

April 16, 1997

50-317/318

NOTE TO: File

FROM: Alexander W. Dromerick

A.W.D.

SUBJECT: CALVERT CLIFFS U2R11, S/G INSPECTION NRC INFORMATION PROJECT

The attached information "Calvert Cliffs U2R11, S/G Inspection Project" was delivered to me via Courier on April 8, 1997. This information formed the basis for our conference call with Baltimore Gas & Electric Company on April 9, 1997, to discuss the results of the steam generator tube inspection.

Attachment: As stated

DISTRIBUTION:

Docket File

PUBLIC

PDI-1 R/F

A. Dromerick

NRC FILE CENTER COPY

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DF01*

180018

9704180088 970416
PDR ADOCK 05000317
P PDR



***Calvert Cliffs U2R11
S/G Inspection***

NRC Information Packet

Calvert Cliffs U2R11 S/G Inspection NRC Information Packet

1. Inspection Scope

2. Inspection Results

Colored Maps

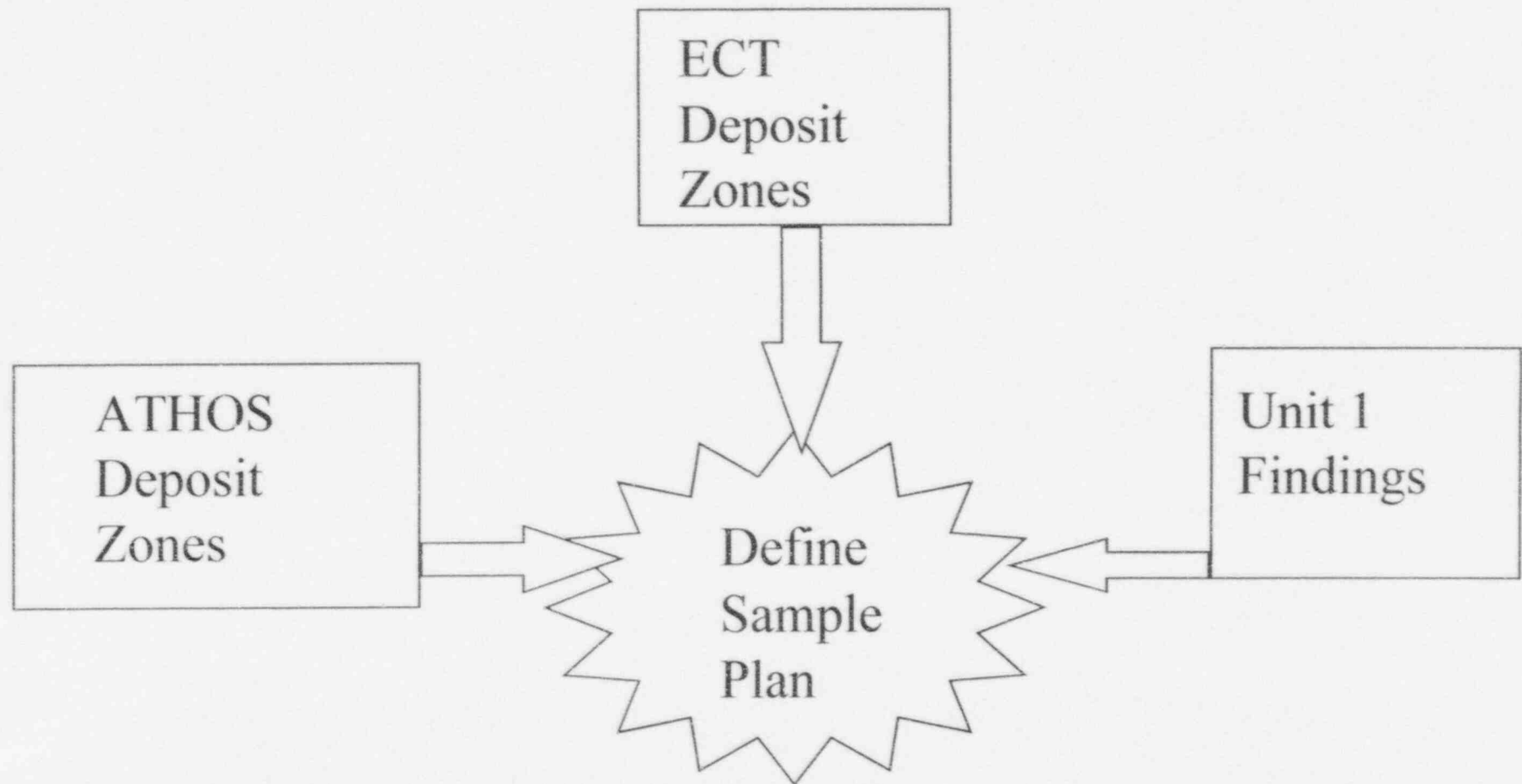
3. Data Comparisons

1995 Versus 1997 Voltages & Lengths Of Axial Cracks

