1088-89-53
n-2-58

..O RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/19

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill					
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Brown					
1093	Collins	Not received			replaced	
1094						

..DO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOS A
WEEK BEGINNING 1/19

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pinevelski					
1096	Fontenarosa					

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/12

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Mittaker					
1085	Davis					
1086	Amsdill					
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

1054-5 / 53
1-26 gr

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/12

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pinevelski					
1096	Fontanarosa					

10-4-5
1-26-53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/12

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pinevelski					
1096	Pontemurosa					

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT 403A
WEEK BEGINNING 1/5

Badge No.	Name	Job Description	Out	Inc. Rec.	B	Exposure, mr Beta	Gamma	Total
1070			X					
1071								
1072	Nudo		.06	X	.06	70	X	70
1073	Edukonis		X					
1074			X					
1075			X					
1076			X					
1077			X					
1078			X					
1079			X					
1080			X					
1081			X					
1082	Bowman		X					
1083	Betts		X					
1084	Wittaker		X					
1085	Davis		X					
1086	Amsdill	Lost	—			replaced		
1087	Lead		X					
1088	Schoonmaker		X					
1089	Westervelt		X					
1090			X					
1091	Hershman		X					
1092	Crown		X					
1093	Collins		X					
1094			X					

1080-81 1/20/53

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT 2032
WEEK BEGINNING 1/5

Badge No.	Name	Job Description	Sec. Sec. No.			Exposure, mr Beta	Gamma	Total
1095	Pincvelski		.075	.03	.03	35	30	65
1096	Fontanarosa		.145	.095	X	X	95	95
			080-81			1/20/53		Lw

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/5

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr Beta	Gamma	Total
1070						
1071						
1072	Nudo					
1073	Edukonis					
1074						
1075						
1076						
1077						
1078						
1079						
1080						
1081						
1082	Bowman					
1083	Betts					
1084	Wittaker					
1085	Davis					
1086	Amsdill	Lost		replaced		
1087	Lead					
1088	Schoonmaker					
1089	Westervelt					
1090						
1091	Hershman					
1092	Crown					
1093	Collins					
1094						

NYDO RADIOLOGICAL LABORATORY, U.S.A.E.C.
FILM BADGE REPORT

PLANT LOSA
WEEK BEGINNING 1/5

Badge No.	Name	Job Description	Soc. Sec. No.	Exposure, mr		
				Beta	Gamma	Total
1095	Pingvelski					
1096	Fontanarosa					

PLANT: Nudo

YEAR: 1951

NAME:

JOB: 1072

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-1	60	700		4-2	180	160	
1-8		520		4-9	120	320	
1-15		130		4-16	70	230	
1-22	75	220		4-23	65	150	
1-29	55	170		4-30	80	260	
2-5		80		5-7	80	230	
2-12	140	210		5-14	150	200	
2-19		140		5-21	55	160	5460
2-26		330		5/25		190	
3-5	80	180		6/4	85	240	
3-19		230		6-11	50	320	
3-11	60	320		6-18	80		
3-26		540		6-25	60	380	

N.Y. FORM 83
REV. 3-27-51

PLANT:
YEAR: 195 1 Nudo

NAME:
JOB: 1022

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
7-2	145	42		10-8	170		
7-9	290			10-15	90		
7-16		260		10-22	60	120	
7-23	65	40		10-29	75	260	
7-30	110	200		11-19	170	130	
8-6	60	220		12-3		220	
8-13		210		12-17	300	900	
8-20	170			12-31	100	400	
9-3	70						
9-10	40	120					
9-17	100	90					
9-24	120						
10-1	[illegible]	[illegible]					

UNCLASSIFIED
W.J. Lemmon WJL
Critique 1000 2/27/02
Date
Chro. Office
29 Pages

PLANT: NAME:

YEAR: 1951 Nudo JOB: 1072

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-1	60	700		4-2	180	160	
1-8		520		4-9	120	320	
1-15		130		4-16	70	230	
1-22	75	220		4-25	65	150	
1-29	55	170		4-30	80	260	
2-5		80		5-7	80	230	
2-12	140	210		5-14	150	200	
2-19		140		5-21	55	160	5480
2-26		330		5/25		190	
3-5	80	180		6/4	85	240	
3-19		230		6-11	50	320	
3-11	60	320		6-18	80		
3-26		540		6-25	[illegible]	[illegible]	

PLANT: NAME:

YEAR: 1951 Nudo JOB: 1072

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-1	60	700		4-2	180	160	
1-8		520		4-9	120	320	
1-15		130		4-16	70	230	
1-22	75	220		4-23	65	150	
1-29	55	170		4-30	80	260	
2-5		80		5-7	80	230	
2-12	140	210		5-14	150	200	
2-19		140		5-21	55	160	5480
2-26		330		5/25		190	
3-5	80	180		6/4	85	240	
3-19		230		6-11	50	320	
3-11	60	320		6-18	80		
5-26		540		6-25	[illegible]	280	

N.Y. FORM 83
REV. 3-27-51

PLANT:
YEAR: 195 1 Nudo

NAME:
JOB: 1022

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
7-2	145	42		10-8	170		
7-9	290			10-15	90		
7-16		260		10-22	60	120	
7-23	65	70		10-29	75	260	
7-30	110	200		11-19	170	150	
8-6	60	220		12-3		220	
8-13		210		12-17	300	900	
8-20	170			12-31	100	400	
9-3	70						
9-10	40	120			UNCLASSIFIED		
9-17	100	90			W.J. Lemmon WJL		
9-24	120				Critique 1010		2/27/01 Date
10-1	100	120			Class. Office		29 Pages

N.Y. FORM 83
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PLANT:
YEAR: 195 1

NAME: E du Kanis
JOB:

1073

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
3-19	90						
4-23	50						
5-7	bad film						
6-11	missing						
11-5	50						
12-17	180						
12-31	100	800					

PLANT:

YEAR: 1951 Kile

NAME:

JOB: 1080

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-2	100						
1-15	75						
1-22	60						
3-19	90						
3-12	85						
3-26	180						
4-2	85						
4-9	70						
4-23	65						
4-30	150						
10-22	85						
11-5	80						

PLANT: NAME:

YEAR: 1951 Sutherland JOB: 1081.

