

IMPLEMENTATION ACKNOWLEDGEMENT

Procedure Title: ANALYST REPORT SUBMITTALS SCP/COI/CM&S # C121

Implementor: [Redacted] Date Initiated: 9-22

A) Personnel new qualification? NO YES
 F) Method new qualification? NO YES (Define requirements & return to U/M)

MCP Engineer: [Redacted] Date: 9/23/81

Frequency of Use: Daily, Per Week, Seldom, Not Applicable (Return to brief description of new procedure or rev.:

Accept for Lab implement? YES, NO (state reason):
 Training other than review required? NO, YES - answer (C) & (D):

- (C) List type required _____
- (D) Who to provide _____

Tech. (s) Affected (1)	Date Rec'd	Signature (2)	Date Signed	Signed Comments Attached			Certif By (1)
				No	Yes	Reqd. to Comply (E)	
[Redacted]	10-5-81	[Redacted]	10-5-81		-		[Redacted]
[Redacted]	10-7-81	[Redacted]	10-7-81		✓		[Redacted]
[Redacted]	9-30-81	[Redacted]	9-30-81		✓		[Redacted]
[Redacted]	10/6/81	[Redacted]	10/6/81		✓		[Redacted]
[Redacted]	10-6-81	[Redacted]	10-6-81		✓		[Redacted]
[Redacted]	10-7-81	[Redacted]	10-7-81		✓		[Redacted]
[Redacted]	9-27-81	[Redacted]	9-27-81		✓		[Redacted]
[Redacted]	9/25/81	[Redacted]	9-25-81		✓		[Redacted]

- (1) Upon completion of required training, each Supervisor is to insure that their personnel are now qualified to perform the procedure have read and completely understood it by obtaining their signatures and recognized any comments.
- (2) I have read and understand the testing method, and will follow the procedural steps as outlined in SCP/COI/CM&S # _____ R _____, with the knowledge that if I am prevented or caused to deviate from the procedure as it is written I may refuse to sign off any and all analyses performed by its use. (Sign and Date)

Implementor: Issued de-qualification letter, if (A) is yes and (E) is readily resolvable.
 Letter # _____ Date returned to U/M _____

Released for full implementation? YES, Date _____; NO, Action to resolve assigned to _____, Date _____

Implementor: _____ (Implementor) initial procedure & submit to Index Control Supervisor

- Placed new procedure in Station Book # _____
- Marked old procedure "Backup File" and returned to U/M
- Updated Station Document Index
- Posted yellow copy for personnel implement notification

9101280147 900921
 PDR FOIA
 BAUMAN87-88
 PDR

Information in this record was deleted in accordance with the Freedom of Information Act Exemptions
 FOIA - 89-88
 Supv. of Index Control
 147

M-1

IMPLEMENTATION ACKNOWLEDGMENT

Procedure Title: LMCS PROBLEM REPORT SUBMITTALS SCP/COI/CM&S # 0121

Implementor: [Redacted] Date Initiated: 9-23

(A) Personnel new qualification? NO YES
 (B) Method new qualification? NO YES (Define requirements & return to U/M)
 MOP Engineer: [Redacted] Date: 9/23/81

Frequency of Use: Daily, Per Week, Seldom, Not Applicable (Return to
 Brief description of new procedure or rev.:

Accept for Lab implement? YES, NO (state reason):
 Training other than review required? NO, YES - answer (C) & (D):

C) List type required _____
 D) Who to provide _____

Tech. (s) Affected (1)	Date Rec'd	Signature (2)	Date Signed	Signed Comments Attached		Certified By (1)
				No	Yes (Reqd. to Comply (E))	
[Redacted]	9-25-81	[Redacted]	9-25-81		<input checked="" type="checkbox"/>	[Redacted]
[Redacted]	9-30-81	[Redacted]	9-30-81		<input checked="" type="checkbox"/>	[Redacted]
[Redacted]	10-6-81	[Redacted]	10-6-81		<input checked="" type="checkbox"/>	[Redacted]
[Redacted]	10-7-81	[Redacted]	10-7-81		<input checked="" type="checkbox"/>	[Redacted]
[Redacted]	7-25-81	[Redacted]	7-25-81		<input checked="" type="checkbox"/>	[Redacted]
[Redacted]	4/30/81	[Redacted]	4/30/81		<input checked="" type="checkbox"/>	[Redacted]
[Redacted]	9/20/81	[Redacted]	9/20/81		<input checked="" type="checkbox"/>	[Redacted]
[Redacted]	9/20/81	[Redacted]	9/20/81		<input checked="" type="checkbox"/>	[Redacted]
[Redacted]	9-29-81	[Redacted]	9-29-81		<input checked="" type="checkbox"/>	[Redacted]

- Upon completion of required training, each Supervisor is to insure that their personnel are now qualified to perform the procedure have read and completely understood it by obtaining their signatures and recognized any comments.
- I have read and understand the testing method, and will follow the procedural steps as outlined in SCP/COI/CM&S # _____ R _____, with the knowledge that if I am prevented or caused to deviate from the procedure as it is written I may refuse to sign off any an all analyses performed by its use. (Sign and Date)

Implementor: Issued de-qualification letter, if (A) is yes and (E) is readily resolvable.
 Letter # _____ Date returned to U/M _____

Released for full implementation? YES, Date _____; NO, Action to resolve assigned to _____, Date _____

Comment(s): _____ U/M Initial _____ Date _____

(Implementor) initial procedure & submit to Index Control Supervisor

- Supv. of Index Control
- Placed new procedure in Station Book # _____
 - Marked old procedure "Backup File" and returned to U/M
 - Updated Station Document Index
 - Posted yellow copy for personnel implement notification

Vertical handwritten notes on the left margin:

- At least the person who has the responsibility of filling out the report.
- Someone like [redacted] let's do that necessary to make type reports in more than [redacted]

Supervisors should be filling out this form and only if a change in programming is required. If we have a problem involving release of samples, a telephone call should be sufficient. Otherwise a course in quick reading should be made available to lab personnel, so that we will be able to handle all this (what I feel like is unnecessary) paperwork.

[redacted]

When we have problems with LMS, we call one of the 'stater's' people to consult at anything. Why can't the individual consulting the problem fill out a problem summary, and correct action taken report at that time.

[redacted]

[redacted]

Why can't every thing work explicitly that it does not require "problem reports" filled out? shouldn't waste any valuable time.

[redacted]

I feel that a more simplified way could be arranged by a call made to [redacted] dept. let this technician evaluate, correct and write the "report". Also let him be responsible to see that copy of [redacted] reaches the desk of Senior Engineer. Why not try to eliminate so many changes and red tape - so we can get on with the lab work!! There appears to be repetitious work between 3.2, 3.3 and [redacted]

[redacted]

OVER

GATHER ROUND CHILDREN AND LET 'EM TELL
OF A SIMPLE COMPUTER SYSTEM GONE STRAIGHT TO HELL.
JUST LISTEN TO THEM THROW THEIR FIT
MAKES YOU THINK THEY DONT GIVE A "DARN!"
COMPLAIN OF PROBLEMS AND PAPERWORK: GRIPE,
WHY SHOULD THEY THINK THAT'S WHAT A SUPERVISORS FOR
BITCHIN, BELLYACHIN - MOANIN GROAN PAPERWORK IS
BAD BUT WHAT I REALLY HATE IS THAT ~~IT'S~~ AHO.
THOSE GOOD OLD DAYS ARE GONE WHEN YOU COULD SEE
YOUR WORK PILE UP FRONT TO REAR
WHY SHOULD A "LITTLE" PAPERWORK CAST DISPERSSIONS
AT TERR

WHY I LOVE PAPER WORK BETTER THAN BEER
NOW WE OUR DUTY WE SHOULD NOT SHIRK
MORE TIME ON PAPERS MEANS LESS TIME ON WORK
NOW CREATIONS BY MANAGEMENT THEY CONSTANTLY MAKE
BRING THEM OUT ONE BY ONE

IT'S TIME FOR MY CRAP

paper work; paperwork, paperwork.
It is fast approaching the day that our personal
will be doing weekly paper work and our
every level aspect of science, science, science
a huge paying nearly up to \$1000.00 per
year. Please looking for the other
syndrome. Take the responsibility
is doing the work.

This is ridiculous! From [redacted] to [redacted]
to [redacted] to programmer. Talking about
red tape! Why not let us call a programmer
tell him our problem, let him fix it (if
possible), then give the completed form to
[redacted]. Only one copy is needed that
way. Most of our problems are data base
problems, and I don't feel that's my responsibility
to write up, anyway. If we have to write
up a problem report every time LACS
is down we'll never get any work done -
especially on day shift!

The wording of the COZ is much too difficult
AND INCOHERENTLY UNCOMPREHENSIVE, PROTECTING CONTRAST
INCOMPREHENSIBILITY - OR DO YOU GET MY DRIFT

COULD NOT YOU SAY IT SO IT MAKES LOGIC
TO AN OLD BACKWOOD COUNTRY BOY [redacted]

WILMINGTON
MANUFACTURING DEPARTMENT
CALIBRATION AND OPERATION INSTRUCTION
GENERAL ELECTRIC

NO.: COI # 017
 REV.: 0
 REFERENCES: See 5.0
 ISSUE DATE:
 PAGE, OF :

SUBJECT: LMCS PROBLEM REPORT SUBMITTALS

1.0 PURPOSE:

This COI outlines the procedure for submitting LMCS problem reports.

2.0 SCOPE:

This document outlines the procedure to be followed by the problem report submitter, Senior Engineer - Measurement Systems, Measurement Systems Engineer, and Measurement Systems Specialist (Applications) in regard to LMCS problem reports.

3.0 RESPONSIBILITIES:

3.1 Problem Report Submitter.

The Problem Report Submitter is responsible for the following:

3.1.1 Completion of an LMCS Problem Report (LPR).

3.1.2 Submittal of the entire LPR to the Senior Engineer - Measurement Systems.

3.2 Senior Engineer - Measurement Systems.

The Senior Engineer - Measurement Systems is responsible for the following:

3.2.1 Review of the LPR for completeness.

3.2.2 Logging in of the LPR.



3.2.3 Submittal of the LPR to the Measurement Systems Engineer (systems problems) or Measurement Systems Specialist (applications problems) for review and assignment.

3.2.4 Filing of the LPR(s) submitted.

3.3 Measurement Systems Engineer.

The Measurement Systems Engineer will be responsible for:

3.3.1 Evaluating the feasibility of, and effort required by, systems level problems.

PREPARED BY		DATE	APPROVALS	DATE	APPROVALS
INDEP. REVIEW			OCE		NMM
CHEMET			WE		
OTD					

WILMINGTON
MANUFACTURING DEPARTMENT
CALIBRATION AND OPERATION INSTRUCTION
GENERAL ELECTRIC

NO: COI # 012
REV: 0
REFERENCES: See 5.0
ISSUE DATE:
PAGE 2 OF 2

SUBJECT: LMCS PROBLEM REPORT SUBMITTALS

3.4 Measurement Systems Specialist (Applications).

3.4.1 The Measurement Systems Specialist (Applications) will be responsible evaluating the feasibility of, and effort required by, applications problems.

4.0 PROCEDURE:

- 4.1 A problem arises on LMCS.
- 4.2 An LMCS Problem Report is completed and the Problem Report submitted to the Senior Engineer - Measurement Systems.
- 4.3 If the problem involves a loss of functionality normally provided by LMCS which is necessary for sample result release, the Measurement Systems Specialist or Engineer should then be consulted.
- 4.4 Upon receipt of the LPR, the Senior Engineer - Measurement Systems will file pink copy, return the gold copy to the LPR submitter, and forward the remaining copies to either the Measurement Systems Engineer or Measurement Systems Specialist for manpower and time requirement evaluation and assignment to a work study programmer.
- 4.5 After evaluation, the LPR is returned to the Senior Engineer - Measurement Systems. If the problem requires more than one man-week, the yellow copy of report, indicating the effort required, will be returned to the submitter. The submitter will then meet with the Senior Engineer - Measurement Systems to resolve the LPR status. If the problem requires less than one week, the yellow copy will be returned when the problem has been resolved.

5.0 REFERENCES:

See attached LMCS Problem Report form.

TRAVELER # 1333
 OX. TRAY # 10
 DISS. TRAY # 1

PRODUCTION
 gU/g ISOTOPIC
 & O/U RATIO

(2148)

SAMPLE #	CONTAINER #	CRUC POS.	TARE WGT.	UO ₂ WGT.	TARE + U ₃ O ₈	TARE + SOLUTION	TUBE #	ANA #	MEAS. U ₂₃₅	CALC. U ₂₃₅	O/U RATIO
524278	2405RM2585	1					6211	3	2.503	OK	
524290	2405RM2841	2					6274	1	2.492	OK	
524564	2950BS0001	3			X		6371	1	2.862		RU
24570	2950BS0017	4			Z		6201		2.850		RU
525548	3303M467905	5					6383				
524572	2950BS0018	6					6207				
524578	2950BS0033	7					6366				
524378	3306m672	8					6402				
524583	2950BS0034	9					6329				
524580	2950BS0049	10					6356				
525751	2202M02371	11					6293	1	2.076		RU
524383	3306m678	12					6373				
DATE	11-7-83	OX. IN	11-7-83	OX. OUT	11-7	NEW 305					
TIME			0600		1237						
ANALYST											
Information in this report is to be used only in accordance with the provisions of Information Act, exemptions 4 FOIA 87-88											

13-7



SAMPLE PREPARATION DATA

SAMPLE	TR	INITIAL WEIGHTS			IGNITED WEIGHTS			SOLUTION WEIGHTS			
		OPER	DATE	TARE	U08	OPER	DATE	U308	OPER	DATE	SOLUT
524278	10		311	27.8444	4.4972		311	32.5025		311	59.5
524280	10		311	27.0655	4.4972		311	31.7208		311	58.57
524564	10		311	26.9232	4.4972		311	32.9730		311	60.1
524570	10		311	27.7907	4.4972		311	32.4883		311	59.32
525548	10		311	25.2691	4.5040		311	29.9588		311	56.81
524572	10		311	25.6821	4.5017		311	32.3533		311	58.26
524578	10		311	25.2422	4.5017		311	32.9015		311	59.47
524378	10		311	25.7154	4.4968		311	30.3006		311	56.96
524583	10		311	25.0786	4.5025		311	31.7408		311	58.01
524580	10		311	25.5375	4.4988		311	31.3549		311	57.08
525751	10		311	25.3535	4.5048		311	33.0242		311	59.95
524383	10		311	26.2175	4.4967		311	30.8065		311	56.50

REPORT FOR ANALYZER# 3
DATE: 8/21/83 TIME: 21:23

BEFORE STANDARDS

POST STANDARDS

CONSTANTS

LOW STD	7.14	LOW STD	7.16
MED STD	7.229	MED STD	7.229
HIGH STD	7.987	HIGH STD	7.987

N	61707.461381
K	1.877564
SLOPE	.999718
INTER	.007423

SAMPLE	OPER	TUBE	NOM ENR	4% ISO	1% ISO	SOL	ORG	O/D	ENR	AVG ENR	Y
524278		6211	2.401	2.710	1.486	167.7	.1247	2.062	2.503	2.503	N
524280		6274	2.400	2.713	1.485	169.0	.1253	2.057	2.492	2.492	N
524564		6371	2.950	2.077	1.855	166.3	.1239	2.081	2.862	2.862	N
524570		6201	2.950	2.095	1.848	168.0	.1250	2.079	2.850	2.850	N
525548		6383	2.900	2.561	1.858	169.0	.1254	2.045	3.264	3.264	Y
524572		6207	2.950	2.095	1.848	176.3	.1294	2.074	2.922	2.922	Y
524578		6365	2.950	2.211	1.908	171.0	.1265	2.073	2.914	2.914	Y
524378		6402	2.900	2.573	1.901	167.1	.1244	2.329	3.307	3.307	Y
524583		6329	2.950	2.263	1.919	173.4	.1278	2.070	2.926	2.926	Y
524580		6356	2.950	2.264	1.916	177.5	.1300	2.069	2.922	2.922	Y
525751		6297	2.200	2.537	1.869	168.5	.1252	2.044	2.076	2.076	N
524383		6373	2.900	2.565	1.885	174.7	.1285	2.314	3.292	3.292	Y

10 REPORT# 1-1
 Transmission Status
 Released by: 1408
 TIME: 22:27
 DATE: 83011

amples Transmitted To LMCS

Sample#	Tube	Isc	O/V	avg Isc	avg O/V
524278	6211	1.800	1.074	1.800	1.074
524280	6214	1.800	1.074	1.800	1.074
524540	6218	1.800	1.074	1.800	1.074
524572	6207	1.800	1.074	1.800	1.074
524578	6205	1.800	1.074	1.800	1.074
524378	6402	1.800	1.074	1.800	1.074
524583	6229	1.800	1.074	1.800	1.074
524580	6256	1.800	1.074	1.800	1.074
524383	6373	1.800	1.074	1.800	1.074

amples Held For Recount

Sample#	Tube	Isc	O/V	avg Isc	avg O/V
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amples Witheld

Sample#	Tube	Isc	O/V	avg Isc	avg O/V
524564	6371	1.862	1.081	1.862	1.081
524570	6201	1.850	1.075	1.850	1.075
525751	6293	1.076	1.044	1.076	1.044

TABLE 1. Summary of the data for the 1980-81 season. The data are presented in the following order: (1) the total number of samples collected; (2) the total number of samples analyzed; (3) the total number of samples that were found to be positive for the presence of the virus; (4) the total number of samples that were found to be positive for the presence of the virus and were also found to be positive for the presence of the antibody to the virus; (5) the total number of samples that were found to be positive for the presence of the virus and were also found to be positive for the presence of the antibody to the virus and were also found to be positive for the presence of the virus.