4. In-Situ Pressure Testing

5. Inspection Completion Schedule

Development of Inspection Plan



Scope of Exam for Unit 2 1997 RFO

The following examinations, as a minimum, shall be performed in the Spring, 1997,
Unit 2 Steam Generator Eddy Current Exam:

1. 100% Full Length Bobbin Exam
2. 100% Hot Leg, Top of Tubesheet +5/-1 inches: Plus Point Exam
3. 20% Sample of Tight Radius U-bend region (Rows 1 & 2): Plus Point Exam
4. 20% Sample of Dents (greater than 5 volts): Plus Point Exam
5. 20% Sample of Steam Blanket Region U-bends (Rows 3-20): Plus Point Exam
6. 20% Cold Leg Top of Tubesheet +5/-1 inches: Plus Point Exam
7. 20% Sample of Upper Bundie Arc & Stay Dome Free Span Region: Plus Point Exam
8. 20% Rolled Mechanical Plugs: Plus Point Exam.
9. 20% Hot Leg 9th Tube Support Plate: Plus Point Exam

03/97, CALVERT CLIFFS, UNIT 2

STEAM GENERATOR: 21

OUTAGE DATA SET : CURRENT

Indication Location: 04H -2.00 to 06C -2.00 AND Percent: MAI, SAI, MSI, TLL AND Area of Generator:

