8005130 495

Met-Ed / GPU

Metropolitan Edison Company
Post Office Box 480
Middletown, Pennsylvania 17057
717 944-4041

Writer's Direct Dial Number

May 6, 1980
TLL 218

TMI Program Office
Attn: J. T. Collins, Deputy Program Manager
U. S. Nuclear Regulatory Commission
c/o Three Mile Island Nuclear Station
Middletown, Pa. 17057

Dear Sir:

Three Mile Island Nuclear Station, Unit II (TMI-2)
Operating License No. DPR-73
License No. 50-320
Water Processing Systems Operational Performance

Enclosed please find operational performance summaries of both the EPICOR I and EPICOR II water processing systems through April 14, 1980. These summaries represent cumulative totals since the commencement of systems operations.

Performance of both water processing systems has been satisfactory. We anticipate continued successful system operations.

Sincerely,

G K Hovey

G. K. Hovey
Director, TMI-II

GKH:LJL:hah

Enclosure

cc: B. J. Snyder

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

A001/1

EPICOR I RADWASTE SYSTEM

Summary of Operation
as of April 14, 1980

Date Commenced Processing Water----------April 6, 1979

WATER PROCESSING

Water Processed---------- 934,524 gals.

Unit II Water Processed---------- 159,683 gals.

Inleakage of Water to be Processed

TMI Unit I---------- 2,700 GPD

TMI Unit II---------- 180 GPD

Total Gallons through System including Recycle-------- 1,690,984 gals.

Processing Rate---------- 10 GPM

Net Radwaste System Processing Rate---------- 1.76 GPM

Curies Removed by System (Long Half-Life)---------- 103 Ci

Processed Water Disposition----------Released to River

SOLID RADWASTE

Spent Resin Liners---------- 19

Avg. Curie Loading----------5.4 Curies per Liner

Liner Throughput----------49,185 Gallons per Liner

Spent Filter Liners---------- 11

Liner Throughput----------84,957 Gallons per Liner

EPICOR II RADWASTE SYSTEM

Summary of Operation
as of April 14, 1980

Date Commenced Processing Water----------October 22, 1979

WATER PROCESSING

Auxiliary Building Water Processed----------	189,213 gals.
Aux. & Fuel Handling Bldg. Water to be Proc.----	253,691 gals.
Inleakage of Water to be Processed----------	160 GPD
Total Gals. through System including Recycle----	675,036 gals.
Number of Batches----------	29
Curies Removed by System----------	20,760 Ci
Curies to be Removed----------	28,009 Ci
Processing Rate----------	10 GPM
Net Radwaste System Processing Rate----------	0.75 GPM

Processed Water Disposition

In BWST----------	20,000↑gal.
In 'B' SFP----------	205,000↓gal.

PERSONNEL EXPOSURE (As of March 15, 1980)

Total Man Rem Exposure----------	8.1 Man Rem
Operation----------	1.4
Liner Changeout----------	3.0
Maintenance----------	3.7
Man Rem Exposure per Gal. Processed----------	0.05Man-Millirem
Total Man Rem Exp. per Curie Removed----------	0.47Man-Millirem
Projected Man Rem Exposure for Total Curies to be Processed----------	12.5 Man Rem

