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ChemRisk/Shonka Research Associates, Inc., Document Request Form

(This section to be completed by subcontractor requesting document)

Jack Buddenbaum / K-25 Site Records
Requestor / Document Center (is requested to provide the following document)

Date of request 3/22/95 Expected receipt of document 4/7/95

Document number _____ Date of document 1955-1957

Title and author (if document is unnumbered)
K-1420 Air Analyses (1955-1957) &

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Date request received 3/27/95

Date submitted to ADC 4/3/95

Date submitted to HSA Coordinator 3/27/95

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Date submitted to CICO 4/3/95 6/5/95

Date received from CICO 5/9/95 7/10/95

Date submitted to ChemRisk/Shonka and DOE 7/11/95

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Sanitized Version of Folder of
K-1420 AIR ANALYSES 1953-1957

Compiled by

S. G. Thornton
Environmental Management Division
OAK RIDGE K-25 SITE
for the Health Studies Agreement

July 1995

Oak Ridge K-25 Site
Oak Ridge, Tennessee 37831-7301
managed by
LOCKHEED MARTIN ENERGY SYSTEMS, INC.
for the U.S. DEPARTMENT OF ENERGY
under Contract DE-AC05-84OR21400

This document has been approved for release to the public by:
Irwin S. Zuist 7/10/95
Technical Information Officer Date
Oak Ridge K-25 Site

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER [illegible]
Routine [illegible]
Special
Requested by
Date 1-[illegible]-58

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
[illegible]-11.20	1-27-57	A Area Small parts room	11[illegible]0 - 1130	Uranium Hydrogen Fluoride	0.01mg/m3 0.1 ppm	No one in area.
			1130 - 1200		[illegible].02mg/m3 0.1 ppm	"
			12[illegible] - 1230		[illegible].03mg/m3 0.1 ppm	"
		E Area Oxide Conversion Room West end of line B	1100 - 1130		[illegible].01mg/m3 [illegible].1 ppm	Units not in operation.
			113[illegible] - 12[illegible]0		[illegible].01mg/m3 [illegible].2 ppm	" "
			12[illegible] - 1230		0.01mg/m3 [illegible].1 ppm	" "
		B Area West of calciner platform	11[illegible] - 1130		0.01mg/m3 [illegible].2 ppm	Three calciners in operation.
			113[illegible] - 12[illegible]0		[illegible].01mg/m3 0.1 ppm	" "
			120[illegible] - 123[illegible]		0.01 mg/m3 0.2 ppm	" "

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 4 Page 2
Routine X
Special
Requested by
Date 1-16-58

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1132	12-27-57	C Area By partial disassembly platform	1100 - 1130	Uranium Hydrogen Fluoride	0.01mg/m3 0.1 ppm	Operator in area wearing respirator.
			1130 - 1200		.01mg/m3 .1 ppm	" "
			1200 - 1230		0.01mg/m3 0.4 ppm	" "
		By cutting stand	1100 - 1130		0.02mg/m3 0.3 ppm	Welder in area wearing respirator.
			1130 - 1200		.2mg/m3 0.1 ppm	" "
			1200 - 1230		.0mg/m3 0.6 ppm	" "
		By converter disassembly stand	1100 - 1130		.09 g/m3 0.1 ppm	
			1130 - 1200		0.14mg/m3 0.2 ppm	
			1200 - 1230		.01mg/m3 .1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 4 Page 3
Routine X
Special
Requested by
Date 1-18-5[illegible]

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1[illegible]	1-7-5[illegible]	A Area Small parts booth by hood	133[illegible] - 14[illegible]	Uranium Hydrogen Fluoride	0.01mg/m3 0.1 ppm	Two men wearing respirators in booth.
			14[illegible] - 143[illegible]		[illegible].01mg/m3 0.1 ppm	" "
			1430 - 1500		0.11mg/m3 0.3 ppm	" "
		K Area Oxide Conversion Room West end of line B	13[illegible] - 14[illegible]		[illegible].01mg/m3 0.1 ppm	Conversion units not in operation.
			14[illegible] - 1430		[illegible].01mg/m3 0.2 ppm	" "
			1430 - 1500		0.01mg/m3 0.1 ppm	" "
		H Area West of calciner platform	133[illegible] - 14[illegible]		0.01mg/m3 0.2 ppm	Two calciners in operation.
			14[illegible] - 1430		0.01mg/m3 0.1 ppm	" "
			1430 - 1500		0.01mg/m3 0.1 ppm	" "

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 4 Page 4
Routine X
Special
Requested by
Date 1-16-58

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-7-58	C Area Northeast corner of floor pan	1330 - 1400	Uranium Hydrogen Fluoride	0.01mg/m3 0.1 ppm	
			1400 - 1430		0.01mg/m3 0.1 ppm	
			1430 - 1500		0.02mg/m3 0.2 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 397
Routine X
Special
Requested by
Date 12-24-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
[illegible]	12-9-57	B Area West end of Calciner Platform	1210 - 1240	Uranium Hydrogen Fluoride	0.01mg/m3 <0.1ppm	Three calciners in operation.
			1240 - 1310		0.01mg/m3 <0.1ppm	" "
			1310 - 1340		0.01mg/m3 <0.1ppm	" "
		E Area West end of Oxide Conversion Unit	1210 - 1240		<0.01mg/m3 <0.1ppm	Units not in operation
			1240 - 1310		0.01mg/m3 0.1ppm	" "
			1310 - 1340		<0.01mg/m3 <0.1ppm	" "
		A Area Small Parts Booth	1210 - 1240		0.14mg/m3 0.5ppm	Operator in area wearing respiratory protective equipment.
			1240 - 1310		0.52mg/m3 1.2ppm	" "
			1310 - 1340		0.[illegible]mg/m3 0.3ppm	" "

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 397 Page 2
Routine X
Special
Requested by
Date 12-24-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
-1620	12-9-57	C Area: Partial disassembly area	1220 - 1250	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Operator in area wearing respiratory protective equipment.
			1250 - 1320		0.01mg/m^3 0.0 ppm	
			1320 - 1350		0.01mg/m^3 0.1 ppm	
		At Cutting Stand	1220 - 1250		0.01mg/m^3 0.1 ppm	By welder wearing respiratory protective equipment.
			1250 - 1320		0.01mg/m^3 0.1 ppm	
			1320 - 1350		0.01mg/m^3 0.1 ppm	
		Northwest Corner of Compressor Pit	1220 - 1250		0.01mg/m^3 0.1 ppm	
			1250 - 1320		0.01mg/m^3 0.1 ppm	
			1320 - 1350		0.01mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 380
Routine X
Special
Requested by
Date 12-13-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-3-57	A Area Small parts booth	1230 - 1300	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Operator in area wearing respiratory protective equipment.
			1300 - 1330		<0.01mg/m^3 0.1 ppm	" "
			1330 - 1400		0.27mg/m^3 0.3 ppm	" "
		Z Area West end of oxide conversion units A, B, & C	1230 - 1300		<0.01mg/m^3 <0.1 ppm	Units not in operation.
			1300 - 1330		<0.01mg/m^3 <0.1 ppm	" "
			1330 - 1400		<0.01mg/m^3 0.1 ppm	" "
		B Area West end of calciner platform	1230 - 1300		0.01mg/m^3 <0.1 ppm	
			1300 - 1330		<0.01mg/m^3 < 0.1 ppm	
			1330 - 1400		<0.01mg/m^3 0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 380 Page 2
Routine X
Special
Requested by
Date 12-13-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-3-57	C Area By partial disassembly platform	1245 - 1315	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	
			1315 - 1345		< 0.01mg/m^3 0.1 ppm	
			1345 - 1415		0.01mg/m^3 0.2 ppm	
		By cutting stand	1245 - 1315		< 0.01mg/m^3 < 0.1 ppm	Welders in area not wearing respiratory protective equipment.
			1315 - 1345		< 0.01mg/m^3 < 0.1 ppm	" "
			1345 - 1415		< 0.01mg/m^3 0.1 ppm	" "
		By corner of compressor pit	1245 - 1315		0.01mg/m^3 0.1 ppm	
			1315 - 1345		< 0.01mg/m^3 0.1 ppm	
			1345 - 1415		< 0.01mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 384
Routine X
Special
Requested by
Date 12-16-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-26-57	"C" Area Northeast corner of floor pan	1400 - 1430	Uranium Hydrogen Fluoride	0.01mg/m³ 0.1 ppm	Operators, cleaning equipment without respirators.
			1430 - 1500		< 0.01mg/m³ 0.1 ppm	
			1500 - 1530		0.02mg/m³ 0.1 ppm	
		South side of deferrulin booth.				

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 379
Routine X
Special
Requested by
Date 12-11-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-26-57	A Area Small parts disassembly booth	1400 - 1430	Uranium Hydrogen Fluoride	0.04mg/m^3 0.3 ppm	Operator wearing respirator in booth.
			1430 - 1500		0.01mg/m^3 0.1 ppm	" "
			1500 - 1530		0.01mg/m^3 0.1 ppm	" "
		E Area Oxide conversion room west end of Line E	1400 - 1430		0.10mg/m^3 0.1 ppm	Oxide conversion units operating.
			1430 - 1500		0.01mg/m^3 0.3 ppm	" "
			1500 - 1530		0.01mg/m^3 0.2 ppm	" "
		B Area West end of calciner platform	1400 - 1430		0.01mg/m^3 0.1 ppm	
			1430 - 1500		0.01mg/m^3 0.1 ppm	
			1500 - 1530		0.01mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 379 2
Routine X
Special
Requested by
Date 12-11-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-26-57	C Area By partial disassembly platform	1400 - 1430	Uranium Hydrogen Fluoride	<0.01mg/m^3 0.1 ppm	No one in area.
			1430 - 1500		<0.01mg/m^3 0.1 ppm	" "
			1500 - 1530		<0.01mg/m^3 0.1 ppm	" "
		By cutting stand	1400 - 1430		<0.01mg/m^3 0.1 ppm	
			1430 - 1500		<0.01mg/m^3 0.1 ppm	
			1500 - 1530		<0.01mg/m^3 0.1 ppm	
		By converter disassembly stand	1400 - 1430		<0.01mg/m^3 0.1 ppm	
			1430 - 1500		<0.01mg/m^3 0.1 ppm	
			1500 - 1530		<0.01mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 363
Routine X
Special
Requested by
Date 12-2-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-20-57	C Area By partial disassembly platform	1000 - 1030	Uranium Hydrogen Fluoride	0.02mg/m3 < 0.1 ppm	
			1030 - 1100		0.01mg/m3 0.1 ppm	
			1100 - 1130		0.01mg/m3 0.1 ppm	
		By cutting stand	1000 - 1030		0.08mg/m3 0.1 ppm	By welder.
			1030 - 1100		0.01mg/m3 0.1 ppm	
			1100 - 1130		0.11mg/m3 0.1 ppm	
		SE corner By converter disassembly stand	1000 - 1030		1.88mg/m3 0.7 ppm	Operator wearing respirator disassembling converter.
			1030 - 1100		0.29mg/m3 0.1 ppm	
			1100 - 1130		0.11mg/m3 0.2 ppm	
		NE corner By floor pan	1000 - 1030		0.11mg/m3 0.1 ppm	Two operators wearing respirators steaming and brushing equipment.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 363 Page 2
Routine X
Special
Requested by
Date 12-2-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-20-57	C Area NE Corner By floor pan	1030 - 1100	Uranium Hydrogen Fluoride	0.11mg/m^3 0.2 ppm	
			1100 - 1130		0.02mg/m^3 0.1 ppm	
		A Area By north Vapor Blaster	1000 - 1030		0.01mg/m^3 0.1 ppm	
			1030 - 1100		0.01mg/m^3 0.1 ppm	
			1100 - 1130		0.01mg/m^3 0.1 ppm	
		Small parts booth By hood in NE corner	1000 - 1030		0.02mg/m^3 0.1 ppm	Operator wearing respirator in small parts booth.
			1030 - 1100		0.15mg/m^3 0.2 ppm	
			1100 - 1130		0.02mg/m^3 0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 363 Page 3
Routine X
Special
Requested by
Date 12-2-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-20-57	K Area Oxide Conversion Room West end of line B	1000 - 1030	Uranium Hydrogen Fluoride	0.02mg/m^3 0.1 ppm	Two oxide conversion units operating. Maintenance work being done on one oxide conversion unit.
			1030 - 1100		0.01mg/m^3 0.1 ppm	
			1100 - 1130		0.01mg/m^3 0.1 ppm	
		B Area West of calciner platform	1000 - 1030		0.01mg/m^3 0.1 ppm	Three calciners in operation. No drum dryers operating.
			1030 - 1100		0.02mg/m^3 0.1 ppm	
			1100 - 1130		0.02mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 357
Routine X
Special
Requested by
Date 11-27-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-14-57	SE of Column D10 by A Stator Stand	1445 - 1515	Uranium Hydrogen Fluoride	0.02mg/m^3 0.2 ppm	
			1515 - 1545		0.01mg/m^3 0.2 ppm	
			1545 - 1615		<0.01mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 352
Routine I
Special
Requested by
Date 11-21-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-14-57	A Area Small parts booth	1020 - 1050	Uranium Hydrogen Fluoride	<0.01mg/m^3 <0.1 ppm	By hood. Operator wearing respirator in booth.
			1050 - 1120		<0.01mg/m^3 0.4 ppm	" "
			1120 - 1150		<0.01mg/m^3 0.2 ppm	" "
		B Area Oxide conversion room West end of conversion Unit A	1020 - 1050		0.01mg/m^3 0.1 ppm	All oxide conversion units operating.
		Unit B	1050 - 1120		0.02mg/m^3 0.1 ppm	" "
		Unit C	1120 - 1150		0.01mg/m^3 0.1 ppm	" "
		B Area West of calciner platform	1020 - 1050		<0.01mg/m^3 0.1 ppm	All calciners operating.
			1050 - 1120		<0.01mg/m^3 <0.1 ppm	" "
			1120 - 1150		<0.01mg/m^3 <0.1 ppm	" "

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AIR SAMPLING REPORT

NUMBER 352 Page 2
Routine X
Special
Requested by
Date 11-21-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-14-57	C Area By partial disassembly platform	1020 - 1050	Uranium Hydrogen Fluoride	<0.01mg/m³ 0.2 ppm	
			1050 - 1120		<0.01mg/m³ 0.1 ppm	
			1120 - 1150		<0.01mg/m³ 0.1 ppm	
		NE corner of floor pan	1020 - 1050		0.01mg/m³ 0.2 ppm	Operators without respirators cleaning equipment.
			1050 - 1120		0.01mg/m³ 0.2 ppm	" "
			1120 - 1150		0.01mg/m³ 0.3 ppm	
		By cutting stand	1445 - 1515		<0.01mg/m³ <0.1 ppm	
			1515 - 1545		<0.01mg/m³ 0.1 ppm	Welder in area wearing respirator.
			1545 - 1615		<0.01mg/m³ <0.1 ppm	
		By disassembly stand	1445 - 1515		<0.01mg/m³ 0.1 ppm	
			1515 - 1545		0.01mg/m³ 0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 352 Page 3
Routine X
Special
Requested by
Date 11-21-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-14-57	C Area By disassembly stand	1545 - 1615	Uranium Hydrogen Fluoride	<0.01mg/m^3 0.1 ppm	
		NW corner of compressor pit	1445 - 1515		0.01mg/m^3 0.1ppm	
			1515 - 1545		0.01mg/m^3 0.1 ppm	
			1545 - 1615		0.01mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 328
Routine X
Special
Requested by
Date 11-12-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-30-57	A Area Small parts disassembling booth, by hood	1300 - 1330	Uranium Hydrogen Fluoride	0.19mg/m3 0.2 ppm	Operator wearing respirator.
			1330 - 1400		0.58mg/m3 0.8 ppm	" "
			1400 - 1430		0.13mg/m3 0.2 ppm	" "
		E Area North oxide blending room, by hood	1303 - 1333		0.01mg/m3 0.1 ppm	Cylinder on blender.
			1333 - 1403		0.01mg/m3 0.1 ppm	" "
			1403 - 1433		0.01mg/m3 0.1 ppm	" "
		B Area West end of calciner platform	1305 - 1335		0.02mg/m3 0.1 ppm	Two drum dryers running.
			1335 - 1405		<0.01mg/m3 0.1 ppm	" "
			1405 - 1435		0.01mg/m3 0.1 ppm	" "

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AIR SAMPLING REPORT

NUMBER 328 Page 2
Routine X
Special
Requested by
Date 11-12-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-30-57	C Area Partial disassembly stand	1310 - 1340	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	No one in area.
			1340 - 1410		0.01mg/m^3 0.1 ppm	" "
			1410 - 1440		0.01mg/m^3 0.1 ppm	" "
		By cutting stand	1310 - 1340		0.01mg/m^3 0.1 ppm	Welder cutting open converters, not wearing respirator.
			1340 - 1410		0.04mg/m^3 0.4 ppm	Fan blowing on welder from west.
			1410 - 1440		0.15mg/m^3 0.4 ppm	Fan off.
		West side of floor pan	1310 - 1340		0.01mg/m^3 0.1 ppm	Operator steam cleaning equipment; not wearing respirator.
			1340 - 1410		0.02mg/m^3 0.1 ppm	" "
			1410 - 1440		0.03mg/m^3 0.1 ppm	" "

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 328 Page 3
Routine X
Special
Requested by
Date 11-12-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-30-57	C Area By compressor pit	1310 - 1340	Uranium Hydrogen Fluoride	0.01mg/m3 0.2 ppm	Ten ft. south of column D8. By operators wearing respirators, disassembling compressors.
			1340 - 1410		0.03mg/m3 0.2 ppm	" "
			1410 - 1440		0.03mg/m3 0.2 ppm	" "
		By converter disassembly stand	1445 - 1515		0.05mg/m3 0.2 ppm	Operator wearing respirator disassembling converter.
			1515 - 1545		0.01mg/m3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 326
Routine X
Special
Requested by
Date 11-11-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-23-57	West of calciner platform	1305 - 1335	Uranium	0.01mg/m³	Two calciners in operation.
			1335 - 1405		0.01mg/m³	" "
			1405 - 1435		0.01mg/m³	" "
		G Area Partial disassembly area	1310 - 1340	Uranium Hydrogen Fluoride	0.05mg/m³ 0.3 ppm	Operator wearing respirator disassembling converter.
			1340 - 1410		0.05mg/m³ 0.3 ppm	" "
			1410 - 1440		0.01mg/m³ 0.1 ppm	No one in area.
		At cutting stand	1310 - 1340		0.03mg/m³ 0.7 ppm	By welder without respirator cutting heads from converter.
			1340 - 1410		0.02mg/m³ 0.3 ppm	" "
			1410 - 1440		0.03mg/m³ 0.4 ppm	" "
		Converter disassembly stand	1310 - 1340		0.01mg/m³ 0.2 ppm	Operator wearing respirator disassembling converter.
			1340 - 1410		0.01mg/m³ 0.1 ppm	" "
			1410 - 1440		0.02mg/m³ 0.1 ppm	No one at stand.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 326 Page 2
Routine X
Special
Requested by
Date 11-11-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-23-57	C Area NE corner of floor pan	1310 - 1340	Uranium Hydrogen Fluoride	0.01mg/m^3 0.3 ppm	No one at floor pan.
			1340 - 1410		0.01mg/m^3 0.2 ppm	" "
			1410 - 1440		0.01mg/m^3 0.1 ppm	
		North side of deferraling booth	1445 - 1450			

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 307
Routine X
Special
Requested by
Date 10-22-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-16-57	B Area West of calciner platform	1330 - 1400	Uranium Hydrogen Fluoride	< 0.01mg/m³ 0.1 ppm	Two drum dryers running.
			1400 - 1430		< 0.01mg/m³ 0.1 ppm	" "
			1430 - 1500		0.01mg/m³ 0.1 ppm	" "
		C Area Partial disassembly platform	1345 - 1415		0.01mg/m³ 0.1 ppm	No one in area.
			1415 - 1445		0.03mg/m³ 0.1 ppm	" "
			1445 - 1515		0.11mg/m³ 0.4 ppm	Operators wearing respirators.
		Converter disassembly platform	1345 - 1415		0.34mg/m³ 0.5 ppm	Two operators wearing respirators, disassembling converter.
			1415 - 1445		0.47mg/m³ 0.4 ppm	" "
			1445 - 1515		0.03mg/m³ 0.2 ppm	No one in area.
		Cutting stand	1345 - 1415		0.03mg/m³ 0.3 ppm	Welder cutting open converters without respirator.