Include Expansion1

, STAY DOME

, EXPANSION2

, EXPANSION #5 STAYS

, EXPANSION #3

DATE: 04/07/97

TIME: 17:54:49

PLUGGED

427 * MAI

0 * SAI

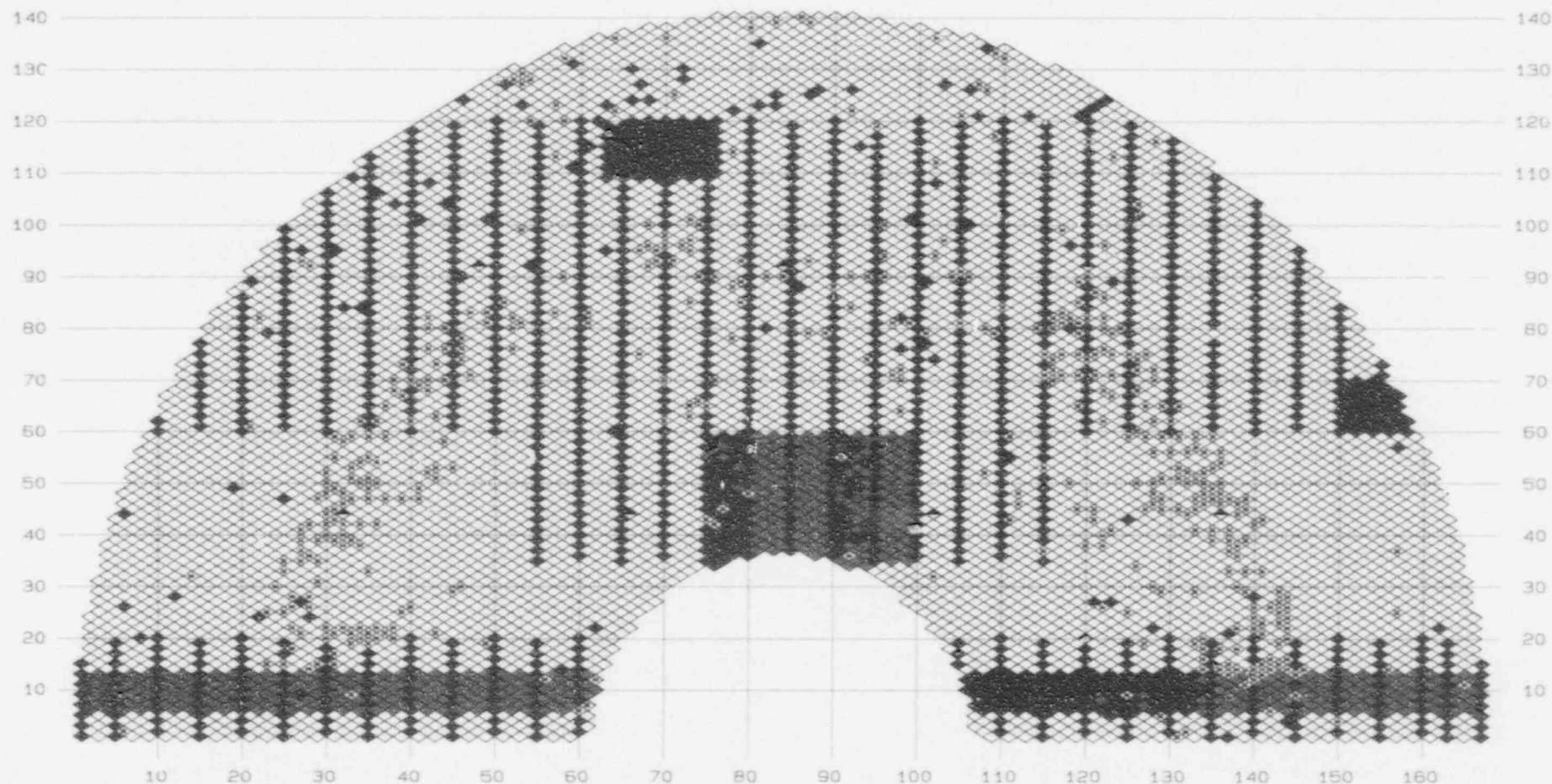
11 * MSI

0 * TLL

454 *

INLET VIEW
NOZZLE

EVAL MULT SCOPE 1473 *



03/97, CALVERT CLIFFS, UNIT 2

STEAM GENERATOR: 22

OUTAGE DATA SET : CURRENT

Indication Location: 04H -2.00 to 06C -2.00 AND Percent: MAI, MSI, SAI, TLD AND Area of Generator:

Include MRPC ARC ROWS 60 - 120 , MRPC STAY DOME

, EXP #5 STEAM BLANKET

DATE: 04/07/97

TIME: 16:23:23

STAYS

PLUGGED

229 x MAI

0 • MSI

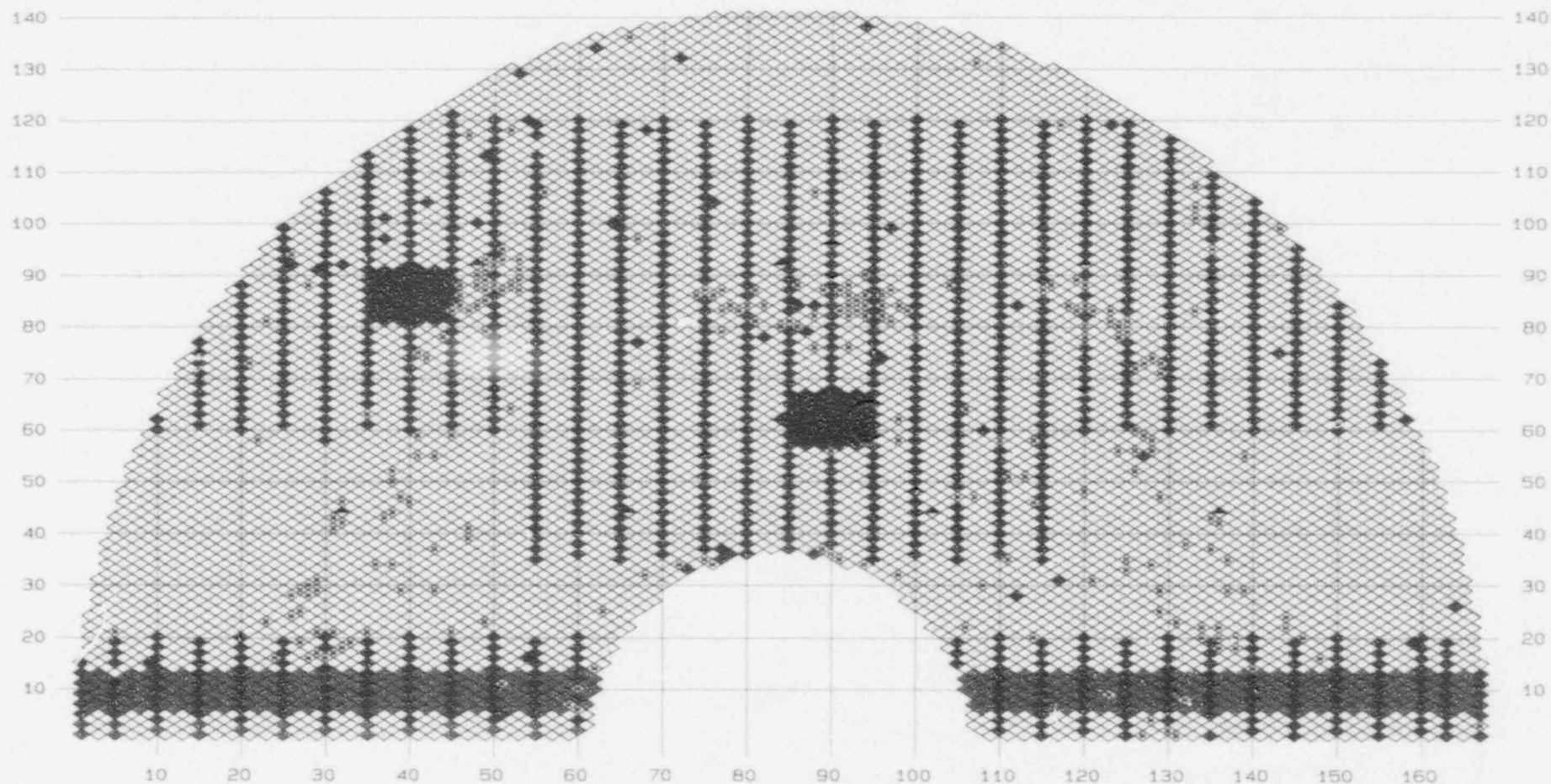