SOLID WASTE PRODUCED

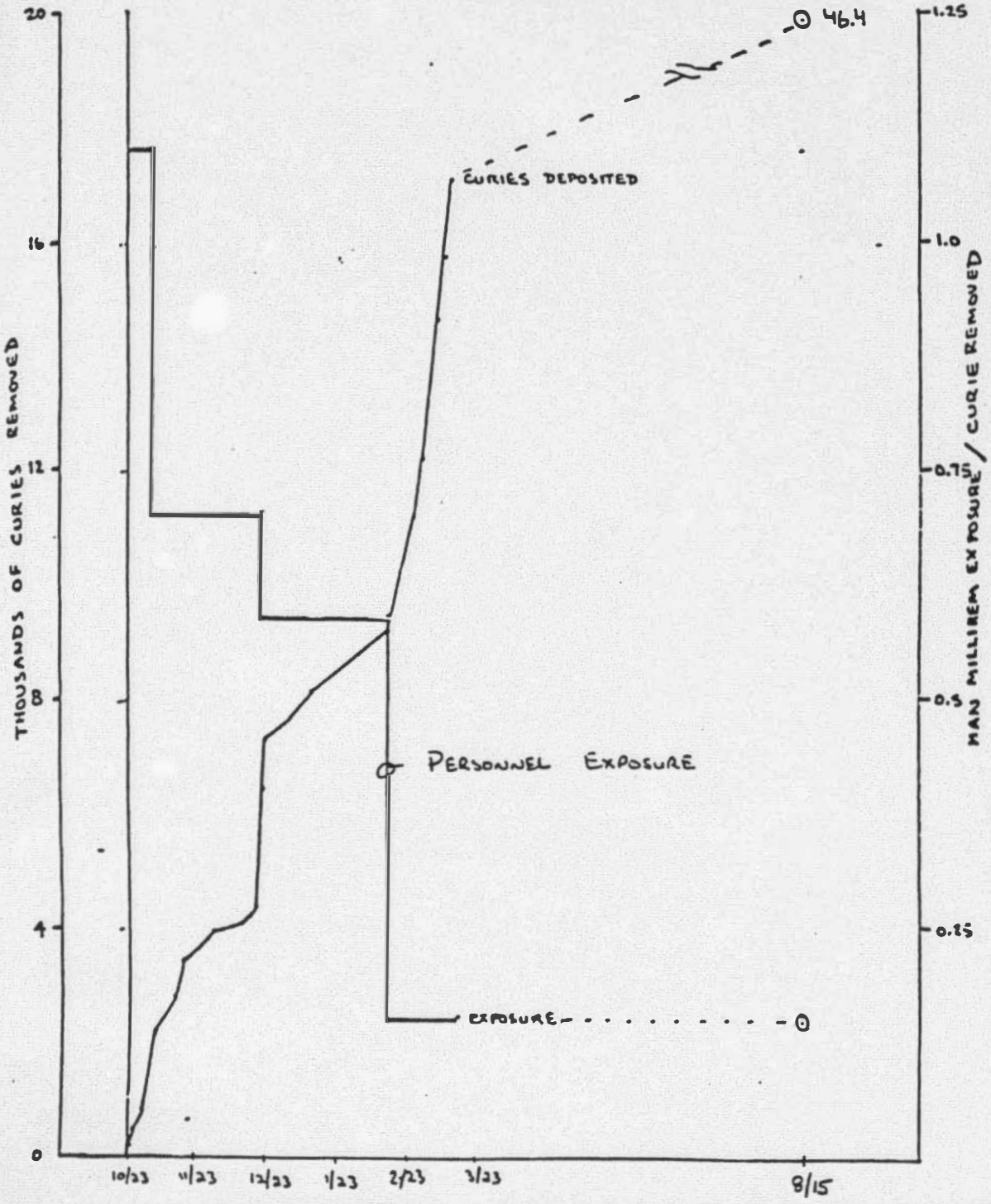
Spent Resin Liners----------	37
Avg. Curie Loading----------	561 Ci per Liner
Liner Throughput----------	5,100 Gal. per Liner
Micron Filters----------	11
Resin Traps----------	4

EPICOR II RADWASTE SYSTEM
PERSONNEL EXPOSURE

	PERIOD				
	10/22/79 to 11/9/79	11/10/79 to 12/19/79	12/19/79 to 2/11/80	2/11/80 to 3/15/80	TOTAL
Gallons Processed	44,000	40,000	11,115	64,915	160,030
Exposure Breakdown B Category (mrem)					
Sampling	157 5%	68 3%	554 55%	639 45%	1418 17%
Liner c/o	859 28%	1071 42%	308 30%	721 52%	2958 37%
Maintenance	2060 67%	1416 55%	155 15%	40 3%	3681 46%
TOTAL	3076	2565	1017	1400	8058
Liners Used	3	12	7	12	34
Gal./liner	14666	3333	1587	5409	4706
mrem/gal.	.07	.064	.091	.021	.050
Gal/mrem	14.3	15.5	10.9	46.3	19.8
Curies Removed	2768	3647	1717	8918	17051
Curie/mrem	.09	1.4	1.6	6.37	2.11
mrem/Curie	1.1	.70	.59	.15	.47