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AIR SAMPLING REPORT

NUMBER 307 Page 2
Routine I
Special
Requested by
Date 10-22-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-16-57	G Area Cutting stand	1415 - 1445	Uranium Hydrogen Fluoride	0.02mg/m³ 0.2 ppm	Welder cutting open converters without respirator.
			1445 - 1515		0.03mg/m³ 0.3 ppm	" "
		NE corner of compressor pit	1345 - 1415		<0.01mg/m³ 0.1 ppm	Welders working on compressor about 10' SW of sample.
			1415 - 1445		0.01mg/m³ <0.1 ppm	
			1445 - 1515		0.01mg/m³ <0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 305
Routine X
Special
Requested by
Date 10-22-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-14-57	Area C East end of deferruling booth	1320 - 1350			
			1350 - 1420			
			1420 - 1450			
		By drum loader	1320 - 1350			
			1350 - 1420			
			1420 - 1450			

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 293
Routine X
Special
Requested by
Date 10-21-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-8-57	B Area Platform by acid tank	1510	Nitrogen Dioxide	15.3ppm	Seal blow-out on pump; repaired just prior to sample time. Odor of nitrogen dioxide.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 290
Routine X
Special
Requested by
Date 10-21-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-3-57	C Area NE corner of floor pan	1345 - 1415	Uranium Hydrogen Fluoride	0.06mg/m³ 0.1 ppm	Operator wearing respirator, steam cleaning equipment.
			1415 - 1445		0.05mg/m³ 0.1 ppm	" "
			1445 - 1515		0.09mg/m³ 0.1 ppm	" "
		Partial disassembling platform	1345 - 1415		<0.01mg/m³ <0.1 ppm	No one in area.
			1415 - 1445		<0.01mg/m³ <0.1 ppm	Operators wearing respirators.
			1445 - 1515		0.01mg/m³ <0.1 ppm	
		Converter disassembling stand	1345 - 1415		1.68mg/m³ 0.8 ppm	Operators wearing respirators removing bolts from converter with wrenches.
			1415 - 1445		0.01mg/m³ <0.1 ppm	Removed part of converter to dolly. No one in area.
			1445 - 1515		<0.01mg/m³ <0.1 ppm	
		By cutting stand	1350 - 1420		0.05mg/m³ 0.1 ppm	Welder wearing respirator.
			1420 - 1450		0.02mg/m³ <0.1 ppm	" "

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AIR SAMPLING REPORT

NUMBER 290 Page 2
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Special
Requested by
Date 10-21-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-3-57	C Area By cutting stand	1450 - 1520	Uranium Hydrogen Fluoride	<0.01mg/m³ <0.1 ppm	No one at stand.
		NW corner of compressor pit	1350 - 1420		0.01mg/m³ <0.1 ppm	Removed part of compressor from pit.
			1420 - 1450		<0.01mg/m³ <0.1 ppm	Operator without respirator working on equipment in pit. No one in pit.
			1450 - 1520		<0.01mg/m³ <0.1 ppm	
		South side of deferruling booth.				
		By "A" stator stand	1400 - 1430	Uranium Hydrogen Fluoride	<0.01mg/m³ <0.1 ppm	Operator without respirator disassembling equipment.
			1430 - 1500		<0.01mg/m³ <0.1 ppm	
			1500 - 1530		<0.01mg/m³ <0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 289
Routine X
Special
Requested by
Date 10-4-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-26-57	C Area By operator at deferruling booth				
		NE corner of floor pan	1400 - 1430	Uranium	0.01mg/m^3	Operator without respirator steam cleaning equipment.
			1430 - 1500		0.01mg/m^3	
			1500 - 1530		0.01mg/m^3	
		Partial disassembly area, 30' west of spray booth	1400 - 1430	Uranium Hydrogen Fluoride	0.02mg/m^3 0.1 ppm	Operators wearing respirators disassembling converter.
			1430 - 1500		0.02mg/m^3 0.1 ppm	" "
			1500 - 1530		0.03mg/m^3 0.1 ppm	

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NUMBER 289 Page 2
Routine X
Special
Requested by
Date 10-4-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-26-57	C Area Converter disassembly stand	1400 - 1430	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Operator wearing respirator disassembling converters.
			1430 - 1500		0.01mg/m^3 0.1 ppm	Vent hose attached to converter.
			1500 - 1530		0.01mg/m^3 0.1 ppm	" "
		By cutting stand	1400 - 1430		0.01mg/m^3 0.1 ppm	By welder wearing respirator cutting open converters.
			1430 - 1500		0.01mg/m^3 0.1 ppm	
			1500 - 1530		0.01mg/m^3 0.1 ppm	
		By south door of acid spray booth	1330 - - 1420	Nitrogen Dioxide	3.8ppm 5.2ppm	
		A Area Small parts disassembly booth	1400 - 1430	Uranium Hydrogen Fluoride	0.01mg/m^3 0.3 ppm	Operator wearing respirator.
			1430 - 1500		0.08mg/m^3 0.1 ppm	" "
			1500 - 1530		0.09mg/m^3 0.2 ppm	" "

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 267
Routine X
Special
Requested by
Date 9-19-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-12-57	C Area By cutting stand	1350 - 1420	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Welder wearing respirator cutting open converter.
			1420 - 1450		0.01mg/m^3 0.1 ppm	No cutting during this sample.
			1450 - 1520		0.01mg/m^3 0.1 ppm	
		Partial disassembling platform	1430 - 1500		0.02mg/m^3 0.2 ppm	By operator wearing respirator using electric wrenches to remove bolts.
			1500 - 1530		0.8mg/m^3 0.1 ppm	One man behind operator without respirator.
			1530 - 1600		0.01mg/m^3 0.1 ppm	No one at platform from 1530 - 1600.
		B Area West side of calciner platform	1345 - 1415		0.01mg/m^3 0.1 ppm	One calciner operating.
			1415 - 1445		0.01mg/m^3 0.1 ppm	" "
			1445 - 1515		0.01mg/m^3 0.1 ppm	" "

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 256
Routine X
Special
Requested by
Date 9-16-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-29-57	B Area West end of calciner platform	1015 - 1045	Uranium	0.01mg/m^3	One calciner running.
			1045 - 1115		0.01mg/m^3	" "
			1115 - 1145		0.01mg/m^3	" "
		A Area North side of vapor blaster	1045 - 1115		0.01mg/m^3	No one at blaster.
			1115 - 1145		0.01mg/m^3	
			1145 - 1215		0.02mg/m^3	Vapor blaster operating.
		C Area NE corner of floor pan	1030 - 1100	Uranium Hydrogen Fluoride	0.05mg/m^3 0.1 ppm	Two operators without respirators steam cleaning equipment.
			1100 - 1130		0.01mg/m^3 0.4 ppm	" "
			1130 - 1200		0.27mg/m^3 0.3 ppm	" "
		Motor, end plate & split stand	1030 - 1100		0.02mg/m^3 0.3 ppm	Two operators without respirators heating compressor part, for removal.
			1100 - 1130		0.01mg/m^3 0.1 ppm	
			1130 - 1200		0.26mg/m^3 0.1 ppm	

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Routine X
Special
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Date 9-16-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-29-57	C Area Cutting stand	1035 - 1105	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	No operation.
			1105 - 1135		0.01mg/m^3 0.1 ppm	Operator wearing respirator.
			1135 - 1205		0.01mg/m^3 0.2 ppm	
		NW corner of compressor pit	1015 - 1045		0.01mg/m^3 0.2 ppm	Operator removing seals from compressor 10 ft. west of sample.
			1045 - 1115		0.01mg/m^3 0.1 ppm	" "
			1115 - 1145		0.01mg/m^3 0.1 ppm	" "

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 255
Routine X
Special
Requested by
Date 9-16-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1421	8-23-57	Just inside door	0925 - 0955	Uranium Hydrogen Fluoride	0.12mg/m^3 0.3 ppm	One operator wearing cartridge type respirator, burning contaminated oil and other material.
			0955 - 1025		0.22mg/m^3 0.5 ppm	
			1025 - 1055		0.07mg/m^3 0.3 ppm	
	8-29-57		1015 - 1045		0.01mg/m^3 0.1 ppm	Burning contaminated oil & solid burnables.
			1045 - 1115		0.01mg/m^3 0.2 ppm	" "
			1115 - 1145		<0.01mg/m^3 <0.1 ppm	" "

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 252
Routine X
Special
Requested by
Date 9-16-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-23-57	A Area By hood, small parts booth	0920 - 0950	Uranium Hydrogen Fluoride	0.02mg/m^3 0.2 ppm	Two men wearing respirators disassembling equipment.
			0950 - 1020		0.01mg/m^3 0.2 ppm	
			1020 - 1050		0.02mg/m^3 0.3 ppm	
		C Area Partial disassembly area, 30 ft. west of spray booth.	0930 - 1000		<0.01mg/m^3 0.2 ppm	Two operators wearing respirators disassembling converters.
			1000 - 1030		0.13mg/m^3 0.3 ppm	" "
			1030 - 1100		0.02mg/m^3 0.2 ppm	" "
		Converter disassembly platform	0930 - 1000		<0.01mg/m^3 0.2 ppm	Operator wearing respirator working on converter, using exhaust line on one end of converter.
			1000 - 1030		0.01mg/m^3 0.2 ppm	
			1030 - 1100		0.01mg/m^3 0.2 ppm	

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AIR SAMPLING REPORT

NUMBER 252 Page 2
Routine X
Special
Requested by
Date 9-16-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-23-57	C Area Cutting platform	0930 - 1000	Uranium Hydrogen Fluoride	<0.01mg/m^3 0.3 ppm	Welder without respirator cutting open converters.
			1000 - 1030		0.01mg/m^3 0.6 ppm	
			1030 - 1100		0.02mg/m^3 0.3 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 235
Routine X
Special
Requested by
Date 8-26-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1421	8-16-57	South side	0920 - 0950	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1 ppm	Operator burning contaminated oil.
			0950 - 1020		<0.01mg/m3 <0.1 ppm	" "
			1020 - 1050		0.01mg/m3 <0.1 ppm	" "

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WCX-2512 (9-55) K-25 RC Medical Department

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 243
Routine X
Special
Requested by
Date 9-3-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-16-57	C Area South of deferruling booth				
		SE of detubing platform				
		NE of floor pan	0925 - 0955	Uranium Hydrogen Fluoride	0.01mg/m³ 0.1 ppm	Operators with respirators steaming and brushing equipment.
			0955 - 1025		<0.01mg/m³ 0.1 ppm	" "
			1025 - 1055		0.01mg/m³ 0.2 ppm	" "

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NUMBER 243 Page 2
Routine X
Special
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Date 9-3-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-23-57	C Area South of deferruling booth	0930 - 1000	Uranium	< 0.01mg/m3	No operation.
			1000 - 1030		< 0.01mg/m3	" "
			1030 - 1100		< 0.01mg/m3	" "
		SE of detubing platform				
		NE of floor pan	0930 - 1000	Uranium Hydrogen Fluoride	< 0.01mg/m3 0.1 ppm	Operators wearing respirators, steam cleaning equipment.
			1000 - 1030		0.01mg/m3 0.2 ppm	
			1030 - 1100		< 0.01mg/m3 0.1 ppm	

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WCX-2512 (9-55) K-25 RC Medical Department

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 233
Routine X
Special
Requested by
Date 8-26-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-16-57	A Area Small parts booth	0915 - 0945	Uranium Hydrogen Fluoride	0.15mg/m^3 0.2 ppm	Two operators with respirators.
			0945 - 1015		0.01mg/m^3 0.1 ppm	No one in booth.
			1015 - 1045		0.05mg/m^3 0.2 ppm	One operator with respirator.
		E Area West end of cold trap line A	0920 - 0950		0.01mg/m^3 0.1 ppm	No one in conversion room.
			0950 - 1020		0.01mg/m^3 0.1 ppm	" "
			1020 - 1050		0.01mg/m^3 0.1 ppm	" "

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WCX-2512 (8-55) K-25 RC Medical Department

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NUMBER 236
Routine X
Special
Requested by
Date 8-27-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-16-57	C Area Partial disassembly area	0930 - 1000	Uranium Hydrogen Fluoride	<0.01mg/m³ <0.1 ppm	Operator with respirator disassembling converter.
			1000 - 1030		<0.01mg/m³ <0.1 ppm	" "
			1030 - 1100		0.03mg/m³ 0.1 ppm	
		Converter disassembly platform	0930 - 1000		<0.01mg/m³ <0.1 ppm	Removing head.
			1000 - 1030		<0.01mg/m³ 0.1 ppm	
			1030 - 1100		<0.01mg/m³ 0.1 ppm	
		By cutting stand	0930 - 1000		<0.01mg/m³ <0.1 ppm	
			1000 - 1030		<0.01mg/m³ 0.6 ppm	
			1030 - 1100		<0.01mg/m³ 0.2 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 219
Routine X
Special
Requested by
Date 8-14-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-7-57	A Area In small parts booth	0915 - 0945	Hydrogen Fluoride	0.02ppm	By operator wearing respirator working on seals.
			0945 - 1015		0.04ppm	" "
			1015 - 1045		0.02ppm	
		E Area West end of oxide conversion room	0920 - 0950		0.02ppm	No units operating.
			0950 - 1020		0.00ppm	
			1020 - 1050		0.00ppm	
		G Area South side of deferruling booth				
		East side of floor pan	0930 - 1000	Uranium Hydrogen Fluoride	<0.02mg/m^3 0.0 ppm	Operator without respirator cleaning equipment.
			1000 - 1030		<0.02mg/m^3 <0.1 ppm	

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NUMBER 219 Page 2
Routine X
Special
Requested by
Date 8-14-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-7-57	G Area East side of floor pan	1030 - 1100	Uranium Hydrogen Fluoride	0.02mg/m³ 0.1 ppm	
		Partial disassembly area, 30 ft. west of spray booth	0930 - 1000		0.01mg/m³ 0.1 ppm	Two operators with respirators disassembling converters spool.
			1000 - 1030		0.02mg/m³ 0.1 ppm	
			1030 - 1100		0.02mg/m³ 0.0 ppm	
		SW corner of cutting platform	0930 - 1000		0.02mg/m³ 0.1 ppm	Welder wearing respirator cutting open converters.
			1000 - 1030		0.00mg/m³ 0.0 ppm	
			1030 - 1100		0.01mg/m³ 0.1 ppm	
		NW corner of compressor pit	0930 - 1000		0.01mg/m³ 0.1 ppm	One man working in pit.
			1000 - 1030		0.01mg/m³ 0.1 ppm	" "
			1030 - 1100		0.00mg/m³ 0.1 ppm	" "

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 221 X
Routine
Special
Requested by 8-21-57
Date

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	8-2-57	A Area Small parts booth	0900 - 0930	Uranium Hydrogen Fluoride	0.01mg/m³ 0.1 ppm	No one in booth.
			0930 - 1000		0.01mg/m³ 0.1 ppm	" "
			1000 - 1030		0.01mg/m³ 0.1 ppm	" "
		E Area West end of conversion unit line A	0905 - 0935		0.01mg/m³ 0.1 ppm	Conversion units not operating, fluorinating cold tray cylinders.
			0935 - 1005		0.01mg/m³ 0.1 ppm	
			1005 - 1035		0.01mg/m³ 0.1 ppm	Removing cold traps, slight fluorine odor.
		B Area West side of calciner platform	0910 - 0940	Uranium	0.01mg/m³	Operator removed receiving cylinder from Calciner A. Calciner B running.
			0940 - 1010		0.01mg/m³	" "
			1010 - 1040		0.01mg/m³	" "
		G Area Partial disassembly platform	0920 - 0950	Uranium Hydrogen Fluoride	0.01mg/m³ 0.1 ppm	Two operators wearing respirators disassembling converter.