0 • SAI

3 • TLD

404 •

INLET VIEW
NOZZLE

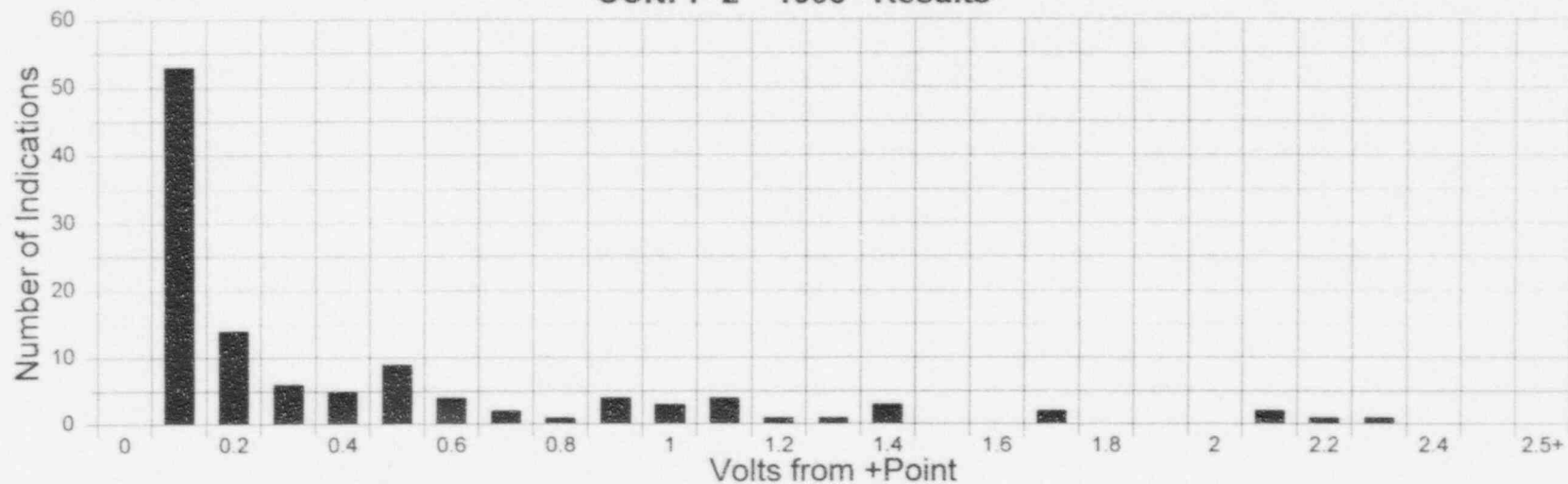
EVAL MULT SCOPE 1258 •



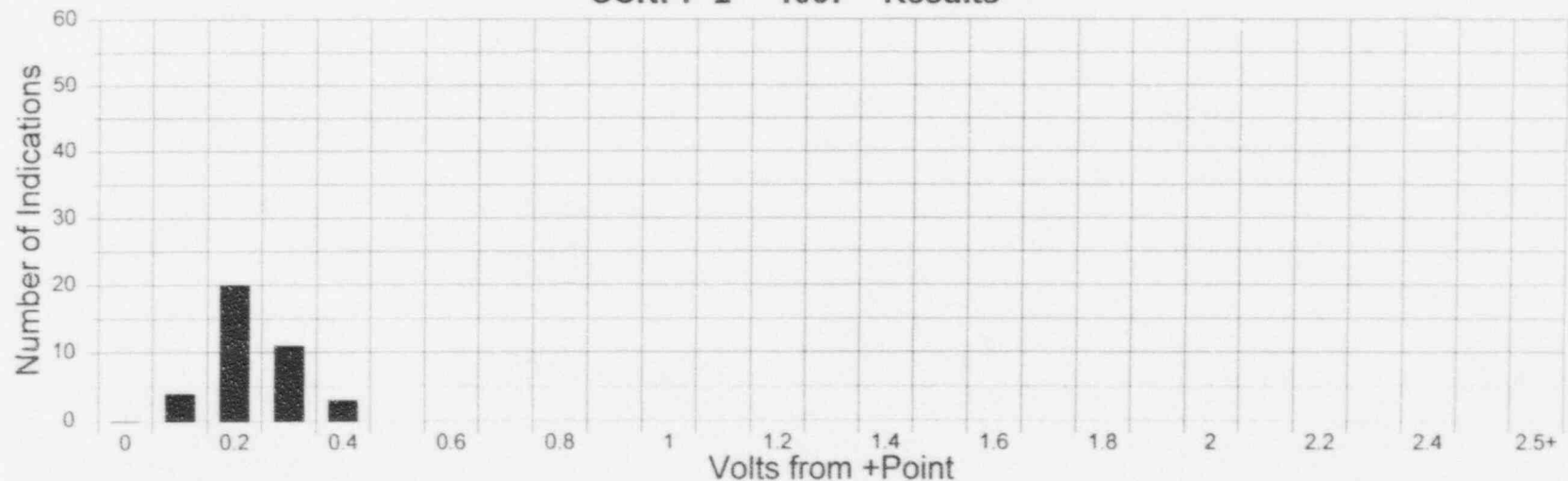
