

CHEMET LAB  
/SCP DISTRIBUTION CONTROL  
SHEET

NAME	M/C	To Recy. SCP	No. COPIES	COMPONENT
	K88	X	1	Nuclear Materials Management
	179 S.J.	X	1	P&QA0 - Lab Council
	H92	X	1	Chemet Lab
	K51	X	1	Laboratory Automation
	138 S.J.	X	1	Materials Engineering
Secretary	H92	X	5	Chemet Laboratories
Reference Book	H92	X	1	Chemet Laboratories
<del>History Book</del>	H92	X	1	Chemet Laboratories
Original to Original Book	H92	X	Original	Chemet Laboratories

TO DISTRIBUTION: Attached is a revised copy of /SCP # 400 Rev. 1  
 Titled: ISOTOPIC AND O/U BY GRAVIMETRIC TECHNIQUES - ISSUE DATE: 06/18/82  
 Please place this plan in your assigned manual(s), revise your index to reflect the current title, issue date and revision status and destroy all obsolete copies.

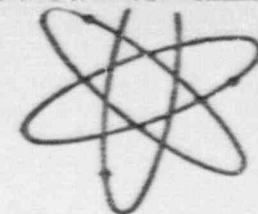
(REFERENCE: P/P 70-37 and 70-38 for standard distribution.) CL #156 Rev. 3  
 Information in this record was deleted in accordance with the Freedom of Information Act, exemptions 4 and 7. ISSUE DATE: 05/14/82  
 APPROVED BY: [Signature]

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# MANUFACTURING DEPARTMENT



## MEASUREMENT CONTROL PROGRAM - CHEMET LAB STATION CONTROL PLAN

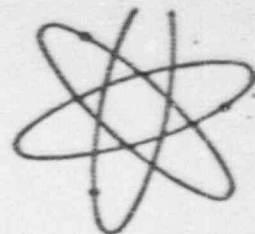
ANALYSIS TITLE: ISOTOPIC AND O/U BY GRAVIMETRIC TECHNIQUES      SCP REV. 1      DATE 06/18/82  
 SCP NO. 400      CMA&S METHOD(S) 1.2.15.1 and 5.2.9.5      PAGE 1 OF 8

NO.	PARAMETER OR CHARACTERISTIC	ACCEPTANCE LIMITS	GAGE, STANDARD OR METHOD	FREQUENCY	ACTION TO TAKE IF OUTSIDE LIMITS
1.0	Equipment Calibration.	Valid date.		Daily.	Do not use. Notify supervisor.
2.0	Balance Verification.	+ .0005g - .0005g		Before each tray of samples is weighed.	Recalibrate balance using calibration lever. Repeat verification check.
3.0	Crucibles.	Clean and room temperature to touch and no visible cracks.		Each crucible used.	Reclean and dry crucible.

PREPARED BY	DATE	APPROVALS	DATE	APPROVALS	DATE	APPROVALS	DATE
[Redacted]	5/25/82	OCE	6-7-82	NMM	6/8/82	PCE	[Redacted]
CHEMET	6/10/82	WE	[Redacted]	NSE	[Redacted]		
OTD	[Redacted]	CBIS	[Redacted]	EPE	[Redacted]		



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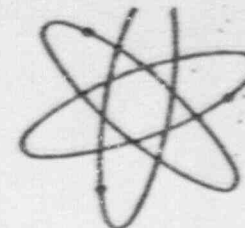


## MEASUREMENT CONTROL PROGRAM - CHEMET LAB STATION CONTROL PLAN

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NO.	PARAMETER OR CHARACTERISTIC	ACCEPTANCE LIMITS	GAGE, STANDARD OR METHOD	FREQUENCY	ACTION TO TAKE IF OUTSIDE LIMITS
4.0	Worksheet and trays.	N/A.		Each group.	N/A.
5.0	Crucible weight.	N/A.		Each crucible.	Reweigh crucible.
6.0	Sample weight.	A. Isotopic: 4.5000 + .0200g — B. O/U only: 10.0000 + 1.5000 —		Each sample.	Reweigh sample.
7.0	Oxidation Temperature.	A. Low: 525 + 50°C — B. High: 900 + 25°C —	Read temperature gauge.	Prior to removal of sample from furnace.	Adjust temperature, contact supervisor if furnace temperature will not adjust.