4/7/22

MANREM EXPOSURE



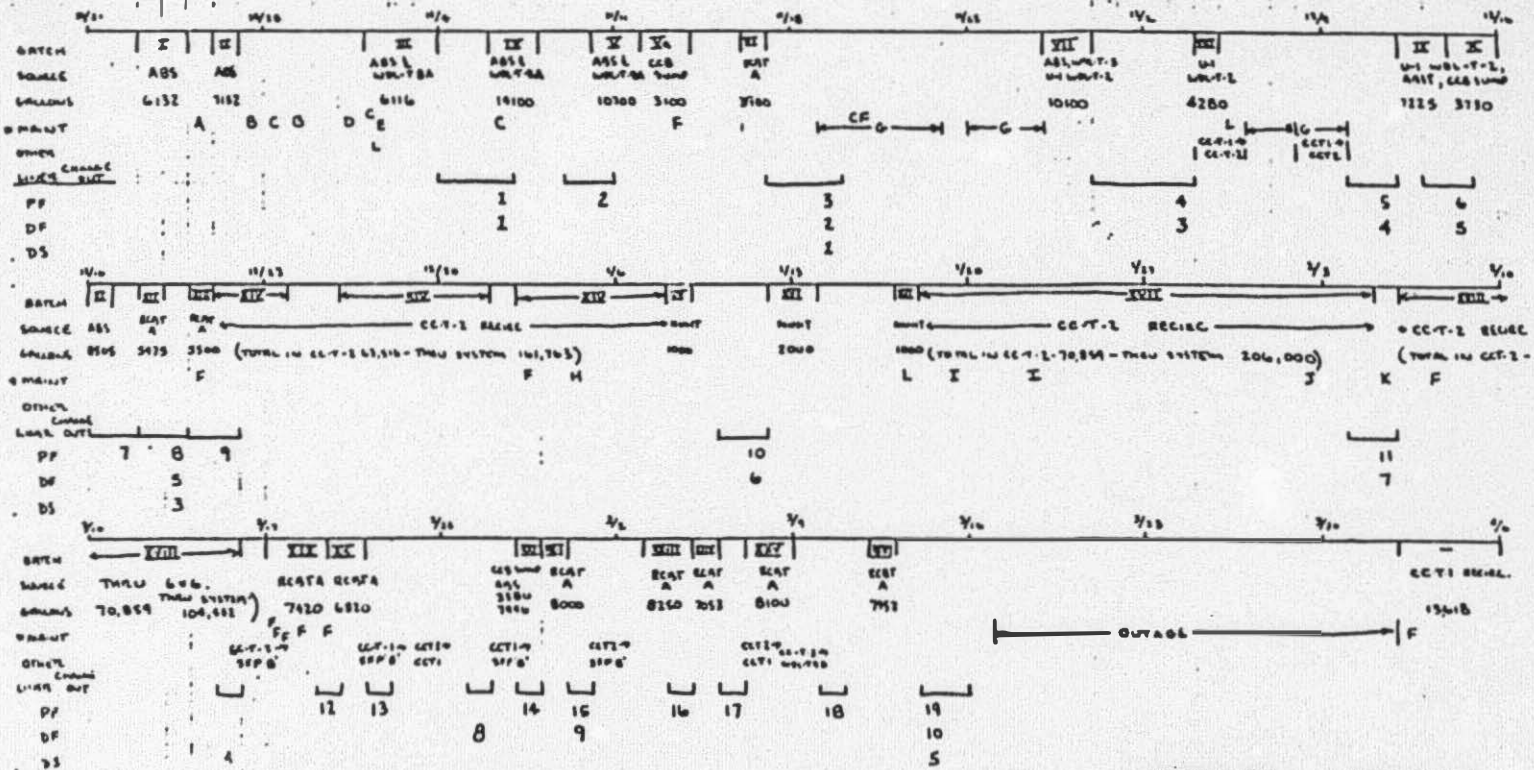
EPICOR CORPORATION

CLIENT GPU- TASK NO ___ DATE 10/31/79 - 4/6/80

SUBJECT ___ By T.D. LOCKABILL

Checked By ___

EPICOR II - OPERATIONAL SUMMARY



A - INSTALL PRESSURE GAUGES ON P 2,3 & 4
B - MO-43 & 86 VALVE MAINTENANCE
C - RESIN TRAP CHANGE OUT
D - pH CELL MAINTENANCE
E - SUMP LEVEL IND. MAINT.
F - MICRON FILTER CHANGOUT
G - DECON/GEN. MAINT.
H - PAINTING
I - ADMINISTRATION TO 6-6-6
J - CAMERA MAINT.
K - MODIFICATIONS TO RECIRC THRU C-2
L - MD STATE SAMPLES