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AIR SAMPLING REPORT

NUMBER 221 Page 2
Routine X
Special
Requested by
Date 8-14-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-2-57	G Area Partial disassembly platform	0950 - 1020	Uranium Hydrogen Fluoride	0.01mg/m³ 0.1 ppm	
			1020 - 1050		0.15mg/m³ 1.0 ppm	Two operators using air wrenches on converter head by sampler.
		By cutting platform	0920 - 0950		<0.01mg/m³ 0.1 ppm	By welder. Fan blowing to east away from welder.
			0950 - 1020		<0.01mg/m³ 0.1 ppm	
			1020 - 1050		<0.01mg/m³ 0.1 ppm	
		Northwest corner of compressor pit	1045 - 1145		<0.01mg/m³ 0.1 ppm	Compressor in pit not being worked on.
		West side of defurnuling booth				

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NUMBER 221 Page 3
Routine I
Special
Requested by
Date 8-14-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
8-1450	8-2-57	8 Area Southeast corner of detubing platform				
			0945 - 1035		<0.01mg/m³ 0.4 mg/m³ <0.1 mg/m³	
			1035 - 1045		<0.01mg/m³ 0.2 mg/m³ 0.1 mg/m³	
		Northeast corner of floor pan	0920 - 0950	Uranium Hydrogen Fluoride	<0.01mg/m³ 0.1 ppm	Operator without respirator steam cleaning and brushing equipment.
			0950 - 1020		<0.01mg/m³ <0.1 ppm	
			1020 - 1050		0.05mg/m³ 0.1 ppm	Cleaning compressor head.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 203 Page 1
Routine X
Special
Requested by
Date 7-31-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-24-57	A Area Small parts booth	1005 - 1035	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Operator wearing respirator.
			1035 - 1105		0.01mg/m^3 0.1 ppm	
			1105 - 1135		0.01mg/m^3 0.1 ppm	
		E Area Conversion room, by cold trap	1007 - 1037		0.01mg/m^3 0.1 ppm	Conversion units not running.
			1037 - 1107		0.01mg/m^3 0.1 ppm	" "
			1107 - 1137		0.01mg/m^3 0.1 ppm	" "
		B Area West side of calciner platform	1007 - 1037		0.01mg/m^3 0.1 ppm	
			1037 - 1107		0.01mg/m^3 0.1 ppm	
			1107 - 1137		0.01mg/m^3 0.1 ppm	
		C Area EE corner of floor pan	1015 - 1045		0.01mg/m^3 0.1 ppm	

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NUMBER 203 Page 2
Routine X
Special
Requested by
Date 7-31-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-24-57	C Area NE corner of floor pan	1045 - 1115	Uranium Hydrogen Fluoride	0.01mg/m3 0.1 ppm	
			1115 - 1145		0.01mg/m3 0.1 ppm	
		NW corner of compressor pit	1015 - 1045		0.01mg/m3 0.1 ppm	Operator using air wrench to remove seals; not wearing respirator.
			1045 - 1115		0.01mg/m3 0.1 ppm	
			1115 - 1145		0.01mg/m3 0.1 ppm	
		Partial disassembly platform	1017 - 1047		0.50mg/m3 0.3 ppm	Operator wearing respirator; disassembling converter.
			1047 - 1117		0.01mg/m3 0.1 ppm	
			1117 - 1147		0.01mg/m3 0.1 ppm	
		By welding platform	1017 - 1047		0.01mg/m3 0.1 ppm	
			1047 - 1117		0.01mg/m3 0.1 ppm	
			1117 - 1147		0.01mg/m3 0.1 ppm	

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NUMBER 202 Page 1
Routine X
Special
Requested by
Date 7-31-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-22-57	E Area Oxide Conversion Room By cold trap, Line A	1715 - 1745	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	No reactors running.
		Line B	1745 - 1815		0.01mg/m^3 0.0 ppm	" "
		Line C	1815 - 1845		0.01mg/m^3 0.1 ppm	" "
		B Area West side of calciner platform	1717 - 1747		0.03mg/m^3 0.1 ppm	Operator wearing respirator; cleaning out No. 3 calciner.
			1747 - 1817		0.02mg/m^3 0.1 ppm	
			1817 - 1847		0.01mg/m^3 0.1 ppm	
		C Area South side of ferrule knock-out booth				

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NUMBER 202 Page 2
Routine X
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Date 7-31-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-22-57	C Area NE corner of floor pan	1730 - 1800	Uranium Hydrogen Fluoride	0.05mg/m³ 0.2 ppm	Two operators wearing respirators; steam cleaning and brushing equipment.
			1800 - 1830		0.01mg/m³ 0.1 ppm	
			1830 - 1900		0.06mg/m³ 0.2 ppm	
		Partial disassembly area, 30 ft. west of spray booth.	1900 - 1930		0.01mg/m³ 0.1 ppm	Two operators wearing respirators; disassembling converter.
		By partial disassembly stand	1732 - 1802		0.01mg/m³ 0.1 ppm	Two operators wearing respirators; working on converter.
			1802 - 1832		0.06mg/m³ 2.6 ppm	
			1832 - 1902		0.03mg/m³ 0.0 ppm	
		By welding platform	1734 - 1804		0.01mg/m³ 0.1 ppm	
			1804 - 1834		0.01mg/m³ 0.1 ppm	Welder wearing respirator; opening converter.
			1834 - 1904		0.02mg/m³ 0.1 ppm	

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Requested by
Date 7-31-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-22-57	G Area NW corner of compressor pit	1736 - 1806	Uranium Hydrogen Fluoride	0.03mg/m³ 0.1 ppm	Compressor in pit not being worked on.
			1806 - 1836		0.03mg/m³ 0.1 ppm	
			1836 - 1906		0.03mg/m³ 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 198 Page 1
Routine X
Special
Requested by
Date 7-30-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-15-57	S Area Oxide conversion room, by cold trap, line A	0910 - 0940	Uranium Hydrogen Fluoride	<0.01mg/m3 0.0 ppm	No conversion units running.
			0940 - 1010		<0.01mg/m3 0.0 ppm	" "
			1010 - 1040		<0.01mg/m3 0.0 ppm	" "
		North oxide blending room, by blender	0912 - 0942		<0.01mg/m3 0.0 ppm	Cylinder on blender.
			0942 - 1012		<0.01mg/m3 0.0 ppm	" "
			1012 - 1042		<0.01mg/m3 0.0 ppm	" "
		B Area West side of calciner platform	0915 - 0945		<0.01mg/m3 0.0 ppm	Two calciners running.
			0945 - 1015		<0.01mg/m3 0.0 ppm	
			1015 - 1045		<0.01mg/m3 0.0 ppm	
		A Area Small parts booth at front of hood	0920 - 0950		0.01mg/m3 0.0 ppm	Two operators with respirators working on equipment.

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AIR SAMPLING REPORT

NUMBER 198 Page 2
Routine X
Special
Requested by
Date 7-30-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-1[illegible]-57	A Area Small parts booth at front of hood	0950 - 1020	Uranium Hydrogen Fluoride	<0.01mg/m3 0.1 ppm	
			1020 - 1050		<0.01mg/m3 0.1 ppm	
		C Area South side of deferruling booth				
		By floor pan	0930 - 1000	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1 ppm	Two operators wearing respirators, steam cleaning equipment.
			1000 - 1030		<0.01mg/m3 0.0 ppm	
			1030 - 1100		<0.01mg/m3 0.0 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 174 Page 1
Routine X
Special
Requested by
Date 7-24-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-10-57	C Area				
		By scrap hopper				
		South end of deferruling booth				
		Stator removal stand	1030 - 1050	Uranium Hydrogen Fluoride	0.01mg/m^3 0.2 ppm	Operators without respirators heating bolts and using air wrench.
		Rotor removal stand	1100 - 1125		0.05mg/m^3 0.1 ppm	Operators wearing respirators disassembling compressor rotor.
		By welding platform	0845 - 0915		<0.01mg/m^3 0.2 ppm	Welder was wearing respirator.
			0915 - 0945		<0.01mg/m^3 0.2 ppm	
			0945 - 1015		<0.01mg/m^3 0.1 ppm	

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NUMBER 175 Page 2
Routine X
Special
Requested by
Date 7-24-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-10-57	C Area NW corner of compressor pit	0847 - 0917	Uranium Hydrogen Fluoride	<0.01mg/m3 0.1 ppm	Operators wearing respirators.
			0917 - 0947		<0.01mg/m3 0.1 ppm	
			0947 - 1017		0.03mg/m3 0.1 ppm	
		NE corner of floor pan	0850 - 0920		0.03mg/m3 0.2 ppm	Operator steam cleaning equipment.
			0920 - 0950		0.19mg/m3 0.3 ppm	Operators using wire brushes.
			0950 - 1020		0.03mg/m3 0.2 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 156
Routine
Special X
Requested by D. I. Stoddard
Date 7-2-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-25-57	F Area By F-18 mixing tank on platform	1300 - 1330	Nitrogen Dioxide	2.3 ppm 2.7 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 172 Page 1
Routine X
Special
Requested by
Date 7-1[illegible]-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-18-57	C Area By south side of welding platform	0930 - 1000	Uranium Hydrogen Fluoride	0.01mg/m3 0.1 ppm	Welder cutting into converters; was wearing respirator.
			1000 - 1030		0.01mg/m3 0.3 ppm	
			1030 - 1100		0.01mg/m3 0.1 ppm	
		By Column G-8	0930 - 1000		0.01mg/m3 0.1 ppm	Exhaust hose over inlet of converter. Employees were wearing respirators.
			1000 - 1030		0.01mg/m3 0.1 ppm	
			1030 - 1100		0.01mg/m3 0.1 ppm	
		NE corner of floor pan	0930 - 1000		0.01mg/m3 0.1 ppm	Operator without respirator cleaning compressor parts.
			1000 - 1030		0.01mg/m3 0.1 ppm	
			1030 - 1100		0.01mg/m3 0.1 ppm	
		South end of deferrulling booth				

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AIR SAMPLING REPORT

NUMBER 172 Page 2
Routine X
Special
Requested by
Date 7-18-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	6-18-57	C Area South end of deferruling booth SE corner of detubing platform				

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 155
Routine I
Special
Requested by
Date 6-21-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-16-57	North side of centrifuge by acid spray booth	1015	Nitrogen Dioxide	23ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 153
Routine
Special X
Requested by A. L. Allen
Date 6-21-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K- 1420	5-16-57	C Area Three ft. from NW corner of stator removal stand	0842 - 0848	Uranium Hydrogen Fluoride	0.01mg/m3 0.1 ppm	
		Three ft. from SE corner of stator removal stand	0842 - 0900		0.01mg/m3 0.1 ppm	
		Three ft. from operator on dismantling stand	0850 - 0930		0.01mg/m3 0.1 ppm	Air wrenches being used; operator wearing respirator, man serving as helper not wearing respirator.
		Eight ft. NW of dismantling stand	0900 - 0930		0.04mg/m3 0.1 ppm	Time 0902; employees heating equipment with torches.
		Between column D9 & D10	1030 - 1045		✓ 0.07mg/m3 0.3 ppm	Operators wearing respirator deblading compressor, observers were not wearing respirators.
		These samples will be repeated.				

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 138
Routine X
Special
Requested by
Date 5-17-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1120	5-13-57	A Area Small parts disassembly booth.	1407 - 1444	Uranium Hydrogen Fluoride	0.01mg/m3 0.2 ppm	Welder without respirator heating pump parts. Two mechanics without respirators.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 132
Routine
Special X
Requested by A. L. Allen
Date 6-4-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-13-57	C Area SE corner of detubing platform				
		SW corner of detubing platform				

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 132
Routine X
Special
Requested by
Date 6-4-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-13-57	C Area By deferruling booth				

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 120 Page 1
Routine X
Special
Requested by
Date 5-20-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-10-57	**K Area** Oxide Conversion Room By cold trap "A"	0900 - 0930	Uranium Hydro en Fluoride	<0.01mg/m3 <0.1 ppm	
			0930 - 1000		0.01mg/m3 <0.1 ppm	
			1000 - 1030		<0.01mg/m3 <0.1 ppm	
		North oxide blending room At front of blender	0905 - 0935		0.02mg/m3 <0.1 ppm	
			0935 - 1005		<0.01mg/m3 <0.1 ppm	
			1005 - 1035		<0.01mg/m3 <0.1 ppm	
		B Area West of calciner platform	0907 - 0937		<0.01mg/m3 <0.1 ppm	
			0937 - 1007		<0.01mg/m3 <0.1 ppm	
			1007 - 1037		<0.01mg/m3 <0.1 ppm	

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NUMBER 120 Page 2
Routine X
Special
Requested by
Date 5-20-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-10-57	C Area By welding platform	0910 - 0940	Uranium Hydrogen Fluoride	<0.01mg/m3 <0.1 ppm	Welder was wearing respirator.
			0940 - 1010		0.01mg/m3 <0.1 ppm	
			1010 - 1040		<0.01mg/m3 <0.1 ppm	
		By Column G-8	0915 - 0945		<0.01mg/m3 <0.1 ppm	
			0945 - 1015		<0.01mg/m3 <0.1 ppm	
			1015 - 1045		0.01mg/m3 0.1 ppm	
		Partial disassembly area	0920 - 0950		0.01mg/m3 <0.1 ppm	
			0950 - 1020		<0.01mg/m3 <0.1 ppm	
			1020 - 1050		<0.01mg/m3 <0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 113
Routine
Special X
Requested by P. Terry
Date 5-13-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-25-57	OPERATIONAL C Area Inside acid spray booth	1308	Nitrogen Dioxide	18ppm	Equipment was sprayed only 3 minutes of sampling period.
			1315		37ppm	Acid being recycled in booth before make up.
			1323		29ppm	
			1400		35ppm	Spraying outlet of 000 shell, spraying started at 1355 - 1405.
			1445		29ppm	Recycle of acid in booth during sampling period.

Five samples for NO_2 were taken inside the acid spray booth in K-1420.

misc. 5

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 86 Page 1
Routine X
Special
Requested by
Date 5-6-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-22-57	A Area By hood in small parts disassembly booth	1250 - 1320	Uranium Hydrogen Fluoride	0.09mg/m3 0.2 ppm	
			1320 - 1350		0.12mg/m3 0.3 ppm	
			1350 - 1420		0.27mg/m3 0.5 ppm	
		E Area Oxide Conversion Room By cold trap line B	1225 - 1325		0.21mg/m3 0.5 ppm	
		By cold trap line A	1325 - 1355		0.25mg/m3 0.5 ppm	
		By cold trap line C	1355 - 1425		0.23mg/m3 0.4 ppm	
		B Area West of calciner platform	1300 - 1330		0.01mg/m3 0.1 ppm	
			1330 - 1400		0.01mg/m3 0.1 ppm	
		On calciner platform	1400 - 1430		0.17mg/m3 0.2 ppm	
		C Area South end of deferraling booth	1300 - 1330		0.01mg/m3 0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 86 Page 2
Routine X
Special
Requested by
Date 5-5-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-22-57	C Area South end of deferruling booth	1330 - 1400	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	
			1400 - 1430		0.20mg/m^3 0.1 ppm	
		SE corner of detubing platforms				
		Converter welding platform	1400 - 1430	Uranium	0.12mg/m^3	
			1430 - 1500	Uranium Hydrogen Fluoride	0.26mg/m^3 0.5 ppm	Welder wearing respirator
			1500 - 1530		0.12mg/m^3 0.3 ppm	" " "
		Partial disassembly platform	1445 - 1515		13.00mg/m^3 0.9 ppm	Two operators wearing respirators disassembling converters
	4-4-57	A Area Small parts disassembly booth	1250 - 1320		1.92mg/m^3 3.7 ppm	

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NUMBER 86 Page 3
Routine X
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Date 5-6-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-4-57	A Area Small parts disassembly booth	1320 - 1350	Uranium Hydrogen Fluoride	0.08mg/m3 0.4 ppm	
			1350 - 1420		0.09mg/m3 0.9 ppm	
		K Area West end of reactor on Line B	1300 - 1330	Uranium Fluorine	0.01mg/m3 < 0.1 ppm	
		Line A	1330 - 1400		< 0.01mg/m3 < 0.1 ppm	
		Line C	1400 - 1430		0.01mg/m3 < 0.1 ppm	
		B Area West side of calciner platform	1305 - 1335	Uranium Hydrogen Fluoride	< 0.01mg/m3 < 0.1 ppm	
			1335 - 1405		0.01mg/m3 < 0.1 ppm	
			1405 - 1435		0.01mg/m3 < 0.1 ppm	
		C Area South end of deferruling booth	1255 - 1325	Uranium	< 0.01mg/m3	
			1325 - 1355		< 0.01mg/m3	
			1355 - 1425		< 0.01mg/m3	

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AIR SAMPLING REPORT

NUMBER 86 Page 4
Routine I
Special
Requested by
Date 5-6-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-4-57	C Area SE corner of detubing platforms				
		By welder at welding platform	1400 - 1430	Uranium Hydrogen Fluoride	<0.01mg/m3 0.1 ppm	
			1430 - 1500		<0.01mg/m3 0.1 ppm	
			1500 - 1530		<0.01mg/m3 0.1 ppm	
		By south door to said spray booth	1340 -	Nitrogen Dioxide	14ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 56
Routine X
Special
Requested by
Date 3-13-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-22-57	**K Area** East end of cold trap Line A	0930 1000	Uranium Fluorine	0.01mg/m^3 < 0.1 ppm	
		Line B	0900 0930		0.02mg/m^3 0.1 ppm	
		Line C	1000 1030		0.17mg/m^3 0.1 ppm	
		North blending oxide room	0933 1003	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	
		B Area West of calciner platform	0900 0930		< 0.01mg/m^3 0.1 ppm	
		On calciner platform	1005 1035		0.01mg/m^3 0.1 ppm	
		C Area By operators at floor pan	1040 1110		0.01mg/m^3 0.1 ppm	Operator wearing respirator cleaning equipment.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 51
Routine X
Special
Requested by
Date 3-19-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1401	2-21-57	**Tool Room**				
		USA CACCC #223930 Mer-Vac. cleaner				
		6 In. from exhaust	1300-	Mercury	0.86mg/m^3	Non-environmental
		1 Ft. from exhaust			0.60mg/m^3	
		1 Ft. 6 in. from exhaust			0.40mg/m^3	
		2 Ft. from exhaust	-1320		0.20mg/m^3	
		* This cleaner should be cleaned and recharged.				

Hg

32 + ck

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AIR SAMPLING REPORT

NUMBER 36 Page 1
Routine X
Special
Requested by
Date 3-12-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-1-57	**E Area** **Oxide Conversion Room**				
		By cold trap of "A" reactor	1400 1430	Uranium Fluorine	0.01mg/m^3 0.1 ppm	Slight odor of fluorine
		By cold trap of "B" reactor	1430 1500		0.01mg/m^3 0.1 ppm	" " " "
		By cold trap of "C" reactor	1500 1530		0.01mg/m^3 0.1 ppm	" " " "
		North Oxide Blending Room				
		In front of blender	1400 1430	Uranium Hydrogen Fluoride	< 0.01mg/m^3 < 0.1 ppm	Cylinder on blender
			1515 1545		< 0.01mg/m^3 0.1 ppm	" " "
		B Area				
		West of calciner platform	1440 1510		0.01mg/m^3 < 0.1 ppm	
		E Area				
		At west end of cold trap line from Reactor "A"	1400 1430		0.01mg/m^3 0.1 ppm	

75

U 16
F_2 3
HF 12

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Special
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Date 3-12-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1430	2-5-57	**E Area**				
		At west end of cold trap line from Reactor "B"	1430 1500	Uranium Hydrogen Fluoride	0.02mg/m³ 0.1 ppm	
		Reactor "C"	1500 1530		0.01mg/m³ 0.1 ppm	
		B Area				
		West of calciner platform	1400 1500		0.02mg/m³ 0.1 ppm	
	2-1-57	**C Area**				
		Partial disassembly area	1345 1425		0.01mg/m³ 0.1 ppm	
		Converter disassembly area by column 8-6	1350 1420		0.03mg/m³ 0.1 ppm	
			1520 1550		0.01mg/m³ 0.1 ppm	
		By welding platform	1425 1465		0.03mg/m³ 0.2 ppm	Welder wearing respirator
		Northwest corner of compressor pit	1430 1500		0.01mg/m³ 0.1 ppm	Two operators using air wrenches on compressor. Were not wearing respirators.
		Northeast corner of floor pan	1523 1553		0.01mg/m³ 0.1 ppm	

96

14 + ck

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Routine I
Special
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Date 1-18-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-7-57	**B Area** West side of calciner platform	0940 1010	Uranium Hydrogen Fluoride	0.02mg/m^3 <0.1 ppm	
		K. Area, Oxide conversion room By cold trap line A	0945 1015		0.45mg/m^3 0.3 ppm	Two men without respirators working on open equipment on line A
		By cold trap B	1015 1045		0.06mg/m^3 0.1 ppm	
		By cold trap C	1045 1115		0.12mg/m^3 0.2 ppm	
		C Area South end of defarruling booth				
		Southeast corner of detubing platform				
		By scrap hopper	1015 1045	Black Powder Uranium	<0.1mg/m^3 0.01mg/m^3	

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VO$_2$ 0-4

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NUMBER 5 Page 2
Routine X
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Date 1-18-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-7-57	C Area Column G-8	1030 1100	Uranium Hydrogen Fluoride	1.36mg/m³ 0.6 ppm	Operators wearing respirators
		By south door to acid booth	1025	Nitrogen Dioxide	17ppm*	Sample taken 2 ft. from door to spray booth just after the door was opened for ventilation of booth.
		By south door to 1st. rinse booth	1045		8 ppm*	
		By south door of acid spray	1055		13 ppm*	
		West end of carbonate booth	1115		11.7ppm*	Door to carbonate booth open. Spraying equipment in acid booth during sampling period.