Comparison of CIRC Flaw Voltage

Last Outage vs This Outage

CCNPP-2 1995 Results



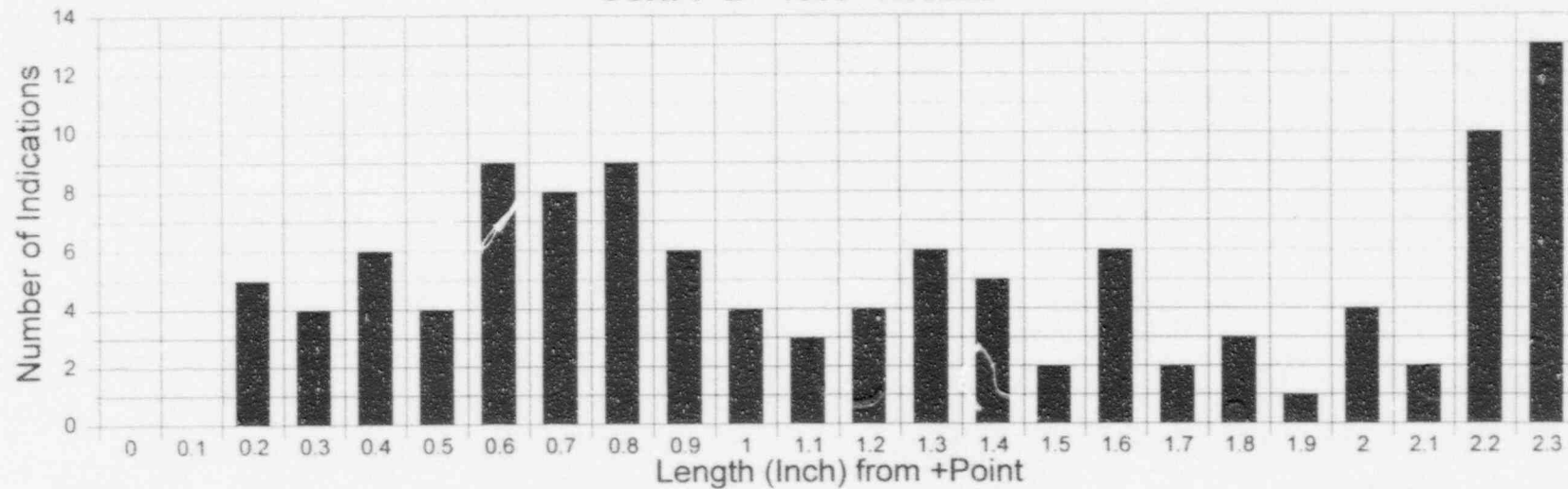
CCNPP-2 1997 Results



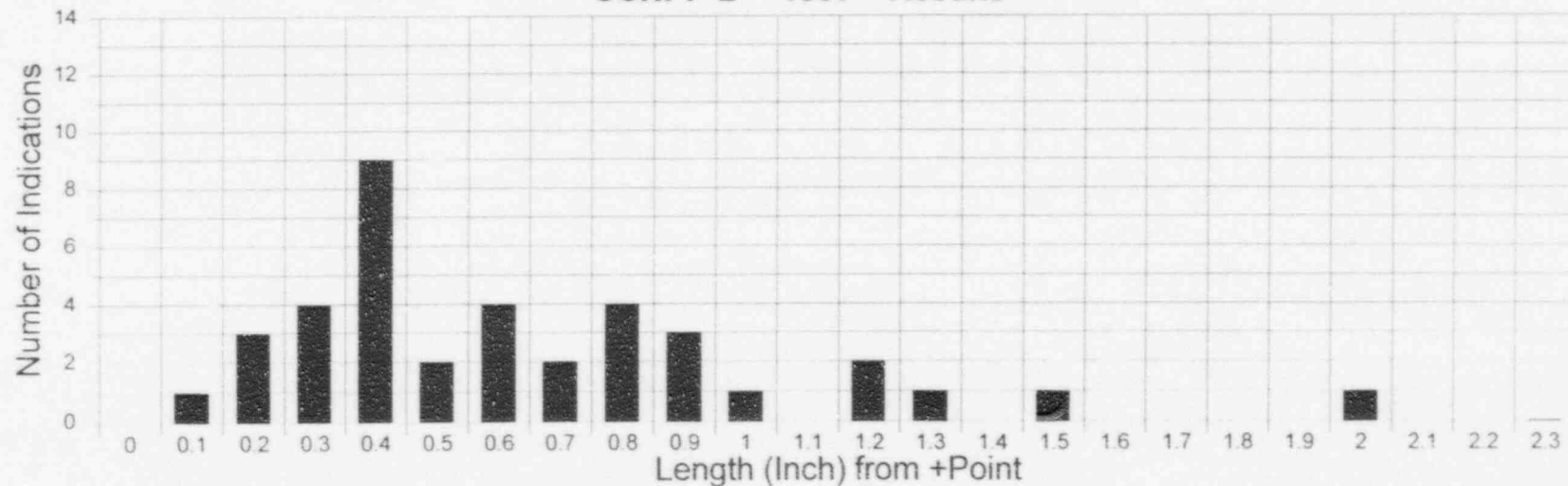