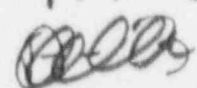
TABLE 2. Summary of the data for the 1981-82 season. The data are presented in the following order: (1) the total number of samples collected; (2) the total number of samples analyzed; (3) the total number of samples that were found to be positive for the presence of the virus; (4) the total number of samples that were found to be positive for the presence of the virus and were also found to be positive for the presence of the antibody to the virus; (5) the total number of samples that were found to be positive for the presence of the virus and were also found to be positive for the presence of the antibody to the virus and were also found to be positive for the presence of the virus.

P *C*
Should be 2.850

(do not have a legible copy)

DATE	TIME	EVENT	RESULT	MIN. U
8/19/82				
8/20/82	8:31	CAL VER	FAILED	287636
	+ 11:21	CAL ✓	OK	289651
	• 11:56	CAL VER	OK	289165
	14:06	CAL VER	OK	287087
	+ 15:23	CAL ✓	OK	284805
	• 15:58	CAL VER	FAILED	285973
	+ 21:45	CAL ✓	OK	292181
	22:21	CAL VER	FAILED	295494 *
	+ 23:28	CAL ✓	OK	294007 *
8/21/82	00:04	CAL VER	OK	293721 293486 *
	2:42	CAL VER	OK	293721 *
	5:23	12 PROD CAL VER	OK	293142 *
	7:50	12 PROD CAL VER	OK	292046 *
8/23/82	6:52	CAL	OK	291741
	7:37	CAL VER	FAILED	294085
	11:45	CAL	OK	292790
	12:21	CAL VER	OK	293883
TAPE SPACE BETWEEN 16:18 + 19:56 (PRESS EXECUTE)				
	21:45	CAL VER	FAILED	291115
	23:24	CAL	OK	295767
	24:00	CAL VER	OK	293388

Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 4
FOIA 87-88

m-3


CALLIBRATION/VERIFICATION LOG
 HIGH CURRENT ANALYZERS

DATE 8-19-88
 ANALYZER # 4

TIME	BLANK		VERIFICATION POINTS												H	E	
			.716 VERIF./CAL.			1.000		2.025 VERIF./CAL.			2.000		2.576 VERIF./CAL.				
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✓ 0148																	10.12 / 77
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• CIRCLE OUT OF ALARM VALUES

08-18-88

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Approved: [Signature]

Approved: [Signature]

APP SETTINGS CHANGES:			
TIME	VOLTS	CORRECT	TIME

COLLEGE/UNIVERSITY/INSTITUTION NAME
 DEPARTMENT/LOCATION

DATE 8-20-68
 ANALYST 9-4

TIME	NEW/1500 NEW/CALIBRATION																
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 MINIMUM CHARGE

DATE 9-2-52
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LOG SETTING COMMENTS			
DATE	TIME	DEPTH	REMARKS

COLLECTOR'S REPORT FOR THE
MONTH OF JULY

DATE 7-11-33
OFFICE

TIME	NAME		.750 WIND. / CAL.				1.000 WIND. / CAL.				1.000 WIND. / CAL.				H	E
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APPROVED: _____
DATE: _____

COLLEGE/UNIVERSITY/FLIGHTS LOG
 EMPLOYMENT AGREEMENT

DATE 8-21-52
 ANALYST A

TIME	PLAN		.710 WINDY / CAL			1.000		2.125 WINDY / CAL			2.000 WINDY / CAL		N	E
	0	0	0	0	0	0	0	0	0	0	0			
1303														
1304			7.2					1.15			1.75			
1305	10/2		7.6					1.2			1.75			1007 1.809
1306								1.25			1.75			
1307			7.4					1.25			1.75			Reported
1308								1.25			1.75			1008 1.819
1309	10/2		7.2					1.25			1.75			
1310								1.25			1.75			
1311			7.7					1.25			1.75			
1312	10/2		7.3					1.25			1.75			1009 1.829
1313								1.25			1.75			1010 1.839
1314			7.2					1.25			1.75			
1315								1.25			1.75			
1316			7.2					1.25			1.75			
1317								1.25			1.75			
1318	10/2	0/6	7.2					1.25			1.75			
1319								1.25			1.75			
1320								1.25			1.75			

• CIRCLES OUT BY HAND VALUES

EMPLOYMENT AGREEMENT		
DATE	AMOUNT	TYPE

CONTROL CHART CALCULATION SHEET

METHOD NAME Enrichment Analyzer
STANDARD NAME T-20 (RTD005)
ANALYZER NAME(s) 014

CODE _____
CODE _____
CODE(s) _____

MATERIAL CLASS(s) 21 - counts

CODE(s) _____

ATTRIBUTE NAME _____

NOMINAL _____

DATA TAKEN FROM 8/19/87 - 8/23/87

UNITS _____ CODE _____

CALCULATIONS DONE BY _____

TIME PERIOD _____ TO _____

LMCS SDCR FORM No. _____

DATE _____

293732.7 - (3.775) 1134.5

293732.7 - 6551.7

287181

x
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/
t


Calculations by supervisor

TABLE FOR SCP-401

ANALYZER #	REGRESSION MODEL COEFFICIENT	
	SLOPE	INTERCEPT
011	1.001997	-.016384
012	1.001990	-.010601
013	1.003511	-.012506
014	1.004024	-.014064

BIAS ADJUSTMENT FACTORS AND MINIMUM "U" COUNT LIMITS			
ANALYZER #	SLOPE	INTERCEPT	MINIMUM "U" COUNT
011	1.00593	-.00422	279269
012	1.00906	-.00522	289827
013	1.00544	-.00599	290003
014	1.00569	-.01038	287181

NOTE: Check each calibration. The "B" counts for the lowest enrichment must have a "B" count greater than the "B" count for the highest enrichment.

APPROVED BY 

DATE ISSUED

8/25/12

TABLE FOR SCT-401

ANALYZER #	(NP-80 Series)	
	REGRESSION MODEL COEFFICIENT	
	SLOPE	INTERCEPT
011	.999535	-.015054
012	1.000361	-.011828
013	1.003814	-.014472
014	— DOWN —	

(NP-925A)			
BIAS ADJUSTMENT FACTORS AND MINIMUM "U" COUNT LIMITS			
ANALYZER #	SLOPE	INTERCEPT	MINIMUM "U" COUNT
011	1.00593	-.00422	279269
012	1.00906	-.00522	289827
013	1.00544	-.00599	290003
014	— DOWN —		

NOTE: Check each calibration. The "B" counts for the lowest enrichment must have a "B" count greater than the "B" count for the highest enrichment.

APPROVED BY

DATE ISSUED

[Redacted Signature]

8/29/82

TABLE FOR SCP-401


ANALYZER #	(NIP-80 Series)	
	REGRESSION MODEL COEFFICIENT	
	SLOPE	INTERCEPT
011	.996176	-.014264
012	.997627	-.014055
013	1.001445	-.016088
014	1.000996	-.010504

(NIP-9825A)			
BIAS ADJUSTMENT FACTORS AND MINIMUM "U" COUNT LIMITS			
ANALYZER #	SLOPE	INTERCEPT	MINIMUM "U" COUNT
011	1.00593	-.00422	279269
012	1.00906	-.00522	289827
013	1.00541	-.00599	290003
014	1.00569	-.01088	273364

NOTE: Check each calibration. The "B" counts for the lowest enrichment must have a "B" count greater than the "B" count for the highest enrichment.

APPROVED BY

DATE ISSUED


 8/12/82

VERIFICATION

XXXXXXXXXXXX

Don 6910 1.550
1.555

BCWSLOPE
-97.499

BACKGROUND RE

U-ent
B-ent

Std Err 0.71
U-ent 688
B-ent 688

Std Err 1.44
U-ent 1.038
B-ent 688

Std Err 0.28
U-ent 1641
B-ent 678

Std Err 0.99
U-ent 2182
B-ent 678

Std Err 3.97
U-ent 1641
B-ent 678

(1)

Verification
Results
061241261054

BACKGROUND RE

U-ent
B-ent

Standard Err

Std 0.71
U-ent 688
B-ent 688

Std 2.028
U-ent 1646
B-ent 678

Std 0.71
U-ent 20.77
B-ent 678

Mean Error 3.74

Correlation O.K.

NOT LIMITED !!

L-10

Std Err 2.220
U-ent 160750
B-ent 6674

Std Err 2.919
U-ent 216750
B-ent 6746

Std Err 3.978
U-ent 287250
B-ent 6721

Cts out of Range

(W)

Order 14
Vt. Division
Results
04-2416751129

BACKGROUND RATE
U-ent 1560
B-ent 679

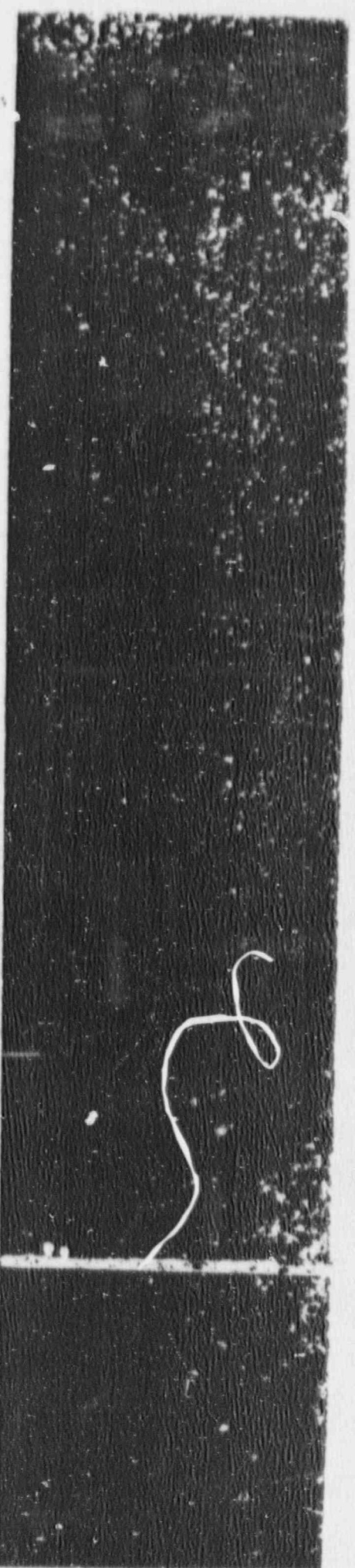
Standard Run
Std 0.715
U-cta 62010
B-cta 6999
Idea Err 0.714

Std 0.224
U-cta 160750
B-cta 6721
Idea Err 0.217

Std 7986
U-cta 417141
B-cta 6721
Idea Err 0.217



4



1946

Production

1946

1946

1946



1946

1946

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1946

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1946

U-Cnt 4124
B-Cnt 3894
Meas Err 3.414

Shot No. 797
06124113134157
Ave Results
U-Cnt 24185
B-Cnt 894
Meas Err 3.4249

Shot No. 798
06124111100129
Ave Results
U-Cnt 235037
B-Cnt 956
Meas Err 3.394

Shot No. 799
06124111126104
Ave Results
U-Cnt 239044
B-Cnt 898
Meas Err 3.395

Shot No. 800
06124111126104
Ave Results
U-Cnt 239044
B-Cnt 898
Meas Err 3.395

Shot No. 801
06124111126104
Ave Results
U-Cnt 239044
B-Cnt 898
Meas Err 3.395

Chassis 10
*MISCELLANEOUS
*WT LOCATION
LLR
061241 1349

Chassis 10
Alfred Punning

Chassis 11
*MISCELLANEOUS

Shot No. 802
06124111126104
Ave Results
U-Cnt 239044
B-Cnt 898
Meas Err 3.395

Shot No. 803
06124111126104
Ave Results
U-Cnt 239044
B-Cnt 898
Meas Err 3.395

U-Cnt
E-Cnt
Meas Err

Std Dev
U-Cnt
E-Cnt
Meas Err

Before Std² Err
Low Std
Med Std
High Std

Post Std² Err
Low Std
Med Std
High Std



Standard² Err
Std
U-Cnt
E-Cnt
Meas Err

Std
U-Cnt
E-Cnt
Meas Err

Std
U-Cnt
E-Cnt
Meas Err
Calibration O.I.

Chamber
Temperature

Std
U-Cnt
E-Cnt
Meas Err

Std
U-Cnt
E-Cnt
Meas Err

Chamber 14
Production
Results

Slope 1.005690
Int -0.010380
R² 0.999999
K₁ 1.051180

Swal No. 7820
06124110144
U-Cnt 174221
E-Cnt 2400
Meas Err 0.440

Swal No. 7821
06124110145
U-Cnt 19090
E-Cnt 1210
Meas Err 0.490

Swal No. 7822
06124110146
U-Cnt 202804
E-Cnt 6486
Meas Err 0.124

Swal No. 7575
06124110115147
U-Cnt 174563
E-Cnt 2040
Meas Err 0.408

Swal No. 7681
06124110124104
U-Cnt 176832
E-Cnt 2456
Meas Err 0.430

Swal No. 7576
06124110115148
U-Cnt 174563
E-Cnt 2040
Meas Err 0.408

Swal No. 7564
06124110142100
U-Cnt 139672
E-Cnt 292
Meas Err 0.364

Swal No. 7686
06124110150155
U-Cnt 56463
E-Cnt 1490
Meas Err 0.788

Swal No. 7460
06124110134
U-Cnt 174563
E-Cnt 2040
Meas Err 0.408

7637
7638
7639
7640
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7698
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7700

2

1. 0.0000
 2. 0.0000
 3. 0.0000
 4. 0.0000
 5. 0.0000
 6. 0.0000
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 14. 0.0000
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 21. 0.0000
 22. 0.0000
 23. 0.0000
 24. 0.0000
 25. 0.0000
 26. 0.0000
 27. 0.0000
 28. 0.0000
 29. 0.0000
 30. 0.0000
 31. 0.0000
 32. 0.0000
 33. 0.0000
 34. 0.0000
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 36. 0.0000
 37. 0.0000
 38. 0.0000
 39. 0.0000
 40. 0.0000
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 82. 0.0000
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 84. 0.0000
 85. 0.0000
 86. 0.0000
 87. 0.0000
 88. 0.0000
 89. 0.0000
 90. 0.0000
 91. 0.0000
 92. 0.0000
 93. 0.0000
 94. 0.0000
 95. 0.0000
 96. 0.0000
 97. 0.0000
 98. 0.0000
 99. 0.0000
 100. 0.0000

Production
 Results

 1.005440
 INT -0.005990
 H# 10210.196721
 K# 1.640724

SMT No. 7653
 06124:07109115
 Run Results
 U-Cnt 22780
 B-Cnt 1250
 1445 Bnt 1.200

SMT No. 7654
 06124:08100116
 Run Results
 U-Cnt 23400
 B-Cnt 1760
 1453 Bnt 0.153

SMT No. 7655
 06124:07114118
 Run Results
 U-Cnt 20440
 B-Cnt 1254
 1454 Bnt 3.154

SMT No. 7656
 06124:08125114
 Run Results
 U-Cnt 22400
 B-Cnt 1742
 1452 Bnt 0.152

SMT No. 7657
 06124:08125114
 Run Results
 U-Cnt 22400
 B-Cnt 1742
 1452 Bnt 0.152

061241071101
Avg Results
U-Cnt 226907
B-Cnt 1791
Meas Err 3.158

Snpl No. 7961
06124107145105
Avg Results
U-Cnt 227882
B-Cnt 1745
Meas Err 3.165

Snpl No. 7945
06124109110135
Avg Results
U-Cnt 229807
B-Cnt 2075
Meas Err 3.3

Snpl No. 7936
06124106106104
Avg Results
U-Cnt 228751
B-Cnt 2042
Meas Err 3.269

Before
U-Cnt
B-Cnt
Meas Err

After
U-Cnt
B-Cnt
Meas Err



Checker 12
Verification Results
06124109119114

BACKGROUND RATE
Front 793
Rear 341

1000 Counts Run

U-Cnt 3.714
B-Cnt 1.788

Meas Err 1.971

Calibration O.K.

06124109119114

Checker 12

Verification Results

06124109119114

Meas Err 1.971

Calibration O.K.

06124109119114

Checker 12

Verification Results

06124109119114

Meas Err 1.971

Calibration O.K.

Chan

FALLOD M-NTI

1st Count
U-Cnts 62017
B-Cnts 6715
Meas Enr 0.711

RECOUNT# 1
U-Cnts 61700
B-Cnts 6781
Meas Enr 0.720

RECOUNT# 2
U-Cnts 61301
B-Cnts 6909
Meas Enr 0.712

13

Channel
U-Cnts 61111
B-Cnts 6711
Meas Enr 0.711

Stats for
Std 0.711
U-cts 61111
B-cts 6711
Meas Enr 0.711

Std 2.224
U-cts 168884
B-cts 6888
Meas Enr 2.216

Std 0.966
U-cts 292847
B-cts 6831
Meas Enr 0.965
Calibration O.K.

Channel
Production
Results

Channel
U-Cnts
B-Cnts
Meas Enr

Channel
U-Cnts
B-Cnts
Meas Enr

Charger 14
Production
Results

Slope 1.005690
Int -0.010286
M# 1090.262474
K# 1.651108

Shot No. 7981
06:24:05:00:05
Avg Results
U-Cnt 191757
B-Cnt 2040
Neqs Enr 2.571

Shot No. 7980
06:24:05:20:04
Avg Results
U-Cnt 191757
B-Cnt 2040
Neqs Enr 2.545

Shot No. 7777
06:24:05:51:03
Avg Results
U-Cnt 191757
B-Cnt 2019
Neqs Enr 2.542

Shot No. 7936
06:24:06:16:01
Avg Results
U-Cnt 197802
B-Cnt 2055
Neqs Enr 2.563

Before Aids' Enr
Low Std 0.714
Med Std 2.339
High Std 3.430

Post Aids' Enr
Low Std 0.714
Med Std 2.339
High Std 3.430



Pioneer 14

Type of Run
Production

Product/Shot# 3

Encl No. 5578
06124105146150
Avg Results
U-Cnt 183228
B-Cnt 1987
Medz Enr 2.563

Before Stds' Enr
Low Std 0.718
Med Std 2.228
High Std 3.969

Post Stds' Enr
Low Std 0.718
Med Std 2.228
High Std 3.974



FIELD OF VIEW

Sample No. 7
Sample 7650
Sample 7671
Sample 7846
Sample 7862



Checker 76
Verification
Results
06124106153184

FIELD OF VIEW RATE
U-Cnt 1594
B-Cnt 671

Results as Run
Std 0.718
Med 2.228
High 3.969

0.718
2.228
3.969
Medz Enr 2.563
Calculation O.K.