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-2	130	560		4-9	160	140	
1-8		380		4-16	160	90	
1-15		75		4-23	90	100	
1-22		220		5-14	not found		2965
1-29	100	220		5-21	110		
2-12	180			5/25		50	
2-19	170			6/4	95	120	
2-26	165	150		6-18	100		
3-5	280	220		9-3	70		
3-19	110	150		10-1	90		
3-12	230	480		11-5	70		
3-26	170	170					
4-2	250	210					

PLANT:

YEAR: 195 1 Bowman

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
7-9		180		10-22		180	
7-16	150			10-29	60	150	
7-23	70			11-5		140	
7-30	missing			11-19	170	150	
8-6	60	130		11-26	80	80	
8-13		130		12-3	90		
8-20	70	150		12-17	210	150	
9-3		80		12-31	140	55	
9-10	40	110					
9-16	160						
9-24	120						
10-1	75	150					
10-8	140						

N. Y. FORM 83
REV. 3-27-51

PLANT:

YEAR: 195 1

Betts

NAME:

JOB:

1083

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
7-9	65	120		12-3	110		
7-16		190		12-17	150		
7-23		180		12-31	80		
7-30	90	250					
8-6	55	70					
8-13	60	100					
8-27	90	280					
9-3	45	140					
9-16		90					
9-24	40	80					
10-1	100	270					
11-5		100					
11-26	90						

PLANT:

YEAR: 1951 Betts

NAME:

JOB: 1083

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-1	190	420		4-2	210	250	
1-8		320		4-9	150	160	
1-15		150		4-16	130	190	
1-22	75	140		4-23	100	110	
1-29	140	130		4-30	110	120	
2-5	100	80		5-7	160		
2-12	170	120		5-14	260	85	
2-19	70	130		5-21	200	100	
2-26	215	165		5/25	90		
3-5	240	140		6/4	not readable		
3-19		160		6-11	100	220	
3-12	290	210		6-18	65	140	
3-26	140	190		6-25	[illegible]	[illegible]	

PLANT:

NAME:

YEAR: 1951 Whittaker

JOB: 1084

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-2	100						
2-12	not found						
3-19	90		-				
10-1	75						
11-5	not found						

PLANT:

YEAR: 1951 Davis

NAME:

JOB: 1085

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-2	110						
1-8		75					
1-15	60		-				
1-22		75					
1-29		70					
2-5	fogged						
10-22	85						
11-5	70						

N.Y. FORM 83
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PLANT:
YEAR: 195 Amsdell

NAME:
JOB: 1086

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-8	[illegible]			9-3		170	
3-19	130			9-10	50	60	
4-2	85			9-16	150		
6-18		120		9-24	160		
6-25	80	250		10-1	140	200	
7-2		330		10-8	170		
7-9	120	250		10-25		150	
7-16	100	140		10-29	75	95	
7-23	70	100		11-5		190	
7-30	80	280		11-19	260		
8-6	55	60		11-26	40	150	
8-13	100	110		12-3		150	
8-27	140	200		12-17	100	[illegible]	

N.Y. FORM 83
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PLANT:

YEAR: 1951 George Mead

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
6-15		180					
10-1	90						
10-22	85						
11-5	70						

PLANT:

YEAR: 1951 Schoonmaker

NAME:

JOB: 1088

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-2	170	290		6-25	90		
1-8		[illegible]		7-9	90		
1-15	120			7-16	75		
1-22		360		8-6	60		
1-29	70	100		9-3	70		
2-5	80			9-10	70		
2-12	[illegible]			10-1	75		
3-18	missing			10-22	100		
3-26	120			11-5	80		
4-23	50			12-17	150		
6/4	not worked			12-31	80		
6-11	70	120					
6-18	65						

PLANT:

YEAR: 1951 Westerveld

NAME:

JOB: 1089

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-2	120			12-17	150		
1-8							
1-22		60	—				
2-26	75	50					
3-19	missing						
3-11	75						
4-2	85						
4-30	100						
5-7	bad film						
6-11	120						
7-30	100						
9-3	70						
[illegible]		15					

N.Y. FORM 83
REV. 3-27-51

PLANT:

YEAR: 1951 Epp

NAME:

JOB: 1090

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-8	[illegible]						
3-11	not found						
3-26	100						
4-2	missing						
9-3	80						
10-22	85						
11-5	70						

N.Y. FORM 83
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PLANT:
YEAR: 1951 Malone

NAME:
JOB: 1091

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
4-2	85						
10-22	85						
11-5	~~[illegible]~~	120					

N.Y. FORM 83
REV. 3-27-51

~~PLANT~~:

YEAR: 195 1 Crown

NAME:

JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
7-30	150			11-5	not found		
8-6	70	70		11-19	110	130	
8-13		120		11-26	100		
8-20	110	50		12-17	400	300	
8-27	90	290		12-31	130		
9-3		100					
9-10	100						
9-24	130						
10-1		90					
10-8	170						
10-15	150						
10-22		180					

N.Y. FORM 83
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PLANT:
YEAR: 195 1 Crown

NAME:
JOB: 1092

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-8		290		4-16	170		
1-15	100			4-23	80	65	
1-22	85	90		4-30	220		
1-29	190			5-7	bad film		
2-5	110			5-14	280		
2-12	140			5-21	170	160	
2-19	190			5/25	80		
3-5	160	130		6/4	not available		
3-19		160		6-11	130	180	
3-11	150	190		7-2	60	170	
3-26	290			7-9	65	460	
4-2	150	85		7-16	70	230	
4-9	[illegible]			[illegible]	50	[illegible]	

PLANT: Collins

YEAR: 1951

NAME:

JOB: 1093

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-1	110			4/4	missing		
1-8	90			6-25	missing		
1-15	90		–	8-6	60		
1-22	60			9-3		50	
3-18	140			9-16	80		
3-26	120			10-1	100		
4-2	85			10-15	90		
4-9	100			10-22		120	
4-23	75			10-29	90		
4-30	160			11-5		100	
5-7	bad film			11-19	130		
5-14	not found			12-17	130		
5-21	[illegible]			[illegible]	160		

N.Y. FORM 83
REV. 3-27-51

PLANT:
YEAR: 1951 Doody

NAME:
JOB: 109 y

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
1-8	0						
1-15	260	140					
1-22	60	60					
6-11	360	210					

N.Y. FORM 83
REV. 3-27-51

PLANT:

YEAR 195 1 Ringvelski

NAME:

JOB: 1095

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
7-9		180		10-15		65	
7-16		70		10-22		120	
7-23		160		10-29	90	200	
7-30	100	340		11-5	50	100	
8-6		230		11-19	70	180	
8-13	70	100		11-26	100	100	
8-20	120	100		12-17	260	270	
8-27	115	190		12-31	65	250	
9-3		190					
9-16	130						
9-24	70	140					
10-1		75					
10-8	120						

1-2

N.Y. FORM 83
REV. 3-27-51

PLANT:

YEAR: 195 1 Fontanarosa

NAME:

JOB: 1096

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
7-9	180			10-15	130		
7-16		190		10-22	130	180	
7-23	120			10-29		95	
7-30	110	180		11-5	70	140	
8-6	80	190		11-19	280	180	
8-20	170	270		11-26	120	80	
8-27	140	320		12-3	80	110	
9-3	70	160		12-31	500	250	
9-10	40	120					
9-17	230						
9-24	150						
10-1		300					
10-8	150						

PLANT:

YEAR: 1951 Fontanarosa

NAME:

JOB:

1096

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-1	110	520		4-2	190	150	
1-8		[illegible]		4-9	240	160	
1-15		110		4-16	150	230	
1-22	75	150		4-23	150	160	
1-29		250		4-30	180	120	
2-5	95			5-7	bad film		
2-12	110	120		5-14	not found		
2-19	90	100		5-21	75	75	
2-26	240	140		5/25		170	
3-5	380	250		6/4	230	70	
3-19	90	210		6-18	110	65	
3-11	340	300		6-25	120	270	
3-26	210	190		7-2	[illegible]	[illegible]	

N.Y. FORM 83
REV. 3-27-51

PLANT:

YEAR: 195 1 Ringwelski

NAME:

JOB:

1995

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
7-9		180		10-15		65	
7-16		70		10-22		120	
7-23		160		10-29	90	200	
7-30	100	340		11-5	50	100	
8-6		230		11-19	70	180	
8-13	70	100		11-26	100	100	
8-20	120	100		12-17	260	270	
8-27	115	190		12-31	65	250	
9-3		190					
9-16	130						
9-24	70	140					
10-1		75					
10-8	150						

PLANT: NAME:

YEAR: 1951 Ringrelski JOB: 1095

WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE	WEEK BEGINNING	FILM BADGE RESULTS (mr) BETA	GAMMA	TOTAL EXPOSURE
1-1	60	700		4-2	100	150	
1-8		350		4-9	120	320	
1-15	50	60	—	4-16		250	
1-22	50	440		4-23	130	260	
1-29	100	340		4-30	190	360	
2-5		0		5-7	80	290	
2-12	80	280		5-14	not found		5[illegible]
2-19		290		5-21		230	
2-26	50	360		5/25	100	150	
3-5	160	140		6/4	85	240	
3-19		130		6-18	55	65	
3-12	not	found		6-25	120		
3-26		540		7-2		450	

N.Y. FORM 83
Rev. 3/27/51
PLANT: Loam
YEAR: 1954

NAME: Belyzewski
JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
11-8		120					

N.Y. FORM 83
Rev. 3/27/51
PLANT: Lacer
YEAR: 195 4

NAME: Bowman
JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
11-8		125					
12/20+27		130					

N.Y. FORM 83
Rev. 3/27/51

PLANT: Loaw
YEAR: 1954

NAME: Collins
JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
11-8		120					
12/20+27		95					

N.Y. FORM 85
Rev. 3/27/51
PLANT: Loew
YEAR: 1954

NAME: Reigvalski
JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
12/20+27		140					

N.Y. FORM 83
Rev. 3/27/51
PLANT: Lodi
YEAR: 1954

NAME: Scanlan, J.
JOB:

WEEK BEGINNING	FILM BADGE RESULTS (mr)			WEEK BEGINNING	FILM BADGE RESULTS (mr)		
	BETA	GAMMA	TOTAL EXPOSURE		BETA	GAMMA	TOTAL EXPOSURE
5-24	75						

16404

Film Badge Results, August 1967, *Lake Ontario Ordnance Works Film Badge Results*, results reported for August 1, 1967

ORAU / Dade Moeller & Associates / MJW	DATA CAPTURE DOCUMENT DISCOVERY AND REVIEW	ORAU TEAM Dose Reconstruction Project for NIOSH

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Film Badge Data 1967

Document Type:

☐ **Facilities/Process** (i.e. source terms, contamination surveys, general area/breathing zone air sampling, area radiation surveys, radon/thoron monitoring, fixed location dosimeters, missed dose information, radiological control limits, Radiation Work Permits, incidents/accidents)

☐ **Medical Dose** (i.e. X-rays, occupational medical dose, exam frequencies, equipment performance characteristics)

☐ **Environmental Dose** (i.e. ambient radiation, on-site releases, on-site radionuclide concentrations)

☐ **Internal Dose** (i.e. urinalysis, fecal, In-Vivo, breath sampling, radon/thoron, nasal smears, analytical methods, exchange frequency, detection limits, record keeping practices, codes, performance characteristics)

☒ **External Dose** (i.e. Thermoluminescent Dosimeters (TLDs), film badges, Pocket Ion Chambers, analytical methods, exchange frequency, detection limits, record keeping practices, codes, performance characteristics)

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COMM_REGISTER

CCN#- **E00996**
ITEM- **01**
TYPE- **2DX**
REF--
SUBJ- **08/01/67 RQST ANAL OF FILM BADGE EXPOSURES**
FROM- **THORNTON**
TO--- **SCHMIDT**
DATE- **01-SEP-67**
SUBJ- **7180**
CCN#---------- **E00996**
ITEM---------- **01**

MULTI_COMM_REGISTER

WBS NO	AFFECTED DOC	ADDRESS	STREET
202			

tsdbackfit: 223

UNITED STATES
ATOMIC ENERGY COMMISSION
OAK RIDGE OPERATIONS
P.O. BOX E
OAK RIDGE, TENNESSEE 37830

AREA CODE 615
TELEPHONE 483-8611

IN REPLY REFER TO:

ORB:WTT

September 1, 1967

Mr. J. S. Schmidt
Safety Engineer
Nuclear Materials and
Equipment Corporation
Post Office Box 306
Lewiston, New York 14092

Subject: FILM BADGES

Dear Mr. Schmidt:

Reference is made to your memorandum dated August 1, 1967, requesting analysis of film badge exposures. The following information has been obtained:

Badge	No.	A-71	-	30 mrem,	gamma
"	"	A-72	-	40 "	"
"	"	A-73	-	40 "	"
"	"	A-74	-	30 "	"
"	"	A-75	-	30 "	"
"	"	A-78	-	30 "	"
"	"	A-105	-	40 "	"
"	"	A-106	-	40 "	"
"	"	A-107	-	30 "	"

The exposure levels found are essentially at the threshhold of the film's sensitivity so no significance should be attached to the apparent differences in exposure.

Very truly yours,

W. T. Thornton
Biology Branch
Research and Development Division

17335

Film Badge Results, July 1955-January 1956, *Lake Ontario Storage Area/ Lake Ontario Ordnance Works Film Badge Results*; results reported from July 18, 1955 through January 30, 1956

AEC-NYOO
Health & Safety Laboratory
RADIATION BRANCH

QUARTERLY SUMMARY SHEET FOR FILM BADGES

Plant or Laboratory Hooker Electrochemical Co., P-31, Model City, New York. Contract # AT-(30-1)-1524

Period From October 24,1955 through January 30,1956.