Comparison of CIRC Flaw Length

Last Outage vs This Outage

CCNPP-2 1995 Results



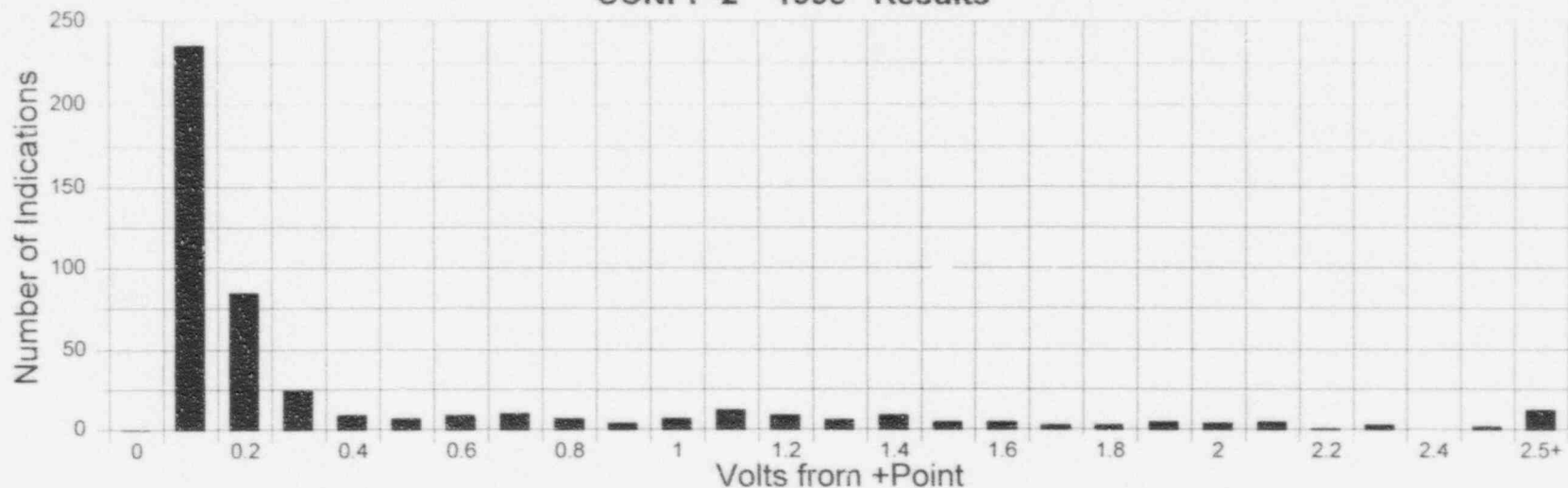
CCNPP-2 1997 Results