* Personnel working in this area should wear respiratory protective devices.

D. L. Stoddard

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 460
Routine
Special X
Requested by J. P. Terry
Date 1-10-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-19-56	West wall center of tunnel by sump pump	1600	Oxygen	21.5%	
			1600		21.7%	

79

* Quick mass scan method used explains the above normal oxygen content. The lab was requested to run Freon on these samples.

oxygen 0-1

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WCX-2512 (9-55) K-25 RC Medical Department

22 + ck

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 469 Page 1
Routine X
Special
Requested by
Date 1-4-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-13-56	E Area, Oxide conversion room By cold trap C line	0900 0930	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	
		By cold trap B line	0930 1000		0.01mg/m^3 0.1 ppm	
		By cold trap A line	1000 1030		0.02mg/m^3 0.1 ppm	
		North oxide blending room in front of hood	0910 0940		0.08mg/m^3 0.1 ppm	Cylinder on blender
		B Area, west of calciner platform	0915 0945		0.01mg/m^3 0.1 ppm	
		C Area, south end of de-ferruling booth				
		Southeast corner of detubing platform				
		By welder at welding platform	0900 0930	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Welder wearing respirator

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NUMBER 469 Page 2
Routine X
Special
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Date 1-4-57

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-13-56	Partial disassembly area, 30 ft. west of spray booth	0950 1020	Uranium Hydrogen Fluoride	0.01mg/m^3 0.2 ppm	Two operators wearing respirators disassembling convertors.
		Converter disassembling platform by column 8	1025 1055		0.01mg/m^3 0.1 ppm	
		Northeast corner of floor pan	1035 1105		0.01mg/m^3 0.1 ppm	Operator wearing respirator steam cleaning equipment.

18

35 +

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 456 Page 1
Routine X
Special
Requested by
Date 12-7-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-8-56	**B Area**				
		West end of calciner platform	1715 1745	Uranium Hydrogen Fluoride	0.01mg/m3 0.1 ppm	
		A Area				
		Small parts disassembly booth - In front of hood	1715 1745		0.18mg/m3 0.3 ppm	Two operators wearing respirators working on equipment in hood.
		C Area				
		Northeast corner of floor pan	1805 1835		0.01mg/m3 0.2 ppm	Operators cleaning equipment.
		By welder's platform	1810 1840		0.05mg/m3 0.1 ppm	Welder wearing respirator cutting open converter.
	11-16-56	**B Area**				
		East of calciner platform	1245 1315		0.01mg/m3 0.1 ppm	
		E Area, Oxide Conversion Room by Cold Traps				
		C Line	1252 1322		0.01mg/m3 0.1 ppm	

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NUMBER 456 Page 2
Routine X
Special
Requested by
Date 12-7-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-16-56	B Area, Oxide Conversion Room, by Cold Traps By B line	1322 1352	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	
		By A line	1352 1422		0.01mg/m^3 0.1 ppm	
		A Area Small parts disassembly booth. In front of hood	1300 1330		0.09mg/m^3 0.2 ppm	Two operators wearing respirators cleaning seals.
		C Area Southeast corner of detubing platform				
		30 Ft. west of spray booth	1300 1330	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Two operators wearing respirators disassembling converters.
		By welders platform	1330 1400		0.01mg/m^3 0.3 ppm	Welder wearing respirators while cutting open converters.

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Routine X
Special
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Date 12-1-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
1-1420	11-27-56	B Area West of calciner platform	0850 0920	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	
		E Area South oxide blending room in front of door	0855 0925		0.02mg/m^3 0.1 ppm	
			0930 1000		0.01mg/m^3 0.1 ppm	
		C Area South end of deferralling booth	0845 0915		0.34mg/m^3 0.4 ppm	
		Northwest corner of compressor disassembling pit	0905 0935		0.01mg/m^3 0.2 ppm	
		By welder at welding platform	0945 1015		0.01mg/m^3 0.2 ppm	
		South end of deferralling booth	0920 0950		0.02mg/m^3 0.3 ppm	
		By door to acid spray booth	1049	Nitrogen Dioxide	10.3 ppm	

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NUMBER 456 Page 4
Routine X
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Date 12-7-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-2[illegible]-56	[illegible] Area Inside first rinse booth	1108	Nitrogen Dioxide	8 ppm	
			1119		9.2 ppm	Doors open to 1st rinse booth and door to entrance of acid booth opened while sample was being taken.

85

[illegible]

15 +

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NUMBER 440 Page 1
Routine X
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Date 11-15-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-2-56	A Area, small parts disassembly booth In front of hood in northeast corner	1000 1030	Uranium Hydrogen Fluoride	0.02mg/m^3 0.1 ppm	
		By floor pan	0955 1025		0.01mg/m^3 0.1 ppm	Operator washing parts
		C Area By operator's disassembling compressor	1030 1100		0.03mg/m^3 0.1 ppm	Two operator's wearing respirators disassembling compressor
		Converter disassembly area by column G-8	1030 1100		0.11mg/m^3 0.2 ppm	Operators wearing respirators
		Northeast corner of floor pan	1030 1100		0.01mg/m^3 0.2 ppm	Operator washing equipment
U - 7 - ✓ HF - 1 - ✓ BP - 1 - ✓		Southeast corner of detubing platform	1000 1030	Uranium Black Powder	0.02mg/m^3 0.1 mg/m^3	
		B Area West of calciner platform	0950 1020	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	

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NUMBER 440 Page 2
Routine X
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Date 11-1[illegible]-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-2-56	K Area North oxide blending room in front of blender	0953 1023	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	

87

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41 - 1
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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 434 Page 1
Routine X
Special
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Date 11-5-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-5-56	A Area, Small Parts Disassembly Booth South side of room	0945	Uranium	0.01mg/m3	
		North side of room	1020 1050		0.15mg/m3	
		By unwrapping table	1025 1055	Uranium Hydrogen Fluoride	0.01mg/m3 0.1 ppm	
		B Area West of calciner platform	0935 1005		<0.01mg/m3 <0.1 ppm	
		E Area North oxide blending room in front of hood	0937 1007		<0.01mg/m3 <0.1 ppm	Cylinder on blender
		Oxide conversion room, by cold trap B line	1030 1100		<0.01mg/m3 <0.1 ppm	
		D Area Against north wall of cold trap room	0945 1015		<0.01mg/m3 0.1 ppm	
		C Area By welding platform	1033 1103		0.01mg/m3 0.1 ppm	

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NUMBER 44 Page 2
Routine X
Special
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Date 11-[illegible]-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-5-56	C Area Northeast corner of floor pan	1030 1100	Uranium Hydrogen Fluoride	0.43mg/m^3 0.6 ppm	
		South end of deferrul-ing booth				
	10-9-56	South end of deferrul-ing booth				
		Southeast corner of detubing platform				
		North side of first rinse booth	0915 0945	Uranium Hydrogen Fluoride	< 0.01mg/m^3	
		By scrap hopper	0942 1012	Black powder	0.2 mg/m^3	

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Routine X
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Requested by
Date 11-5-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-9-56	A Area By unwrapping table	1000 1030	Uranium Hydrogen Fluoride	0.01mg/m^3 < 0.1 ppm	
		Small parts disassembly booth Northeast corner	1015 1045	Uranium	0.03mg/m^3	
		South side of room	1045 1115		0.05mg/m^3	
		B Area Oxide conversion room By cold trap, A line	0900 0930	Uranium Hydrogen Fluoride	<0.01mg/m^3 < 0.1 ppm	
		By cold trap, B line	0930 1000		<0.01mg/m^3 < 0.1 ppm	
		By cold trap, C line	1000 1030		<0.01mg/m^3 < 0.1 ppm	
		D Area West of calciner platform	0855 0925		<0.01mg/m^3 < 0.1 ppm	

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Routine X
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Date 11-5-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-9-56	D Area By north wall of cold trap room	0905 0935	Uranium Hydrogen Fluoride	<0.01mg/m^3 <0.1 ppm	
		F Area HPL Oil recovery room	0955 1025	Uranium	<0.01mg/m^3	

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62 f.

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AIR SAMPLING REPORT

NUMBER 393 Page 1 cl
Routine X
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Requested by
Date 10-17-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
A-1420	9-5-56	C Area Southeast corner of detubing platform	0930 1000	Uranium Black Powder	< 0.01mg/m^3 0.1 mg/m^3	
		South end of deferruling booth	0930 1000		0.06mg/m^3 < 0.1 mg/m^3	
		By scrap black powder hopper	0935 1005		< 0.01mg/m^3 < 0.1 mg/m^3	
		Partial disassembly area	0940 1010	Uranium Hydrogen Fluoride	0.03mg/m^3 0.1 ppm	
		By column G-8	0940 1010	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	
		By welder at converter welder platform	1030 1100	Uranium	0.01mg/m^3	
		B Area West of calciner platform	0900 0930	Uranium Hydrogen Fluoride	0.02mg/m^3 < 0.1 ppm	
		E Area South oxide blending room in front of hood	0905 0935		0.04mg/m^3 0.1 ppm	

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Routine X
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Date 10-17-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-5-56	E Area Oxide conversion room By cold trap C	0855 0925	Uranium Hydrogen Fluoride	0.02mg/m^3 0.1 ppm	
		By cold trap B	0925 0955		0.19mg/m^3 0.2 ppm	
		By cold trap A	0955 1025		0.01mg/m^3 0.1 ppm	
		A Area By unwrapping tables	0935 1005		< 0.01mg/m^3 < 0.1 ppm	
	9-12-56	C Area Northeast corner of floor pan	0945 1015		0.01mg/m^3 0.1 ppm	
		By column G-8	0950 1050		0.03mg/m^3 0.1 ppm	
		Northeast corner of deblading platform	1020 1050		< 0.01mg/m^3 < 0.1 ppm	
	9-21-56	F Area Oxide conversion room By cold trap A	0905 0935		< 0.01mg/m^3 < 0.1 ppm	

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Routine X
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Date 10-17-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-21-56	E Area By cold trap B	0935 1005	Uranium Hydrogen Fluoride	0.01mg/m^3 < 0.1 ppm	
		By cold trap C	1005 1035		< 0.01mg/m^3 < 0.1 ppm	
		B Area West of calciner platform	0907 0937		< 0.01mg/m^3 < 0.1 ppm	
		A Area- Small parts disassembly booth South side	0915 0945		1.88mg/m^3 1.4 ppm	
		North side	0945 1015		1.76mg/m^3 0.9 ppm	
		C Area Northwest corner of compressor pit	0915 0945		0.02mg/m^3 0.2 ppm	Two operator's wearing respirators working on compressor.
		Northeast corner of deblading platform	0950 1020		0.16mg/m^3 0.1 ppm	Operators were wearing respirators.

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NUMBER 393 Page 4
Routine X
Special
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Date 10-17-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-21-56	C Area By welder at welding platform	1025 1055	Uranium Hydrogen Fluoride	0.03mg/m^3 0.1 ppm	Welder wearing respirator cutting open converters.
		Northeast corner of floor pan	0915 0945		0.01mg/m^3 0.1 ppm	Two operators wearing respirators steam cleaning.
		Inside door on south side of first rinse booth	1017	Nitrogen Dioxide	55 ppm	Door on south side has just been opened after equipment had been rinsed.
		Inside door on south side of acid booth	1021		11 ppm	Door on south side had been opened at 0950, nothing had been sprayed after this time.
	9-25-56	B Area West side of calciner platform	0935 1005	Uranium Hydrogen Fluoride	0.05mg/m^3 0.1 ppm	
		E Area Oxide conversion room by cold trap C	0940 1010		< 0.01mg/m^3 0.1 ppm	
		D Area North side of cold trap room	0945 1015		< 0.01mg/m^3 < 0.1 ppm	

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NUMBER 393 Page 5
Routine X
Special
Requested by
Date 10-17-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-25-56	A Area Small parts disassembly booth	0955 1055	Uranium	< 0.01mg/m^3	
		East side of floor pan	1000 1100	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	
		C Area At door to 1st. rinse booth	1110	Nitrogen Dioxide	10 ppm	Spraying stopped at 1100.
		South end of deferruling booth				
		Northeast corner of floor pan	0915 0945	Uranium Hydrogen Fluoride	< 0.01mg/m^3 < 0.1 ppm	
	9-12-56	A Area Small parts disassembly booth	0940 1040	Uranium	2.72mg/m^3	
		B Area West of calciner platform	0945	Uranium Hydrogen Fluoride	< 0.01mg/m^3 < 0.1 ppm	

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NUMBER 393 Page 5
Routine X
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Date 10-17-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-17-56	E Area North oxide blending room in front of blender	0950 1020	Uranium Hydrogen Fluoride	< 0.01 mg/m³ 0.1 ppm	
		Oxide conversion room by cold trap C	1025 1055		0.01 mg/m³ 0.1 ppm	Welder using torches on equipment.

97

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 403
Routine
Special X
Requested by D. L. Stoddard
Date 10-29-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	9-5-56	C Area Around welding platform		Uranium Nickel Carbon	.6 mg/gram none detected .87%	NT Settled Dust
		East of welding platform from wall and on top of cabinet.			4.0 mg/gram none detected 1.42%	
		30 Ft. west of welding platform by test stand.			6.9 mg/gram 1.3 mg /gram 2.16%	
U - Ni - C -	1					

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 387 Page 1
Routine X
Special
Requested by
Date 9-28-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-3-56	B Area oxide conversion room- By cold trap on A line	0910 0940	Uranium Hydrogen Fluoride	< 0.01mg/m3 0.1 ppm	
		By cold trap on B line	0940 1010		0.01mg/m3 0.2 ppm	
		By cold trap on C line	1010 1040		< 0.01mg/m3 0.1 ppm	
		B Area west of calciner platform	0915 0945		< 0.01mg/m3 0.4 ppm	
		C Area Northwest corner of compressor pit	0925 0955		0.01mg/m3 0.2 ppm	Two operators wearing respirators working on co pressor
		Southeast corner of welding platform between column G-6 & G-7	0915 0945		< 0.01mg/m3 0.2 ppm	
		Converter disassembly area by column G-8	1030 1100		0.01mg/m3 0.4 ppm	
		By operator on floor pan	1030 1100		0.25mg/m3 0.2 ppm	Three operators wearing respirators cleaning equipment.

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NUMBER 357 Page 2
Routine X
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Requested by
Date 9-28-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-3-56	South end of deferruling booth	1045 1115	Uranium Black Powder	0.01mg/m3 0.0 mg/m3	
		By scrap hopper	1045 1115		< 0.01mg/m3 0.1 mg/m3	
		Southeast corner of detubing platform	1045 1115		< 0.01mg/m3 0.0 mg/m3	Three operators without respirators working on platform
		Partial disassembly area	1100 1130	Uranium Hydrogen Fluoride	< 0.01mg/m3 0.1 ppm	
		A Area By column G 16	1100 1130		< 0.01mg/m3 < 0.1 ppm	
		Small parts disassembly booth	1100 1130		0.08mg/m3 0.3 ppm	
	8-8-56	A Area Small parts disassembly booth	0830 0900		0.18mg/m3 0.2 ppm	
		By unwrapping table	0940 1010		< 0.01mg/m3 0.1 ppm	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-8-56	C Area Northeast corner of floor pan	0830 0900	Uranium Hydrogen Fluoride	< 0.01mg/m^3 0.1 ppm	
		South end of deferruling booth				
		By scrap hopper				
		Southeast corner of detubing platform				
		By column D-6	0910 0940	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Two operators without respirators working on Compressor.
		Northwest corner of compressor pit	1100 1130		0.01mg/m^3 0.1 ppm	
		E Area Oxide conversion room, by cold trap C line	0910 0940		< 0.01mg/m^3 < 0.1 ppm	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-17-56	**B Area** South of calciner platform	2030 2100	Uranium Hydrogen Fluoride	< 0.01mg/m^3 < 0.1 ppm	
		E Area North oxide blending room-In front of hood	2000 2030		< 0.01mg/m^3 0.1 ppm	
		South oxide blending room- In front of hood	2000 2030		0.00mg/m^3 0.1 ppm	
		Oxide conversion room, center of room	2000 2030		< 0.01mg/m^3 0.1ppm	Doors open to blending rooms.
		F Area Mercury recovery room*				
		C Area Northwest corner of compressor pit	2100 2130	Uranium Hydrogen Fluoride	< 0.01mg/m^3 0.1 ppm	Two operators wearing respirators disassembling compressors.

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-17-56	C Area Southwest corner of welding platform	2100 2130	Uranium Hydrogen Fluoride	< 0.01mg/m3 0.1 ppm	
		Converter disassembly area by column G-8	2115 2145		0.04mg/m3 0.2 ppm	Three operators wearing respirators disassembling converters.
		Northeast corner of floor pan	2130 2200		0.02mg/m3 0.1 ppm	
		South end of deferruling booth	2130 2200		< 0.01mg/m3 < 0.1 ppm	
		In door of acid spray booth	2140	Nitrogen Dioxide	28 ppm	Sample taken when door was opened to move car to next booth.
		In door of first rinse booth	2145		14 ppm	
	8-28-56	E Area North blending room	0915 0945	Uranium Hydrogen Fluoride	< 0.01mg/m3 0.1 ppm	Cylinder on blender
		B Area West of calciner platform	0920 0950		< 0.01mg/m3 < 0.1 ppm	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-28-56	**F Area** Mercury recovery room				
		C Area Northwest corner of compressor pit	0940 1010	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Operator wearing respirator while working on compressor.
		East side of compressor disassembly platform	1010 1040		0.01mg/m^3 0.1 ppm	Three operators without respirators while working on compressors.
		Northeast corner of deblading platform	1012 1042		0.01mg/m^3 0.1 ppm	One operator wearing respirator deblading compressor part.
		Northeast corner of floor pan	1015 1045		0.01mg/m^3 0.1 ppm	Two operators without respirators cleaning compressor parts.
		A Area By column G-10	1020 1050		0.01mg/m^3 0.1 ppm	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	8-28-56	A Area Small parts disassembly booth	1050 1120	Uranium Hydrogen Fluoride	3.25mg/m^3 7.9 ppm	Smoke in room. Operator with assault gas mask working on equipment. One operator was wearing a respirator.
		C Area Southeast corner of detubing platform	1055 1125	Black Powder Uranium	0.0mg/m^3 0.02mg/m^3	Two operators wearing respirators detubing equipment.
		By scrap Black Powder hopper	1055 1125		0.1mg/m^3 0.03mg/m^3	
		South end of deferruling booth	1055 1125		0.0mg/m^3 0.05mg/m^3	

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Date

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-20-56	"E" Area, Oxide Conversion Room.				
		By cold trap "A" line.	0830-0900	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Transient odor of H F.
		By cold trap "B" line.	0900-0930		<0.01mg/m^3 0.1 ppm	
		By cold trap "C" line.	0930-1000		0.47mg/m^3 0.5 ppm	Operator using vacuum hose on open line.
		South oxide blending room in front of hood.	0830-0900		0.05mg/m^3 0.2 ppm	
		"B" Area, West of calciner platform.	0830-0900		0.01mg/m^3 <0.1 ppm	
		"F" Area, Mercury recovery room.				
		"C" Area. East of compressor disassembly area.	0917-0947	Uranium Hydrogen Fluoride	0.01mg/m^3 0.3 ppm	Two operators without respirators disassembling compressor with air driven wrenches.