NAME	EXPOSURES* Beta mrad	Gamma or X-Ray mr	Other	REMARKS
G. Bowman		0		Exposure recorded as
P. Seager		0		"0" indicates less than
A. Blasajewski		0		30 MR.
G. Gunzelman		0		
J. Ringvelski		0		
S. Pisarski		0		
J. Henner		0		
H. H. Betts		0		
J. Adams 10/24 to 11/7/55		0	13%	Fast Neutron %
J. Adams 11/7 to 11/21/55			10%	
" 11/21 to 12/5/55			13%	MPL.
" 12/5 to 12/19/55			13%	
" 12/19/55 to 1/2/56			10%	
" 1/2/56 to 1/16/56			19%	
" 1/16/56 to 1/30/56			13%	
H. Olotka 11/7/55 to 11/21/55		0	19%	Fast Neutron %
H. Olotka 11/21/55 to 12/5/55			13%	
" 12/19/55 to 1/2/56			16%	MPL; all other periods under 10%.
" 1/2/56 to 1/16/56			19%	
" 1/16/56 to 1/30/56			16%	
P. Scott 11/7/55 to 11/21/55			10%	
P. Scott 12/5/55 to 12/19/55			16%	

UNCLASSIFIED
W. J. Lemmon
Critique 1010 2/27/04
Date
Critique class. office

*If no exposures were received during quarter, please indicate.
If any individual has received in excess of three times the basic maximum permissible weekly dose in any week, please list such week's exposure as a separate item under the total cumulative.

AEC-NYOO
Health & Safety Laboratory
RADIATION BRANCH

QUARTERLY SUMMARY SHEET FOR FILM BADGES

Plant or Laboratory Hooker Electrochemical Co., P-31, Model City, New York. Contract # AT-(30-1)-1524

Period From October 24, 1955 through January 30, 1956.

NAME		EXPOSURES* Beta mrad	Gamma or X-Ray mr	Other	REMARKS
P. Scott	12/19/55 to 1/2/56		0	47%	Fast Neutron % MPL; all other periods under 10%.
	1/2/56 to 1/16/56			31%	
6 "	1/16/56 to 1/30/56			13%	
R. Doane	11/7/55 to 11/21/55		0	16%	Fast Neutron % MPL; all other periods under 10%.
	11/21/55 to 12/5/55			16%	
	12/5/55 to 12/19/55			19%	
"	12/19/55 to 1/2/56			22%	
	1/2/56 to 1/16/56			13%	
S. Voutour	11/7/55 to 11/21/55		0	13%	Fast Neutron % MPL; all other periods under 10%.
	11/21/55 to 12/5/55			19%	
	12/19/55 to 1/2/56			22%	
"	1/2/56 to 1/16/56			19%	
	1/16/56 to 1/30/56			19%	
G. Hedden	11/7/55 to 11/21/55		0	10%	Fast Neutron % MPL; all other periods under 10%.
	12/5/55 to 12/19/55			19%	
	12/19/55 to 1/2/56			16%	
	1/2/56 to 1/16/56			13%	
	1/16/56 to 1/30/56			13%	
E. Gerfin	11/7/55 to 11/21/55		0	16%	Fast Neutron % MPL; all other periods under 10%.
	12/5/55 to 12/19/55			10%	
	1/2/56 to 1/16/56			16%	
P. Pattison	10/24/55 to 11/7/55			13%	Fast Neutron % MPL; all other periods under 10%. Gamma all other periods ~~exceeds~~ zero.
	11/7/55 to 11/21/55			10%	
	12/5/55 to 12/19/55			10%	
	12/19/55 to 1/2/56		40	53%	
	1/2/56 to 1/16/56			16%	
D. MacFadyen	10/24/55 to 11/7/55		0	13%	Fast Neutron % MPL; all other periods under 10%.
	11/21/55 to 12/5/55			16%	
	12/5/55 to 12/19/55			16%	
	12/19/55 to 1/2/56			22%	
	1/2/56 to 1/16/56			13%	
	1/16/56 to 1/30/56			28%	

UNCLASSIFIED
W. J. Lemmon wjl
Critique /ORO 2/27/04
Class. Off. Date

NOTE: Continued on other side. (over)

*If no exposures were received during quarter, please indicate.
If any individual has received in excess of three times the basic maximum permissible weekly dose in any week, please list such week's exposure as a separate item under the total cumulative.

Name		Gamma or X-ray mr	Other	Remarks
A. Bartlett	11/7/55 to 11/21/55		28%	Fast Neutron %
	11/21/55 to 12/5/55		19%	MPL; all other periods
	12/5/55 to 12/19/55		13%	under 10%.
	12/19/55 to 1/2/56	40	40%	Gamma all other periods
	1/2/56 to 1/16/56		10%	zero.
	1/16/56 to 1/30/56		15%	

HSR:LW:lw

November 23, 1955

Robert S. Landauer, Jr.
P. O. Box 102
Park Forest, Illinois

Dear Mr. Landauer:

In reference to your letter of November 9, 1955, to Mr. Betts, Hooker Electrochemical Company, film packets #15-000 and #15-005 were exposed in NYOO AEC film badges, which consist of an open window and one mm. of cadmium under the aluminum.

It is noted that your films for Western Reserve University, Dr. Dobyns, and New York University, Dr. N. Nelson were also exposed in NYOO AEC film badges, which you read and the results were quite good.

In the future we shall make every effort to expose the films in your own badge holders.

Very truly yours,

L. Watts, Technician
Radiation Branch
Health and Safety Laboratory

UNCLASSIFIED
W. J. Lemmon WJL
Critique /OXO 2/27/04
Class. Office Date

HOOKER ELECTROCHEMICAL COMPANY
NIAGARA FALLS
NEW YORK

Contract No. AT-(30-1)-1524

November 18, 1955

Manager of Operations
U. S. Atomic Energy Commission
P. O. Box 30, Ansonia Station
New York 23, New York

MEDICAL, HEALTH & SAFETY 3-6

Attention: Hanson Blatz chief, Radiation Branch of Health and Safety Laboratory

Dear Sir:

The enclosed letter from R. S. Landauer, Jr. and Company dated November 9, 1955 refers to the two packets sent to you for checking purposes previous to our forwarding them to R. S. Landauer.

Will you please furnish them with the information that they desire.

Very truly yours,

A. P. Walker,
Department Head, Plant 31

APW:lo

UNCLASSIFIED
W. J. Lemmon WJL
Critique /DRO 2/27/04
Date
Class Office

r. s. landauer, jr. and co. **radiation safety**

p. o. box 102, park forest, illinois skyline 4-6512

not inc.

NOVEMBER 9, 1955.

MR. H. H. BETTS,
HOOKER ELECTROCHEMICAL COMPANY,
C/O ATOMIC ENERGY COMMISSION PLANT,
MODEL CITY, NEW YORK.

DEAR MR. BETTS:

IN REFERENCE TO NOTE Z.

PACKETS NO. 15-000 AND 15-003 APPEAR TO HAVE BEEN EXPOSED IN THE SAME MANNER, BUT NOT WHILE LOADED IN OUR BADGES. IT IS POSSIBLE THAT WE CAN SUPPLY A READING IF YOU CAN FURNISH US THE INFORMATION ON THE FACTORS INVOLVED.