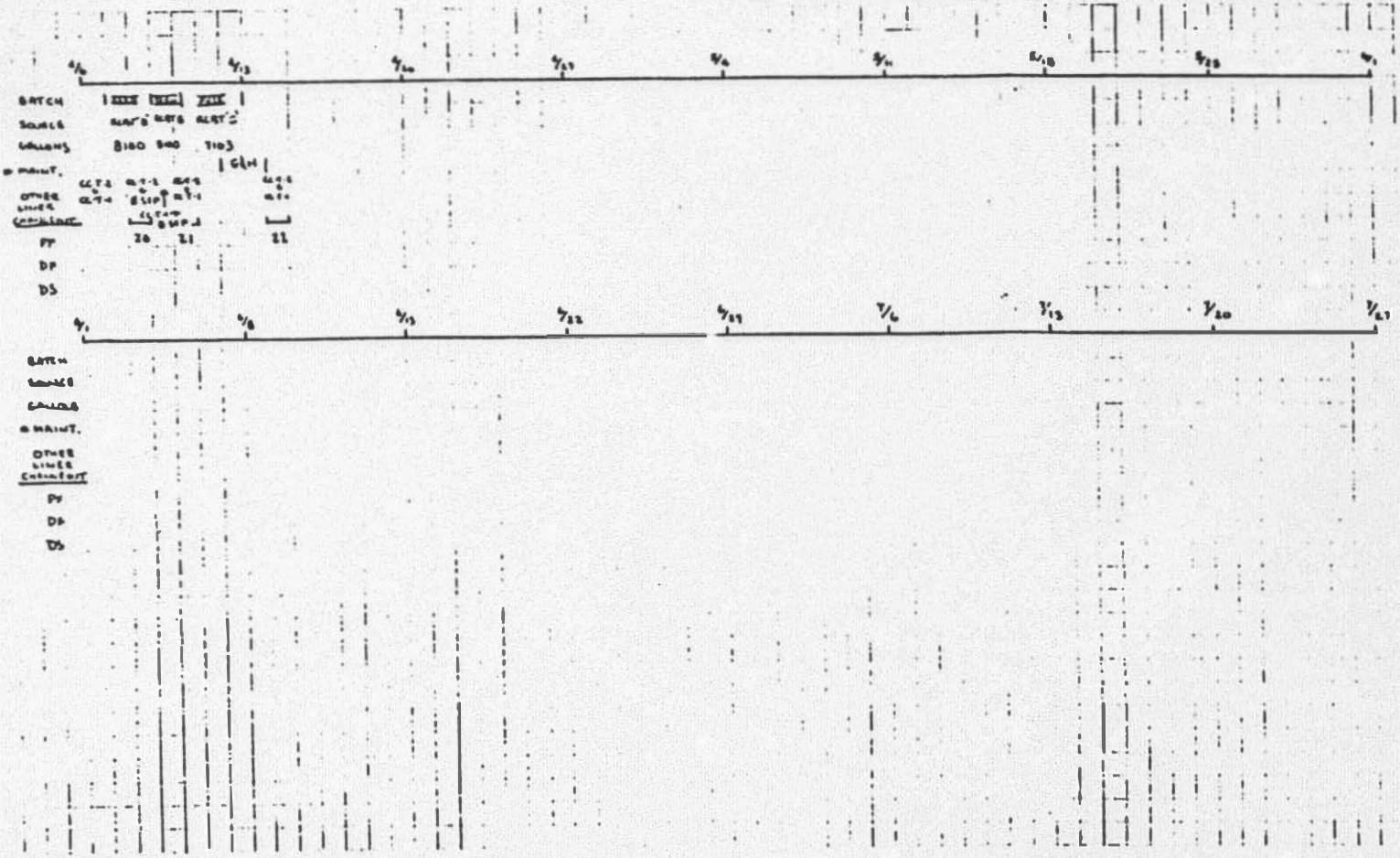
NUS CORPORATION

Page 2 of ___

DATE 4/1/80 -

CLIENT GPU TASK NO. _____ By T.P. LOGRASSO

SUBJECT EPICOR II - OPERATIONAL SUMMARY Checked By _____



NUS CORPORATION

DATE 2/4/00

CLIENT GPU TASK NO ___ By Tom Lockhart

SUBJECT EPICOR II - LINER CHANGEOUT EXPERIENCE Checked By ___

BATCH #	GALLONS	FLOW RATE GPM	SOURCE INTO MONIT	PREFILTER (PF) 1	2	3	4	5	6	7	8	9	10	11	DEMIN 1 (DF) 1	2	3	4	5	6	7	DEMIN 2 (DX) 1	2	3	4
I	6,132	12	AUX SUMP	203											0.78							0.11			
II	7,132	10	AUX SUMP	240											0.79							0.22			
III	6,116	8.3	AUX SUMP	484											0.30							2.07			
IV	14,100	12	WEUT TK BA AUX SUMP		1239											44						0.16			
V	10,700	10	WEUT TK BC AUX SUMP			392										0.51						0.24			
VI	3,100	10	CCB SUMP			–										–						–			
VII	3,900	10	RCBT A AUX SUMP			696										1.56						318			
VIII	10,100	11	U-1 MONIT, ABHT & AUX SUMP				474										28						2.0		
IX	4,280	85	U-1 MONIT, ABHT & AUX SUMP					153										0.90					0.02		
X	2,780	11	CCB SUMP						–									–					–		
XI	4,445	11	U-1 MONIT, ABHT & AUX SUMP						155									4.2					0.29		
XII	3,730	11.5	U-1 MONIT, ABHT & AUX SUMP							134									0.16				–		
XIII	8,505	15	AUX SUMP							1071									38.6				0.36		
XIV	5,475	15	RCBT A								863								19.6				338		
XV	5,500	7	RCBT A									889								–				1.56	
XVI	161,763	10	CC-T-2										0.13							0.27				0.19	
XVII	1,000	10	RCBT A										131.2							0.34				0.01	
XVIII	4,000	10	RCBT A											692.5							0.92				1.76
CCT-2 XIX RECIRC	206,000	10	CC-T-2											0.1							0.10				0.30
TOTALS	468,758	10.6 (average)																							

LINER CHANGEOUT DATA:

GALLONS THRU LINER	14588	14100	17700	10100	4280	7225	12235	5475	5500	47,263	210,000	10330	5,500	10100	11505	17710	168,263	210,000	51,180	56,516	168,263	210,000