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NUMBER 352 [illegible] 2
Routine X
Special
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Date [illegible]-20-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
[illegible]	7-20-56	"[illegible]" Area. y column [illegible]-B.	0945-1015	Uranium Hydrogen Fluoride	0.02mg/m^3 0.2 ppm	Three operators wearing respirators disassembling converter.
		[illegible] of cutubing platform.				
		Partial disassembly area.	0[illegible]30-0900	Uranium	< 0.01mg/m^3	
		[illegible] of floor pan.	0905-0935	Uranium Hydrogen Fluoride	0.01[illegible]/m^3 0.1 ppm	
		[illegible] of deferruling booth.	0940-1010	Black powder	0.6[illegible]/m^3	
		[illegible] of deplating platform.	0940-1010	Uranium Hydrogen Fluoride	< 0.01mg/m^3 0.3 ppm	
	7-[illegible]-56	[illegible] of deferruling booth.				
		[illegible] of floor pan.	0825-0855	Uranium Hydrogen Fluoride	0.01mg/m^3 < 0.1 ppm	

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Date [illegible]-2[illegible]-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
-1420	7-26-56	"C" Area.				
		By scrap hopper.	0900-0930	Black Powder	< 0.1mg/m^3	
		S. E. of deblading platform.	0905-0935	Uranium Hydrogen Fluoride	< 0.01mg/m^3 < 0.1 ppm	
		Partial disassembly area.	0905-0935	Uranium	0.34mg/m^3	
		S. E. of detubing platform.	0940-1010	Uranium Black Powder	0.02 g/m^3 0.4mg/m^3	
		"A" Area.				
		Small parts disassembly booth.	0825-0855	Uranium	<0.01mg/m^3	
		By unwrapping table.	0945-1015	Uranium Hydrogen Fluoride	< 0.01mg/m^3 < 0.1 ppm	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	7-18-56	"E" Area, Oxide Conversion Room.				
		By cold trap "C" line.	0900-0930	Uranium Hydrogen Fluoride	0.04mg/m^3 <0.1 ppm	
		By cold trap "B" line.	0930-1000		<0.01mg/m^3 0.3 ppm	
		By cold trap "A" line.	1000-1030		<0.01mg/m^3 0.5 ppm	
		South oxide blending room in front of hood.	0930-1000		<0.01mg/m^3 0.2 ppm	
		North oxide blending room in front of hood.	1000-1030		<0.01mg/m^3 0.2 ppm	
		"B" Area, West of calciner platform.	1000-1030		<0.01mg/m^3 0.1 ppm	
		"C" Area, Northeast corner of deblading platform.	1030-1100		<0.01mg/m^3 0.1 ppm	Operators wearing respirators, deblading equipment.
		"A" Area, small parts disassembly booth.	1100-1130		1.18mg/m^3 0.9 ppm	Two operators wearing respirators working in this area.

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NUMBER 316 Page 1
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Date 8-1-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	7-10-56	"C" Area. N. E. corner of floor pan.	1100-1130	Uranium Hydrogen Fluoride	< 0.01mg/m³ 0.1 ppm	Operator wearing respirator; steam cleaning equipment.
		S. E. corner of detubing platform.				
		South end of deferruling booth.				
		"A" Area. By unwrapping table A-4.	1030-1100	Uranium Hydrogen Fluoride	< 0.01mg/m³ 0.2 ppm	Operator unwrapping equipment.
		By operator.	1030-1100		< 0.01mg/m³ 0.3 ppm	Operator wearing respirator; steam cleaning equipment.
	7-26-56	"B" Area. Oxide conversion room. By cold trap "A" line.	0820-0850		0.01mg/m³ 0.1 ppm	Fluorine leak in "C" line. Operators working in room without respiratory protection.

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Date 8-1-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	7-26-56	"B" Area. Oxide Conversion Rooms By Cold Trap "B" line.	0920-0950	Uranium Hydrogen Fluoride	0.01mg/m^3 0.3 ppm	Fluorine leak in "C" line. Operators working in room without respiratory protection.
		By Cold Trap "C" line.	0850-0920		0.02mg/m^3 0.5 ppm	
		North blending room by hood.	0825-0855	Uranium Fluorine	0.01mg/m^3 0.1 ppm	Cylinder on blending machine. Odor of fluorine detected.
		"B" Area, West of Calciner platform.	0827-0925	Uranium Hydrogen Fluoride	0.00mg/m^3 <0.1 ppm	
		"C" Area, East of compressor disassembly platform.	0910-0940		0.01mg/m^3 <0.1 ppm	Two operators without respirators disassembling compressor.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 328
Routine X
Special
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Date 7-11-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
[illegible]-1120	6-1[illegible]-56	**"C" Area.**				
		Southeast corner of detuting platform.	0900-0930	Uranium	0.01mg/m3	
		Partial disassembly area, 30 ft. west of spray booth.	0900-0930		0.02mg/m3	
		[illegible] corner of floor [illegible]	0900-0930	Uranium Hydrogen fluoride	< 0.01mg/m3 0.1 ppm	
		By scrap black powder hopper.	0935-1005	Black powder	0.1mg/m3	
		N. E. corner of de lading platform.	0935-1005	Uranium Hydrogen fluoride	0.16mg/m3 0.1 ppm	
		East side of compressor disassembly platform [illegible].	0935-1005		0.02mg/m3 0.2 ppm	
		"L" Area.				
		Oxide conversion room, by cold trap "A".	0900-0930		< 0.01mg/m3 0.1 ppm	
		North oxide blending room in front of hood.	0935-1005	Uranium	< 0.01mg/m3	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	-19-56	**"C" Area.** South end of deferruling booth.				
		[illegible] corner of compressor pit.	1010-1040	Uranium Hydrogen Fluoride	0.1mg/m^3 0.3 ppm	
		Converter disassembly area, by column C-8.	1010-1040		< 0.01mg/m^3 < 0.1 ppm	
		"B" Area. South oxide blending room in front of hoods.	1010-1040	Uranium	0.02mg/m^3	
		[illegible] conversion room, by cold trap "C" line.	1045-1115	Uranium Hydrogen Fluoride	0.02mg/m^3 0.3 ppm	
		Oxide conversion room, by cold trap "B" line.	1045-1115		< 0.01mg/m^3 < 0.1 ppm	
		"A" Area. Small parts disassembly booth.	1045-1115	Uranium	< 0.01mg/m^3	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
A-1420-	5-13-56	"B" Area, North side of room.	1045-1115	Fluorine	0.1 ppm	
	5-29-56	"C" Area. North end of deferruling booth.				
		S. E. corner of retubing platform.				
		N. E. corner of floor pan.	0900-0930	Uranium Hydrogen fluoride	0.03mg/m^3 0.5 ppm	Operator wearing respirator was steam cleaning equipment.
		Partial disassembly area, 30 ft. west of spray booth.	0900-0930	Uranium	<0.01mg/m^3	
		[illegible] corner of compressor pit.	0915-0945	Uranium Hydrogen fluoride	0.01mg/m^3 0.1 ppm	
		"E" Area, North side cleaning room in front of hood.	0930-1000		<0.01mg/m^3 0.1 ppm	
		"E" Area. West of calciner platform.	0930-1000	Uranium	0.01mg/m^3	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1620	6-29-56	"B" Area, West of calciner platform.	1000-1030	Uranium	< 0.01mg/m^3	
		"E" Area, Oxide Conversion Room.				
		By cold trap "A" line.	1000-1030	Uranium Hydrogen Fluoride	< 0.01mg/m^3 < 0.1 ppm	
		By cold trap "B" line.	1030-1100		< 0.01 g/m^3 0.1 ppm	
		By cold trap "C" line.	1100-1130		< 0.01mg/m^3 0.1 ppm	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-25-56	"C" Area. S. end of deferruling booth.				
		N.E. corner of floor pan.	0835-0905	Uranium Hydrogen Fluoride	< 0.01mg/m^3 < 0.1 ppm	
		East side of compressor disassembly platform.	0840-0910		< 0.01mg/m^3 0.1 ppm	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	5-3-56	"E" Area: Conversion room, by cold trap on "C" line.	2120-2150	Uranium Fluorine	0.08mg/m^3 0.3 ppm	Large door open at Northwest corner of room.
		Conversion room, by cold trap on "B" line.	2150-2220		< 0.01mg/m^3 0.1 ppm	
		Conversion room, by cold trap on "A" line.	2220-2250		< 0.01mg/m^3 0.2 ppm	
		South blending room in front of hood.	2125-2155	Uranium	< 0.01mg/m^3	Cylinder on blending machine.
		"B" Area. West side of calciner platform.	2130-2200		0.01mg/m^3	Operator wearing respirator pouring powder into calciner.
		"F" Area, Mercury Room.				
		"C" Area, In deferruling booth.				
		"C" Area, South side of deferruling booth.	2245-2315	Uranium	0.07mg/m^3	Operator wearing respirator.

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Date 5-11-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-27-56	"C" Area. At head cutting platform. Horizontal air flow from West toward East.	1430	Air Velocity	50-100 fpm	Without hood on flexible duct. No torch operating.
		Vertical air flow.			50-75 fpm	
		Horizontal air flow from West toward East.			110 fpm	With hood. No torch operating. Duct velocity of 3000 fpm is equal to 1048 cfm.
		Vertical air flow.			110 fpm	
		Head height above torch position. Horizontal air flow.			75 fpm	
		Vertical air flow.			150 fpm	
		By suspending the existing duct over the normal cutting positions the conditions would greatly improve. Addition of a semi-circular baffle of approximately one foot in diameter would further increase the efficiency without increasing the problem of handling.				

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Date

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-25-56	East hood in Lab.	1/4 open	Face Velocity Check	75 fpm	West hood door closed. Fan running in West wall. Door open on East of Lab.
			1/2 open		50 fpm	
			Fully opened.		0 fpm	
			1/4 open		115 fpm	West hood door closed. Fan off in West wall. Door open on East of Lab.
			1/2 open		50 fpm	
			Fully opened		40 fpm	
			1/4 open		100 fpm	West hood door closed. Fan off in West wall. Door closed on East of Lab.
			1/2 open		45 fpm	
			Fully opened.		25 fpm	
			1/4 open		140 fpm	West hood door closed. Exhaust fan running and door closed.
			1/2 open		50 fpm	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-25-56	East hood in Lab.	Fully open	Face Velocity Check	50 fpm ✓	West hood door closed. Exhaust fan running and door closed.
		West hood in Lab.	1/4 open		100 fpm ✓	East hood door closed. Exhaust fan on West wall running and door open on East side of Lab.
			1/2 open		50 fpm ✓	
			Fully open		40 fpm ✓	
			1/4 open		130 fpm ✓	East hood door closed. Exhaust fan on West wall off, and door open on East side of Lab.
			1/2 open		50 fpm ✓	
			Fully open		50 fpm ✓	
			1/4 open		100 fpm ✓	East hood door closed. Exhaust fan off and door closed on East side of Lab.
			1/2 open		50 fpm ✓	
			Fully open		25 fpm ✓	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-25-56	West hood in Lab.	1/4 open	Face Velocity Check	110 fpm	East hood door closed. Exhaust fan running and door closed.
			1/2 open		50 fpm	
			Fully open		25 fpm	
			1/4 open		70 fpm	East hood door open. Exhaust fan running and door on East side of Lab. open.
			1/2 open		50 fpm	
			Fully open		40 fpm	
		These results are not consistant but are indicative of similar conditions detected on 4-27-56. It is evident that this area is air starved and needs some additional source of supplied air.				

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 240 Page 1
Routine
Special X
Requested by G. L. Stoddard
Date 5-10-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-23-56	Inside door on S. side of Acid Spray Booth.	1242	Nitrogen dioxide	92 ppm	Sample taken as soon as door was opened. Operator went in without mask to attach chain to dolly.
			1246		21 ppm	Large doors to 1st. and 2nd rinse booth were opened at 1244 and dolly with equipment was moved to 1st. rinse booth.
			1310		110 ppm	Acid spray off at 1308, blew air through spray jets for 2 minutes. Dolly moved to rinse booth at 1312. Operator went in without mask.
			1335		55 ppm	Spray on at 1315, off at 1326. Blew air through spray jets until 1334. Door open at time of sampling. Operator went in without mask.
		Inside door to 1st. rinse booth.	1425		61 ppm	Sample taken as soon as door was opened. Rinsing equipment after being cleaned in Acid Booth. Door to 2nd rinse booth open at time of sampling. Operator went in without mask.

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Date D. L. Stoddard 5-10-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-23-56	Inside door on S. side of Acid Spray Booth.	1445	Nitrogen Dioxide	55 ppm	Sample taken after acid had been recycled in booth without any equipment being cleaned.
	4-27-56	Between 1st. and 2nd. rinse booth.	1330		11.4 ppm	Curtain between 1st. and 2nd. rinse booth was open. Air blowing through spray jets.
		Inside door on S. side of Acid Spray Booth.	1412		92 ppm	Sample taken as soon as door was opened. Door to 1st. rinse booth open at time of sampling.

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WCX-2512 (9-55) K-25 RC Medical Department

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

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Routine X
Special
Requested by
Date 5-10-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-20-56	"C" Area.				
		S. end of deferruling booth.				
		Partial disassembly area.	1155-1225	Uranium	< 0.01mg/m^3	
		By scrap hopper.	1235-1305	Black Powder	0.1mg/m^3	
		N.E. corner of deblading platform.	1235-1305	Uranium Hydrogen Fluoride	< 0.01mg/m^3 0.1 ppm	
		S.E. corner of detubing platform.				
		E. side of compressor disassembly platform.	1315-1345	Uranium Hydrogen Fluoride	< 0.01mg/m^3 0.1 ppm	
		S. end of deferruling booth.				
		Converter disassembly area beside column C-8.	1345-1415	Uranium Hydrogen Fluoride	< 0.01mg/m^3 < 0.1 ppm	
		N.W. corner of compressor inverter.	1350-1420		< 0.01mg/m^3 0.1 ppm	

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Date 5-10-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-20-56	"D" Area, N. side of room.	1200-1230	Fluorine	0.1 ppm	All truck entrances open.
		"E" Area. Conversion room, beside cold trap "B" line.	1240-1310	Uranium Hydrogen Fluoride	< 0.01mg/m^3 0.1 ppm	
		S. blending room in front of hood.	1310-1340	Uranium	< 0.01mg/m^3	
	4-26-56	Conversion room, by cold trap "C" line.	1730-1[illegible]00		0.01mg/m^3	Large door open at N.W. corner of room.
		Conversion room, by cold trap "B" line.	1800-1830		< 0.01mg/m^3	
		Conversion room, by cold trap "A" line.	1830-1900		< 0.01mg/m^3	
		S. blending room in front of hood.	1745-1815		0.05mg/m^3	Cylinder [redacted] on blending machine.
		"D" Area, N. side of cold trap room.	1730-1800		< 0.01mg/m^3	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-26-56	"F" Area, by operator in mercury recovery room.				
		"B" Area, W of calciner platform.	1755-1825	Uranium	0.01mg/m^3	Two calciners operating. No drum driers operating.
		"C" Area. By welder at head cutting platform.	1845-1915	Uranium Dust	0.02mg/m^3 165.0mg/m^3	Welder wearing respirator cutting open converters.
		S. side of deferruling booth.	1900-1930	Uranium Hydrogen Fluoride	0.01mg/m^3 0.1 ppm	Large door at East end of building open. Ferrules are being removed wet. Operator was wearing a respirator.
		S.E. corner of detubing platform.	1900-1930	Uranium Black Powder	0.01mg/m^3 <0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 211
Routine X
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Date 4-19-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-11-56	"C" Area. Outside South door of Acid Spray Booth.	1107	Nitrogen Dioxide	17 ppm	Sample taken after spraying of tube bundle.
		By welder cutting open converters.	1115	Phosgene	0.0 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

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Date 4-30-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-11-56	**"A" Area.** Northeast corner of small parts disassembly booth.	1000-1030	Uranium Hydrogen Fluoride	< 0.01mg/m^3 0.1 ppm	Two electricians working on contaminated vacuum cleaners.
		West end of small parts disassembly booth.	1000-1030		< 0.01mg/m^3 0.1 ppm	
		Between special rinse tables A-26 and A-30.	1030-1100		< 0.01mg/m^3 0.1 ppm	Operator not wearing respirator disassembling contaminated equipment.
		"C" Area. South end of deferruling booth.	1030-1100		< 0.01mg/m^3 0.1 ppm	Two operators wearing respirators deferruling converter spools.
		Converter disassembly area by column G-8.	1045-1115		< 0.01mg/m^3 0.2 ppm	Three operators wearing respirators disassembling converters.
		Northeast corner of floor pan.	1045-1115		< 0.01mg/m^3 0.1 ppm	One operator without respirator vacuum and steam cleaning contaminated converter spools.
		"F" Area: Mercury recovery room.				

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Date 4-30-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-11-56	"B" Area, West of calciner platform.	1230-1300	Uranium	0.01mg/m^3	
		"C" Area, Southeast corner of deturing platform.				
		"D" Area, North side of cold trap room.	1430-1500	Uranium Fluorine	< 0.01mg/m^3 0.1 ppm	
		"E" Area. Conversion room, by cold trap line "A".	1230-1300	Uranium Hydrogen Fluoride	< 0.01mg/m^3 0.1 ppm	
		Conversion room. by cold trap "B" line.	1300-1330		< 0.01mg/m^3 0.1 ppm	
		Conversion room, by cold trap "C" line.	1330-1400		0.02mg/m^3 0.1 ppm	
		South blending room in front of hood.	1400-1430	Uranium	0.01mg/m^3	
		North blending room in front of hood.	1400-1430		0.02mg/m^3	

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Date 4-30-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-6-56	"A" Area. Small parts disassembly booth. Just inside door on South side of room.	1315-1345	Uranium Hydrogen Fluoride	0.02mg/m^3 0.2 ppm	Two operators wearing respirators working on contaminated seal parts.
		East end of work table against North wall.	1315-1345		0.39mg/m^3 0.3 ppm	
		"C" Area. Partial disassembly area, 30 ft. west of spray booth.	1330-1400		<0.01mg/m^3 0.1 ppm	Two operators wearing respirators disassembling converters.
		Converter disassembly area by column C-8.	1330-1400		0.01mg/m^3 0.2 ppm	
		By welder cutting heads from converters.	1330-1400		<0.01mg/m^3 0.1 ppm	Welder wearing respirator cutting heads from converters.
			1340	Phosgene	0.0 ppm	
		"F" Area. Mercury recovery room.				
		"E" Area : Conversion Room by cold trap "B" Line.	1415-1445	Uranium Hydrogen Fluoride	<0.01mg/m^3 0.1 ppm	

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Date 4-30-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
A-1420	4-6-56	"B" Area. North side of blending room in front of hood.	1415-1445	Uranium	$< 0.01 mg/m^3$	
		South side of blending room in front of hood.	1430-1500		$< 0.01 mg/m^3$	
		"B" Area. West of calciner platform.	1430-1500		$< 0.01 mg/m^3$	one drum drier operating.
		"A" Area. Beside unwrapping tables, beside column C-16.	1430-1500	Uranium Hydrogen Fluoride	$< 0.01 mg/m^3$ 0.1 ppm	Operator removing seals from containers.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 213 Page 1
Routine X
Special
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Date 4-20-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-5-56	"E" Area, Oxide Conversion Room.				
		By cold trap "A" Line.	1730-1800	Uranium Hydrogen Fluoride	0.01mg/m^3 0.2 ppm	Large door open at Northwest corner of room.
		By cold trap "B" Line.	1800-1830		0.01mg/m^3 0.2 ppm	
		By cold trap "C" Line.	1830-1900		< 0.01mg/m^3 0.1 ppm	
		"E" Area. North oxide blending room.	1930-2000		0.15mg/m^3 0.4 ppm	Operator wearing respirator filling bucket.
		"D" Area, by North wall of cold trap room.	1730-1800		<0.01mg/m^3 0.1 ppm	
		"B" Area. West of calciner platform.	1730-1800		0.1mg/m^3 0.2 ppm	No drum driers operating.
			1930-2000		0.03mg/m^3 0.3 ppm	Operator wearing respirator dumping powder into calciner.
		"F" Area, Mercury Recovery Room.	2000-2030	Nickel	37.2mg/m^3	Operator wearing respirator grinding nickel powder. This operation needs some special ventilation.