VERY TRULY YOURS,

Robert S. Landauer Jr.

ROBERT S. LANDAUER, JR.

UNCLASSIFIED
W. J. Lemmon WJL
Critique Lono 2/27/04
Date
class. Upu

AEC-NYOO
Health & Safety Laboratory
RADIATION BRANCH

QUARTERLY SUMMARY SHEET FOR FILM BADGES

Plant or
Laboratory Hooker Electrochemical Co., P-31, Model City, New York. Contract # AT-(30-1)-1524
Period
From July 18, 1955 through Oct. 24, 1955.

NAME	EXPOSURES*			REMARKS
	Beta mrad	Gamma or X-Ray mr	Other	
C. Bowman		0		Exposure recorded as
J. Hopkins		0		"0" indicates less
E. Westervelt		0		than 30 MR
J. Goodwin		0		
S. Pisarski		0		
J. Adams 9/12 to 9/26/55		0	22%	Neutron % MPL; all other periods under 10%.
H. Olotka 8/29 to 9/12/55		0	19%	Neutron % MPL; all other periods under 10%.
8/1 to 8/15/55 P. Scott 10/10 to 10/24/55		0	16% 19%	Neutron % MPL; all other periods under 10%.
R. Doane 8/15 to 8/29/55		0	14%	Neutron % MPL; all other periods under 10%.
8/29 to 9/12/55 S. Voutour 10/10 to 10/24/55		0	16% 13%	Neutron % MPL; all other periods under 10%.
8/29 to 9/12/55 G. Hedden 9/26 to 10/10/55		0	19% 16%	Neutron % MPL; all other periods under 10%.
E. Gerfin 9/26 to 10/10/55		0	10%	Neutron % MPL; all other periods under 10%.
8/1 to 8/15/55 P. Pattison 9/12 to 9/26/55		0	16% 13%	Neutron % MPL; all other periods under 10%.
D. MacFadyen 10/12 to 10/26/55		0	13%	Neutron % MPL; all other periods under 10%.
8/1 to 8/15/55 A. Bartlett 8/15 to 8/29/55		0	13% 16%	Neutron % MPL; all
9/26 to 10/10/55 10/10 to 10/24/55			13% 10%	other periods under 10%

UNCLASSIFIED
W. J. Lemmon
Critique class. office /DRD 2/27/04
Date

*If no exposures were received during quarter, please indicate.
If any individual has received in excess of three times the basic maximum permissible weekly dose in any week, please list such week's exposure as a separate item under the total cumulative.

AEC - NYOO Contractors Subject to Personnel Monitoring Control

Upon the discontinuation of the New York Health and Safety Laboratory Film Badge Service, you have been requested to obtain service from commercially available sources.

AEC policy designates the NCRP handbooks as operational guides in such matters. Handbook 59 lists the maximum permissible basic weekly limit of radiation exposure as 300 mrem (and in exceptional cases 900 mrem as long as the total quarterly (13 week) exposure does not total more than 3.0 rem).

In order to assure compliance, it will be necessary for you to keep a record of all exposures and also keep a quarterly summary at least for any person whose exposure has exceeded 300 mrem in any one week.

At the end of each quarter will you please submit to this office (attention of Radiation Branch, Health and Safety Laboratory) a summary of all exposures to persons who have received in any one week more than 300 mrem (or equivalent). If convenient, a complete summary of all exposures is preferred.

If there have been no exposures to report, please notify us to that effect at the end of each quarter.

Quarterly report forms will be sent to you.

Contractor: **Hooker Electrochemical Co.**

Commercial service started: **July 18, 1955 (bi-weekly)**

First quarterly report due: **October , 1956**

Letter + Forms sent Sept. 14, 1955

Hooker Elec.
Box 82
Niagara City, NY
att: J. W. Hansen

UNCLASSIFIED
W. J. Lemmon w/d
Critique /ORO 2/27/04
Date
class. ofcr

R. S. Landauer, Jr. and Co. radiation safety

24 Plaza, Park Forest, Illinois Skyline 4-6512

not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL CO.
c/o ATOMIC ENERGY COMMISSION
MODEL CITY, NEW YORK PLANT

ATTN: H. H. BETTS

REPORT OF FILM BADGE EXPOSURE

Process No. 259

For TWO WEEKS (PERIOD OF USE) Beginning DEC. 19, 1955 (BADGE DATE) +26

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	FAST NEUTRON (%MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	10%		
	007	0	16%		
	008	0	47%		
	009	0	22%		
	010	0	22%		
	011	0	16%		
	012	0	UNDER 10%		
	013	40	53%		
	014	0	22%		
	015	40	40%		

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W. J. Lemmon WJL
Critique /ono 2/27/04
Class Office Date
13 Pages

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.
By RVS/MPL
Date 1/5/56

NOTE: EXPOSURE RECORDED AS "O" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

R. S. Landauer, Jr. and Co. radiation safety

24 Plaza, Park Forest, Illinois Skyline 4-6512

not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL COMPANY
c/o ATOMIC ENERGY COMMISSION PLANT
MODEL CITY, NEW YORK
ATTN: H. H. BETTS

REPORT OF FILM BADGE EXPOSURE

Process No. 248

For TWO WEEKS (PERIOD OF USE) Beginning DECEMBER 5, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	FAST NEUTRON (%MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	13%		
	007	0	UNDER 10%		
	008	0	16%		
	009	0	19%		
	010	0	UNDER 10%		
	011	0	19%		
	012	0	10%		
	013	0	10%		
	014	0	16%		
	015	0	13%		

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.
By RVS/MPL
Date 12/22/55

NOTE: EXPOSURE RECORDED AS "0" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

R. S. Landauer, Jr. and Co. radiation safety

24 Plaza, Park Forest, Illinois Skyline 4-6512
not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL CO.
c/o ATOMIC ENERGY COMMISSION PLANT
MODEL, CITY, NEW YORK
ATTN: H. H. BETTS

REPORT OF FILM BADGE EXPOSURE

Process No. 236-7

For TWO WEEKS (PERIOD OF USE) Beginning NOVEMBER 21, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	FAST NEUTRON (% MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	13%		
	007	0	13%		
	008	0	UNDER 10%		
	009	0	16%		
	010	0	19%		
	011	0	UNDER 10%		
	012	0	UNDER 10%		
	013	0	UNDER 10%		
	014	0	16%		
	015	0	19%		

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.
By RVS
Date 12/7/55

NOTE: EXPOSURE RECORDED AS "0" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

R. S. Landauer, Jr. and Co. radiation safety

24 Plaza, Park Forest, Illinois Skyline 4-6512
not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL COMPANY
c/o ATOMIC ENERGY COMMISSION PLANT
MODEL CITY, NEW YORK

ATTN: H. H. BETTS

REPORT OF FILM BADGE EXPOSURE

Process No. 226

For TWO WEEKS (PERIOD OF USE) Beginning NOVEMBER 7, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	FAST NEUTRON (% MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	10%		
	007	0	19%		
	008	0	10%		
	009	0	16%		
	010	0	13%		
	011	0	10%		
	012	0	16%		
	013	0	10%		
	014	0	UNDER 10%		
	015	0	28%		

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.