CURIES DEPOSITED	937	1139	1288	414	153	135	1206	863	889	131.3	692.6	2.37	647	28	46	58.16	0.41	1.02	5.96	6.05	1.76	2.06
CHANGEOUT DATE	1/5	1/8	1/17	1/10	1/7.11	1/14	1/17	1/19	1/11	1/11	2/5	1/5	1/7	1/10	1/16	1/19	1/11	2/5	1/8	1/19	1/11	2/5
REASON FOR CHANGEOUT	3	1	1	2	2	2	1	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2

1 - APPROACHING CURIE LIMIT

2 - CHEMICAL CONCERNS

3 - LEVEL PROBE PROBLEMS

* AMOUNTS SHOWN ARE RECIRC GALLON TOTALS (ACTUAL GALLONS PROCESSED 63,516 & 70,859 RESPECTIVELY).

NUS CORPORATION

DATE _____

CLIENT GPU TASK NO. _____ By T.D. Lookabill

SUBJECT EPICOR II - LINER USAGE EXPERIENCE Checked By _____

BATCH #	GALLONS THRU SYSTEM	FLOW RATE GPM	SOURCE INTO MWHT	PREFILTER - PF 12	13	14	15	16	17	18	19	20	21	22	23	DEMIN 1 - DF 8	9	10	11	12	13	14	DEMIN 2 - DS 4	5	6	7
[illegible]	468,758	10.6	—																				2.06			
XVIII	104,442	30	RC-T-2 RECIRC																				0.02			
XIX	7,420	10	RCBT'A'	1056.7												18.9								0.049		
XX	6,820	10	RCBT'A'		973.5											0.5								0.0879		
XXI	3,380	10	CCB SUMP			0.91											0.0023							0.0068		
	7,940	10	RCBT'A' BUS SUMP			968.96											20.967							0.1502		
XXII	8,000	10	RCBT'A'				991.8										7.059							0.91		
XXIII	8,250	10	RCBT'A'					1250.6										1.553						0.0019		
XXIV	7,053	10	RCBT'A'						1069.8									0.5927						0.0019		
XXV	8,100	10	RCBT'A'							1286.04								1.116						0.0013		
XXVI	7,952	10	RCBT'A'								1263.31							0.8438						0.0041		
—	13,618	10	CC-T-1 RECIRC									—							—							—	
XXVII	8,100	10	RCBT'B'									1279.1							0.466						0.001	
XXVIII	8,100	10	RCBT'B'										1288.2						1.357						0.011	
XXIX	7,103	10	RCBT'B'											1126.02					0.443						0.016	
TOTALS																										