Checker 14
Verification
Results

06124106153184

SNPL No. 7925
06124103120134
U-Cnt 240586
B-Cnt 6911
Meas Enr 3.224

SNPL No. 7886
06124103137120
U-Cnt 128288
B-Cnt 3200
Meas Enr 1.788

SNPL No. 7807
06124103145107
U-Cnt 204088
B-Cnt 6257
Meas Enr 3.071

SNPL No. 7807
06124103145107
U-Cnt 204088
B-Cnt 6257
Meas Enr 3.071

Low Std 2.700
Med Std 2.700
High Std 2.900



Chinaer 14

Type of Puns
Production
Prod of end

Sample No.'s
Sample 798
Sample 799
Sample 800
Sample 796

U-Cnt 187
B-Cnt 604
Meas Enr 3.211

RECOUNTS
Sample 166545
Sample 6311
Meas Enr 2.211

Changer 13
Verification
Res lts
86124103.23:15

SHOCKPUMP 4015
U-cts 812
B-cts 40

Std 2.228
U-cts 6.428
B-cts 6.708
Meas Enr 2.228

Std 2.976
U-cts 209491
B-cts 6598
Meas Enr 2.969
Calibration O.K.

19

Changer 13

Type of Pump
F u d d i c i o n
Prod at line 34

SHOCKPUMP 4015
U-cts 812
B-cts 40

Std 2.228
U-cts 6.428
B-cts 6.708
Meas Enr 2.228

Std 2.976
U-cts 209491
B-cts 6598
Meas Enr 2.969
Calibration O.K.

Post Stds' ERY
Low Std 0.717
Med Std 2.226
High Std 3.958

Channel In

Tree of Pans
Production

Prod of 2000

Sample No.'s
Sample 7818
Sample 7895
Sample 7893
Sample 7996
Sample 7857
Sample 7847
Sample 7577
Sample 7882
Sample 7385
Sample 7886
Sample 7507
Sample 7890

20

Calibration
Results
06124.03147123

M= 10210.196771
E= 1.640774

BQ SLOPE
-46.569626

BACKGROUND RATE
U-INT 900
B-INT 340

0.000000
0.000000
0.000000

0.000000
0.000000
0.000000

1st Count
U-Counts 61512
B-Counts 6954
Neos Err 0.704

RECOUNT
U-Counts 62512
B-Counts 6987
Neos Err 0.717

RECOUNT
U-Counts 7312
B-Counts 7187
Neos Err 0.717

Chapter 1

Table of Run
Calibration
Verification

Chapter 14
Verification
Results
0010010101

2. SPECIAL

22

M. C. ENT

C-0
M-0
K-0
B-0

C-0
M-0
K-0
B-0

Change: 1 1

Type of Run
Calibration
Verification

Change 1 1
Calibration
Results
06:24:01:25:00

M= 6911.2-1
I= 1.0001

50 51072

Std Err
U-ent
B-ent

Std Err
U-ent
B-ent

Std Err
U-ent
B-ent

Std Err
U-ent
B-ent

Cts out of Po as

FILED 4-570 1

1st count
U-ent 5151
B-ent 6954
M= 6.784

RECOUNT
U-ent
B-ent

Low Std
Med Std
High Std

Change 10

Type of Run
Calibration
Verification

Change 10

Change 10

Type of Run
Calibration
Verification

Change 10
Already Running

24

Change 10

Type of Run
Calibration
Verification

Change 10
Already Running

Change 10

Type of Run
Verification

Change 10
Already Running

Change 10

Change 10

7071
0612012112511
U-Cnt 171957
B-Cnt 4351
Meda Enr 2.271

7827
06120121134100
U-Cnt 242140
B-Cnt 299
Meda Enr 3.399

7598
06120121142147
U-Cnt 244425
B-Cnt 356
Meda Enr 3.430

7919
06120121151134
U-Cnt 124600
B-Cnt 4001
Meda Enr 3.497

7918
06120121151134
U-Cnt 124600
B-Cnt 4001
Meda Enr 3.497

7918
06120121151134
U-Cnt 124600
B-Cnt 4001
Meda Enr 3.497

7918
06120121151134
U-Cnt 124600
B-Cnt 4001
Meda Enr 3.497

7567
06120122126142
U-Cnt 173249
B-Cnt 2781
Meda Enr 2.378

7146
06120122135138
U-Cnt 250979
B-Cnt 574
Meda Enr 3.140

7146
06120122135138
U-Cnt 250979
B-Cnt 574
Meda Enr 3.140

7146
06120122135138
U-Cnt 250979
B-Cnt 574
Meda Enr 3.140

7146
06120122135138
U-Cnt 250979
B-Cnt 574
Meda Enr 3.140

7146
06120122135138
U-Cnt 250979
B-Cnt 574
Meda Enr 3.140

Chamber
Calibration
Results
06123119147146

M= 17198.761177
K= 9.622064

BC SLOPE
58.187441

BACKGROUND RATE
U-ent 007
B-ent 04

GC 100
GC 100

GC 100
GC 100

GC 100
GC 100

Std Err 0.000
U-ent 111000
B-ent 6177

Std Err 0.000
U-ent 100000
B-ent 6200

Cts out of Range

Pos BACKGROUND BLUF

27

Chamber 11
Sample
Title
Collection

Sample No.
Date
Time

Date
Time
Operator

Date
Time
Operator

Standards Run

Std 0.718
U-cts 62381
B-cts 6848
Meas Err 0.718

Std 2.224
U-cts 163900
B-cts 6848
Meas Err 2.217

Std 0.964
U-cts 291170
B-cts 6848
Meas Err 0.964
Collection 0.964

Std 1.00000
U-cts 100000
B-cts 6848
Meas Err 1.00000

Std 1.00000
U-cts 100000
B-cts 6848
Meas Err 1.00000

Std No. 847
0612011 113128
Avg Results
U-Cnt 314823
B-Cnt 6872
Meas Err 4.250

Std No. 770
0612011 100156
Avg Results
U-Cnt 232390
B-Cnt 6872
Meas Err 4.250

Std No. 784
0612011 100156
Avg Results
U-Cnt 232390
B-Cnt 6872
Meas Err 4.250

Std No. 784
0612011 100156
Avg Results
U-Cnt 232390
B-Cnt 6872
Meas Err 4.250

Std No. 784
0612011 100156
Avg Results
U-Cnt 232390
B-Cnt 6872
Meas Err 4.250

Std No. 784
0612011 100156
Avg Results
U-Cnt 232390
B-Cnt 6872
Meas Err 4.250

Results

Slope 1.005690
Int -0.010388
M= 71090.262474
K= 1.651108

Snpl No. 7990
06:20:14:54:15
Avg Results
U-Cnt 01007
E-Cnt 1362
Med: Err 4.21

Snpl No. 7991
06:20:15:14:12
Avg Results
U-Cnt 33421
E-Cnt 1362
Med: Err 4.016

Snpl No. 7987
06:20:15:45:12
Avg Results
U-Cnt 326890
E-Cnt 1358
Med: Err 4.567

Snpl No. 7959
06:20:16:10:10
Avg Results
U-Cnt 22018
E-Cnt 1362
Med: Err 4.196

Med: Err 3.87


Chassis 10

Type of Pins
Calibration
Verification

Deck Exp 4.362

Before 9:22' Exp
Lent
Net
H-

H-

Chopper 14

Top of Pine
Production

Prod. 0

Sample No.	
Sample	700000
Sample	700004
Sample	700007
Sample	700011
Sample	700047
Sample	700050
Sample	700056

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[Handwritten mark]

ST. 100000	
0.10	0.718
0.01	0.004
0.005	0.000
0.000	0.000

0.00	0.000
0.00	0.000
0.00	0.000

0.00	0.000
0.00	0.000
0.00	0.000

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT
5300 S. DICKINSON DRIVE
CHICAGO, ILL. 60637

(37)

Change
Calibration
Results
06123112153143

M# 17778.721341
K# 6.737444

BQ SLOPE
-40.257804

BACKSLOPE RATE
U-ent 580
B-ent 551

Std Err 9.715
U-ent 10200
B-ent 10100

Std Err 1.454
U-ent 66310
B-ent 65400

Std Err 2.220
U-ent 97199
B-ent 6596

Std Err 2.999
U-ent 118023
B-ent 658

Std Err 3.976
U-ent 126928
B-ent 6442

* Out of Range

32

Change
Verification
Results

Serial No. 7596
0612311017131
U-Cnt 15732
B-Cnt 3870
Meas Err 2.895

Serial No. 7597
0612311017131
U-Cnt 15732
B-Cnt 3870
Meas Err 2.895

Serial No. 7598
06123110159100
U-Cnt 190074
B-Cnt 776
Meas Err 0.010

Serial No. 7599
06123111103117
U-Cnt 30000
B-Cnt 300
Meas Err 0.010

Serial No. 7600
06123111111117
U-Cnt 107000
B-Cnt 434
Meas Err 1.011

Serial No. 7601
06123111120117
U-Cnt 107000
B-Cnt 434
Meas Err 1.011

Serial No. 7602
06123111120117
U-Cnt 107000
B-Cnt 434
Meas Err 1.011

Serial No. 7603
06123111120117
U-Cnt 107000
B-Cnt 434
Meas Err 1.011

Serial No. 7604
06123111120117
U-Cnt 107000
B-Cnt 434
Meas Err 1.011

33

Type of Run
Calibration
Verification

Channel 14
Verification
Results
0123110100182

BACKGROUND RATE
U-cnt 1638
B-cnt 694

Standards Run
Std 0.715
U-cnts 62296
B-cnts 6889
Mads Err 0.716

Std 2.224
U-cnts 58227
B-cnts 3740
Mads Err 0.220

Channel 14
Production
Results

Slope 1.005690
Int -0.010380
M= 71090.262474
K= 1.651100

SNP No. 7644
06123109152124
U-Cnt 233171
B-Cnt 6617
Mads Err 1.126

B-Cnt 6617

Charger

Type of Runs
Production

Prod at 2000 1

Sample No.	
Sample	774
Sample	775
Sample	776
Sample	777
Sample	778
Sample	779
Sample	780
Sample	781
Sample	782
Sample	783
Sample	784
Sample	785
Sample	786
Sample	787
Sample	788
Sample	789
Sample	790
Sample	791
Sample	792
Sample	793
Sample	794
Sample	795
Sample	796
Sample	797
Sample	798
Sample	799
Sample	800

Charger 14
Already

35

14

Charger 15

Type of Runs
Production

BACKGROUND RATE

U-Cnt 1691
E-Cnt 577

Standards Run

204 0.715
1.216 1.204
2.216 1.217
3.216 1.217

4.216 0.715
5.216 1.204
6.216 1.217
7.216 1.217

Std 0.674
U-Cnt 1.000
E-Cnt 0.377
Mean Evt 0.674
Calibration O.K.

Channel 14

Production
Result

Scale 1.00000
Int -0.01000
Net 7109.062 4
Gross 1.73100

Prod No. 010
442270702
Net Re 0.11
U-Cnt 2152
E-Cnt 813
Mean Evt 24.259

Prod No. 774
06:23:09:04:29
Avg Results
U-Cnt 2151
E-Cnt 813
Mean Evt 24.259

Prod No. 758
06:23:09:25:58
Avg Results
U-Cnt 2154
E-Cnt 813
Mean Evt 24.259

Prod No. 743
06:23:09:04:29

Prod No. 743
U-Cnt 2154
E-Cnt 813
Mean Evt 24.259

Sto
Int
M# 71093.26
L# 1.651166

Swpl No. 7614
06:23:05:06:51
Rus Results
U-Cnt 318573
B-Cnt 1260
Meas Enr 4.344

Swpl No. 7710
06:23:05:02:19
Rus Results
U-Cnt 319394
B-Cnt 1155
Meas Enr 4.464

Swpl No. 7724
06:23:05:01:01
Rus Results
U-Cnt 319204
B-Cnt 1101
Meas Enr 4.504

Swpl No. 7738
06:23:05:00:01
Rus Results
U-Cnt 319014
B-Cnt 1047
Meas Enr 4.544

Swpl No. 7752
06:23:05:00:01
Rus Results
U-Cnt 318824
B-Cnt 993
Meas Enr 4.584

Swpl No. 7766
06:23:05:00:01
Rus Results
U-Cnt 318634
B-Cnt 939
Meas Enr 4.624

37

Checker

Time

Print

Print

50-10
50-10

Checker 14

Print

Print

Low Std 0.927
Med Std 0.927
High Std 0.960

Post Stds' Ent
Low Std 0.710
Med Std 0.710
High Std 0.860

Charger 11

Sample 1000

Charger 14
Verification Results
25:03:59:44

BACKGROUND RATE
U-ent 1000
B-ent 1000

Standards Run
Std 0.710
U-ent 0.710
B-ent 0.710
Med Ent 0.710

Std 0.710
U-ent 0.710
B-ent 0.710
Med Ent 0.710

32

Charger 14
Production Results

Slope 1.005690
Int -0.010360
N= 71090.262474
K= 1.651108

Sample 7014
25:05:01:51

0612010211010000

U-Cnt 153741

B-Cnt 2737

Meas Err 2.091

Snpl No. 7591

06120102110148

U-Cnt 245612

B-Cnt 7122

Meas Err 2.290

Snpl No. 7590

06120102107134

U-Cnt 203822

B-Cnt 6325

Meas Err 2.720

Snpl No. 7592

06120102110121

U-Cnt 201962

B-Cnt 621

Meas Err 2.782

Snpl No. 7593

06120102110100

U-Cnt 201962

B-Cnt 621

Meas Err 2.782

Snpl No. 7594

06120102110100

U-Cnt 201962

B-Cnt 621

Meas Err 2.142

Snpl No. 7597

06120102110100

U-Cnt 203822

B-Cnt 181

Meas Err 4.122

Snpl No. 7598

06120102103100

U-Cnt 200041

B-Cnt 6107

Meas Err 3.195

Snpl No. 7572

06120102102100

U-Cnt 200041

B-Cnt 6107

Meas Err 3.195

Snpl No. 7573

06120102102100

U-Cnt 200041

B-Cnt 6107

Meas Err 3.195

Snpl No. 7574

06120102102100

U-Cnt 200041

B-Cnt 6107

Meas Err 3.195

Snpl No. 7575

06120102102100

U-Cnt 200041

B-Cnt 6107

Meas Err 3.195

Changer 14

Type of Run
Production

Prod # 1

Sample No. 1
Sample 7010
Sample 7011
Sample 7012
Sample 7013
Sample 7014
Sample 7015
Sample 7016
Sample 7017
Sample 7018
Sample 7019
Sample 7020

Changer
Verification
Results
06123104122146

BACKGROUND RATE
U-cts 496
B-cts 659

ST.

U-cts 3974
B-cts 4861
Meas Err 2.219
Std 3.966
U-cts 292717
B-cts 6669
Meas Err 3.962
Calibration O.K.

Changer 14
Production

Slope 1.895698
Int -0.0103887
M= 71896.262474
K= 1.631182

Sample No. 7918
0612310310101
U-cts 152741
B-cts 2127
Meas Err 3.962

Serial No. 7548
0612310012118
U-Cnt 24357
S-Cnt 4673
Meas Enr 9.402

Serial No. 7756
06123100121185
U-Cnt 24214
S-Cnt 4589
Meas Enr 9.308

Serial No. 7590
06123100129152
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Serial No. 7591
06123100129151
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Serial No. 7592
06123100129150
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Serial No. 7593
06123100129149
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Serial No. 7594
06123100129148
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Serial No. 7595
06123100129147
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Serial No. 7596
06123100129146
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Serial No. 7597
06123100129145
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Serial No. 7598
06123100129144
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Serial No. 7599
06123100129143
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Serial No. 7600
06123100129142
U-Cnt 245920
S-Cnt 4564
Meas Enr 9.374

Sample 7574
 Sample 7575
 Sample 7576
 Sample 7577
 Sample 7578
 Sample 7579
 Sample 7580
 Sample 7581
 Sample 7582
 Sample 7583
 Sample 7584
 Sample 7585
 Sample 7586
 Sample 7587
 Sample 7588
 Sample 7589
 Sample 7590

Channel 14
 Version 1.0
 Format
 01-2310-11-11-11

Channel 14
 Mode
 Gain

Channel 14

Std 0.715
 U-cts 18181
 B-cts 6876
 Meas Err 0.715

Std 2.224
 U-cts 169648
 B-cts 6872
 Meas Err 2.227

Std $\text{\textcircled{2}}$ 0.466
 U-cts $\text{\textcircled{2}}$ 242658
 B-cts 6721
 Meas Err 0.466
 Calibration O.N.

Channel 14
 Results

Slope 1.005697
 Int -0.010089
 N= 7180.262474
 YK= 1.051188

Smpl No. 7878
 06122123145158
 U-Cnt 184692
 B-Cnt 6815
 Meas Err 2.156

Smpl No. 7829
 U-Cnt 198844
 B-Cnt 6855
 Meas Err 2.656

Channel 14
 Results

Neas Entr

Smp1 No. 799
06122122120100
U-Cnt 177002
B-Cnt 275
Neas Entr 2.496

Smp1 No. 7906
06122122120185
U-Cnt 110887
B-Cnt 207
Neas Entr 1.668

Smp1 No. 7560
06122122119142
U-Cnt 294152
B-Cnt 207
Neas Entr 4.152

Smp1 No. 7594
06122122120100
U-Cnt 296010
B-Cnt 207
Neas Entr 4.152

Smp1 No. 7594
U-Cnt 296010
B-Cnt 207
Neas Entr 4.152

Smp1 No. 7071
06122122120141
U-Cnt 70192
B-Cnt 147
Neas Entr 2.500



Smp1 No. 7071
U-Cnt 70192
B-Cnt 147
Neas Entr 2.500

Smp1 No. 7071
U-Cnt 70192
B-Cnt 147
Neas Entr 2.500

Smp1 No. 7071
U-Cnt 70192
B-Cnt 147
Neas Entr 2.500

Smp1 No. 7071
U-Cnt 70192
B-Cnt 147
Neas Entr 2.500

Smp1 No. 7071
U-Cnt 70192
B-Cnt 147
Neas Entr 2.500

Smp1 No. 7071
U-Cnt 70192
B-Cnt 147
Neas Entr 2.500

Smp1 No. 7071
U-Cnt 70192
B-Cnt 147
Neas Entr 2.500

Chamber 14
Verification
Results
06122129131100

100% GROUND RATE
1692

U-cts 116300
B-cts 4718
Meas Err 2.110
Std 2.906
U-cts 293848
B-cts 6641
Meas Err 3.970
Calibration O.K.