By RVS/MPL

Date 11/23/55

NOTE: EXPOSURE RECORDED AS "0" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

R. S. Landauer, Jr. and Co. radiation safety

24 Plaza, Park Forest, Illinois Skyline 4-6512
not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL CO.
C/O ATOMIC ENERGY COMMISSION PLANT
MODEL CITY, NEW YORK

REPORT OF FILM BADGE EXPOSURE

Process No. 214

For TWO WEEKS (PERIOD OF USE) Beginning OCTOBER 24, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	OPEN WINDOW	FAST NEUT. % MPL	Notes
CONTROL	15-000	260	400		X
	001	0			
	002	0			
	003	260	400		X
	004	0			
	005	0			
	006	0		13%	
	007	0		UNDER 10%	
	008	0		"	
	009	0		"	
	010	0		"	
	011	0		"	
	012	0		"	
	013	0		13%	
	014	0		13%	
	015	0		UNDER 10%	

X - THESE READINGS ARE CALIBRATED FOR 1.2 M.E.V. GAMMA RADIATION WITH OUR FILM BADGE USING A 0.80 MM PB. SHIELD. THE SHIELD READING SHOULD BE APPROXIMATELY CORRECT FOR HIGH ENERGY GAMMA RADIATION IF THE FILM PACKET HAD BEEN PLACED IN A NEW YORK OPERATIONS OFFICE BADGE.

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.
By RSL/RVS/AGR
Date 11/28/55

NOTE: EXPOSURE RECORDED AS "O" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

r. s. landauer, jr. and co. radiation safety

p. o. box 102, park forest, illinois skyline 4-6512

not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL CO.
c/o ATOMIC ENERGY COMMISSION PLANT
MODEL CITY, NEW YORK
ATTN: H. H. BETTS

REPORT OF FILM BADGE EXPOSURE

Process No. 214

For TWO WEEKS (PERIOD OF USE) Beginning OCTOBER 24, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	NEUTRON (% MPL)		Notes
	15-000				Z
	001	0			
	002	0			
	003				Z
	004	0			
	005	0			
	006	0	13%		
	007	0	UNDER 10%		
	008	0	"		
	009	0	"		
	010	0	"		
	011	0	"		
	012	0	"		
	013	0	13%		
	014	0	13%		
	015	0	UNDER 10%		

Z - SEE ACCOMPANYING LETTER

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.

By RVS

Date 11/10/55

NOTE: EXPOSURE RECORDED AS "0" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

r. s. landauer, jr. and co. radiation safety

p. o. box 102, park forest, illinois skyline 4-6512

not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMCICAL Co.
c/o ATOMIC ENERGY COMMISSION PLANT
MODEL, CITY, NEW YORK
ATTN: H. H. BETTS

REPORT OF FILM BADGE EXPOSURE

Process No. 203

For TWO WEEKS (PERIOD OF USE) Beginning OCTOBER 10, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	NEUTRON (% MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	UNDER 10%		
	007	0	"		
	008	0	19%		
	009	0	UNDER 10%		
	010	0	13%		
	011	0	UNDER 10%		
	012	0	"		
	013	0	"		
	014	0	"		
	015	0	10%		

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.

By RVS

Date 10/26/55

NOTE: EXPOSURE RECORDED AS "O" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

r. s. landauer, jr. and co. **radiation safety**

p. o. box 102, park forest, illinois *skyline 4-6512*

not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL COMPANY
c/o ATOMIC ENERGY COMMISSION
MODEL CITY, NEW YORK PLANT

ATTN: H. H. BETTS

REPORT OF FILM BADGE EXPOSURE

Process No. 191

For TWO WEEKS (PERIOD OF USE) Beginning SEPT. 26, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	NEUTRON (% MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	UNDER 10%		
	007	0	"		
	008	0	"		
	009	0	"		
	010	0	"		
	011	0	16%		
	012	0	10%		
	013	0	UNDER 10%		
	014	0	UNDER 10%		
	015	0	13%		

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.

By RYS/MPL

Date 10/12/55

NOTE: EXPOSURE RECORDED AS "0" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

r. s. landauer, jr. and co. radiation safety

p. o. box 102, park forest, illinois skyline 4-6512

not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL CO.
c/o ATOMIC ENERGY COMMISSION
PLANT
MODEL, CITY, NEW YORK

REPORT OF FILM BADGE EXPOSURE

Process No. 181

For TWO WEEKS (PERIOD OF USE)

Beginning SEPTEMBER 12, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	NEUTRON (% MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	22%		
	007	0	UNDER 10%		
	008	0	"		
	009	0	"		
	010	0	"		
	011	0	"		
	012	0	"		
	013	0	13%		
	014	0	13%		
	015	0	UNDER 10%		

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.

By RVS

Date 9/29/55

NOTE: EXPOSURE RECORDED AS "0" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

r. s. landauer, jr. and co. radiation safety

p. o. box 102, park forest, illinois skyline 4-6512

not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL CO.
C/O ATOMIC ENERGY COMMISSION PLANT
MODEL CITY, NEW YORK
ATTN: H. H. BETTS

REPORT OF FILM BADGE EXPOSURE

Process No. 171

For WEEK (PERIOD OF USE) Beginning AUGUST 29, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	NEUTRON (% MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	UNDER 10%		
	007	0	19%		
	008	0	UNDER 10%		
	009	0	UNDER10%		
	010	0	16%		
	011	0	19%		
	012	0	UNDER 10%		
	013	0	"		
	014	0	"		
	015	0	"		

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.

By RVS

Date 9/15/55

NOTE: EXPOSURE RECORDED AS "O" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

r. s. landauer, jr. and co. **radiation safety**

p. o. box 102, park forest, illinois *skyline 4-6512*

not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL CO.
c/o ATOMIC ENERGY COMMISSION PLANT
MODEL CITY, NEW YORK

REPORT OF FILM BADGE EXPOSURE

Process No. 162

For TWO WEEKS (PERIOD OF USE) Beginning AUGUST 15, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	NEUTRON (% MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	UNDER 10%		
	007	0	"		
	008	0	"		
	009	0	13%		
	010	0	UNDER 10%		
	011	0	"		
	012	0	"		
	013	0	"		
	014	0	13%		
	015	0	16%		

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.