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Date 4-20-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	4-5-56	"C" Area, partial disassembly area.	1830-1900	Uranium	<0.01mg/m^3	Two operators wearing respirators disassembling converters.
		North end of center deferruling booth.	2000-2030	Uranium Hydrogen Fluoride	0.03mg/m^3 0.1 ppm	Two operators wearing respirators knocking out ferrules.
		North end of West deferruling booth.	2000-2030		0.35mg/m^3 0.3 ppm	
		Southeast corner of dotubing platform.	2030-2100	Uranium	0.04mg/m^3	Tubes were wet. Three operators were not wearing respirators.
		Converter disassembly area, beside column G-8.	2100-2130	Uranium Hydrogen Fluoride	<0.01mg/m^3 0.2 ppm	Two operators wearing respirators were disassembling converters.
		Northeast corner of floor pan.	2100-2130		0.02mg/m^3 0.2 ppm	

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Date 3-30-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-19-56	**K Area:** Oxide Conversion Room, beside cold trap line C.	1:00-1:30 PM	Uranium Fluorine	0.03mg/m^3 0.9 ppm	Slight odor of fluorine.
		South Oxide Blending Room in front of hood.	1:00-1:30 PM		0.30mg/m^3 1.3 ppm	Strong odor of fluorine.
		Oxide Conversion Room, beside cold trap line A.	1:30-2:00	Uranium Gaseous Fluoride	0.01mg/m^3 0.3 ppm	Door open at northwest corner of room.
		South Oxide Blending Room in front of hood.	1:30-2:00 PM		0.05mg/m^3 0.8 ppm	Strong odor of fluorine. Door to oxide conversion room open.
		B Area: Beside operator's desk west of calciner platform.	1:00-1:30 PM		0.02mg/m^3 0.3 ppm	B-10-B and B-10-C drum drier operating.
			1:30-2:00 PM		0.02mg/m^3 0.3 ppm	Slight odor of fluorine.
		C Area: Northwest corner of compressor pit.	1:00-1:30 PM		0.01mg/m^3 0.2 ppm	Two operators working on compressor. Strong odor of HF.

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-19-56	C Area: Northeast corner of floor pan.	1:00-1:30 PM	Uranium Gaseous Fluoride	0.02mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

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Special
Requested by
Date 4-5-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-19-56	**"F" Area:** Mercury recovery room.				
		"C" Area: Converter disassembly area, beside column C-8.	1:30-2:00 PM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	Two operators wearing respirators working on converters.
		S.W. corner of detubing platform.				
		Beside scrap nickel hopper.	2:00-2:30 PM	Nickel	0.1mg/m^3	
		Partial disassembly area, 30 ft. west of spray booth.	2:00-2:30 PM	Uranium Hydrogen Fluoride	0.05mg/m^3 0.1 ppm	Three operators wearing respirators, disassembling converters.
		"A" Area. Small parts disassembly booth.	2:00-2:30 PM		<0.01mg/m^3 0.1 ppm	One operator wearing respirator working on seals.
		"B" Area: On calciner platform.	3:15 p.m.	Nitrogen Dioxide	4.0 ppm	Two drying drums operating.

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-27-56	"B" Area: Beside operator's desk, west of calciner platform.	1:15-1:45 PM	Uranium	< 0.01mg/m^3	No drum driers operating during this sample.
		"F" Area: Mercury recovery room.				
		"D" Area: Against North wall of cold trap room.	2:00-2:30 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 0.1 ppm	
		"C" Area: Converter disassembly area, by Column C-8.	2:15-2:45 PM		0.01mg/m^3 0.5 ppm	Three operators wearing respirators disassembling converters.
		By Column C-6.	2:45-3:15 PM		0.01mg/m^3 0.2 ppm	One welder cutting open converter.
		North end of center deferruling booth.	1:00-1:30 PM		< 0.01mg/m^3 0.1 ppm	Two operators wearing respirators knocking out ferrules.

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-27-56	**"C" Area:** North end of West deferruling booth.	1:00-1:30 PM	Uranium Gaseous Fluoride	<0.01mg/m^3 0.1 ppm	Two operators wearing respirators knocking out ferrules.
		South end of center deferruling booth.	1:30-2:00 PM		<0.01mg/m^3 0.1 ppm	Operator knocking out ferrules was wearing a respirator.
		South end of West deferruling booth.	1:30-2:00 PM		<0.01mg/m^3 0.1 ppm	
		Southeast corner of detubing platform.	2:00-2:30 PM		<0.01mg/m^3 <0.1 ppm	Two operators removing tubes from converter spool were wearing respirators.
			2:00-2:30 PM		<0.01mg/m^3 <0.1 ppm	
		"E" Area: Against South wall of oxide conversion room.	12:45-1:25 PM		0.01mg/m^3 0.1 ppm	This series of samples was collected with an automatic impinger. Strong odor of fluorine.
			1:45-2:25 PM		<0.01mg/m^3 0.1 ppm	Door at Northwest corner of room was open during entire sampling period.
			2:45-3:25 PM		<0.01mg/m^3 <0.1 ppm	

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Date 4-5-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-27-56	"K" Area: Against South wall of oxide conversion room.	3:45-4:25 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	Door at Northwest corner of room was open during entire sampling period.
			4:45-5:25 PM		< 0.01mg/m^3 < 0.1 ppm	
			5:45-6:25 PM		< 0.01mg/m^3 0.1 ppm	
			6:45-7:25 PM		< 0.01mg/m^3 0.1 ppm	
			7:45-8:25 PM		0.01mg/m^3 0.1 ppm	
			8:45-9:25 PM		0.01mg/m^3 < 0.1 ppm	
			9:45-10:25 PM		< 0.01mg/m^3 < 0.1 ppm	
			10:45-11:25 PM		< 0.01mg/m^3 < 0.1 ppm	
	3-28-56		11:45-12:25 AM		< 0.01mg/m^3 0.1 ppm	

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-28-56	"E" Areas Against South wall of oxide conversion room.	12:45-1:25 AM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	
			1:45-2:25 AM		< 0.01mg/m^3 0.1 ppm	
			2:45-3:25 AM		0.03mg/m^3 0.2 ppm	
			3:45-4:25 AM		< 0.01mg/m^3 0.1 ppm	
			4:45-5:25 AM		< 0.01mg/m^3 < 0.1 ppm	
			5:45-6:25 AM		< 0.01mg/m^3 < 0.1 ppm	
			6:45-7:25 AM		< 0.01mg/m^3 < 0.1 ppm	
			7:45-8:25 AM		0.01mg/m^3 < 0.1 ppm	
			8:45-9:25 AM		0.03mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

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Routine X
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Date 3-29-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
A-1420	3-16-56	"D" Area: Beside operator's desk.	12:30-1:00 PM	Uranium	0.01mg/m^3	
			1:00-1:30 PM	Uranium Gaseous Fluoride	0.18mg/m^3 0.1 ppm	
		"B" Area: On calciner platform.	2:20 PM	Nitrogen Dioxide	4.1 ppm	
		"C" Area: South end of Deferruling Booth.	12:30-1:00 PM	Uranium Gaseous Fluoride	0.31mg/m^3 0.5 ppm	One operator wearing respirator knocking out ferrules.
		Southeast corner of Detubing Platform.	1:00-1:30 PM		0.01mg/m^3 0.1 ppm	Two operators removing tubes from converter spool. Tubes were wet.
		Partial disassembly, 30 ft. west of spray booth.	12:30-1:00 PM		0.01mg/m^3 0.1 ppm	Two operators wearing respirators working on converter spools.
		Converter Disassembly, beside column G-8.	12:30-1:00 PM		0.02mg/m^3 0.1 ppm	

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AIR SAMPLING REPORT

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Date 3-29-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-16-56	Area "C" Northeast corner of floor pan.	1:30-2:00 PM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	
		Outside south door of Acid Spray Booth.	2:20 PM	Nitrogen Dioxide	2.2 ppm	
		"D" Area: Against north wall of Cold Trap Room.	1:30-2:00 PM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	
		"E" Area: North Oxide Blending Room in front of hood.	12:30-1:00 PM		0.05mg/m^3 0.1 ppm	Operator wearing respirator dumped uranium oxide into receiving can.
		Oxide conversion room, beside cold trap line "A".	12:30-1:00 PM		0.01mg/m^3 0.2 ppm	
		Oxide conversion room beside cold trap line "C".	1:00-1:30 PM		0.01mg/m^3 0.1 ppm	
		South Oxide Blending Room in front of hood.	1:00-1:30 PM		0.18mg/m^3 0.3 ppm	
		Oxide conversion room, beside cold trap line "B".	1:30-2:00 PM		0.01mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 156
Routine X
Special
Requested by
Date 3-22-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-9-56	Area "C". S. end of Deferruling Booth.	7:15-7:45 PM	Uranium Gaseous Fluoride	<0.01mg/m^3 <0.1 ppm	Operators wearing respirators.
		N. end of Deferruling Booth.	7:15-7:45 PM		0.03mg/m^3 0.1 ppm	
		Converter disassembly area, beside column G-8.	8:00-8:30 PM		<0.01mg/m^3 0.1 ppm	
		Northwest corner of compressor pit.	8:30-9:00 PM		<0.01mg/m^3 <0.1 ppm	
		S.E. corner of detubing platform.				
		Outside South door of Acid Spray Booth.	10:30 p.m.	Nitrogen Dioxide	17 ppm	Operator had just opened the door to acid spray booth.
		Area "B", on calciner platform.	5:45 p.m.		< 5 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 143 13+1
Routine X
Special
Requested by
Date 3-15-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	3-9-56	"E" Area, oxide conversion room, beside cold trap, "C" line.	5:00-5:30 PM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	Truck entrance open at N.W. corner of room.
		"E" Area, oxide conversion room, beside cold trap, "A" line.	5:30-6:00 PM		0.01mg/m^3 0.1 ppm	
		"B" Area, beside operator's desk, West of calciner platform.	5:00-5:30 PM	Uranium	0.01mg/m^3 < 0.01mg/m^3	
		"D" Area, cold trap room.	5:00-5:30 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	Slight odor of hydrogen fluoride
		"E" Area, North oxide blending room in front of hood.	7:00-7:30 PM		0.09mg/m^3 0.1 ppm	Door open to oxide conversion room. Odor of fluorine from oxide conversion room.
		"C" Area, Northeast corner of floor pan.	6:00-6:30 PM		0.01mg/m^3 0.3 ppm	Operators wearing respirators working on converter spools.
		"C" Area, partial disassembly area, 30 ft. West of Spray Booth.	8:00-8:30 PM	K-1420-2-1+1 BF-6	< 0.01mg/m^3 0.3 ppm	Three operators wearing respirators working on converters.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

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Routine X
Special
Requested by
Date 3-6-56

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BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-28-56	"C" Area, 5 ft. from welder.	12:35-1:05 PM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	Welder cutting heads from converters.
			1:05-1:35 PM		0.01mg/m^3 0.1 ppm	
			1:35-2:05 PM		0.01mg/m^3 0.1 ppm	
			2:05-2:35 PM		0.01mg/m^3 0.1 ppm	
		"C" Area, 4 ft. from operators.	12:35-1:05 PM		0.01mg/m^3 0.1 ppm	Four operators wearing respirators using air driven wrenches on compressor.
			1:05-1:35 PM		0.01mg/m^3 0.1 ppm	
			1:35-2:05 PM		0.34mg/m^3 0.6 ppm	
			2:05-2:35 PM		0.02mg/m^3 0.1 ppm	

12 - K
12 GF

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

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Routine X
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Requested by
Date 3-6-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420-	2-28-56	"C" Area, 5 ft. South of Detubing platform.	12:40-1:10 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 ✓ < 0.1 ppm ✓	Two operators wearing respirators were removing tubes from converter spools.
			1:10-1:40 PM		0.01mg/m^3 ✓ < 0.1 ppm ✓	
			1:40-2:10 PM		< 0.01mg/m^3 ✓ < 0.1 ppm ✓	
			2:10-2:40 PM		< 0.01mg/m^3 ✓ < 0.1 ppm ✓	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 114 16
Routine X
Special
Requested by
Date 3-6-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-28-56	Area "E", West of center oxide conversion unit.	12:30-1:00 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 0.1 ppm	
			1:00-1:30 PM		< 0.01mg/m^3 0.1 ppm	
			1:30-2:00 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:00-2:30 PM		< 0.01mg/m^3 0.1 ppm	
		Area "B", West of calciner stands by operator's desk.	12:30-1:00 PM		< 0.01mg/m^3 0.1 ppm	
			1:00-1:30 PM		< 0.01mg/m^3 0.1 ppm	
			1:30-2:00 PM	8-U 8-GF	< 0.01mg/m^3 0.1 ppm	
			2:00-2:30 PM		< 0.01mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 101 Page 1
Routine X
Special
Requested by
Date 3-2-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-22-56	"C" Area, South side of the deferruling booth.	8:30-9:00 AM	Uranium Gaseous Fluoride	0.03mg/m^3 ✓ < 0.1 ppm ✓	
			9:00-9:30 AM		0.01mg/m^3 ✓ 0.1 ppm ✓	
			9:30-10:00 AM		< 0.01mg/m^3 ✓ 0.1 ppm ✓	
			10:00-10:30 AM		< 0.01mg/m^3 ✓ < 0.1 ppm ✓	
		"C" Area, East side of de-tubing stand.	8:30-9:00 AM		< 0.01mg/m^3 ✓ 0.1 ppm ✓	
			9:00-9:30 AM		0.01mg/m^3 ✓ 0.1 ppm ✓	
			9:30-10:00 AM		< 0.01mg/m^3 ✓ 0.1 ppm ✓	
			10:00-10:30 AM		< 0.01mg/m^3 ✓ 0.1 ppm ✓	

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m-1-15
GF-16

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AIR SAMPLING REPORT

NUMBER 101 Page 2
Routine X
Special
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Date 3-2-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-22-56	"G" Area, North side of floor pan.	8:30-9:00 AM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	✓ ✓
			9:00-9:30 AM		0.01mg/m^3 0.1 ppm	✓ ✓
			9:30-10:00 AM		< 0.01mg/m^3 0.1 ppm	✓ ✓
			10:00-10:30 AM		< 0.01mg/m^3 < 0.1 ppm	✓ ✓
		"G" Area, 30 ft. west of entrance to cleaning booths.	8:30-9:00 AM		0.09mg/m^3 0.1 ppm	✓
			9:00-9:30 AM		< 0.01mg/m^3 0.1 ppm	✓ ✓
			9:30-10:00 AM		< 0.01mg/m^3 0.1 ppm	✓ ✓
			10:00-10:30 AM		< 0.01mg/m^3 0.1 ppm	✓ ✓

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WGX 2512(9-55) K-25 RC Medical Department

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 119
Routine
Special X
Requested by D. L. Stoddard
Date 3-12-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-22-56	"B" Area. Southeast corner of recovery room.	1:00 p.m.	Trichloroethylene	2x2/40 * MAC Considered 100 ppm	Painter wearing All Service Mask removing paint from floor around pumps with TCE on cloth. Portable exhaust blower in use. *Concentration exceeded the MAC two times for a total of two minutes of the 40 minute sampling period.
		"B" Area. South end of the recovery room at operator's desk 24 ft. from operations.	1:40 p.m.	Trichloroethylene	None Detected NI	1:32-Sample was taken at face level with painter. Painter received an acid burn at 1:39, left for treatment at 1:40. Operations stopped at 1:40.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 102
Routine X
Special
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Date 3-2-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	2-22-56	"D" Area, West end of Calciners by operator's desk.	8:40-9:10 AM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	✓
			9:10-9:40 AM		< 0.01mg/m^3 0.1 ppm	✓
			9:40-10:10 AM		< 0.01mg/m^3 0.1 ppm	✓
			10:10-10:40 AM		< 0.01mg/m^3 < 0.1 ppm	✓
		"E" Area, West end of center oxide conversion unit.	8:40-9:10 AM		< 0.01mg/m^3 0.1 ppm	✓
			9:10-9:40 AM		0.01mg/m^3 0.1 ppm	✓
			9:40-10:10 AM		< 0.01mg/m^3 0.1 ppm	✓
			10:10-10:40 AM		0.01mg/m^3 0.1 ppm	✓

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 95 Page 1 14-1
Routine X
Special
Requested by
Date 2-2[illegible]-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	2-3-56	"B" Area, W. side of B-10-C Calciner by operator's desk.	10:45-11:15 AM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	
			11:15-11:45 AM		< 0.01mg/m^3 < 0.1 ppm	
			12:30-1:00 PM		< 0.01mg/m^3 < 0.1 ppm	
			1:00-1:30 PM		< 0.01mg/m^3 < 0.1 ppm	
		"C" Area, ten ft. northwest of column C-11.	10:45-11:15 AM		< 0.01mg/m^3 < 0.1 ppm	Five feet from operator removing bolts from converter spool with air driven wrench. All operators were wearing respirators.
			11:15-11:45 AM		< 0.01mg/m^3 < 0.1 ppm	
			12:30-1:00 PM		< 0.01mg/m^3 < 0.1 ppm	
			1:00-1:30 PM		< 0.01mg/m^3 < 0.1 ppm	
		"C" Area, North side of the center deferruling booth.	10:45-11:15 AM		0.01mg/m^3 0.1 ppm	Operators removing ferrules were not wearing respirators.