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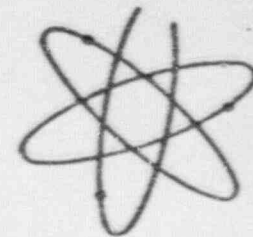


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NO.	PARAMETER OR CHARACTERISTIC	ACCEPTANCE LIMITS	GAGE, STANDARD OR METHOD	FREQUENCY	ACTION TO TAKE IF OUTSIDE LIMITS
8.0	Oxidation time, Low temperature.	>2 hours.	Clock. Enter time <u>IN</u> and <u>OUT</u> on work- sheet.	Each pellet sample.	N/A.
9.0	Oxidation time, High tempera- ture.	2 hours +60 min. -0	Clock. Enter time <u>IN</u> and <u>OUT</u> on work- sheet.	Each sample.	N/A.
10.0	O/U Verification Pellet.	Per LMCS.		One per day.	Per COI-002.
11.0	Oxidized sample weight.	A. Cooled to room tempera- ture by touch.  B. Weigh within 8 hours after oxidation.		Each sample.	Void measurement if greater than 8 hours after removal from furnace.
12.0	Nitric acid concentration.	1.1680 + .0050		Once per day.	Notify supervisor. DO NOT USE ACID.



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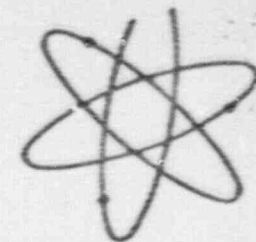


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NO.	PARAMETER OR CHARACTERISTIC	ACCEPTANCE LIMITS	GAGE, STANDARD OR METHOD	FREQUENCY	ACTION TO TAKE IF OUTSIDE LIMITS
13.0	Acid dispenser	30.0 $\pm$ 1.0g		Once per shift.	Notify supervisor. DO NOT USE ACID.
14.0	Sample covers.	Clean.		Each dissolved sample.	DO NOT USE. Reclean or discard cover.
15.0	Uranyl nitrate cooling.	Room temperature to touch. 90 $\pm$ 30 mins.		Each tray.	Notify supervisor.
16.0	Sample spillage.	No visible signs.		Each sample.	Reprepare samples.



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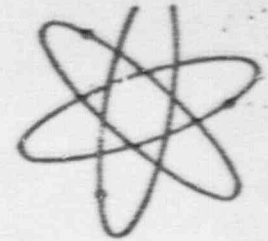


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NO.	PARAMETER OR CHARACTERISTIC	ACCEPTANCE LIMITS	GAGE, STANDARD OR METHOD	FREQUENCY	ACTION TO TAKE IF OUTSIDE LIMITS
17.0	Solution weight.	N/A.		Each sample.	Allow to cool an additional hour.
18.0	Counting tubes.	Numbered from 7000 to 7999.		Each tube.	If not numbered properly, take to supervisor. If not clean or dry, reclean and dry.
19.0	Counting tube fill.	1) 10 ml $\pm$ .1 ml  2) No visible signs of wetness or residue.		Each sample.	1) If solution is not immediately transferred, reweigh the sample.  2) Do not use tip if it is dirty or wet.



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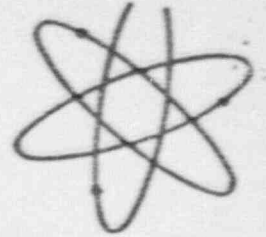


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NO.	PARAMETER OR CHARACTERISTIC	ACCEPTANCE LIMITS	GAGE, STANDARD OR METHOD	FREQUENCY	ACTION TO TAKE IF OUTSIDE LIMITS
20.0	Gamma Counting.				
20.1	Calibration.	N/A.		At least once per week or when verification standards fail to meet limits.	N/A.
20.2	Calibration Verification.	Computer Software and/or Posted.		At least every 13th counting cycle	A. O&IS check peak and recalibrate. B. Rerun unknowns since last good verification standard
20.3	High Standard U-Count.	As posted at work station and/or analyzer computer.		Each calibration.	Discontinue analysis until O&IS OK's.
20.4	Control Charting.	Per LMCS.	Per COI-002.	Each calibration verification and MCP standards.	Per COI-002.



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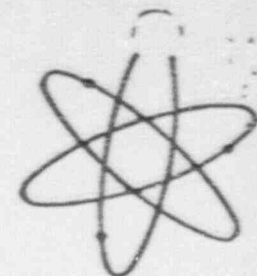
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NO.	PARAMETER OR CHARACTERISTIC	ACCEPTANCE LIMITS	GAGE, STANDARD OR METHOD	FREQUENCY	ACTION TO TAKE IF OUTSIDE LIMITS
20.5	Bias Adjustment Factors.	As posted.	[Handwritten bracket spanning rows 20.5, 21.0, and 22.0]	Each shift and each time software entered into calculator.	B. Contact supervisor.
21.0	Sample Calculation.	N/A.		Each sample.	N/A.
22.0	Reporting Unknowns.	N/A.		Each unknown.	N/A.

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22.0 (Contd)			data. For non-gravimetric preparation samples, log designated values on worksheets and return to responsible technician. For Gu/G iso topic preparations, review final results against 001-403 and report as applicable.		