By RVS

Date 8/31/55

NOTE: EXPOSURE RECORDED AS "0" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

r. s. landauer, jr. and co. **radiation safety**

p. o. box 102, park forest, illinois *skyline 4-6512*

not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL CO.
c/o ATOMIC ENERGY COMMISSION PLANT
MODEL CITY, NEW YORK

REPORT OF FILM BADGE EXPOSURE

Process No. 153

For TWO WEEKS (PERIOD OF USE) Beginning AUGUST 1, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	NEUTRON (% MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	UNDER 10%		
	007	0	UNDER 10%		
	008	0	16%		
	009	0	UNDER 10%		
	010	0	UNDER 10%		
	011	0	UNDER 10%		
	012	0	UNDER 10%		
	013	0	16%		
	014	0	UNDER 10%		
	015	0	13%		

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.

By RSL/RVS

Date 8/18/55

NOTE: EXPOSURE RECORDED AS "0" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

r. s. landauer, jr. and co. radiation safety

p. o. box 102, park forest, illinois skyline 4-6512

not inc.

FILM BADGE SERVICE

For HOOKER ELECTROCHEMICAL COMPANY
c/o ATOMIC ENERGY COMMISSION PLANT
MODEL, CITY, NEW YORK

REPORT OF FILM BADGE EXPOSURE

Process No. 142

For TWO WEEKS (PERIOD OF USE) Beginning JULY 18, 1955 (BADGE DATE)

Name	Code Number	Gamma & X-Ray * Exposure (Milliroentgens)	NEUTRON (PERCENT OF MPL)		Notes
	15-001	0			
	002	0			
	003	0			
	004	0			
	005	0			
	006	0	UNDER 10%		
	007	0	"		
	008	0	"		
	009	0	"		
	010	0	"		
	011	0	"		
	012	0	"		
	013	0	"		
	014	0	"		
	015	0	"		

A – Not Returned
B – Damaged in Use
C – Evidence of Possible Contamination
D – Supplementary Reading to Follow

* Maximum permissible dose as recommended by the National Committee on Radiation Protection is in most cases 300MR per week. (For more detail see NBS Handbook 59.)

R. S. LANDAUER, Jr. & CO.

By RVS

Date 8/4/55

NOTE: EXPOSURE RECORDED AS "O" INDICATES LESS THAN 30 MR (UNLESS OTHERWISE STATED).

17337

Lake Ontario Ordnance Works (LOOW), 1949-1960,
***Miscellaneous Dose Reports for K-65 Operations*;**
Results from March 23, 1949 through February 16, 1960; LOOW

ORAU Dade Moeller & Associates MJW	**DATA CAPTURE DOCUMENT DISCOVERY AND REVIEW**	ORAU TEAM Dose Reconstruction Project for NIOSH

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Document Title & Comments:

Film Badge Data, Radiation and Dust Exposures

Document Type:

☐ **Facilities/Process** (i.e. source terms, contamination surveys, general area/breathing zone air sampling, area radiation surveys, radon/thoron monitoring, fixed location dosimeters, missed dose information, radiological control limits, Radiation Work Permits, incidents/accidents)

☐ **Medical Dose** (i.e. X-rays, occupational medical dose, exam frequencies, equipment performance characteristics)

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- Bayonne Reel 2
Counter 51

May 2, 1949

F. M. Belmore, Director, Production Division

B. S. Wolf, M.D., Medical Director

STORAGE OF K-65 AT LOOW

REFER TO SYMBOL: DR:ME

This memorandum will summarize the present status of the K-65 storage at LOOW from the point of view of the Medical Division.

In our opinion, the decision to utilize the igloos rather than the box factory simplifies the problem of providing adequate safeguards for this operation. However, as stated in our memorandum of January 31, several months of experience must elapse before we can fully understand this problem and be specific in our recommendations for control measures.

We have now had approximately five weeks of experience with this operation at LOOW. We have observed the unloading of 6 cars of K-65 and the loading of 3 lots into one igloo.

Our immediate objective is to evaluate the radiation and radon exposures to employees engaged in the handling of this material. In addition, we are faced with the need to evaluate the possibility of general atmospheric pollution by radon both on and off the site.

Radiation Exposure to Employees:

The following table summarizes the radiation exposure, as measured by pocket meters during K-65 handling operations at LOOW:

	3/23	3/30	4/7	4/8	4/11	4/20	Total
H. Seyfang - Lift Oper.	110	120	60	160	50	40	540
H. Marcinkowski - Lift Oper.	75	60	-	-	-	45	180
T. Bullock - Lift Oper.	-	-	60	190	40	-	290
R. Cook - Moveman	-	210	240	320	-	120	890
L. Papa - Moveman	190	-	240	300	-	70	800
L. Selva - Moveman	-	130	100	370	-	120	720
S. Bellomo - Moveman	-	-	-	-	90	-	90
R. Backert - Moveman	-	-	-	-	80	-	80
H. Heatherton - H. P.	100	70	70	120	50	40	450

The "tolerance" for whole body gamma irradiation is being revised downward throughout the project to 300 mr. per week. We recommend that the operating level be less than 150 per week (650 mr/month). The safety factor thus afforded will allow for possible uncertainties in our monitoring methods.

UNCLASSIFIED
W. J. Lemmon wjl
Critique/ORO 2/27/04
Date

F. M. Belmore May 2, 1949

R. J. Wolf

STORAGE OF K-65 AT LOW

and will also serve as a "cushion" in the event of another reduction in permissible exposure. The above table covers the unloading of 6 carloads and the loading of one igloo. We have been informed that shipments of K-65 to Lake Ontario will be at the rate of 5 carloads per month. Thus, in addition to the unloading of 5 cars per month, it will be necessary to consider the exposures involved in the loading of two igloos. Examination of the above data indicates that the preferred level of whole body irradiation will be exceeded unless considerable improvement is made in the method of handling the drums.

It should be possible to conduct this operation safely, using one crew of 5 men, if the handling procedure can be simplified. We have had preliminary discussions with your staff and there appears to be agreement that a considerable reduction in handling time can be achieved. On the basis of data thus far obtained at LOW and elsewhere, we are presently estimating the monthly dosages for alternate handling procedures. We will submit this information to you in a few days.

Exposure of Employees to Radon:

The principal radon exposure occurs when working in igloos containing K-65. A lesser exposure exists in the unloading of freight cars, but we have demonstrated that this can be controlled by the exhaust fans now installed in the freight cars, and this exposure should not therefore be a problem at LOW.

Radon measurements during the loading of one igloo indicates that the concentration of radon rises rapidly during this loading operation. The concentration at the conclusion of the first day's loading operation, at which time 96 drums were stored in Igloo #9050 was 29 times tolerance. Loading operations were resumed on the following day at which time when Igloo #9050 was re-entered, the concentration was 71 times tolerance. The door to this igloo had been closed overnight, and the concentrations dropped during the subsequent loading operations to 26 times tolerance.

In our opinion, these concentrations are not hazardous if the employees continue to wear the demand type respirator, as originally recommended.

It will be necessary for us to investigate the manner in which radon concentrations build up after the igloos are sealed. It is our understanding that the drums will be inspected periodically and it may be necessary to provide mechanical ventilation in order to flush out the igloos prior to

entry for inspection. This is not a major problem, and can be solved, if necessary, by the use of portable blowers.