LINER CHANGEOUT DATA:

GALLONS THRU LINER	7,420	6,820	11,320	8,000	8,250	7,053	8,100	7,952	8,100	8100	7103		14,240	19,310	31,355					39,442	64,915		
CURIES DEPOSITED	1056.7	973.5	968.96	991.8	1250.6	1069.8	1286.04	1263.31	1279.1	1288.2	1126.02		19.6	30.548	4.766					2.08	0.439		
CHANGEOUT DATE	3/19	3/20	3/27	4/29	3/4	3/6	3/10	3/14	4/8	4/10	4/15		3/20	3/29	3/14					3/16	3/14		
REASON FOR CHANGEOUT	1	2	2	2	1	1	1	1	1	1	1		2	2	4					2	4		

1) - APPROACHING CURIE LIMIT
2) - CHEMICAL CONCERNS
3) - LEVEL PROBE PROBLEMS
4) - REMOVED FOR OUTAGE

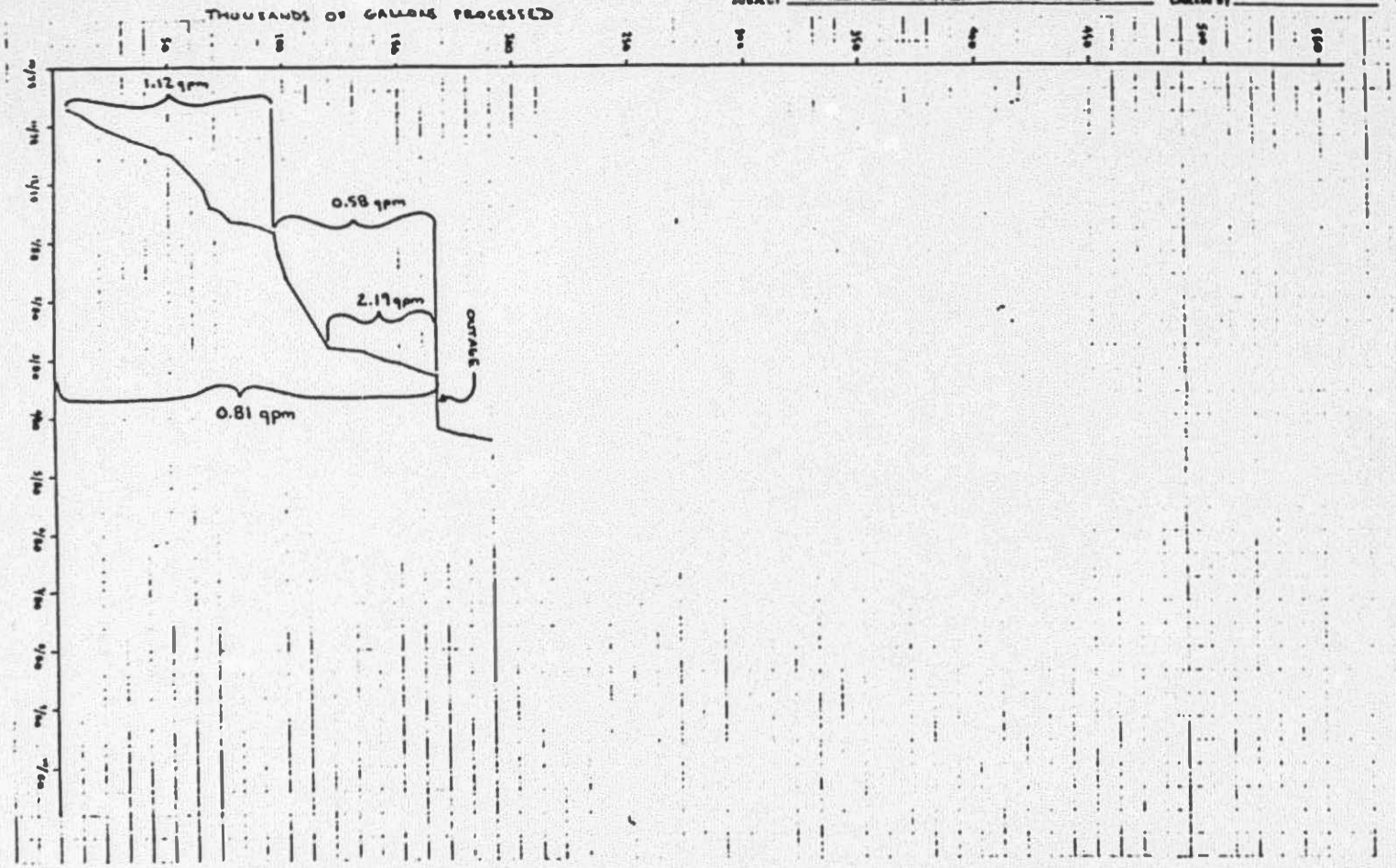
NUS CORPORATION

Page ___ of ___

DATE _____

CLIENT _____ TASK NO. _____ By _____

SUBJECT EPICOR II - WATER PROCESSED Checked By _____



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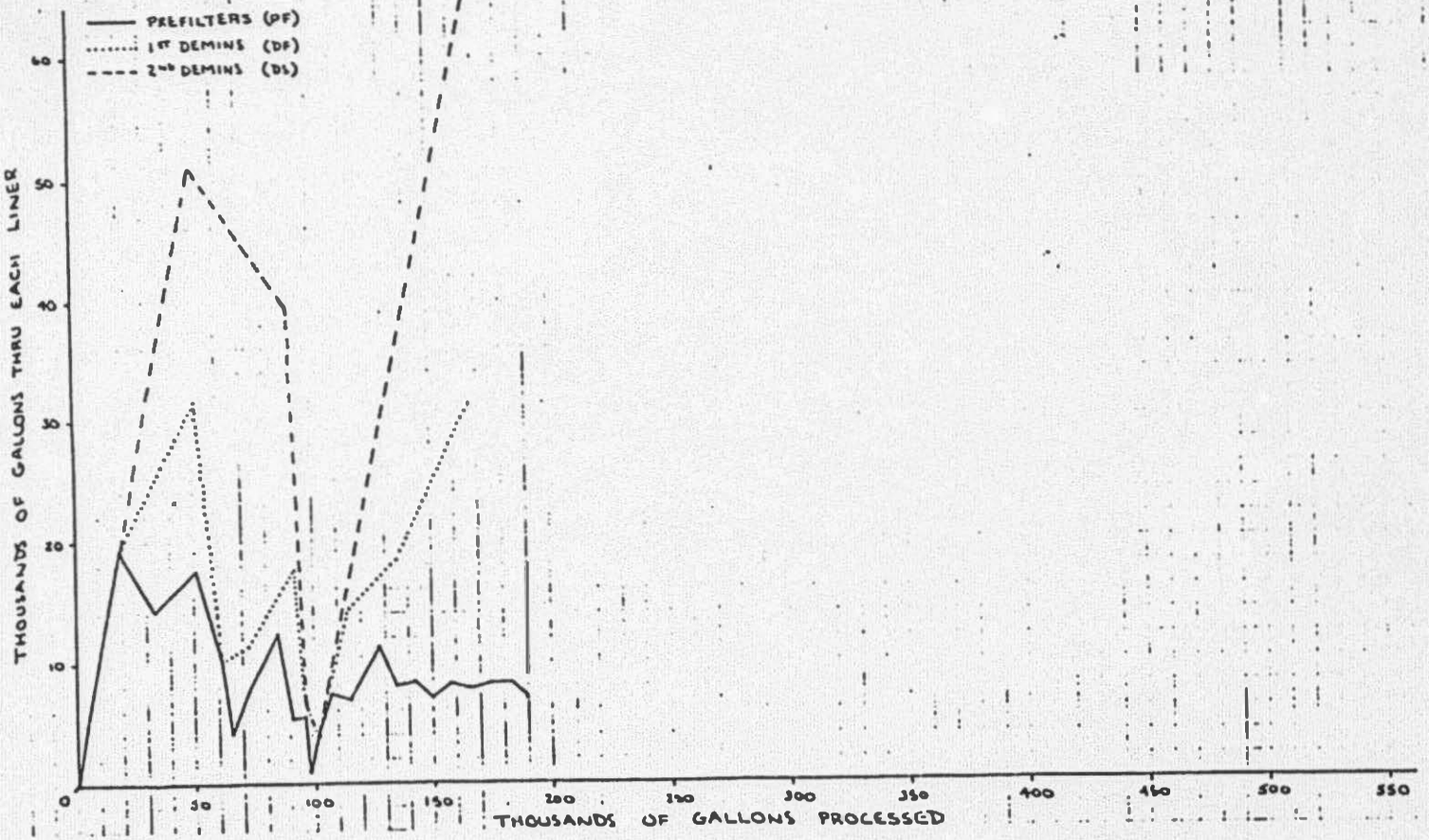
Page ___ of ___