Chamber 14
Production
Results

Slope 1.000000
Int -0.019102
ID 1090.152474
K 1.1188

Snpl No. 714
0612211115
U-Cnt 57
B-Cnt 2.5
Meas Err 0.917

U-cts 184
B-cts 10
Meas Err 0.927

Snpl No. 705
06122121135147
U-Cnt 290160
B-Cnt 2094
Meas Err 4.116

Snpl No. 777
06122121144124
U-Cnt 291
Meas Err 4.106

Snpl No. 751
0612211153121
U-cts 189411
B-cts 118
Meas Err 0.710

Total ... 2.402
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0612212012010
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U-Ent 24690
U-Ent 2710
Next Ent 1.460

Before ... Ent
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Type of Run
Production

Prod of tank 3

Sample No. 1g
Sample 7567
Sample 7564
Sample 7560
Sample 7562

CHGR 14

1000000
1000000
1000000

CHGR 14

1000000
1000000
1000000

CHGR 14

Std 0.224
U-cts 420.1
B-cts 0.168
Mass Enr 0.112

Std 2.224
U-cts 1000.0
B-cts 60.0
Mass Enr 2.224

Std 2.224
U-cts 2000.0
B-cts 120.0
Mass Enr 2.224
Calibration O.K.



CHGR 14

1000000
1000000
1000000

Slope 1.00000
Int +0.010013
No 71698.26247
M 1.651101

Swl No. 7567
06122119112124
Avg Results
U-Cnt 248520
B-Cnt 1583

Swl No. 7564
06122119112124
Avg Results
U-Cnt 248520
B-Cnt 1583

Std 1771
Units 62431
B-cts 6911
Ness Err 0.718

Std 2.224
Units- 169019
B-cts 6867
Ness Err 2.118

Std 3.966
Units 292660
B-cts 1114
Ness Err 1.371
Coll-ct 1114

1971
1972
1973

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2048
2049
2050

82

14

Sample
Sonde
Sonde
Sonde

Change
Results
0512117

U-114
E-114



U-114
E-114
Mass Enr

Std
U-114
E-114
Mass Enr
Collaboration O.K.

Change
Production
Results

U-114
E-114
Mass Enr

U-114
E-114
Mass Enr
Collaboration O.K.

Standard Run

Std 0.718
U-cts 620000
B-cts 601200
Meas Err 0.718

Std 2.210
U-cts 1600000
B-cts 601200
Meas Err 2.210

Std 2.210
U-cts 1600000
B-cts 601200
Meas Err 2.210

Good
Product
Purity
XXXXXXXXXX

Slur 1.005.40
Int +0.010.30
9.62474
51101

Snpl No. 7594
012011036141
Avg Results
U-Cnt 153639
B-Cnt 2841
Meas Err 2.090

Snpl No. 7505
01201102111
Avg Results
U-Cnt 127
B-Cnt 172
Meas Err 2.090



Snpl No. 7505
01201102111
Avg Results
U-Cnt 42109
B-Cnt 2446
Meas Err 2.552

Snpl No. 7986
0512011153143
Avg Results
U-Cnt 203807
B-Cnt 2061
Meas Err 3.234

Before Sids' Err
Low Std 0.718
Med Std 2.223
High Std 2.917



COLLECTION
RESULTS
6612241211127

Re 51.00.100090
LF 0.200000

PA 1.000
-74.68047

BACKGROUND RATE
U-ent 1.11
B-ent 2.11

Std Err 0.715
U-ent 5.147
B-ent 30.28

Std Err 1.454
U-ent 102.143
B-ent 279.0

Std Err 2.227
U-ent 149.514
B-ent 384.1

(37)

Diameter 19
Unable
To Hold
Collection

U-Cnt 149286
B-Cnt 2758
Meas Err 2.035

Before Stds' Err
Low Std 0.718
Med Std 0.000
High Std 0.000

First Stds' Err
Low Std 0.718
Med Std 0.000
High Std 0.000

26x221
BrongP
U-Cnt 1970
B-Cnt 450

Standard Run

Std 0.714
U-Cts 67560
B-Cts 5270
Meas Err 0.713

Std 2.220
U-Cts 101246
B-Cts 5100
Meas Err 2.215

Std 3.976
U-Cts 515607
B-Cts 7171
Meas Err 3.990

Re-Calibrate



Chamber 10
Call 1

Chamber 10

Type of Pins
Calibration
Verification

Chamber 10
Calibration

Result

Charges 20000
D-Chgs 20000
Total Exp 20000

Charges 10000
D-Chgs 10000
Total Exp 10000

Standard Run
Std 0.712
J-cts 1.000
D-cts 1.000
Total Exp 0.712

Std 0.204
J-cts 0.204
D-cts 0.204
Total Exp 0.204



10000
10000
10000
10000

Std 1.000
J-cts 1.000
D-cts 1.000
Total Exp 1.000

Std 1.000
J-cts 1.000
D-cts 1.000
Total Exp 1.000

Client: 10

Type of Run:
Production

Prod. Control: 0

Start Date: 10/02
End Date: 10/02
Serial: 1000
Lot: 1000
Lot: 1000

10/02 1070

1st Count
U-Cnts: 10000
B-Cnts: 5040
Meas Err: 2.255

RECOUNT# 1
U-Cnts: 10000
B-Cnts: 5100
Meas Err: 2.410

RECOUNT# 2
U-Cnts: 9900
B-Cnts: 5000
Meas Err: 2.300



10/02 1080

2nd Count
U-Cnts: 10000
B-Cnts: 5000
Meas Err: 2.997

RECOUNT# 1
U-Cnts: 29000
B-Cnts: 6600
Meas Err: 3.990

RECOUNT# 2
U-Cnts: 29000
B-Cnts: 6600
Meas Err: 3.990

1st count
U-Cnts 16920
B-Cnts 6630
Meas Err 2.225

RECOUNTS
U-Cnts 16920
B-Cnts 6630
Meas Err 2.225

NTA
Meas Err 2.225

Change 14
Verification
Results
06122107127145

BACKGROUND RATE
U-cnt 1515
B-cnt 6630

Standards Run

Std 0.718
U-cnts 62420
B-cnts 6910
Meas Err 0.718

Std 2.224
U-cnts 169426
B-cnts 6801
Meas Err 2.225

Std 0.718
U-cnts 62420
B-cnts 6910
Meas Err 0.718

8

Change 14
Production
Results

Slope 1.005690
Int -0.014380
M= 71690.262474
K= 1.651108

Std No. 7536
R6120102
HVR RESULTS
U-Cnt 232507
B-Cnt 1535
Meas Err 2.225

Std No. 7536
R6120102
HVR RESULTS
U-Cnt 232507
B-Cnt 1535
Meas Err 2.225

Std No. 7536
R6120102
HVR RESULTS
U-Cnt 232507
B-Cnt 1535
Meas Err 2.225

U-Cont 14400
B-Cont 1500
Med 1.407

Cont 14400
B-Cont 1500
Med 1.407

Cont 14400
B-Cont 1500
Med 1.407

Cont 14

Type of Tuna
Production

Prod of each 13

Sample No. 1
Date 1/15/54
Location
No. of fish 10
No. of cans 10

13-

Cont 14
B-Cont 1500
Med 1.407

EPICORPOND WITE
U-Cont 14400
B-Cont 1500
Med 1.407

Production

Production 3

Sample No. 7390

Change 10

Verification

Change 10

Collaboration Results

ACT0210710102

Std Err	0.0000
U-ent	0.0000
B-ent	0.0000
Std Err	1.4400
U-ent	0.0000
B-ent	0.0000
Std Err	1.4400
U-ent	0.0000
B-ent	0.0000
Std Err	1.4400
U-ent	0.0000
B-ent	0.0000

(57)

Red Std 2.222
Green Std 3.972
Post Std's Enr
Std 8.716
Red Std 2.217
Green Std 3.972

Changer 14
Calibration
Results
06120100:05:50

Me 04708.80950
In 2.708600
04708.80950
2.708600

Std Err 1.472
U-ent 1917
B-ent 104

Std Err 8.715
U-ent 66473
B-ent 4946

Std Err 1.454
U-ent 122518
B-ent 4944

Std Err 2.928
U-ent 180459
B-ent 5046

Std Err 2.989
U-ent 237946
B-ent 4989

Std Err 3.978
U-ent 211200
B-ent 4981

04708.80950
2.708600

Changer 14
Unable
To Hold

Verification
Production

Prod ct/size 3

Circle 15.2
Std 7.89
U-ct 7.89
B-ct 7.89
Mass Err 1.0

Co
U-ct
B-ct

Std of U-ct 14.78
U-ct 16.0
B-ct 16.0

Standard Run
Std 0.115
U-ct 0.115
B-ct 0.115
Mass Err 0.115

Std 10.0
U-ct 10.0
B-ct 10.0
Mass Err 10.0

57

U-ct
B-ct
Mass Err

Print
Mesa Enr 3.128
Subl No. 7967
06122102144124
Avg Results
U-Cnt 208945
B-Cnt 22974
Mesa Enr 3.195

Before Std
Low Std 0.78
Med Std 2.21
High Std 3.07

Print Strat Int
Low Std 0.71
Med Std 2.21
High Std 3.07

Changer
Verification
Results
06122103127149

BACKGROUND RAT
U-cnt 190
B-cnt 49

Standards Run
Std 8.714
U-cnt 66721
B-cnt 5010
Mesa Enr 3.127
Mesa Enr 3.128
Mesa Enr 3.129
Mesa Enr 3.130
Mesa Enr 3.131



U-cnt 31315
B-cnt 4978
Mesa Enr 3.969
Re-Calibrate

Changer 13
Unable
To Hold
Calibration

Changer 13

Test 24 Runs
Calibration
Verification

Reqs Enr 0.724

RECOUNT# 1

U-Cnts 66721

B-Cnts 5019

Reqs Enr 0.715

RECOUNT# 0

U-Cnts 47504

B-Cnts 4970

Reqs Enr 0.710

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Calibration
Results

06122102135104

Channel

Channel
Calibration
Results
06122102135104

N= 74263.62144
K= 2.62218

SG SLOPE
-5.200971

BACKGROUND RATE
U-ctrl 1917
S-ctrl 4494

Std Err 0.715
U-ctrl 6.2134
S-ctrl 5176

U-ctrl 21014
S-ctrl 4693

Std Err 0.715
U-ctrl 6.2134
S-ctrl 5176

U-ctrl 21014
S-ctrl 4693

Std Err 0.715
U-ctrl 6.2134
S-ctrl 5176

U-ctrl 21014
S-ctrl 4693

Channel

Net Count 57319
Gross 4994
C. 21

Spec No. 7507
06121120104110
Rue Results
U-Cnt 172707
B-Cnt 1690
Meas Enr 2.390

Spec No. 7577
06121120129147
Rue Results
U-Cnt 178549
B-Cnt 1775
Meas Enr 2.470

Spec No. 7657
06121120150116
Rue Results
U-Cnt 177099
B-Cnt 1717
Meas Enr 2.390

Spec No. 7677
06121120151114
Rue Results
U-Cnt 177099
B-Cnt 1717
Meas Enr 2.437

Unfor. Std. Enr
Low Std 0.716
Med Std 0.828
High Std 0.959

Post Std. Enr
Low Std 0.707
Med Std 0.819
High Std 0.970

63

Checker 13
Verification
Results
0.8011 10.11

Meas Enr 2.470
U-Cnt 178549
B-Cnt 1775

Std 0.716
Meas Enr 2.390
U-Cnt 177099
B-Cnt 1717

Std 0.828
Meas Enr 2.437
U-Cnt 177099
B-Cnt 1717

Std 0.959
Meas Enr 2.390
U-Cnt 177099
B-Cnt 1717

Sid 1.966
U-cts 292449
B-cts 6663
Neqs Enr 0.959
Calibration O.K.

Chaner

FAILED V-STD

1st count
U-Cnt 47537
B-Cnt 7352
Neqs Enr 0.714

SECURITY
U-Cnt
B-Cnt
Neqs Enr 0.714

Chaner 1
Verification
Results
06122186157114

BACKGROUND RATE
B-ct 1653
B-ct (64) 667

Standards Run

Sid 0.715
U-cts 61819
B-cts 6583
Neqs Enr 0.707

Sid 2.221
U-cts 169044
B-cts 6020
Neqs Enr 0.319

Sid 0.966
U-cts 292449
B-cts 6663
Neqs Enr 0.959
Calibration O.K.

Chaner 14
Verification
Results

Slope 1.085598
Int -0.018880
M= 71890.262474
K= 1.651108

Serial No. 7507
PC: 21123124118
F 13 P 23 14
U-C 171707
B-C 171707

1st Count
U-Cnts 61720
B-Cnts 7000
Mean Err 0.700

RECOUNT
U-Cnts 52071
B-Cnts 6047
Mean Err 0.710

RECOUNT
U-Cnts 62100
B-Cnts 6895
Mean Err 0.710

Channel 4K
Vanadium
Reactor
0012100104

BACKGROUND RATE
U-Cnt 1900
B-Cnt 400

Standards Run
Std 0.714
U-Cts 59910
B-Cts 53000
Mean Err 0.700

Std (5)
U-Cnt 101000
B-Cnt 10000

Channel 4K
Vanadium
Reactor
0012100104

Std
U-Cnt 101000
B-Cnt 10000

Standards Run
Std 0.710

U-Cnt 101000
B-Cnt 10000
Mean Err 0.710

Sample 7802
 Sample 7779
 Sample 7882
 Sample 7889
 Sample 7898
 Sample 7585
 Sample 7747
 Sample 7906
 Sample 7568
 Sample 7548
 Sample 7994
 Sample 7500

 Charge 14

 Total of Bill

Sample No. 1
 Sample 7567
 Sample 7577
 Sample 7657
 Sample 7847
 Sample 7560
 Sample 7632
 Sample 7853
 Sample 7967
 Sample 7618
 Sample 7597

 Charge 6

 FACED 7-576

1st count
 U-Cnts 6100
 S-Cnts 588
 Meas Err 0.785
 RECOUNT
 U-Cnts 6733
 S-Cnts 5218
 Meas Err 0.785
 RECOUNT
 U-Cnts 6747
 S-Cnts 5184
 Meas Err 0.789

 Charge 4

CONTROL CHART CALCULATION SHEET

METHOD NAME Enrichment Analysis
STANDARD NAME FeO (RT 0005)
ANALYZER NAME(s) AIU

CODE _____
CODE _____
CODE(s) _____

MATERIAL CLASS(s) 21 - counts

CODE(s) _____

ATTRIBUTE NAME _____

NOMINAL _____

DATA TAKEN FROM 5/10/81
CALCULATIONS DONE BY [redacted]
LMCS SDCR FORM No. _____

UNITS _____
TIME PERIOD _____
DATE _____

293732.7 - (5.775) 1134.5

293732.7 - 6551.7

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Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 4
FOIA 97-98

Calculations by supervisor

m-4
[signature]

2-42



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① 6/30/82



Changer 14
Already Running

~~XXXXXXXXXX~~

Type of Run
Production

Prod of Run

Sample No.'s
Sample

Changer 14
Already Running

Changer 14
XXXXXXXXXX

Type of Run
Production

Prod of Run

Sample No.
Sample
Sample
Sample
Sample
Sample
Sample

4

Changer 14
Already Running

Type of Run
Production

Sample No.'s
Sample

Changer 14
Verification
Results
0120110122114

Serial No. 755
38120112152138
J-Cnt 28251
S-Cnt 914
Yess Enr 2.591
Adj Enr 2.508
Bias Adj Enr 2.60

Serial No. 738
38120112110114
J-Cnt 8575
S-Cnt 914
Yess Enr 0.96
Adj Enr 0.96
Bias Adj Enr 0.96

Serial No. 845
38120112119106
J-Cnt 165020
S-Cnt 9
Yess Enr 2.054
Adj Enr 2.053
Bias Adj Enr 2.052

Serial No. 809
38120112136149
J-Cnt 306868
S-Cnt 9197
Yess Enr 4.007
Adj Enr 4.053
Bias Adj Enr 4.068

Serial No. 944
38120112145141
J-Cnt 374060
S-Cnt 3324
Yess Enr 5.007
Adj Enr 5.028
Bias Adj Enr 5.028

Serial No. 944
38120112145141
J-Cnt 374060
S-Cnt 3324
Yess Enr 5.007
Adj Enr 5.028
Bias Adj Enr 5.028

4

Standard Run

Std	0.716
J-cts	61642
B-cts	6397
Teas Enr	0.716
Slas	0.00
Std	2.22
J-cts	165788
B-cts	6189
Teas Enr	2.22
Slas	0.014
Std	0.97
J-cts	207887
B-cts	5998
Teas Enr	0.97
Slas	0.028

Printer Production Results

Slope	1.005600
Int	-0.010300
Y	69761.17844
X	1.89461

Ampl No.
38120118129127

J-Cnt	29827
B-Cnt	586
Teas Enr	0.998
Slas Ad Enr	0.998

7

Refers	Jas Enr
Std	0.708
Std	0.7212

Refers	Jas Enr
Std	0.716
Std	0.707
Std	0.700

Slas Slope 1.000552
Slas Int 0.007764

ChanseT 14

Type of Run
Calibration
Verification

(4)

ChanseT 14
Calibration
Points
88126115123189

88649.862400
3.999242
BACKGROUND RATE
1-cnt 326
3-cnt 1768

Std Err 0.715
1-cnt 61810
3-cnt 6319

Std Err 1.455
1-cnt 111871
3-cnt 6124

Std Err 2.823
1-cnt 164516

Std Err 3.999
1-cnt 219276
3-cnt 6924

Std Err 3.999
1-cnt 264089
3-cnt 6970

(6)

Verification Results
0812011512914

BACKGROUND RATE
1-ctls 456
2-ctls 011

Standards Run

Std 0.715
1-ctls 63206
2-ctls 6394
100% Enr 0.721
310s -0.606

Std 2.219
1-ctls 170706
2-ctls 6562
100% Enr 2.213
310s 0.006

Std 3.986
1-ctls 296320
2-ctls 6351
100% Enr 3.953
310s 0.012
Calibration O.K.