General Atmospheric Pollution by Radon:

The fact that the igloos are thermally insulated should somewhat minimize the problem of general atmospheric pollution by radon. Our experience at the airport storage area, where measurements were made with approximately 600 tons of sludge, leads us to believe that the dispersion of radon from the igloo areas, even at maximum capacity, will not be a problem. We will make periodic tests in this area as the accumulation of sludge increases. The maximum permissible concentration of radon, beyond the perimeter of our property, should be less than 5×10^{-12} curies per liter.

If the sludge could be stored in hermetically sealed drums, there could of course be no radon problem. It is for this reason that the possibility that the drums can be weld sealed is especially attractive. During the original discussions concerning LOOW, this practice appeared feasible, but more recently you have raised technical objections to welding the drums. At the present time, the use of hermetically sealed drums does not appear essential. However, with further experience, if the problem should prove to be more stubborn than we now believe, if more rigid criteria are imposed on this office, it may be necessary to again consider methods of providing gas tight seals for the drums.

Payne Kurt Lemmon

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : W. B. Harris DATE: February 26, 1951

FROM : R. Heatherton

SUBJECT: RADIATION AND DUST EXPOSURES AT L.A.O.W.

SYMBOL: HSI:RH:hmh

Initial copy

Purpose

The purposes of this report are:

1. To present the latest radiation and dust results.
2. To discuss in light of most recent information the conditions which enhance exposure and the proposed remedial measures.
3. To present again our recommendations for correction of these conditions.

Summary

Radiation and dust results indicate continued high exposures to γ radiation and radioactive dust. Some of the difficulties which lead to high exposures and proposals to eliminate these difficulties are explained. Recommendations previously made but not completed are reiterated. Some new recommendations are included.

Results

Film and Pocket Meter Readings:

Radiation exposures for 18 weeks of tower operation are summarized in Table 1. Figures are average per week.

TABLE I

Period	9/18 to 10/29	10/30 to 12/10	12/11 to 1/21
Film Exposure			
B, mreps	136	63	35
γ, mr	223	244	255
(B & γ), mreps	359	307	290
P.M. Exposure			
γ, mr	234	244	244
Badges processed	4.85	7.06	1.85
No. over MPD *	3	1	1
% over MPD	62	52	52

*M.P.D. (maximum permissible dose) = 300 mreps total radiation/wk.

UNCLASSIFIED
W. J. Lemmon wjk
Critique Jeno 2/22/54
Date
Chief Office

W. B. Harris

February [illegible]

Table II gives exposure data for the 18 week period of all protege[illegible]

TABLE II

Name	Average Weekly Exposure (B + G) mrepm	Badge Weeks	No. over 1 rem 1953	No. over 1 rem 1954
[illegible]	280	17	9	13
[illegible]	251	17	6	15
[illegible]	262	16	6	[illegible]
[illegible]	394	18	12	[illegible]
[illegible]	371	16	8	[illegible]
[illegible] (term. 12/4)	310	18	7	[illegible]
[illegible] (start 10/7)	274	12	4	[illegible]
[illegible] (start 10/[illegible])	381	9	7	[illegible]
[illegible]	371	8	6	15

[illegible] distribution of work for 18 weeks.

TABLE III

	1st 6 weeks	next 12 weeks
[illegible]	2000	5790
[illegible]	333	471
[illegible]	5.5	7.9
[illegible]	64.5	68.5

[illegible]lts of dust samples collected at the tower.

TABLE IV

	No. of Samples	Results - d/m/m³ High	Low	Avg
[illegible]ers from drum	5	715	25	339
[illegible] 1-65 from [illegible]	1			5860
[illegible] from pan to [illegible]	1			135
[illegible]	6	2115	210	1017
[illegible]	3	520	470	502
[illegible]	2	55	35	45
[illegible] shaft	1			325
[illegible]	1			120

[illegible] = 2[illegible] d/m/m³

OPTIONAL FORM NO. 10

UNITED STATES GOVERNMENT

Memorandum

TO : A. J. Breslin, Chief
Field Services Branch

DATE: February 1, 1960

FROM : Harold Glasberman
Field Services Branch

SUBJECT: LAKE ONTARIO ORDNANCE WORKS - REPAIR OF K-65 SILO

SYMBOL: HSF:HG

On November 23 - 24, 1959 I visited the Lake Ontario Ordnance Works to monitor the repair of the K-65 silo by W. E. Caldwell Co., for African Metals Corporation.

Preliminary radiation measurements, made with a RM type meter, around the base of the silo and up to 90 feet, at a number of locations, indicated contact intensities from 5 to 10 mr/hr.

Pocket dosimeters and film badges were issued to all personnel assigned to the project to ascertain their exposures. Dosimeter readings were recorded daily so as to prevent excessive exposures, while the film badges were processed at the completion of the silo repair.

All exposures were within permissible limits. The maximum cumulative exposure was 520 mr by film badge measurements and 455 mr by dosimeter measurement. The attached table lists the employees and their respective film badge and dosimeter readings for the period of November 23 to December 21, 1959.

Attachment

cc: D. Neil, EC

UNCLASSIFIED
W. J. Lemmon WJL
Critique JORO 2/27/04
Date
Class office

PERSONNEL FILM BADGE AND [illegible]

Name of Employee	Badge Number	Period Worn	Film Dosage [illegible]	[illegible]	[illegible]	[illegible]
James Whobrey	225	1	[illegible]	[illegible]	[illegible]	[illegible]
Donald Doyle	251	1	16	[illegible]	[illegible]	[illegible]
James Hinton	132	1	50	[illegible]	135	146
Raymond Ritter	385	2	[illegible]	[illegible]	[illegible]	[illegible]
John Gabrielson	369	1 1/4	[illegible]	166	[illegible]	[illegible]
Friedhelm Bleimann	364	1	30	170	[illegible]	[illegible]
Richard Owens	253	1	40	50	150	154
Paul Ivkovich*	361	1 day	75	105	180	56
Bill Crissman	361	1				116

*Film badge worn 1 day - remainder of time by B. Crissman

PERSONNEL FILM BADGE AND DOSIMETER MEASUREMENTS

Name of Employee	Badge Number	Duration of Exposure Weeks	Film Badge Exposure-mrad Beta	Gamma	Total	Dosimeter Reading Total - mr
James Whobrey	225	4	80	280	360	407
Ronald Doyle	251	4	40	480	520	695
James Hinton	132	1	50	85	135	166
Raymond Ritter	385	2	60	300	360	450
John Gabrielson	369	1 1/2	25	165	190	235
Friedhelm Bleimann	344	1	30	170	200	270
Richard Owens	253	1	60	90	150	154
Paul Ivkovich*	361	1 day	75	105	180	56
Bill Crissman	361	1				118

*Film badge worn 1 day - remainder of time by B. Crissman