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12

11-
[illegible]
NO -1

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AIR SAMPLING REPORT

NUMBER 95 Page 2
Routine X
Special
Requested by
Date 2-28-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-3-56	"C" Area. North side of the center Deferruling Booth.	12:30-1:00 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	Operators removing ferrules were not wearing respirators.
			1:00-1:30 PM		< 0.01mg/m^3 0.1 ppm	
			1:30-2:00 PM		< 0.01mg/m^3 0.1 ppm	
		"C" Area. South side of the center Deferruling Booth.	10:45-11:15 AM		< 0.01mg/m^3 < 0.1 ppm	Operators were knocking out ferrules from the north end.
			12:30-1:00 PM		< 0.01mg/m^3 0.1 ppm	
			1:00-1:30 PM		< 0.01mg/m^3 0.1 ppm	
			1:30-2:00 PM		< 0.01mg/m^3 0.1 ppm	
		"C" Area, five feet from operator.	10:45-11:15 AM		< 0.01mg/m^3 0.1 ppm	Operator removing tubes from converter spool was not wearing a respirator.
			11:15-11:16 AM		< 0.01mg/m^3 < 0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 95 Page 3
Routine X
Special
Requested by
Date 2-28-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-3-56	"C" Area, five feet from operator.	12:30-1:00 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	Operator removing tubes from converter spool was not wearing a respirator.
			1:00-1:30 PM		< 0.01mg/m^3 < 0.1 ppm	
		"F" Area. Against south wall by oxide conversion unit.	1:45-2:15 PM		< 0.01mg/m^3 0.1 ppm	
			2:15-2:45 PM		< 0.01mg/m^3 0.1 ppm	
			2:45-3:15 PM		< 0.01mg/m^3 0.1 ppm	
			3:15-3:45 PM		< 0.01mg/m^3 0.1 ppm	
		On platform by operator running calciner.	3:30 p.m.	Nitrogen Dioxide B. Roe	4.5 ppm	#1 Drum Drier was operating.
	2-9-56	"C" Area. North side of center deferruling booth.	6:00-6:30 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	Operators were wearing respirators. Truck entrance open on east end of bldg. Wind blowing from east.
			6:30-7:00 PM		< 0.01mg/m^3 < 0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 95 Page 4
Routine X
Special
Requested by
Date 2-28-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-9-56	"C" Area. North side of center deferruling booth.	7:30-8:00 PM	Uranium Gaseous Fluoride	< 0.01mg/m³ ✓ < 0.1 ppm ✓	Operators were wearing respirators. Truck entrance open on East end of bldg. Wind blowing from East.
			8:00-8:30 PM		< 0.01mg/m³ ✓ 0.1 ppm ✓	
		"C" Area. South side of West deferruling booth.	6:00-6:30 PM		< 0.01mg/m³ ✓ < 0.1 ppm ✓	Operators were wearing respirators.
			6:30-7:00 PM		< 0.01mg/m³ ✓ < 0.1 ppm ✓	
			7:30-8:00 PM		< 0.01mg/m³ ✓ < 0.1 ppm ✓	
			8:00-8:30 PM		< 0.01mg/m³ ✓ 0.1 ppm ✓	
		"C" Area, between operators.	6:00-6:30 PM		< 0.01mg/m³ ✓ 0.1 ppm ✓	Two operators wearing respirators were removing barrier tubes.
			6:30-7:00 PM		< 0.01mg/m³ ✓ 0.1 ppm ✓	
			7:30-8:00 PM		0.01mg/m³ ✓ 0.1 ppm ✓	

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NUMBER 95 Page 5
Routine X
Special
Requested by
Date 2-23-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-9-56	"C" Area, between operators.	3:00-3:30 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 0.1 ppm	Two operators wearing respirators were removing barrier tubes.
		"C" Area, at West end of entrance to spray booths.	6:00-6:30 PM		< 0.01mg/m^3 < 0.1 ppm	Two operators wearing respirators were dismantling parts of converters for cleaning.
			6:30-7:00 PM		< 0.01mg/m^3 < 0.1 ppm	
			7:30-8:00 PM		< 0.01mg/m^3 0.1 ppm	
			8:00-8:30 PM		< 0.01mg/m^3 0.1 ppm	
		"B" Area, West side of the Calciner stands by operator's desk.	6:00-6:30 PM		< 0.01mg/m^3 < 0.1 ppm	Calciners were in operation.
			6:30-7:00 PM		< 0.01mg/m^3 < 0.1 ppm	
			7:00-7:30 PM		< 0.01mg/m^3 < 0.1 ppm	

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NUMBER 95 Page 6
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Date 2-28-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-9-56	"B" Area, West side of the Calciner stands by operator's desk.	7:30-8:00 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	Calciners were in operation.
		"E" Area, West end of oxide conversion room by the operator's desk.	6:00-6:30 PM		0.02mg/m^3 0.2 ppm	Oxide conversion units operating. Large door open at Northwest corner of room.
			6:30-7:00 PM		~~0.23mg/m^3~~ 0.2 ppm	
			7:00-7:30 PM		0.01mg/m^3 0.1 ppm	
			7:30-8:00 PM		< 0.01mg/m^3 0.1 ppm	
	2-15-56	"C" Area, center deferruling booth.	8:45-9:15 AM		0.01mg/m^3 0.1 ppm	Operators wearing respirators.
			9:15-9:45 AM		< 0.01mg/m^3 < 0.1 ppm	
			9:45-10:15 AM		< 0.01mg/m^3 0.3 ppm	

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K-1

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NUMBER 95 Page 7
Routine X
Special
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Date 2-23-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-15-56	"C" Area, center deferruling booth.	10:15-10:45 AM	Uranium Gaseous Fluoride	< 0.01mg/m^3 0.1 ppm	Operators wearing respirators.
		"C" Area, South side of the operators removing tubes from converter spools.	8:45-9:15 AM		< 0.01mg/m^3 0.1 ppm	
			9:15-9:45 AM		0.01mg/m^3 < 0.1 ppm	
			9:45-10:15 AM		< 0.01mg/m^3 0.1 ppm	
			10:15-10:45 AM		0.01mg/m^3 0.1 ppm	
		"B" Area, West side of Calciner stands, by operator's desk.	8:45-9:15 AM		< 0.01mg/m^3 0.1 ppm	
			9:15-9:45 AM		< 0.01mg/m^3 0.9 ppm	
			9:45-10:15 AM		< 0.01mg/m^3 0.2 ppm	
			10:15-10:45 AM		< 0.01mg/m^3 0.1 ppm	

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AIR SAMPLING REPORT

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Requested by
Date 2-28-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	2-15-56	"E" Area, against South wall at end of oxide conversion unit.	8:45-9:15 AM	Uranium Gaseous Fluoride	< 0.01mg/m^3 0.1 ppm	
			9:15-9:45 AM		< 0.01mg/m^3 0.5 ppm	
			9:45-10:15 AM		< 0.01mg/m^3 0.6 ppm	
			10:15-10:45 AM		< 0.01mg/m^3 0.2 ppm	
		"C" Area, Northeast corner of floor pan.	8:45-9:15 AM		< 0.01mg/m^3 0.6 ppm	Operator washing and brushing converter parts.
			9:15-9:45 AM		0.01mg/m^3 0.1 ppm	
			9:45-10:15 AM		0.01mg/m^3 0.1 ppm	
			10:15-10:45 AM		< 0.01mg/m^3 0.1 ppm	

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NUMBER 95 Page 9
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Requested by
Date 2-28-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	2-15-56	"C" Area, 30 ft. West of entrance to spray booths.	8:45-9:15 AM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	Operators removed bolts from converter parts before cleaning. Operators were wearing respirators.
			9:15-9:45 AM		0.01mg/m^3 0.1 ppm	
			9:45-10:15 AM		0.01mg/m^3 0.1 ppm	
			10:15-10:45 AM		0.01mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 67
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Special
Requested by
Date 2-16-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-27-56	"C" area, four feet from welder cutting open converter.	2:00-2:30 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 0.2 ppm	
			2:30-3:00 PM		< 0.01mg/m^3 0.2 ppm	
			3:00-3:30 PM		0.01mg/m^3 0.1 ppm	
		"C" area, on platform between two operators removing ferrules from converter spools.	2:00-2:30 PM		0.01mg/m^3 0.1 ppm	
			2:30-3:00 PM		< 0.01mg/m^3 0.1 ppm	
			3:00-3:30 PM		0.02mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 46 Page 1
Routine X
Special
Requested by
Date 2-7-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-18-56	5' east of column 13-D by floor pan. "C" area	1:15-1:45 PM	Uranium Gaseous Fluoride	0.03mg/m^3 0.1 ppm	
			1:45-2:15 PM		$<$0.01mg/m^3 0.1 ppm	
			2:15-2:45 PM		$<$0.01mg/m^3 0.1 ppm	
			2:45-3:15 PM		$<$ 0.01mg/m^3 0.1 ppm	
		Center east of cleaning area in area "C".	1:15-1:45 PM		$<$0.01mg/m^3 $<$ 0.1 ppm	
			1:45-2:15 PM		$<$0.01mg/m^3 $<$0.1 ppm	
			2:15-2:45 PM		$<$0.01mg/m^3 $<$0.1 ppm	
			2:45-3:15 PM		$<$ 0.01mg/m^3 $<$0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 46 Page 2
Routine X
Special
Requested by
Date 2-7-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-13-56	S.W. of detubing stand.	1:15-1:45 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	
			1:45-2:15 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:15-2:45 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:45-3:15 PM		< 0.01mg/m^3 < 0.1 ppm	
		South of deferruling booth.	1:15-1:45 PM		< 0.01mg/m^3 < 0.1 ppm	
			1:45-2:15 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:15-2:45 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:45-3:15 PM		< 0.01mg/m^3 < 0.1 ppm	

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 31
Routine
Special X
Requested by A. L. Allen
Date 1-24-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-18-56	Approx. 3 ft. inside S. W. door of acid spray booth.	3:05 p.m.	Nitrogen Dioxide	110 ppm	Operational check of the dilution of the concentration of Nitrogen Dioxide in the Acid Spray Booth versus the time. Normal operating procedure was followed. Spray ended at 3:04. Unit being sprayed was type A converter head. Head was moved into the spray rinse booth at 3:12 p.m.
			3:08 p.m.		79 ppm	
			3:12 p.m.		55 ppm	
			3:20 p.m.		12 ppm	
			3:36 p.m.		4.7 ppm	

NT
No Exposure Concerned

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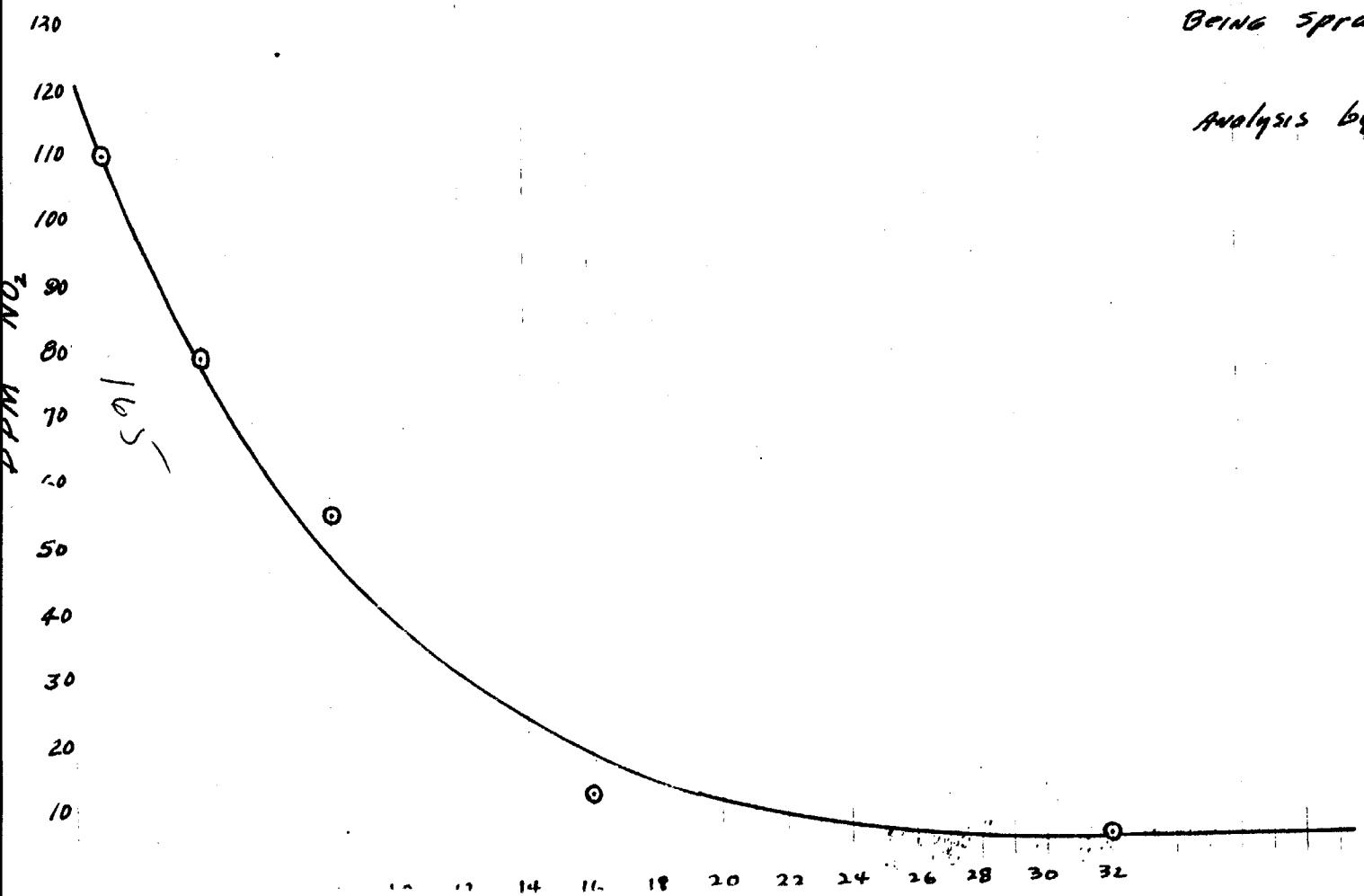
ACID SPRAY BOOTH, K-1420
1-18-56

CONCENTRATION of NO_2 IN Spray Booth VERSUS the Time Lapse.

TYPE "A" Converter HEAD Being Sprayed -

Analysis by JKL. and T.C.W.



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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 25 Page 1
Routine X
Special
Requested by
Date 1-20-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-11-56	"C" Area, five feet north-east of column G-6.	4:15-4:45 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	Welder cutting converter open. Was not wearing a respirator.
			4:45-5:15 PM		< 0.01mg/m^3 < 0.1 ppm	
			5:15-5:45 PM		< 0.01mg/m^3 < 0.1 ppm	
			5:45-6:15 PM		< 0.01mg/m^3 < 0.1 ppm	
		"C" Area, against wall, center, between column G-7 and G-8.	4:15-4:45 PM		< 0.01mg/m^3 < 0.1 ppm	Operators disassembling converters wearing respirators.
			4:45-5:15 PM		< 0.01mg/m^3 < 0.1 ppm	
			5:15-5:45 PM		< 0.01mg/m^3 < 0.1 ppm	
			5:45-6:15 PM		< 0.01mg/m^3 < 0.1 ppm	

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NUMBER 25 Page 2
Routine X
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Requested by
Date 1-20-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-11-56	"C" Area. Southeast of column D-11 and five feet from operator.	4:15-4:45 PM	Uranium Gaseous Fluoride	<0.01mg/m3 <0.1 ppm	Operator heating parts of a compressor with torch. No respirator.
			4:45-5:15 PM		<0.01mg/m3 <0.1 ppm	
			5:15-5:45 PM		<0.01mg/m3 <0.1 ppm	
			5:45-6:15 PM		<0.01mg/m3 <0.1 ppm	
		"C" Area. Northeast corner of pan.	4:15-4:45 PM		0.10mg/m3 0.1 ppm	Operators steaming and brushing parts of compressors. No respiratory equipment being worn.
			4:45-5:15 PM		0.03mg/m3 0.1 ppm	
			5:15-5:45 PM		<0.01mg/m3 0.1 ppm	
			5:45-6:15 PM		0.01mg/m3 0.1 ppm	

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NUMBER 25 Page 3
Routine X
Special
Requested by
Date 1-20-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-11-56	"C" Area. east side of stand over grinder.	5:45-6:15 PM	Uranium Gaseous Fluoride	<0.01mg/m^3 0.1 ppm	Operators removing tubes from converter spool. Operators were not wearing respirators.
			6:15-6:45 PM		0.01mg/m^3 <0.1 ppm	
			6:45-7:15 PM		<0.01mg/m^3 <0.1 ppm	
			7:15-7:45 PM		<0.01mg/m^3 <0.1 ppm	Respirators being worn during this sampling period.
		"C" Area. beside operators removing ferrules.	7:15-7:45 PM		<0.01mg/m^3 0.1 ppm	Operators removing ferrules. Operators wearing respirators.
			7:45-8:15 PM		0.27mg/m^3 0.2 ppm	
			8:15-8:45 PM		0.01mg/m^3 0.1 ppm	
			8:45-9:15 PM		0.01mg/m^3 0.1 ppm	

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Date 1-20-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-11-56	"C" Area. west side of inverting fixture.	4:45-5:15 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 0.1 ppm	Operators removing outer bolts from compressor shell, were not wearing respirators.
			5:15-5:45 PM		< 0.01mg/m^3 0.2 ppm	
			5:45-6:15 PM		0.01mg/m^3 0.2 ppm	
			6:15-6:45 PM		< 0.01mg/m^3 0.2 ppm	
K-1421		Inside door of furnace bldg. for burning contaminated waste.	5:15-5:45 PM		0.07mg/m^3 0.1 ppm	Operator was not wearing respirator.
			5:45-6:15 PM		0.02mg/m^3 0.5 ppm	
			6:15-6:45 PM		0.07mg/m^3 0.4 ppm	
			6:45-7:15 PM		0.24mg/m^3 0.1 ppm	

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NUMBER 4 Page 1
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Date 1-17-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-4-56	Area "C" Column D-7, south side. Northwest corner of compressor turnover fixture.	5:00-5:30 PM	Uranium Gaseous Fluoride.	<0.01mg/m^3 <0.1 ppm	
			5:30-6:00 PM		<0.01mg/m^3 0.1 ppm	
			6:00-6:30 PM		<0.01mg/m^3 0.1 ppm	
			6:30-7:00 PM		0.01mg/m^3 0.1 ppm	
		Area "C", west side of Column A-13, north side center of pan.	5:00-5:30 PM		<0.01mg/m^3 0.1 ppm	Operators brushing compressor parts were wearing respirators.
			5:30-6:00 PM		0.01mg/m^3 0.1 ppm	
			6:00-6:30 PM		<0.01mg/m^3 0.1 ppm	
			6:30-7:00 PM		0.01mg/m^3 0.1 ppm	

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Date 1-17-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-4-56	Area "C", five feet north-east of column G-6.	5:00-5:30 PM	Uranium Gaseous Fluoride	0.01mg/m^3 < 0.1 ppm	Welder cutting converter open.
			5:30-6:00 PM		0.02mg/m^3 < 0.1 ppm	
			6:00-6:30 PM		0.01mg/m^3 0.1 ppm	
			6:30-7:00 PM		0.03mg/m^3 0.1 ppm	
		Area "C", five feet east of column G-6.	5:00-5:30 PM		0.01mg/m^3 < 0.1 ppm	Operators removing parts of compressor.
			5:30-6:00 PM		0.01mg/m^3 0.1 ppm	
			6:00-6:30 PM		< 0.01mg/m^3 0.1 ppm	
			6:30-7:00 PM		< 0.01mg/m^3 0.1 ppm	