Chamber 10
Production Results

Slope 1.085448
Int -0.085990
4 = 71797.051497
K = 1.299165

Std No 794
1-ctls 134
2-ctls 83891
3-ctls 6749
100% Enr 0.949
310s 0.948
Std No 798
1-ctls 6226
2-ctls 14761
3-ctls 8489
100% Enr 1.041
310s Enr 1.050

9

Std No 764
1-ctls 61001
2-ctls 8682
100% Enr 2.057

Std No 764
08120114144109
1-ctls 80813
2-ctls 8682
100% Enr 2.959
310s Enr 2.965
310s Adj Enr 0.993

Std No 751

78592.82284
1.17860

BACKGROUN

3rd Enr 1.454
-cont 114714
-cont 1523

4th Enr 2.203
-cont 139186
-cont 1523

5th Enr 3.940
-cont 198416
-cont 1695

6th Enr 3.97
-cont 198416
-cont 1695

(W)

BACKGROUND RATE
-cont 241
-cont 799

7th Enr 2.201
-cont 169209
-cont 1523

8th Enr 2.206
-cont 169209
-cont 1523

9th Enr 4.01
-cont 198416
-cont 1695

Re-Calibrat...

Change 14

Type of Pins
Calibration
Verification

Change 14
Calibration
Results
8:28:28:28:28

4 = 70908.41024
1.7011

BACKGROUND
-ent
-ent
Std. Err. 6.715
-ent 10.616
-ent 7.112
Std. Err. 1.454
-ent 10.656
-ent 7.112
Std. Err. 2.199
-ent 10.616
-ent 7.112
Std. Err. 2.199
-ent 10.616
-ent 7.112
Std. Err. 2.199
-ent 10.616
-ent 7.112

(12)

Change
Verification
Results
8:21:00:41

BACKGROUND
-ent
-ent
Standards

1958-Enr
1958
Calibration

Chemical

Type of Run
Production

rod string

1958-Enr
1958
Calibration

(13)

Type of Run
Production

rod string

1958-Enr
1958
Calibration

Type of Run
Production

rod string

1958-Enr
1958
Calibration

Type of Run
Production

rod string

1958-Enr
1958
Calibration

Charger
Verification
Results

38121100143

Standards
Std 1 0.7
J-cts 625
3-cts 69
Leas Enr 0.7
Bias 0.8
Std 2 2.20
J-cts 16928
3-cts 782
Leas Enr 2.21
Bias 0.8
Std 3 3.7
J-cts 29
3-cts 58
Leas Enr 3.72
Bias -0.8
Calibration O.K.

Charger
Production
Results

3188 1.8026
172 -0.8180
1- 1033;4182
2- 1.7523
381211001291
Leas Enr
Adj Enr
Leas Adj Enr 0.369

381 No.
381211001471
J-Cnt 14573
3-Cnt 89
Leas Enr 1.0
Adj Enr 1.0
Leas Adj Enr 1.4936
381 No.
38121100156106
J-Cnt 150381
3-Cnt 9446
Leas Enr 1.836

1435 Enr 1.80
Adj Enr 1.80
Bias Adj Enr 1.80
Serial No. 3812110104153
J-Cnt 2100
S-Cnt 757
1435 Enr 2.75
Adj Enr 2.75
Bias Adj Enr 2.75

Serial No. 3812110110139
J-Cnt 2000
S-Cnt 614
1435 Enr 3.12
Adj Enr 3.12
Bias Adj Enr 3.12

Serial No. 3812110110010
J-Cnt 2700
S-Cnt 810
1435 Enr 3.72
Adj Enr 3.72
Bias Adj Enr 3.72

Serial No. 3812110110111
J-Cnt 2000
S-Cnt 880
1435 Enr 3.73
Adj Enr 3.73
Bias Adj Enr 3.73

Serial No. 3812110110111
J-Cnt 2000
S-Cnt 880
1435 Enr 3.73
Adj Enr 3.73
Bias Adj Enr 3.73

Serial No. 38121101148147
J-Cnt 3615
S-Cnt 851
1435 Enr 4.33
Adj Enr 4.33
Bias Adj Enr 4.33

Serial No. 38121101157133
J-Cnt 2385
S-Cnt 492
1435 Enr 3.13
Adj Enr 3.13
Bias Adj Enr 3.13

Serial No. 3812110210612
J-Cnt 2160
S-Cnt 640
1435 Enr 2.94
Adj Enr 2.94
Bias Adj Enr 2.94

(5)

Low Std 0.721
 Med Std 2.15
 High Std 4.76
 Post Std 7.11
 Low Std 0.721
 Med Std 2.15
 High Std 4.76

Bias Slope -0.0018
 Bias Int 0.0039

Chamber Verification Results
 001211001011

BACKGROUND RATE
 J-ct 451
 S-ct 223

Standards Run

Std 0.721
 J-cts 6337
 S-cts 6275
 Mean Enr 0.725
 Bias -0.018

Std 2.15
 J-cts 170455
 S-cts 6418
 Mean Enr 2.219
 Bias 0.005

Std 4.76
 J-cts 21154
 S-cts 1111
 Mean Enr 4.76

116

Chamber 13

Type of Run
 Calibration

Chamber 14

Type of Run
 Production

Sample No.

Sample

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Change
Calibration

Results
08121103153126

1.619871

BACKGROUND RATE

1.00

Std Err 0.71

1-ct 6320

3-ct 651

Std Err 1.47

1-ct 1641

3-ct 648

Std Err 2.84

1-ct 4282

3-ct 648

Std Err 4.21

1-ct 6423

3-ct 648

Std Err 5.58

1-ct 8564

3-ct 648

17

Change
Verification

Results
08121104129119

BACKGROUND RATE

1.00

Std 0.71

1-ct 6320

3-ct 651

Std Err 1.47

1-ct 1641

3-ct 648

Std Err 2.84

1-ct 4282

3-ct 648

Std Err 4.21

1-ct 6423

3-ct 648

Std Err 5.58

1-ct 8564

3-ct 648

38121100123

Change
Verification
Results
38121100123

BACKGROUND
J-Cnt 55
B-Cnt 52

Standards Run
Std 0.775
J-Cnt 6000
B-Cnt 6000
1405 Enr 9.71
Bias 0.00

Std 0.22
J-Cnt 16000
B-Cnt 6700
1405 Enr 0.00
Bias 0.00

Std 0.90
J-Cnt 2000
B-Cnt 2000
1405 Enr 0.00
Bias 0.00
Calibration O.K.

Change
Production
Results

Close 886
Int 18
78933
X 75236

Std No.
38121100126
J-Cnt 24183
B-Cnt 2391
1405 Enr 3.08
Adj Enr 3.095

Std No.
38121100118
J-Cnt 4388
B-Cnt 4361
1405 Enr 6.16
Adj Enr 6.16
Std Adj Enr 6.16

Std No.
38121100127
J-Cnt 2916
B-Cnt 2900
1405 Enr 7.90

Std No.
38121100127
J-Cnt 2916
B-Cnt 2900
1405 Enr 7.90

12

Top Std 0.0000
Mid Std 0.0000

Post Std 0.0000
Low Std 0.0000
Med Std 0.0000
High Std 0.0000

Bias Slope -0.00125
Bias Int 0.0000

Change *****

Type of Run
Production

Product/Spec

Sample No. 1
Sample 2
Sample 3
Sample 4

50



7150191

GROUND RATE
22
80

Runs
0.71
189
653
Enr 0.71
0.00

2.12
16640
654
Enr 2.21
0.01

Enr
0.51

Production

162
752

155113
01029
740

Enr
3108
Enr

Enr
12
2908
Enr
4
Enr
4

Shot No. 391211861213
J-Cnt 298
S-Cnt 298
1000 Enr 4.09
Adj Enr 4.10
1000 Adj Enr 4.10

Shot No. 39121186130121
J-Cnt 200
S-Cnt 200
1000 Enr 4.038
Adj Enr 4.050
1000 Adj Enr 4.050

Shot No. 39121186139108
J-Cnt 298
S-Cnt 298
1000 Enr 4.101
Adj Enr 4.114
1000 Adj Enr 4.114

Shot No. 39121186147185
J-Cnt 308
S-Cnt 308
1000 Enr 4.080
Adj Enr 4.093
1000 Adj Enr 4.093

Shot No. 39121186156142
J-Cnt 314
S-Cnt 314
1000 Enr 4.090
Adj Enr 4.103
1000 Adj Enr 4.103

22

1000 Adj Enr 4.090
1000 Adj Enr 4.103

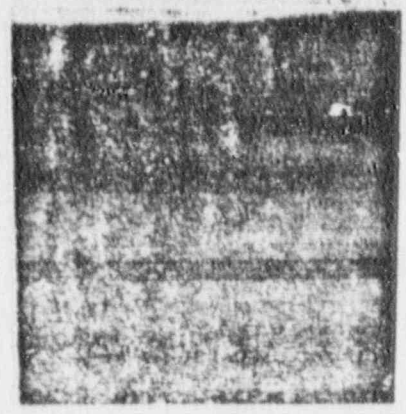
Shot No. 39121186144110
J-Cnt 318
S-Cnt 318
1000 Enr 4.090
Adj Enr 4.103

Before
Low Std
Med Std
High Std
Post Std
Low Std
Med Std
High Std
1000 Std
1000 Std

3rd 10 11 7
28121 86
J-Cnt 4297
3-Cnt 1998

1432 Ent 1 00
11 10
1012 401 0

24



3142 B...
before Stds' Ent
Low Std 0.717
Med Std 2.217
High Std 5.985

Post Stds' Ent
Low Std 0.717
Med Std 2.217
High Std 5.987

3143 Slope
-0.002985
3143 Int
0.000749

Change

Type of Runs
Production

Prod ct/smp

Sample No.
Sample 716
Sample 885
Sample 845
Sample 552
Sample 896
Sample 988
Sample 746
Sample 914
Sample 508
Sample 708

75

Manager
Verification
Results
01211315128

BACKGROUND RATE
Unit 470
Count 316

0.003
Std 2.219
J-cts 171748
S-cts 6493
3143 Ent 2.219
3143 Int -0.002985
Std 0.717
J-cts 2989
S-cts 6006
3143 Ent 2.219

Change
CALI TES
REFEK RFF

Change
Type of Run
Calibration
Verification

Change
Calibration
Results
8812111105127

71513.468528
853900

BACKGROUND RATE
434
314

26

0.715
620000
647000

1.451
115000
65000

2.220
786000

0.600
261000

0.910
360000

0.910
360000

Standard

Std
1.114
1.205
1.214
1.214
1.214

Old
J-ct
3-ct
less Enr
Miss

3.30
97.00
6.20
0.00
0.00

Change

Type of Run
Production

Prod ct/ann

Sample No.
Sample
Sample
Sample

87

Change
Verification
Results
3012117851139

BACKGROUND RATE

J-ent
3-ent
Standards
ct
less Enr
Miss

1.21
1.60
0.00

Change
Production
Results

Miss
Int
1.005440
-0.005300
1.000140

1.985440
0:805970
71517466

111518104
Result
5.811
5.017
5.058
0.0041

Encl No. 970
1116123137
Rus Results
J-Cnt 393274
3-Cnt 6626
Ads Enr 5.327
Ad. Enr 5.350
Sias Ads Enr 5.3
Std Dev 0.91

Encl No. 991
1116143110
Rus Results
J-Cnt 318596
3-Cnt 6626
Ads Enr 4.238
Ad. Enr 4.238
Sias Ads Enr 4.238
Std Dev 0.91

Encl No. 946
1117114144
Rus Results
J-Cnt 320615
3-Cnt 786
Ads Enr 4.238
Ad. Enr 4.238
Sias Ads Enr 4.238
Std Dev 0.91

Encl No. 946
1117114144
Rus Results
J-Cnt 320615
3-Cnt 786
Ads Enr 4.238
Ad. Enr 4.238
Sias Ads Enr 4.238
Std Dev 0.91

Encl No. 946
1117114144
Rus Results
J-Cnt 320615
3-Cnt 786
Ads Enr 4.238
Ad. Enr 4.238
Sias Ads Enr 4.238
Std Dev 0.91

Type of Run
Verification
Production

USE OF RUNS
Very Accurate
Production

Product Name

Sample
Sample
Sample
Sample
Sample

Chamber
Verification
Results
38122187113181

BACKGROUND RATE
-cts 460
B-cts 241

Standards Run
Std 0.719
-cts 610
-cts 610
1ccs Enr 0.719
B112 -0.081

Std 2.319
-cts 170
-cts 600
1ccs Enr 2.319
B112 -0.081

Std 6.900
-cts 571
-cts 600
1ccs Enr 6.900
B112 -0.081



Verification
Results
38122187113181

Std 0.719
-cts 610
-cts 610
1ccs Enr 0.719
B112 -0.081
Std 2.319
-cts 170
-cts 600
1ccs Enr 2.319
B112 -0.081
Std 6.900
-cts 571
-cts 600
1ccs Enr 6.900
B112 -0.081

Production Results

Flow: 1.00403
1.00403
1.00403
1.00403

Shot No. 780
381221071231
J-Cnt 20181
S-Cnt 9170
Ads Enr 0.967
Ads Enr 0.967
Ads Adj Enr 8.965

Shot No. 780
38122107131158
J-Cnt 188164
S-Cnt 91070
Ads Enr 1.978
Ads Enr 1.968
Ads Adj Enr 1.978



Shot No. 599
38122107140150
J-Cnt 225622
S-Cnt 6111
Ads Enr 2.900
Ads Enr 2.900
Ads Adj Enr 2.920

Shot No. 824
38122107149140
J-Cnt 257428
S-Cnt 80000
Ads Enr 3.900
Ads Enr 3.900
Ads Adj Enr 3.900

Shot No. 830
38122107158830
J-Cnt 831
S-Cnt 511
Ads Enr 5.400
Ads Enr 5.400
Ads Adj Enr 5.419

Shot No. 831
38122107168830
J-Cnt 831
S-Cnt 511
Ads Enr 5.400
Ads Enr 5.400
Ads Adj Enr 5.419

Cal. 0.10 941
1-101 404
1-015 144
Steel
Std 0.71
U-Cts 0.55
U-Cts 4.97
Less Enr 0.72
Bias -0.86
Std 2.21
U-Cts 2.18
U-Cts 6.46
Less Enr 2.22
Bias -9.09
Std 3.96
U-Cts 2.48
U-Cts 8.25
Less Enr 3.40
Bias -0.90
Calibration 0.1

(32)

Change 13
Production
Results
1244-881142

Bias 1.00
Int -0.05
Std 71513.43
Cal 1.85

Shot No.
332219115186
Cnt 95976
Cnt 10091
Less Enr 1.00
Adj Enr 1.78
Bias Adj Enr 1.88

Shot No.
332219123159
Cnt 1665
Cnt 94
Less Enr 2.40
Adj Enr 2.80
Bias Adj Enr 2.88

Shot No.
332219131151
Cnt 2337
Less Enr 2.00
Adj Enr 2.91
Bias Adj Enr 2.9

Shot No.
332219141143
Cnt 2644
Cnt 98
Less Enr 2.40
Adj Enr 2.80
Bias Adj Enr 2.88

Shot No.