DATE _____

CLIENT _____ TASK NO. _____ By _____

SUBJECT EPICOR II - GALLONS THRU LINER Checked By _____



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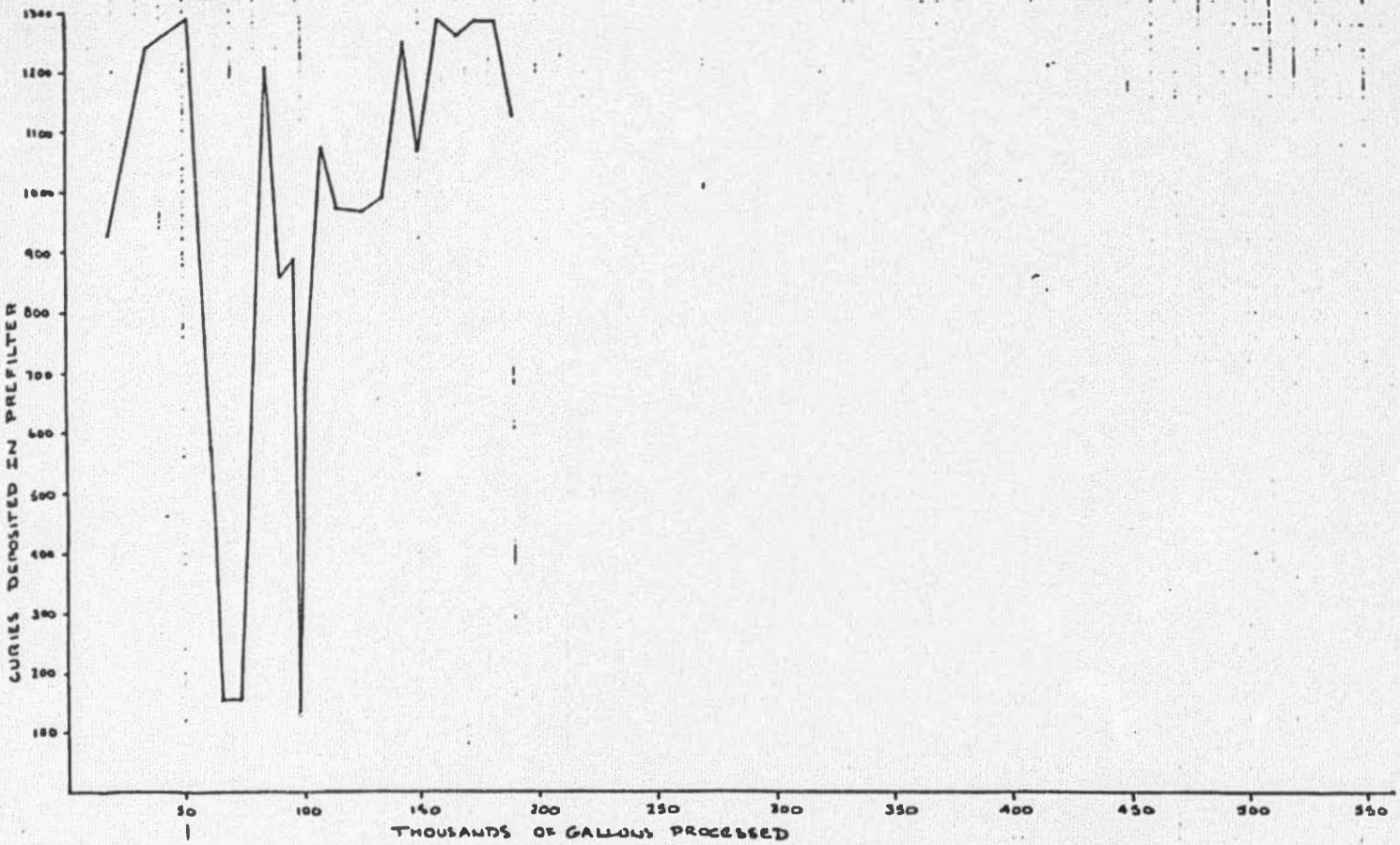
Page ___ of ___

DATE _____

CLIENT _____ TASK NO _____ BY _____

SUBJECT EPICOR II - PREFILTER CURIE LOADING CHECKED BY _____