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NUMBER 18
Routine X
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Date 1-19-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	1-11-56	Just inside door on south side of acid booth.	10:34 a.m.	Nitrogen Oxides	15 ppm	000 shell being cleaned. Spraying started at 10:15. Stopped at 10:30. Opened door on south side at 10:31. Operator went in at 10:31 to push excess acid from shell. He was not wearing respiratory protective equipment. Large door on inlet side of acid booth opened at 10:37. Inlet door to ammonium carbonate booth already open. Moved shell out at 10:35.
		Six feet from southwest corner of acid booth.	10:44 p.m.		11 ppm	Moved spool into acid booth at 10:44. Closed door on south side at 10:45 and began spraying spool.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 645 Page 1
Routine
Special
Requested by
Date 1-5-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-22-55	Northwest corner of tunnel.	2:30-3:30 PM	Uranium	< 0.01mg/m^3	
		Northwest corner of tunnel, against north wall, 10 feet from nickel scrap hopper.	2:30-3:30 PM		0.03mg/m^3	Operators wearing respirators. Dumped scrap into a drum from storage hopper at 2:45.
		Center of tunnel, south walkway.	2:37 p.m.	Oxygen	20.3%	
		West end of tunnel, 10 feet southeast of walkway.	2:39 p.m.		20.1%	
		Center of tunnel, south walkway.	2:50-3:15 PM	Nitrogen Dioxide	2.4 ppm	
		Center of tunnel, south walkway.	3:20-3:50 PM	Ammonia	0 ppm	
	12-29-55	Area "C", five feet west of hopper for contaminated scrap metal.	1:00-1:30 PM	Uranium Gaseous Fluoride	0.01mg/m^3 < 0.1 ppm	
			1:30-2:00 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:00-2:30 PM		< 0.01mg/m^3 0.1 ppm	

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NUMBER 645 Page 2
Routine X
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Date 1-5-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-29-55	Area "C", five feet west of hopper for contaminated scrap metal.	2:30-3:00 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 0.1 ppm	
		Area "C", south of center ferrule removing house.	1:00-1:30 PM		0.01mg/m^3 0.1 ppm	All operators were wearing respirators.
			1:30-2:00 PM		0.01mg/m^3 0.3 ppm	
			2:00-2:30 PM		0.01mg/m^3 0.4 ppm	
			2:30-3:00 PM		< 0.01mg/m^3 0.1 ppm	
		Area "C", five feet north-east of compressor.	1:00-1:30 PM		0.10mg/m^3 0.3 ppm	
			1:30-2:00 PM		0.02mg/m^3 0.1 ppm	
			2:00-2:30 PM		0.01mg/m^3 0.3 ppm	

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Date 1-5-56

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-29-55	Area "C", five feet north-east of compressor.	2:30-3:00 PM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	All operators wearing respirators.
		Area "C", northeast corner of pan.	1:00-1:30 PM		0.01mg/m^3 0.1 ppm	Cleaning compressor parts.
			1:30-2:00 PM		0.21mg/m^3 0.4 ppm	
			2:00-2:30 PM		0.01mg/m^3 0.1 ppm	
			2:30-3:00 PM		0.03mg/m^3 0.2 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 642 Page 1
Routine X
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Requested by
Date 12-22-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-13-55	"C" Area, No. 8, two feet south of column D-13 and 5 feet from operators.	4:45-5:15 PM	Uranium Gaseous Fluoride	0.04mg/m^3 0.1 ppm	Operators brushing compressor parts. Some parts of the compressor were wet down before brushing. All operators were wearing respirators.
			5:15-5:45 PM		0.05mg/m^3 0.1 ppm	
			5:45-6:15 PM		0.11mg/m^3 0.2 ppm	
			6:15-6:45 PM		0.43mg/m^3 0.9 ppm	
		"C" Area, No. 7, two feet south of column D-11 and and 7 feet from operators.	4:45-5:15 PM		0.01mg/m^3 0.3 ppm	Operator removing blades from compressors. All operators wearing respirators.
			5:15-5:45 PM		0.15mg/m^3 0.2 ppm	
			5:45-6:15 PM		0.05mg/m^3 0.2 ppm	
			6:15-6:45 PM		0.12mg/m^3 0.8 ppm	

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NUMBER 642 Page 2
Routine X
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Date 12-22-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
F-1420	12-13-55	"C" Area, No. 6, two feet north of column G-8 by the operator disassembling converter.	5:00-5:30 PM	Uranium Gaseous Fluoride	0.1mg/m3 0.2 ppm	Operators were wearing respirators.
			5:30-6:00 PM		<0.1mg/m3 0.3 ppm	
			6:00-6:30 PM		0.02mg/m3 1.0 ppm	
			6:30-7:00 PM		0.02mg/m3 0.7 ppm	
		"C" Area, No. 6, south of column D-7 at northwest corner of compressor turn-over fixture.	5:00-5:30 PM		0.01mg/m3 0.8 ppm	
			5:30-6:00 PM		0.01mg/m3 0.8 ppm	
			6:00-6:30 PM		0.01mg/m3 0.2 ppm	
			6:30-7:00 PM		<0.01mg/m3 0.1 ppm	

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NUMBER 642 Page 3
Routine X
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Date 12-22-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1421	12-13-55	Just inside door of bldg. Five feet from mouth of furnace.	6:00-6:30 PM	Uranium Gaseous Fluoride	<0.01mg/m^3 0.1 ppm	Operator burning contaminated waste in furnace was wearing respirator.
			6:30-7:00 PM		0.05mg/m^3 0.1 ppm	
			7:00-7:30 PM		<0.01mg/m^3 0.1 ppm	
			7:30-8:00 PM		0.01mg/m^3 0.1 ppm	
K-1420		Area I-B, Line "C", four ft. west of A70 reactor and four ft. east of B-10 trap.	8:25-8:55 PM	Uranium Fluorine	<0.01mg/m^3 0.1 ppm	Oxide conversion in operation.
			8:55-9:25 PM		<0.01mg/m^3 <0.1 ppm	
			9:25-9:55 PM		0.01mg/m^3 <0.1 ppm	
			9:55-10:25 PM		0.01mg/m^3 <0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

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Routine X
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Date 12-19-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-5-55	North of ferrule removing house, Area ten.	1:15-1:45 PM	Uranium Gaseous Fluoride	0.01mg/m^3 < 0.1 ppm	
			1:45-2:15 PM		0.02mg/m^3 0.1 ppm	
			2:15-2:45 PM		< 0.01mg/m^3 0.1 ppm	
			2:45-3:15 PM		0.02mg/m^3 < 0.1 ppm	
		Two feet south of detabing of converter spool, Area ten.	1:15-1:45 PM		0.01mg/m^3 < 0.1 ppm	
			1:45-2:15 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:15-2:45 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:45-3:15 PM		< 0.01mg/m^3 0.1 ppm	

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Routine X
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Date 12-19-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-5-55	Column D-13 by floor pan, Area seven.	1:15-1:45 PM	Uranium Gaseous Fluoride	< 0.01mg/m^3 < 0.1 ppm	
			1:45-2:15 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:15-2:45 PM		0.01mg/m^3 0.2 ppm	
			2:45-3:15 PM		0.01mg/m^3 < 0.1 ppm	
		Four feet east of head cutting stand, Area five.	1:15-1:45 PM		< 0.01mg/m^3 < 0.1 ppm	
			1:45-2:15 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:15-2:45 PM		< 0.01mg/m^3 < 0.1 ppm	
			2:45-3:15 PM		0.02mg/m^3 < 0.1 ppm	

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NUMBER 629 Page 3
Routine X
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Date 12-19-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	12-13-55	"C" Area, No. ten, north end of center ferrule removing house.	4:35-5:05 PM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	All operators removing ferrules were wearing respirators.
			5:05-5:35 PM		0.02mg/m^3 0.1 ppm	
			5:35-6:05 PM		0.02mg/m^3 0.1 ppm	
			6:05-6:35 PM		0.01mg/m^3 0.1 ppm	
		"C" Area, No. ten, three feet northwest of storage hopper for barrier metal.	4:35-5:05 PM		0.01mg/m^3 0.1 ppm	Operators filling drums with ground barrier metal from storage hopper. All operators working in this area were wearing respirators.
			5:05-5:35 PM		0.07mg/m^3 0.2 ppm	
			5:35-6:05 PM		0.03mg/m^3 0.1 ppm	
			6:05-6:35 PM		0.01mg/m^3 0.1 ppm	

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NUMBER 624 Page 1
Routine X
Special
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Date 12-13-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1[illegible]	11-28-55	"C" area. Col. D-13. Cleaning area for compressor parts.	12:30-1:00 PM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	
			1:00-1:30 PM		<0.01mg/m^3 0.2 ppm	
			1:30-2:00 PM		0.02mg/m^3 0.1 ppm	
			2:00-2:30 PM		<0.01mg/m^3 0.1 ppm	
		"C" Area, northwest of the deferruling booth.	12:30-1:00 PM		<0.01mg/m^3 <0.1 ppm	Operators wet down tube sheet before removing ferrules. Only one operator out of four had on a respirator.
			1:00-1:30 PM		<0.01mg/m^3 0.1 ppm	
			1:30-2:00 PM		<0.01mg/m^3 <0.1 ppm	
			2:00-2:30 PM		<0.01mg/m^3 0.1 ppm	

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Date 12-13-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-28-55	"C" area, south side of the detubing stand.	12:30-1:00 PM	Uranium Gaseous Fluoride	0.02mg/m^3 0.3 ppm	
			1:00-1:30 PM		0.01mg/m^3 0.2 ppm	
			1:30-2:00 PM		0.02mg/m^3 0.1 ppm	
			2:00-2:30 PM		0.01mg/m^3 0.1 ppm	
	11-30-55	"C" area, north side of the deferruling booth.	12:40-1:10 AM		0.37mg/m^3 0.7 ppm	Respiratory protective equipment being worn
		"C" area, south side of the deferruling booth.	1:10-1:40 AM		0.12mg/m^3 0.2 ppm	
			1:40-2:10 AM		0.57mg/m^3 0.7 ppm	
		"C" area, two feet south of operator detubing converter.	12:40-1:10 AM		0.06mg/m^3 0.2 ppm	
			1:10-1:40 AM		<0.01mg/m^3 0.1 ppm	

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Date 12-13-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-30-55	"C" Area, two feet south of operator detubing converter.	1:40-2:10 AM	Uranium Gaseous Fluoride	0.02mg/m^3 0.2 ppm	
			2:10-2:40 AM		0.02mg/m^3 0.2 ppm	
		"C" Area, column D-13, three feet north of floor pan.	12:40-1:10 AM		0.05mg/m^3 0.2 ppm	Operators cleaning parts of compressors. Respiratory protective equipment being worn.
			1:10-1:40 AM		0.03mg/m^3 0.2 ppm	
			1:40-2:10 AM		0.01mg/m^3 0.1 ppm	
			2:10-2:40 AM		0.03mg/m^3 0.1 ppm	
		Northeast corner of converter head dismantling area.	12:40-1:10 AM		<0.01mg/m^3 0.1 ppm	
			1:10-1:40 AM		<0.01mg/m^3 0.1 ppm	
			1:40-2:10 AM		0.01mg/m^3 0.1 ppm	

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NUMBER 624 Page 4
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Date 12-13-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-30-55	Northeast corner of converter head dismantling area.	2:10-2:40 AM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	
K-1231		Three feet east of crusher feed point.	3:15-3:45 AM		0.74mg/m^3 0.4 ppm	Employees wearing respiratory protective equipment.
			4:45-5:15 AM		0.54mg/m^3 0.3 ppm	
			5:15-5:45 AM		0.90mg/m^3 0.3 ppm	
			5:45-6:15 AM		0.58mg/m^3 0.3 ppm	
		Just inside of south truck entrance.	3:15-3:45 AM		0.27mg/m^3 0.3 ppm	
			4:45-5:15 AM		0.34mg/m^3 0.3 ppm	
			5:15-5:45 AM		0.18mg/m^3 0.2 ppm	
			5:45-6:15 AM		0.19mg/m^3 0.2 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

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Routine
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Date 12-1-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-18-55	Three feet east of compressor dismantling.	10:15-10:45 AM	Uranium Gaseous Fluoride	<0.01mg/m^3 <0.1 ppm	
			10:45-11:15 AM		<0.01mg/m^3 0.1 ppm	
			11:15-11:45 AM		<0.01mg/m^3 <0.1 ppm	
			11:45-12:45 PM		<0.01mg/m^3 0.1 ppm	
		Two feet northeast of the compressor dismantling.	10:15-10:45 AM		<0.01mg/m^3 <0.1 ppm	
			10:45-11:15 AM		<0.01mg/m^3 0.1 ppm	
			11:15-11:45 AM		<0.01mg/m^3 0.1 ppm	
			11:45-12:45 PM		<0.01mg/m^3 0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 611 Page 2
Routine X
Special
Requested by
Date 12-1-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-15-55	Northeast corner of compressor pit.	10:15-10:45 AM	Uranium Gaseous Fluoride	<0.01mg/m^3 <0.1 ppm	
			10:45-11:15 AM		0.03mg/m^3 0.1 ppm	
			11:15-11:45 AM		<0.01mg/m^3 0.1 ppm	
			11:45-12:45 PM		<0.01mg/m^3 0.2 ppm	
		Four feet south of column D-9 C area, compressor dismantling.	10:15-10:45 AM		<0.01mg/m^3 <0.1 ppm	
			10:45-11:15 AM		0.01mg/m^3 0.2 ppm	
			11:15-11:45 AM		<0.01mg/m^3 0.1 ppm	
			11:45-12:45 PM		<0.01mg/m^3 0.1 ppm	

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Date 12-1-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	11-10-55	Six feet north of pulverizer.	10:15-10:45 AM	Uranium Gaseous Fluoride	<0.01mg/m^3 <0.1 ppm	
			10:45-11:15 AM		0.01mg/m^3 0.2 ppm	
			11:15-11:45 AM		<0.01mg/m^3 <0.1 ppm	
			11:45-12:45 PM		<0.01mg/m^3 <0.1 ppm	
		Six feet east of compressor pit.	10:15-10:45 AM		<0.01mg/m^3 0.2 ppm	
			10:45-11:15 AM		0.06mg/m^3 <0.1 ppm	
			11:15-11:45 AM		<0.01mg/m^3 <0.1 ppm	
			11:45-12:45 PM		<0.01mg/m^3 0.1 ppm	

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Date 12-1-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
X-1420	11-18-55	Five feet north of column G-7. Converter dismantling area.	1:00-1:30 PM	Uranium Gaseous Fluoride	<0.01mg/m^3 <0.1 ppm	
			1:30-2:00 PM		<0.01mg/m^3 <0.1 ppm	
			2:00-2:30 PM		<0.01mg/m^3 <0.1 ppm	
		South of column D-9, near compressor dismantling area.	1:00-1:30 PM		<0.01mg/m^3 <0.1 ppm	
			1:30-2:00 PM		<0.01mg/m^3 0.1 ppm	
			2:00-2:30 PM		0.18mg/m^3 0.3 ppm	
		North of center ferrule removing house.	1:00-1:30 PM		0.30mg/m^3 <0.1 ppm	
			1:30-2:00 PM		<0.01mg/m^3 0.1 ppm	
			2:00-2:30 PM		<0.01mg/m^3 <0.1 ppm	

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Date 12-1-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-15-55	Unit A-4, northwest of the unwrapping table. A Area	1:00-1:30 PM	Uranium Gaseous Fluoride	<0.01mg/m^3 <0.1 ppm	
			1:30-2:00 PM		<0.01mg/m^3 0.3 ppm	
			2:00-2:30 PM		0.16mg/m^3 0.1 ppm	
		South of column G-22, near operator removing barrier tubes. C Area	1:00-1:30 PM		<0.01mg/m^3 <0.1 ppm	
			1:30-2:00 PM		<0.01mg/m^3 <0.1 ppm	
			2:00-2:30 PM		0.01mg/m^3 0.4 ppm	
	11-28-55	Just outside of door on south side of HNO_3 spraying booth, door open.	1:07 p.m.	Nitrogen Oxide	25 ppm	Sample taken 12 min. after spraying of innertube bundle, 000 type.
		At table on south side of HNO_3 booth, door open, table approx. 8 ft. from door.	1:16 p.m.		9 ppm	Sample taken at table as tube bundle was moved to next step.

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NUMBER 611Page 6
Routine X
Special
Requested by
Date 12-1-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	11-22-55	Outside of door on south side of HNO_3 spray booth, door open.	1:40-p.m.	Nitrogen Oxide	5 ppm	25 min. after spray equipment was shut off.
		Just inside of door on south side of HNO_3 spray booth.	2:10 p.m.		17 ppm	30 min. after spray was shut off.

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 591 Page 1
Routine X
Special
Requested by
Date 11-15-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-25-55	North side of column 9-D.	1:00-1:30 PM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	Compressor shaft being dismantled. Large amount of UO_2F_2 on shaft. One man not wearing respirator.
			1:30-2:00 PM		<0.01mg/m^3 0.1 ppm	
			2:00-2:30 PM		<0.01mg/m^3 0.1 ppm	
		North side of column 12-D.	1:00-1:30 PM		<0.01mg/m^3 0.1 ppm	
			1:30-2:00 PM		<0.01mg/m^3 <0.1 ppm	
			2:00-2:30 PM		<0.01mg/m^3 <0.1 ppm	
		North side of column 13-D.	1:00-1:30 PM		<0.01mg/m^3 <0.1 ppm	
			1:30-2:00 PM		<0.01mg/m^3 0.1 ppm	
			2:00-2:30 PM		0.01mg/m^3 <0.1 ppm	

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AIR SAMPLING REPORT

NUMBER 591 Page 2
Routine X
Special
Requested by
Date 11-15-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-25-55	North side of column 11-D.	1:00-1:30 PM	Uranium Gaseous Fluoride	0.01mg/m^3 0.1 ppm	
			1:30-2:00 PM		0.01mg/m^3 0.1 ppm	
			2:00-2:30 PM		0.01mg/m^3 0.1 ppm	

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 581
Routine X
Special
Requested by
Date 11-4-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-25-55	Inside doorway of acid spray booth.	2:05 p.m.	Nitrogen Oxide	22 ppm	Five minutes after spraying had stopped.
			2:20 p.m.		5.5 ppm	Fifteen minutes after the spraying had stopped.

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INDUSTRIAL HYGIENE
AIR SAMPLING REPORT

NUMBER 567
Routine X
Special
Requested by
Date 10-24-55

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	OBSERVATIONS AND REMARKS
K-1420	10-10-55	S. side of acid spray booth.	2:15-2:25 PM	Nitrogen Oxides	< 2 ppm	Spraying tube bundle from K-25.
		N. side of acid spray booth.	2:25 p.m.		55 ppm	Booth empty, recycling acid solution.
			2:48 p.m.		55 ppm	
			2:50 p.m.		5 ppm	Immediately after spraying had ceased.
			2:55 p.m.		< 2 ppm	
		Inside spray booth.	3:00 p.m.		37 ppm	Spraying had been stopped for ten minutes.
			3:10 p.m.		10 ppm	
		Area around east end of spray booth.	1:15-1:35 PM	Carbon Monoxide	< 10 ppm	Small gasoline crane operating in area. No respiratory protective devices being worn by employees in these areas.

N.T. Pardee

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INDUSTRIAL HYGIENE AIR SAMPLING REPORT

NUMBER 5hh
Routine X
Special A. L. Allen
Requested by: 9-12-55
Date

BUILDING OR AREA	DATE	SAMPLING LOCATION	SAMPLING TIME	CONTAMINANT	RESULT	MAC VALUES	OBSERVATIONS AND REMARKS
K-1420	9-7-55	Decontamination acid spray booth immediately following end of operation.					
		0 minutes.	2:14 p.m.	Nitrogen oxides	275 ppm	5 ppm	
		2 "	2:16 p.m.		183 ppm		
		8 "	2:22 p.m.		138 ppm		
		15 "	2:29 p.m.		55 ppm		
		20 "	2:34 p.m.		22 ppm		
		30 "	2:44 p.m.		11 ppm		

N.T. Inside of spray Booth

K-25 RC Medical Department

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