3815
Cpt
Cht
Ech Enr
Ed Enr
Sias Res Enr

Post Sids Cht
Ed Sids
Ed Sids
Ed Sids
Sias Sids
Sias Sids



Chanter 14

Type of Rust
Collaboration
Definition

Chanter
Collaboration
Results
38120106152106
70498

BACKGROUND
Cht
Ed Enr
Ed Enr
Ed Enr
Ed Enr
Ed Enr
Ed Enr

Std Enr 15.5
J-cont 15.5
Short 15.5

Std Enr 20.0
J-cont 20.0
Short 20.0

Charge 14
Verification
Results
90100:07127:76

ENCLOSURE 818
Short 840

Std 0.00
Short 9.00

Std 10.00
J-cont 10.00
Short 10.00
Std 10.00
J-cont 10.00
Short 10.00
Std 10.00
J-cont 10.00
Short 10.00
Std 10.00
J-cont 10.00
Short 10.00

3A

Charge YES
REPEAT R/U

Std 4.000
Is the well empty

Std 10.00
Short 10.00

Production

Prod ct/5hr

Sample No. 1
Toilet
Toilet
Toilet
Toilet

Donner
Calibration
Results
14 78691.332348
Ca 1.627574

BACKGROUND RATE
1-ont 246
3-ont 697

Std Err 6.711
1-ont 62106
3-ont 6166

Std Err 1.464
1-ont 113282
3-ont 6636

Std Err 2.223
1-ont 16917
3-ont 675

Std Err 2.995
1-ont 228266
3-ont 678

Std Err 3.978
1-ont 16179
3-ont 6560

(35)

BACKGROUND RATE
1-ont 468
3-ont 29

Standards Rm

Std Err 8.715
1-ont 6024
3-ont 6024
Std Err 8.715
1-ont 6024
3-ont 6024

Std Err 2.000
1-ont 0.0

Std Err 3.978
1-ont 16179
3-ont 6560
Std Err 3.978
1-ont 16179
3-ont 6560

Verification
Results
88123110121110

BACKGROUND RATE
1-ct 0.200
2-ct 0.275

Standards
1-ct 0.275
2-ct 0.2275
3-ct 0.2700
4-ct 0.2200
5-ct 0.2000
6-ct 0.2000
7-ct 0.2000
8-ct 0.2000
9-ct 0.2000
10-ct 0.2000

11-ct 0.2000
12-ct 0.2000
13-ct 0.2000
14-ct 0.2000
15-ct 0.2000
16-ct 0.2000
17-ct 0.2000
18-ct 0.2000
19-ct 0.2000
20-ct 0.2000

21-ct 0.2000
22-ct 0.2000
23-ct 0.2000
24-ct 0.2000
25-ct 0.2000
26-ct 0.2000
27-ct 0.2000
28-ct 0.2000
29-ct 0.2000
30-ct 0.2000

31-ct 0.2000
32-ct 0.2000
33-ct 0.2000
34-ct 0.2000
35-ct 0.2000
36-ct 0.2000
37-ct 0.2000
38-ct 0.2000
39-ct 0.2000
40-ct 0.2000

41-ct 0.2000
42-ct 0.2000
43-ct 0.2000
44-ct 0.2000
45-ct 0.2000
46-ct 0.2000
47-ct 0.2000
48-ct 0.2000
49-ct 0.2000
50-ct 0.2000

51-ct 0.2000
52-ct 0.2000
53-ct 0.2000
54-ct 0.2000
55-ct 0.2000
56-ct 0.2000
57-ct 0.2000
58-ct 0.2000
59-ct 0.2000
60-ct 0.2000

61-ct 0.2000
62-ct 0.2000
63-ct 0.2000
64-ct 0.2000
65-ct 0.2000
66-ct 0.2000
67-ct 0.2000
68-ct 0.2000
69-ct 0.2000
70-ct 0.2000

71-ct 0.2000
72-ct 0.2000
73-ct 0.2000
74-ct 0.2000
75-ct 0.2000
76-ct 0.2000
77-ct 0.2000
78-ct 0.2000
79-ct 0.2000
80-ct 0.2000

81-ct 0.2000
82-ct 0.2000
83-ct 0.2000
84-ct 0.2000
85-ct 0.2000
86-ct 0.2000
87-ct 0.2000
88-ct 0.2000
89-ct 0.2000
90-ct 0.2000

91-ct 0.2000
92-ct 0.2000
93-ct 0.2000
94-ct 0.2000
95-ct 0.2000
96-ct 0.2000
97-ct 0.2000
98-ct 0.2000
99-ct 0.2000
100-ct 0.2000

101-ct 0.2000
102-ct 0.2000
103-ct 0.2000
104-ct 0.2000
105-ct 0.2000
106-ct 0.2000
107-ct 0.2000
108-ct 0.2000
109-ct 0.2000
110-ct 0.2000

111-ct 0.2000
112-ct 0.2000
113-ct 0.2000
114-ct 0.2000
115-ct 0.2000
116-ct 0.2000
117-ct 0.2000
118-ct 0.2000
119-ct 0.2000
120-ct 0.2000

36

Change
Verification
Results
88123110121110

BACKGROUND RATE
1-ct 0.200
2-ct 0.275

Standards
1-ct 0.275
2-ct 0.2275
3-ct 0.2700
4-ct 0.2200
5-ct 0.2000
6-ct 0.2000
7-ct 0.2000
8-ct 0.2000
9-ct 0.2000
10-ct 0.2000

11-ct 0.2000
12-ct 0.2000
13-ct 0.2000
14-ct 0.2000
15-ct 0.2000
16-ct 0.2000
17-ct 0.2000
18-ct 0.2000
19-ct 0.2000
20-ct 0.2000

21-ct 0.2000
22-ct 0.2000
23-ct 0.2000
24-ct 0.2000
25-ct 0.2000
26-ct 0.2000
27-ct 0.2000
28-ct 0.2000
29-ct 0.2000
30-ct 0.2000

31-ct 0.2000
32-ct 0.2000
33-ct 0.2000
34-ct 0.2000
35-ct 0.2000
36-ct 0.2000
37-ct 0.2000
38-ct 0.2000
39-ct 0.2000
40-ct 0.2000

41-ct 0.2000
42-ct 0.2000
43-ct 0.2000
44-ct 0.2000
45-ct 0.2000
46-ct 0.2000
47-ct 0.2000
48-ct 0.2000
49-ct 0.2000
50-ct 0.2000

51-ct 0.2000
52-ct 0.2000
53-ct 0.2000
54-ct 0.2000
55-ct 0.2000
56-ct 0.2000
57-ct 0.2000
58-ct 0.2000
59-ct 0.2000
60-ct 0.2000

61-ct 0.2000
62-ct 0.2000
63-ct 0.2000
64-ct 0.2000
65-ct 0.2000
66-ct 0.2000
67-ct 0.2000
68-ct 0.2000
69-ct 0.2000
70-ct 0.2000

71-ct 0.2000
72-ct 0.2000
73-ct 0.2000
74-ct 0.2000
75-ct 0.2000
76-ct 0.2000
77-ct 0.2000
78-ct 0.2000
79-ct 0.2000
80-ct 0.2000

1. 00000
* Snel No. 38120112109156
J-Ent 164395
K-Ent 9609
1000 Ent 2.044
Rd Ent 2.050
Bills Rd Ent 2.047

* Snel No. 38120112118148
J-Ent 216556
K-Ent 8546
1000 Ent 2.807
Rd Ent 2.816
Bills Rd Ent 2.81

* Snel No. 38120112127140
J-Ent 216556
K-Ent 8546
1000 Ent 2.807
Rd Ent 2.816
Bills Rd Ent 2.81

* Snel No. 38120112136142
J-Ent 216556
K-Ent 8546
1000 Ent 2.807
Rd Ent 2.816
Bills Rd Ent 2.81

* Snel No. 38120112145144
J-Ent 216556
K-Ent 8546
1000 Ent 2.807
Rd Ent 2.816
Bills Rd Ent 2.81

* Snel No. 38120112154146
J-Ent 216556
K-Ent 8546
1000 Ent 2.807
Rd Ent 2.816
Bills Rd Ent 2.81

Changers

% of Run
Production

Simple No.

Sample No. 7500
 Sample No. 7501
 Sample No. 7502
 Sample No. 7503
 Sample No. 7504
 Sample No. 7505
 Sample No. 7506
 Sample No. 7507
 Sample No. 7508
 Sample No. 7509
 Sample No. 7510

GRC GROUND RATE
 Int 4.1
 Min 3.1

Standard Error
 Std 0.717
 Int 6309
 Min 6515
 Std Err 0.717
 Std 0.002

Std 1.003
 Int 1.003
 Min 1.003
 Std Err 1.003
 Std 1.003

Std 1.003
 Int 1.003
 Min 1.003
 Std Err 1.003
 Std 1.003

58

Chamber
 Production
 Resh's
 The

slope 1.003
 Int -0.003
 Min 1517.003
 Std 1.003

Std 1.003
 Int 4150.003
 Min 4150.003

Std 1.003
 Int 4150.003
 Min 4150.003

Std 1.003
 Int 4150.003
 Min 4150.003

Std 1.003
 Int 4150.003
 Min 4150.003

Std 1.003
 Int 4150.003
 Min 4150.003

Std 1.003
 Int 4150.003
 Min 4150.003

301231101441
J-Cnt
400 Enr
8100 Rdr Enr

301 No.
301231101441
J-Cnt
8-Cnt
400 Enr
800 Enr
8100 Rdr Enr

301 No.
301231101441
J-Cnt
8-Cnt
400 Enr
800 Enr
8100 Rdr Enr

301 No.
301231101441
J-Cnt
8-Cnt
400 Enr
800 Enr
8100 Rdr Enr

301 No.
301231101441
J-Cnt
8-Cnt
400 Enr
800 Enr
8100 Rdr Enr

Before Stds Enr
Cw Std
Ed Std
Rdr Std

Post Stds Enr
Cw Std
Ed Std
Rdr Std

8100 Rdr Enr
-0.00100
8.002500

72

Director Puns
Product 10
2nd of 10

10016
37 010
02 011
10017

Changer 14

Type of Run
Verification
Production

Prod. Class

Sample No. 1
Sample 2
Sample 3

43

Insert 14
Verification
Results
08120121 45143

BACKGROUND RATE
Int 200
Cont 750

Standards Run
Std 2
1-01 02
1-01 100
1-01 170

1-01 010
1-01 011
1-01 012

010 0.013
Rate-Calculation

Changer 14
CALL TEST
REPEAK AMP

Changer 14

Type of Run

351140
 1441
 4.679
 4.879
 4.886
 8.0044
 7
 606
 38123121154131
 Avg Results
 374240
 5.106
 5.210
 5.166
 8.0095

Before Std
 6.130
 6.130
 6.130
 6.130

71494.95526
 1.594105

95

Dichrover
 Calibrations
 Results
 38123123124157

BACKGROUND DATA
 71494.95526
 1.594105

6691

Std Enr / 0.225
 cnt 1000000
 cnt 0000
 Std Enr 0.225
 J-cnt 000000
 J-cnt 0000

Vendor
 Verification
 Results
 75124100100110

BULK POUND RATE
 J-cnt 0000
 J-cnt 0000

Standard Run
 Std 0.710
 J-cnt 000000
 J-cnt 000000
 1000 Enr 0.710
 3100 -0.000

Std 0.710
 J-cnt 000000
 J-cnt 000000
 1000 Enr 0.710
 3100 -0.000

Std 0.710
 J-cnt 000000
 J-cnt 000000
 1000 Enr 0.710
 3100 -0.000





GENERAL ELECTRIC

DIAL COMM# 25858

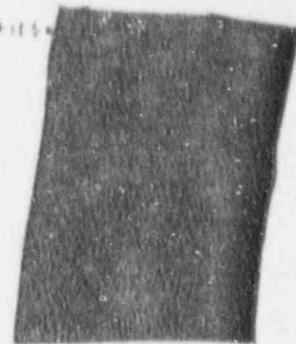
DATE: February 3, 1983

COPIES

DEPT: WILMINGTON MANUFACTURING DEPARTMENT

ADDRESS: M/C H-96

SUBJECT: RADIATION PROTECTION SUMMARY FOR
FUEL FABRICATION OPERATIONS - FWD4



M/C H-70

ask NRC

Why can raw
area be monitored
Sun to it
Machining in
Chamber here

AIRBORNE PROBLEMS IN THE CERAMIC AREA
FOR FISCAL WEEK FISCAL WEEK 5

VE#	EQUIPMENT OR AREA	FEASIBLE CAUSE	DAY SHIFT	SASCONC HIVE
	PILLET PRESS	UNKNOWN	WED DAY	10.1

Surface Contamination Problems

No problems noted during weekly routine contamination surveys.

Criticality Control Problems

No problems noted.

Radiological Control Problems

- 1/25 Gyd 1A and 1B Pre-ses operating without roughing filters.
- 1/25 Days Grinder Operator cut finger on Grinder wheel, released to Medical. Several masks noted improperly stored on equipment in Grinder and Furnace Rooms.
- 1/26 Days Grinder Operator cut finger on Grinder, released to Medical.
- 1/27 Swing Furnace Operator wearing improper gloves, corrected.

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in accordance with the Freedom of Information
Act, exemptions 4
FOIA 87-88

M-5
AEB



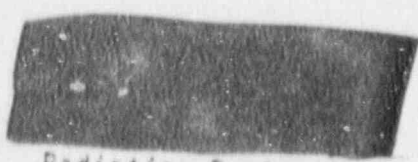
E. Miscellaneous

1. The following TIAD problems were noted during FW04:

<u>Component</u>	<u>Shift</u>	<u>Date</u>	<u>Comments</u>
Gadolinia Fuel Fab.	Days	1/25	No TIAD received
Gadolinia Fuel Fab.	B	1/26	No TIAD received
Gadolinia Fuel Fab.	B	1/27	No TIAD received
Uranium Fuel Fab.	Z	1/27	Late TIAD
Uranium Fuel Fab.	X	1/28	No TIAD received

Personnel exposures were estimated and entered into appropriate files.

2. All personnel airborne exposures for the Uranium Fuel and Gadolinia Fuel Fab. units were less than 150 μ Ci-hrs/cc.



Radiation Protection

5/2/83 @ 1502 [redacted] — 903 Carit chg Sample
 470625 — (90 in GAD) [redacted]
 5/4 wid @ 202 [redacted] — 902-470634 Carit chg Sample
 5/4 wid @ 3022 [redacted] — 903 470634 UPRM [redacted]
 5/4 wid @ 3036 [redacted] — 903-48-641 Archist
 2041 [redacted] — 903 470636 UPRM [redacted]

~~5/2~~ 7/8
 14/15

902
 903

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m-7
 [signature]

May 6-7 1983

May 14-15

21-22

28-29

4-5

June 11-12

18-19

25-26

902 — 903

May 4 470634 (902)

Control chg 470634 (903)

Net on LMS 482641

Control chg 470636

Net on LMS 483059

@ 2024

@ 7022

@ 2036

@ 2041

@ 2243

4/9

902

Net on LMS 717905

" " " 481685 (903)

" " " 468918 "

468922 "

4/11 " " 482360 "

" " " 472837 "

472839 "

4/12 " " 343069 "

354068 "

480717 "

480718 "

480716 "

480694 "

4/12 875978-902

482304

4/13 482129-903

Net on Delta 481718 "

475824 903

475825 "

@ 0957

@ 0942

@ 1439

@ 1424

@ 1301

@ 1536

@ 1536

@ 2219

@ 1306

@ 0524

@ 0524

@ 0524

@ 0640

@ 0945

@ 1345

@ 1124

@ 1424

@ 0933

@ 2109

Comm Tdy
May 17 463871 903 [redacted] @ 0631
463871 902 [redacted] @ 0635
Twd again 903 by [redacted] @ 0637 - 38-41
@ 0630
@ 0631
@ 0635
@ 0637 - 38-41
@ 0630
@ 0631
@ 0635
@ 0637 - 38-41

Comm
May 18 463868 903 [redacted] @ 0643
475127 " [redacted] @ 1545
345045 " [redacted] @ 0946
@ 0643
@ 1545
@ 0946
@ 0643
@ 1545
@ 0946

May 20 471575 (903) [redacted] @ 0631
May 21 482390 903 [redacted] @ 1059
" " 903 [redacted] @ 1111
May 23 375968 902 [redacted] @ 0849
@ 0631
@ 1059
@ 1111
@ 0849

May 30 482374 903 [redacted] @ 0633
@ 0633

June 10 477070 903 [redacted] @ 1608
June 15 483292 902 [redacted] @ 1901.503
@ 1608
@ 1901.503
@ 0949

June 18 699842 902 [redacted] @ 0715
@ 0715

TABLE FOR SCP-401

STANDARD VERIFICATION LIMITS (9825A)			
ANALYZER #011	ANALYZER #012	ANALYZER #013	ANALYZER #014
.719 ± .009	.717 ± .012	.714 ± .009	.715 ± .008
2.223 ± .013	2.231 ± .015	2.220 ± .012	2.224 ± .014
3.982 ± .019	3.982 ± .024	3.976 ± .021	3.966 ± .021

REGRESSION MODEL COEFFICIENT (HP-80)		
ANALYZER	SLOPE	INTERCEPT
011	1.003968	-.006642
012	1.005995	-.009013
013	1.003739	-.002508
014	1.005886	-.006204

BIAS ADJUSTMENT FACTOR AND MINIMUM "U" COUNT LIMITS (9825A)			
ANALYZER	SLOPE	INTERCEPT	MINIMUM "U" COUNT
011	1.00593	-.00422	285048
012	1.00906	-.00522	289827
013	1.00544	-.00599	290003
014	1.00569	-.01038	287744

With the above calibration, the "U" counts for the lowest enrichment are those "U" counts greater than the "B" count for the highest enrichment.

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FOIA 87-88

17-8
[Handwritten signature]

DATE	TIME	EVENT	RESULT	MIN U
6/22/83	7:06	CALIB.	OK	314901
	7:41	CAL. VER	OK	314108
	10:18	CAL. VER.	FAILED	315887
	12:11	CALIB.	CNT'S OUT RANGE	257916
6/23/83	12:53	CALIB.	CNT'S OUT RANGE	126920
	19:47	CALIB.	" " "	129035
6/24/83	1:25	CALIB.	CNT'S OUT RANGE	287985 *
	2:47	CALIB.	OK ✓	290368 *
	3:23	CALIB VER.	OK ✓	289491 *
		2 G-218		
	6:40	CAL. VER.	OK	289540 *
		2 G-218		
	9:19	CAL VER.	OK	289792 *
		2 G-218		
	12:04	CAL VER	OK	288804 *
		2 - G-218		
	14:46	CAL. VER.	FAILED	287998 288581 * 288106
	15:46	CAL	CNT'S OUT RANGE	287251 *
BETWEEN 16:57 AND 19:25 MIN U INPUT				
	19:25	CAL	OK	286311
	20:05	CAL VER	OK	285771

Unit 0.1

CARL

AV. Val

STD DEV
1023.3107

1.0000

Unit for 3 data points is 2.26

*****SYSTEM WITHIN CONTROL LIMITS**

288976 - (1023.3108) 5.775

2124 1125

6120 1106

283066.3801

Analyzer
#8

283066

6/24/83

ENRICHMENT ANALYZER CALIBRATION/VERIFICATION LOG

DATE: 6-21-
ANALYZER: _____

TIME	SAMPLES CTD/RLSD		VERIFICATION *				CALIBRATION			
	PROD.	G218	.715 enr	2.223	3.978	REPK'D	3.978 counts	M	K	POC
23: 42 01	1	1	.711	2.228	3.975		314464	75560	2.6201	
00:	1	1								
01: 56	12 1 11	1	.705	2.216	3.987					
02:	1	1								
03:	1	1								
04: 25	1	2 1 0	.710	2.204	3.976					
05:	1	1								
06: 43	16 1 10	1	.715	2.201	3.976					
07:	1	1								
08:	1	1								
09: 11	12 1 12	1	.706	2.215	3.951					
10:	1	1								
11:	1	1								
12: 02	12 1 12	1	.712	2.215	3.979					
13:	1	1								
14:	1	1								
15:	1	1								
16:	1	1								
17:	1	1								
18:	1	1								
19:	1	1								
20:	1	1								
21:	1	1								
22: 26	1	1	.706	2.204	3.965					

* Circle OUT-OF-LIMIT values.

ENRICHMENT ANALYZER CALIBRATION/VERIFICATION LOG

DATE: 6-22-13
ANALYZER: _____

TIME	SAMPLES CYD/RLSD		VERIFICATION *				CALIBRATION			
	PROD.	C218	.715 enr	2.223	3.978	REP'D	3.978 counts	M	K	POS
23:	/	/								
00:	/	/								
01: 12	/	/	.213	2.214	3.674	✓	310456	74863	2.6227	
02: 14	/	/								
03: 21	/	/	.715	2.230	3.965					
04:	/	/								
05: 05	/	/					311215	74790	2.7896	1
06:	/	/								
07: 06/12	/	→	.721	2.221	3.968		214901	75066	2.566	
08:	/	/								
09:	/	/								
10: 18	/	210	.712	2.222	3.950					
11:	/	/								
12: 11	/	→								
13:	/	/								
14:	/	/								
15:	/	/								
16:	/	/								
17:	/	/								
18:	/	/								
19:	/	/								
20:	/	/								
21:	/	/								
22:	/	/								

Checked by (Name) [Signature]
Date [Signature]

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* Circle OUT-OF-LIMIT values.

ENRICHMENT ANALYZER CALIBRATION/VERIFICATION LOG

DATE: 6-23-8
ANALYZER: 1

TIME	SAMPLES CTD/RLSD		VELOCITY			REPK'D	3.978 counts	CALIBRATION		
	PROG.	G218	715 enr	2.223	3.978			M	K	POS
23:	/	/								
00:	/	/								
01:	/	/								
02:	/	/								
03:	/	/								
04:	/	/								
05:	/	/								
06:	/	/								
07:	/	/								
08:	/	/								
09:	/	/								
10:	/	/								
11:	/	/								
12:	/	/								
13:	/	/								
14:	/	/								
15:	/	/								
16:	/	/								
17:	/	/								
18:	/	/								
19:	/	/								
20:	/	/								
21:	/	/								
22:	/	/								

* Circle OUT-OF-LIMIT values.

ENRICHMENT ANALYZER CALIBRATION/VERIFICATION LOG

DATE: 6-21-11

ANALYZER: 3

TIME	SAMPLES CTD/RLSD		VERIFICATION *				CALIBRATION			
	PROD.	G218	.715 enr	2.223	3.978	REP'D	3.978 counts	M	K	POS.
23:	1	1								
00:	1	1								
01:25	1	1				✓	287985	67741	1.5867	1
02:47	1	1					280240	70210	1.6407	
03:23	1	1	1713	2006	3969					
04:	1	1								
05:	1	1								
06:40	1	212	.710	2.222	3.974					
07:	1	1								
08:	1	1								
09:19	1	212	.720	2.220	3.973					
10:	1	1								
11:	1	1								
12:04	1	212	.712	2.219	3.959					
13:	1	1								
14:46	1	210	.711	.2216	3.756	No				
15:46	1	1					152251	6918	1.200	
16:	1	1								
17:	1	1	calculated							
18:	1	1								
19:25	1	1								
20:05	1	1	.715	2.226	3.974		28621	69267	1.65	
21:	1	1								
22:	1	1								

* Circle OUT-OF-LIMIT values.

ENRICHMENT ANALYZER CALIBRATION/VERIFICATION LOG

DATE: 6-2
ANALYZER: 3

TIME	SAMPLES CTID/RLSD		VERIFICATION *					CALIBRATION		
	PROD.	G218	.715 enr	2.223	3.978	REPK'D	3.978 counts	H	K	POS.
23:26	1	1	706	2.207	3.949					
00:41	1	1								
01:40	1	1					26096	68957	1858	
02:20	1	1	721	2.229	3.554		28068	68775	1949	
03:	1	1								
04:42	1	1	709	2.223	3.983					
05:	1	1								
06:	1	1								
07:	1	1								
08:	1	1								
09:14	1210	1	720	2.237	3.986					
10:38	1	1								
11:14	1	1	711	2.221	3.951		286806	69124	2035	
12:	1	1								
13:	1	1								
14:12	1210	1	700	2.212	3.976	UPOTES				
15:31	1	1								
16:23	1	1	722	2.240	3.927		285655	65116	1978	
17:	1	1								
18:	1	1								
19:	1	1								
20:31	1	1	713	2.221	3.972					
21:55	1	1	711	2.222	3.954					
22:	1	1								

* Circle OUT-OF-LIMIT values.

TABLE FOR SCT-401

STANDARD VERIFICATION LIMITS (9825A)			
ANALYZER #011	ANALYZER #012	ANALYZER #013	ANALYZER #014
.719 ± .009	.717 ± .012	.714 ± .009	.715 ± .008
2.223 ± .013	2.231 ± .015	2.220 ± .012	2.224 ± .014
3.982 ± .019	3.982 ± .024	3.976 ± .021	3.966 ± .021

REGRESSION MODEL COEFFICIENT (HP-80)		
ANALYZER	SLOPE	INTERCEPT
011	1.001309	-.003872
012	1.000463	-.003495
013	1.000187	-.001167
014	1.002425	-.004452

BIAS ADJUSTMENT FACTOR AND MINIMUM "U" COUNT LIMITS (9825A)			
ANALYZER	SLOPE	INTERCEPT	MINIMUM "U" COUNT
011	1.00593	-.00422	285048
012	1.00906	-.00522	289827
013	1.00544	-.00559	283066
014	1.00569	-.01038	287744

NOTE: The minimum "U" count for the low level of enrichment is determined by the bias adjustment factor and the "U" count for the high level of enrichment.



TABLE FOR SCP-401

STANDARD VERIFICATION LIMITS (9825A)			
ANALYZER #011	ANALYZER #012	ANALYZER #013	ANALYZER #014
.719 ± .009	.717 ± .012	.714 ± .009	.715 ± .008
2.223 ± .013	2.231 ± .015	2.220 ± .012	2.224 ± .014
3.982 ± .019	3.982 ± .024	3.976 ± .021	3.966 ± .021

REGRESSION MODEL COEFFICIENT (HP-80)		
ANALYZER	SLOPE	INTERCEPT
011	1.003968	-.006642
012	1.005995	-.009013
013	1.003739	-.002508
014	1.005886	-.006204

BIAS ADJUSTMENT FACTOR AND MINIMUM "U" COUNT LIMITS (9825A)			
ANALYZER	SLOPE	INTERCEPT	MINIMUM "U" COUNT
011	1.00593	-.00422	285048
012	1.00906	-.00522	289827
013	1.00574	-.00599	290003
014	1.00569	-.01038	287744

NOTE: Check on calibration. The "p" counts for the lowest enrichment must be less than the "B" count greater than the "B" count for the highest enrichment.

APPROVED BY [REDACTED]

CHEMIST LABORATORY MEASUREMENT CONTROL SYSTEM (LMCS)
TRANSACTION USER INSTRUCTIONS

TRANS. # 9C3 NAME: UPDATE OF THE SAMPLE AND TEST RECORDS

PURPOSE: Update of the Sample and Test records.

PRECISION: 1 DATE: 14-JUL-83

TCS ERROR MESSAGES
MESSAGE

CORRECTIVE ACTION

INV CHAR:

TOO LONG:

INVALID INPUT:

FIELD TYPE CODE:

- A - ALPHABETIC CHARACTERS ONLY
- I - POSITIVE INTEGER
- M - POSITIVE OR NEGATIVE INTEGER
- R - POSITIVE OR NEGATIVE REAL NUMBER
- X - ANYTHING (EXCEPT COMMAS. COMMAS ARE NOT LEGAL INPUT FOR ANY FIELD IN ANY TRANSACTION.)

FROM	RESPONSE	FIELD TYPE	EXAMPLE	ERROR MESSAGE	CORRECTIVE ACTION
		A	TCS	MCR-TASK NOT IN SYSTEM	
		I	100	INV TO	
		I	3222		
		X	23145	PAGE NOT ON LMCS	
		X	PASS	INVALID PASSWORD	
				UNAUTHORIZED USER	
				ACCESS ERRORS	

Information in this record was deleted in accordance with the Freedom of Information Act, exemptions 4
FOIA-87-88

m-9
[Handwritten signature]

CHEMET LABORATORY MEASUREMENT CONTROL SYSTEM (LMCS)
TRANSACTION USER INSTRUCTIONS

PAGE 2

TRANS-0: 903 NAME: UPDATE OF THE SAMPLE AND TEST RECORDS REVISION: 1 DATE: 10-JUN-82

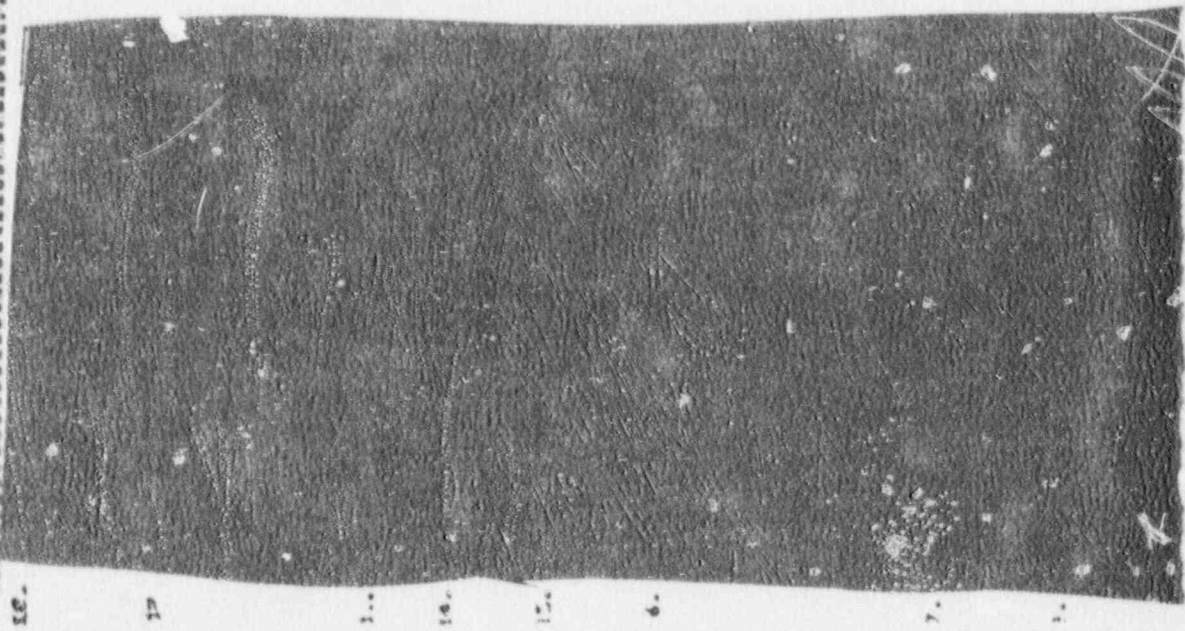
PROMPT	RESPONSE	FIELD TYPE	EXAMPLE	ERROR MESSAGE	CORRECTIVE ACTION
3.		N	0		
6.		N	1		
		N	2	CANNOT CHANGE SAMPLE	
		N	3		
		N	4	CANNOT CHANGE SAMPLE	
		N	5	CANNOT CHANGE SAMPLE	
		N	6	SAMPLE IS NOT A COMPOSITE NO UPDATE PERFORMED	
		N	7		

1700HF7000

EMMET LABORATORY MEASUREMENT CONTROL SYSTEM (EMCS)
 TRANSACTION USER INSTRUCTIONS

TRANS. 6: 903 NAME: UPDATE OF THE SAMPLE AND TEST RECORDS REVISION: 3 DATE: 14-JUN-82

FIELD TYPE EXAMPLE ERROR MESSAGE CORRECTIVE ACTION



R .17

R .171

R .715

R .173

A CANNOT CHANGE SAMPLE

TOO LONG:
 -INVALID INPUT

OUT REPORT

I 705

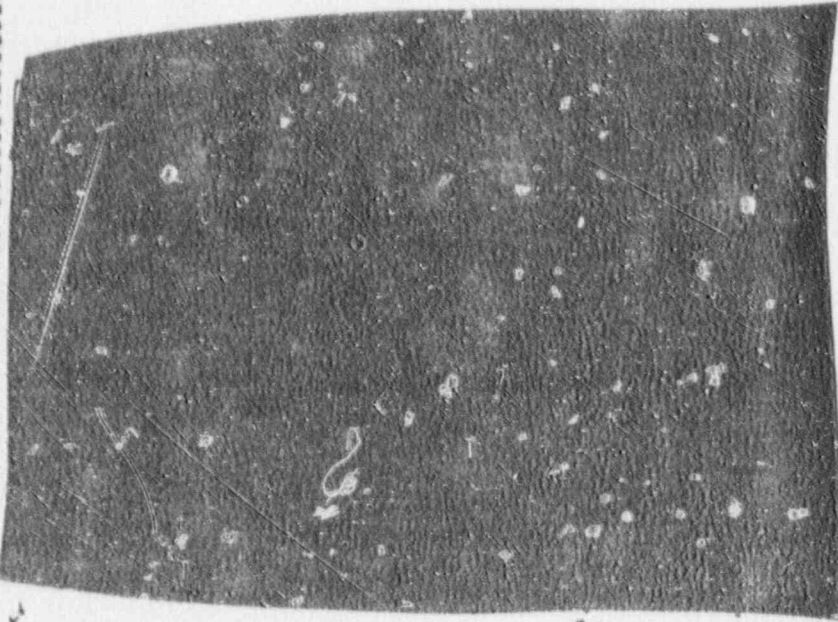
A

CHEMET LABORATORY MEASUREMENT CONTROL SYSTEM (LMCS)
TRANSACTION USER INSTRUCTIONS

PAGE 2

TRANS-6: 903 MAKE: UPDATE OF THE SAMPLE AND TEST RECORDS REVISION: 1 DATE: 14-JUN-82

PROMPT RESPONSE FIELD TYPE EXAMPLE ERROR MESSAGE CORRECTIVE ACTION



20

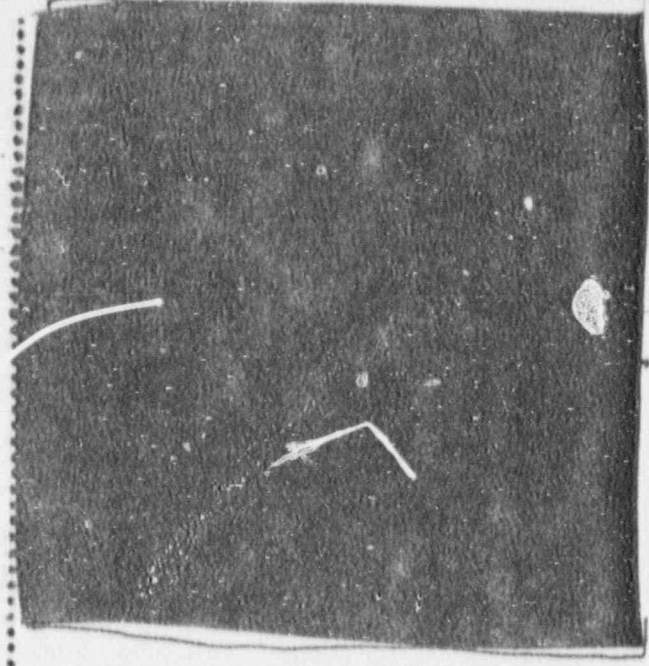
21

70200 (ENERGY LABORATORY MEASUREMENT CONTROL SYSTEM (LMCE)
TRANSACTION) UNDER INVESTIGATION

8.01 .002 MARKS UPDATE OF THE MARKS AND TEST RECORDS
DATE: 8-AUG-83

DATE: 8-AUG-83

FIELD TYPE CODE



CONFIDENTIAL

ERROR MESSAGE

PC-YAE-NC-IP-SITE

TIME

FAV MDY DM LMCS

INITIAL PASSWORD

UNAUTHORIZED USER

ACCESS ERROR



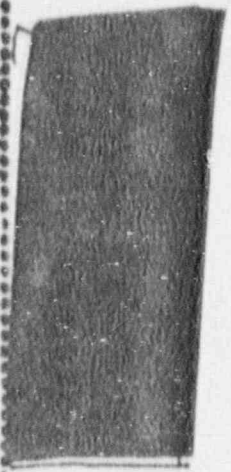
m-10

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CHEMISTRY LABORATORY MEASUREMENT CONTROL SYSTEM (LACS)
TRANSACTION USER INSTRUCTIONS

CHANGE UPDATE OF THE SAMPLE AND TEST RECORDS REGION 1 DATE: 14-JUN-92

PROMPT RESPONSE FIELD COOPERATIVE ACTION



EXAMPLE ERROR MESSAGE
:2 SAMPLE NOT ON LACS
CANNOT CHANGE SAMPLE



Sample

-1

2

1 CANNOT CHANGE COMPOSITE CONTAINERS CONTACT LACS PERSONNEL

2 CANNOT CHANGE SAMPLE CONTACT LACS PERSONNEL

3 CANNOT CHANGE SAMPLE CONTACT LACS PERSONNEL

4 CANNOT CHANGE SAMPLE CONTACT LACS PERSONNEL

5 CANNOT CHANGE SAMPLE CONTACT LACS PERSONNEL

SAMPLE IS NOT A COMPOSITE
NO UPDATE PERFORMED

7

NO UPDATE PERFORMED

NONE - CONTINUE WITH NEXT PROMPT

Function 111 >

Control

GENEY LABORATORY MEASUREMENT CONTROL SYSTEM (LMCS)
TRANSACTION USER INSTRUCTIONS

TRANS. 017 002 RANGE: UPDATE OF THE SAMPLE AND TEST RECORDS

REVISION: 1 DATED 10-JUN-73

FIELD

EXAMPLE ERROR MESSAGE

COLLECTIVE ACTION

1799MP000

940

1:42

RESULT = .43

CA

.715

INVALID INPUT
(TOO LONG)

INVALID INPUT
(TOO LONG)

RE-ENTER DATA

RE-ENTER DATA

HEMET LABORATORY REAS. UNIT - LUNAR SYSTEM (LMCS)
TRANSACTION USED INSTRUCTIONS

TRANS. 01 902

WANT UPDATE OF THE SAMPLE AND TEST RESULTS

REVISIONS 1 DATE: 14-JUN-62

PROMPT	RESPONSE	FIELD	TYPE	EXAMPLE	ERROR MESSAGE	CORRECTIVE ACTION
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	SAMPLE HAS NO SOURCE CANNOT CHANGE SAMPLE	HOME - CONTINUE WITH NEXT PROMPT CONTACT LMCS PERSONNEL
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	YOU LONGI -INVALID INPUT	INPUT CORRECTLY
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	YOU LONGI -INVALID INPUT	INPUT CORRECTLY

[REDACTED]

[REDACTED]

[REDACTED]

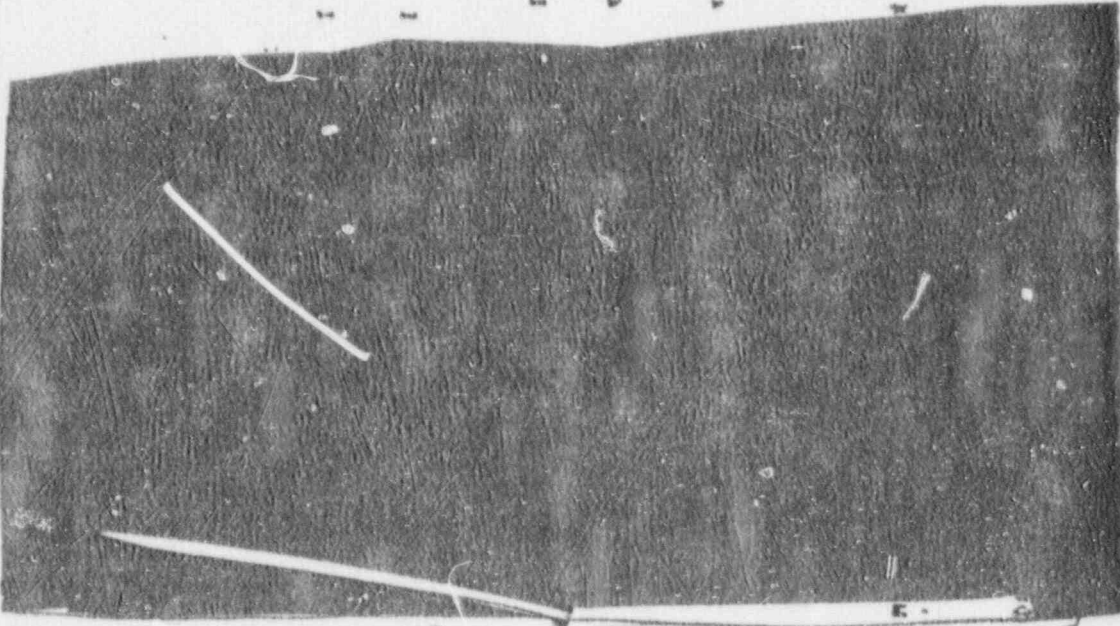
[REDACTED]

THE LABORATORY MEASUREMENT CONTROL SYSTEM (LMS) IMPROVEMENT PROJECT INSTRUCTIONS

NAME: JAMES R. HUGHES AND TEST RECORDS

REVISION: DATE: 10-11-82

ENTRY	MESSAGE	FIELD	TYPE	EXAMPLE	ERROR MESSAGE	CORRECTIVE ACTION
-------	---------	-------	------	---------	---------------	-------------------



MSG INVALID MAIL CODE
 PLEASE RE-ENTER DATA
 0000 RETURN

02-06-82 INVALID DATE



RE-ENTER MAIL CODE
 RE-ENTER DATE SAMPLED

CHEMET LABORATORY MEASUREMENT CONTROL SYSTEM (LMCS)
TRANSACTION USER INSTRUCTIONS

TRANS. 01 002 WANT UPDATE OF THE SAMPLE AND TEST RECORDS

REVISION: 1 DATE: 10-11-92

PROPT	RESPONSE	FIELD	TYPE	EXAMPLE	ERROR MESSAGE	CORRECTIVE ACTION
		A	1'50	INVALID TIME		RE-ENTER TIME



A QAD

X W9979

I 913

ANALYSER	011	012	013	ANALYSER	014
720 ± .009	719 ± .010	714 ± .010	715 ± .008		
2.224 ± .012	2.222 ± .013	2.222 ± .013	2.223 ± .012		
3.980 ± .021	3.982 ± .023	3.978 ± .019	3.945 ± .019		

ANALYSER	011	012	013	014
	1.001665	- .009166		
	1.002272	- .004954		
	.998957	.000915		
	.998207	.001361		

ANALYSER	SLOPE	INTERCEPT	ADJUSTED R-SQUARED
011	1.00593	- .00422	252459
012	1.00966	- .00522	2829737 272577
013	1.00544	- .00559	253556
014	1.00569	- .00638	241542

On 7/8/83 "Chilliwack" was down affecting many areas of FM
 particula Dgo Rim - Temp soared from 68-82°. Tell me how one can
 has accurate min Vets - when stds were not used - + Temp so high - Th
 all AMA were out of Calib / Some curve!

... must have a "..."

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~~SECRET~~
 M-11

To *Victor* Test Operator

QUICK LETTER - WHEN REPLY NEEDED

GENERAL ELECTRIC

COMPLETE MAILING ADDRESS

COMPONENT



SUBJECT Balance Tapes

It is no longer necessary to keep tapes from balance readings, if the time for each segment of the isotopic analysis is recorded on the tape.

... tapes until set is complete

DATE 11-7-83 PHONE/DIAL COMM

REPLY:

When is traceability of samples if tapes are destroyed and if "input" of data to H87 sensors is scribble! Also if technician has not "signed off" for his work - Who is to say is it fault if "lost" information consist be traced. I thought H87 was to be traceable on point etc. reg address of which state or area that it was in.

~~11-12-83~~
M-12-113

FOIA 87-88

PHONE/DIAL COMM

DATE

1-800-541-1113

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FOIA 87-88

SAMPLE PREPARATION DATA

INITIAL WEIGHTS				IGNITED WEIGHTS				SOLUTION WEIGHTS			
SAMPLE	TR	OPER	DATE	TARE	WGT	OPER	DATE	WGT	OPER	DATE	SOLUT
525555	9	[REDACTED]	311	28.7218	4.5028	[REDACTED]	311	31.3825	[REDACTED]	311	59.06
524387	9	[REDACTED]	311	29.1258	4.5012	[REDACTED]	311	29.7535	[REDACTED]	311	55.871
525553	9	[REDACTED]	311	29.0911	4.5011	[REDACTED]	311	31.3235	[REDACTED]	311	57.204
524294	9	[REDACTED]	311	27.4306	4.5011	[REDACTED]	311	22.0929	[REDACTED]	311	57.204
525556	9	[REDACTED]	311	26.9327	4.5003	[REDACTED]	311	31.5481	[REDACTED]	311	57.204
524339	9	[REDACTED]	311	26.2293	4.5005	[REDACTED]	311	28.9493	[REDACTED]	311	59.06
524017	9	[REDACTED]	311	27.0933	4.5002	[REDACTED]	311	27.7646	[REDACTED]	311	57.204
524018	9	[REDACTED]	311	27.7632	4.5000	[REDACTED]	311	22.4038	[REDACTED]	311	59.06
524019	9	[REDACTED]	311	27.5733	4.5041	[REDACTED]	311	31.2365	[REDACTED]	311	59.06
524020	9	[REDACTED]	311	27.1438	4.5029	[REDACTED]	311	32.0074	[REDACTED]	311	57.204
524021	9	[REDACTED]	311	27.0749	4.5027	[REDACTED]	311	31.7385	[REDACTED]	311	57.204
524022	9	[REDACTED]	311	26.4458	4.5007	[REDACTED]	311	31.1076	[REDACTED]	311	57.204

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Act, exemptions 4
FOIA 87-88

REACTOR ANALYZER # 1

DATE: TIME: 8:10

BEFORE STANDARDS

LOW STD 1.711
MED STD 2.295
HIGH STD 3.871

AFTER STANDARDS

LOW STD 1.715
MED STD 2.291
HIGH STD 3.879

CONSTANTS

M 61707.461361
A 1.977564
SLOPE .999718
INTER 007423

SAMPLE	OPER	TUBE	ENR	490	515	60L	60G	07U	ENR	AVG	SEN
			ENR	100	100					ENR	Y/N
525555	[REDACTED]	6465	3.956	4.659	1.291	178.0	1.293	2.072	3.906	3.906	NO
524387	[REDACTED]	6298	3.000	3.987	1.291	174.1	1.291	2.289	3.295	3.295	YES
525553	[REDACTED]	6298	3.000	4.121	1.291	175.0	1.291	2.053	3.871	3.871	NO
524294	[REDACTED]	6235	2.400	2.748	1.291	177.1	1.298	2.060	2.421	2.421	YES
525556	[REDACTED]	6325	3.950	3.727	1.291	175.5	1.289	2.245	3.308	3.308	NO
524339	[REDACTED]	6374	3.000	3.713	1.291	175.2	1.290	2.247	3.297	3.297	YES
524017	[REDACTED]	6380	0.000	1.954	1.291	177.6	1.301	2.063	1.722	1.722	YES
524018	[REDACTED]	6466	0.000	1.946	1.290	178.4	1.305	2.065	1.707	1.707	YES
524019	[REDACTED]	6372	0.000	1.645	1.291	177.1	1.298	2.064	1.716	1.716	YES
524020	[REDACTED]	6347	0.000	1.997	1.291	179.9	1.313	2.065	1.704	1.704	YES
524021	[REDACTED]	6320	0.000	1.933	1.291	177.0	1.287	2.061	1.733	1.733	YES
524022	[REDACTED]	6351	0.000	1.958	1.291	176.3	1.293	2.060	1.744	1.744	YES

RELEASED TO LMC [REDACTED]

DATE 11-8-83

~~REDACTED~~
M-13

A-
2-26

10/11/01 2159
 Transmission Status
 Released by: 15184
 TIME: 6:35
 DATE: 8/31/02

mples Transmitted To LMCS

Sample#	Tube	Iso	Q/L	Avg Iso	Avg Q/L
524387	6398	3.295	2.239	3.295	2.239
524294	6225	2.421	2.060	2.421	2.060
524339	6324	3.297	2.247	3.297	2.247
524017	6360	1.722	2.063	1.722	2.063
524018	6466	1.707	2.065	1.707	2.065
524019	6372	1.716	2.064	1.716	2.064
524020	6347	1.704	2.065	1.704	2.065
524021	6320	1.733	2.061	1.733	2.061
524022	6351	1.744	2.060	1.744	2.060

mples Held For Recount

Sample#	Tube	Iso	Q/L	Avg Iso	Avg Q/L
---------	------	-----	-----	---------	---------

mples Withheld

Sample#	Tube	Iso	Q/L	Avg Iso	Avg Q/L
525555	6485	3.906	2.070	3.906	2.070
525553	6298	3.871	2.051	3.871	2.051
525556	6325	3.908	2.245	3.908	2.245

Faint, illegible text at the top of the page, possibly a header or title.

Faint, illegible text in the middle section of the page.

Should be 3.871



Do not have to be a fig

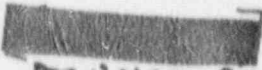
AL ORDER: 8*292-6158

DATE: March 15, 1984

COPIES

DEPT: MFD-AT

ADDRESS: R51

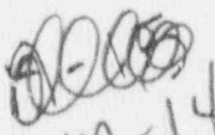
SUBJECT: Safety in the Chemet Laboratory
 Manager
Regulatory Compliance

I toured the Chemet Laboratory today to review the general safety of devices as you requested. The review was concentrated on items of non-chemical concern; such as the microwave equipment, radio-frequency equipment, etc., but my general impression was that all safety issues have been given considerable thought. The greatest hazard was the always-present possibility of touching a hot object, just as in a typical kitchen.

The microwave oven is a clean, industrial device with standard effective shielding at all ports. Two different types of microwave detectors are available to provide assurance against leakage of microwave radiation: 1) A go/no-go device with a light emitting diode tuned to signal at levels set by federal regulations and designed to be worn by the operator, and 2) an analog measurement instrument of professional quality. These instruments provide greater safety assurance than is present with normal usage of microwave ovens by the public.

It has been alleged that the oven has leaked microwave radiation in the past and that a screen had been removed from the vent port at the top of the oven. The screens were in place on both ovens when I inspected them. Operation of an oven without the screen in place is dangerous and implicitly prohibited by the Job Hazard Analysis. In such a case, microwave levels would be high near the vent port and would surely trip even the passive type detector. It is also probable that the screen must be removed occasionally for cleaning, in which case the oven should be tagged out of operation until the screen is replaced. Without periodic cleaning of the screen, ventilation would be reduced by salts condensed on the screen. Cleaning without removal would reduce buildup and the instances of removal for cleaning. Cleaning without removal seems to fall in the category of "when visible" and "end of shift" cleanup. It should be made clear that leakage of material through the door does not indicate a microwave leak, but may indicate ventilation weakness caused by poor attention to the cleanliness of the screen. The oven door seal is designed to block microwave radiation while allowing copious airflow. It is conceivable that condensed salts on the interior of the door may fall down to the table top while the door is closed, with no microwave leakage. The presence of contamination or inadequate ventilation would both be cured by routine cleanup while awaiting the arrival of ventilation flow monitoring equipment.

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Act, exemptions 4
FOIA 87-88


M-14

[REDACTED]
March 15, 1984

Page Two

The radio-frequency induction furnace was considered primarily because of the large amounts of mercury used in the adjacent apparatus. The mercury-containing apparatus is in an appropriate stainless steel well with three inch dykes to prevent escape in the event of a spill. Sulfur is on hand for use in the event of a splash over the dyke. The radiation produced by the induction furnace is radio-frequency and is a hazard only to reception of local stations with a low quality receiver.

The nuclear-magnetic-resonance equipment also produces radiation, intermediate in frequency between radio waves and microwaves, but at very low and safe power levels.

In summary, the microwave is the only potential source of dangerous electromagnetic radiation, and that potential is realized only in an equipment failure. The detection equipment available for detecting leaks provides safety assurance beyond the level available to the general public. The equipment condition is good. The job hazard analysis requires testing of the equipment (no interval specification) for leaks and a log shows that the testing is done on a weekly basis. No unacceptable levels were reported in this log. I found no procedure requiring the measurements on a weekly basis, but this is an appropriate interval for a corrosive environment and I recommend that the weekly interval be established in procedure.

[REDACTED]
Plant Automation

/mat

GENERAL ELECTRIC

STRICTLY PRIVATE

DIAL CODE: 8-292-5437

DATE: March 29, 1984

COPIES: 

DEPT: WILMINGTON MANUFACTURING DEPARTMENT

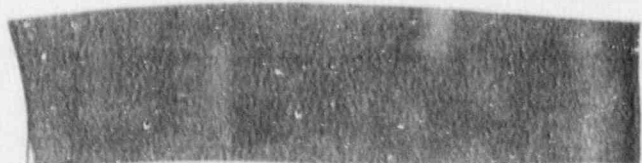
ADDRESS: M/C 3-26

SUBJECT: CHEMET LAB SAFETY REVIEW



Quality Assurance

Attached are the reports of the team members who reviewed safety conditions in the Chemet Laboratory in accordance with your request of 3/13/84. We conclude that the safety conditions in the laboratory are quite adequate for the areas covered in this review.



Regulatory Compliance

/sba

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Act, exemptions 4
FOIA- 87-88

~~SECRET~~
m-15

(A) HP 9887 Passwords: 14

- (1) - HP 9887 password change restricted to a single authorized password accessor (currently [redacted] Effective 1/25/84.
- (2) - At any time an individual desires to change a password on the HP 9887 all samples with the old password assignment must be cleared from the system. This is most easily accomplished by waiting at least 48 hrs so that all prior old password entries have been cleared. This routing has been available since 1982 when the HP 9887 came on line.

NOTE: Password change restricted to single authorized password accessor for LMCS Effective 3/8/83

(B) LMCS 902/903 Transactions

- (1) - These transactions cannot be used to change results of standards (Effective pre-1980)
- (2) - The need for restricting access to 902/903 transactions has been re-emphasized to supervisors
- (3) - Supervisors have been instructed to not divulge their passwords for any reason
- (4) - To minimize intentional falsification, any time a supervisor feels his password may have become known he will change his password accordingly.
- (5) - Ultimately LMCS software modifications will be implemented to rigorously control and document 902/903 transactions by others (no schedule at this time)

(C) HP 9887 Pay Number Assignment

- (1) - Effective 1/17/84 the transaction transmitting the HP 9887 results to LMCS was modified to record the pay number of the operator releasing the results.
- (2) - HP 9887 records document the persons identity performing the key process steps for each sample. No plans exist to transfer this information to LMCS.

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(A) HP 9887 APP Passwords: 14

- (1) - HP 9887 password change restricted to a single authorized password accessor (currently [redacted]) Effective 1/25/84. *Neurological Lab*
- (2) - At any time an individual desires to change a password on the HP 9887 all samples with the old password assignment must be cleared from the system. This is most easily accomplished by waiting at least 48 hrs so that all prior old password entries have been cleared. This routing has been available since 1982 when the HP 9887 came on line.

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include in software instructions

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