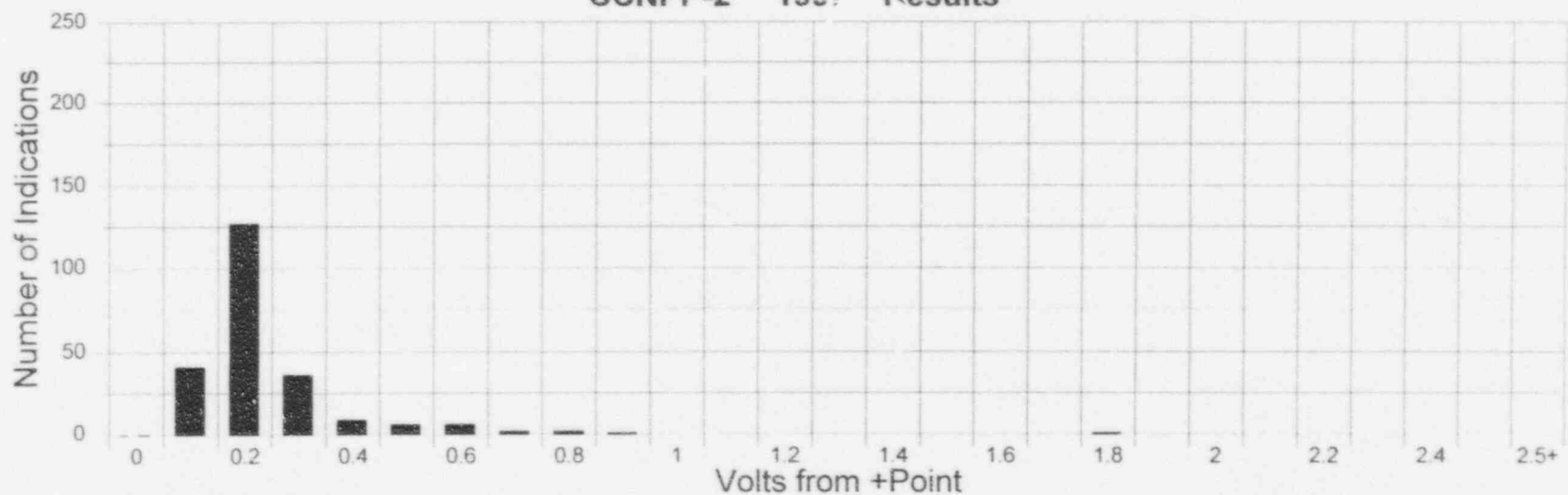
Comparison of AXIAL Flaw Voltage

Last Outage vs This Outage

CCNPP-2 1995 Results



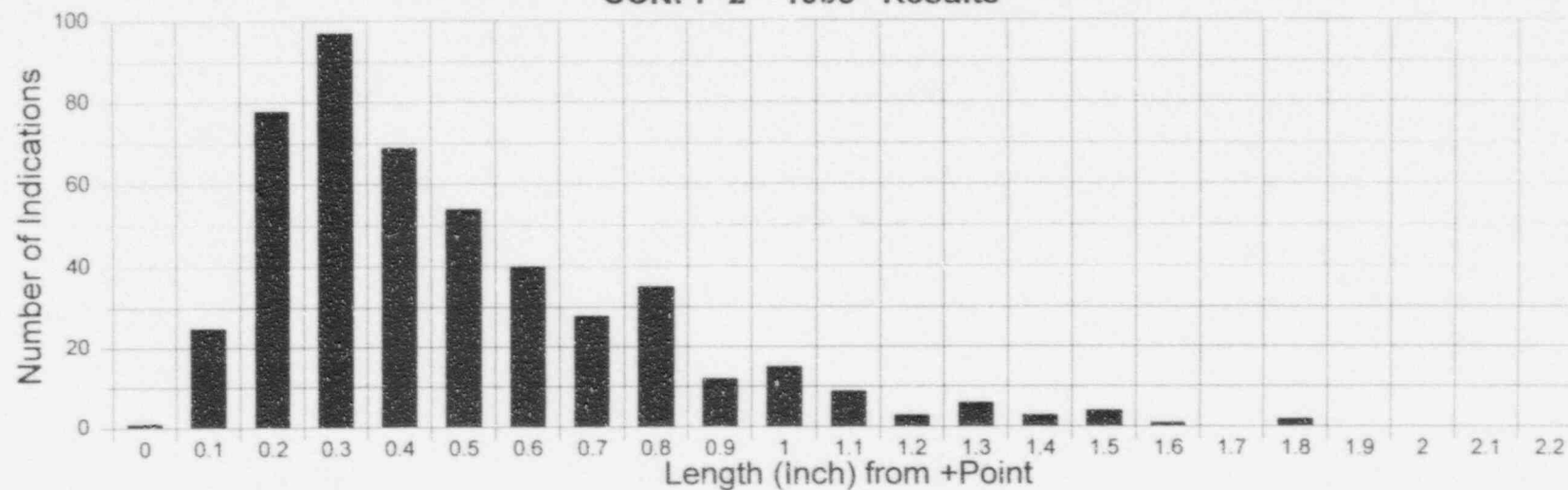
CCNPP-2 1997 Results



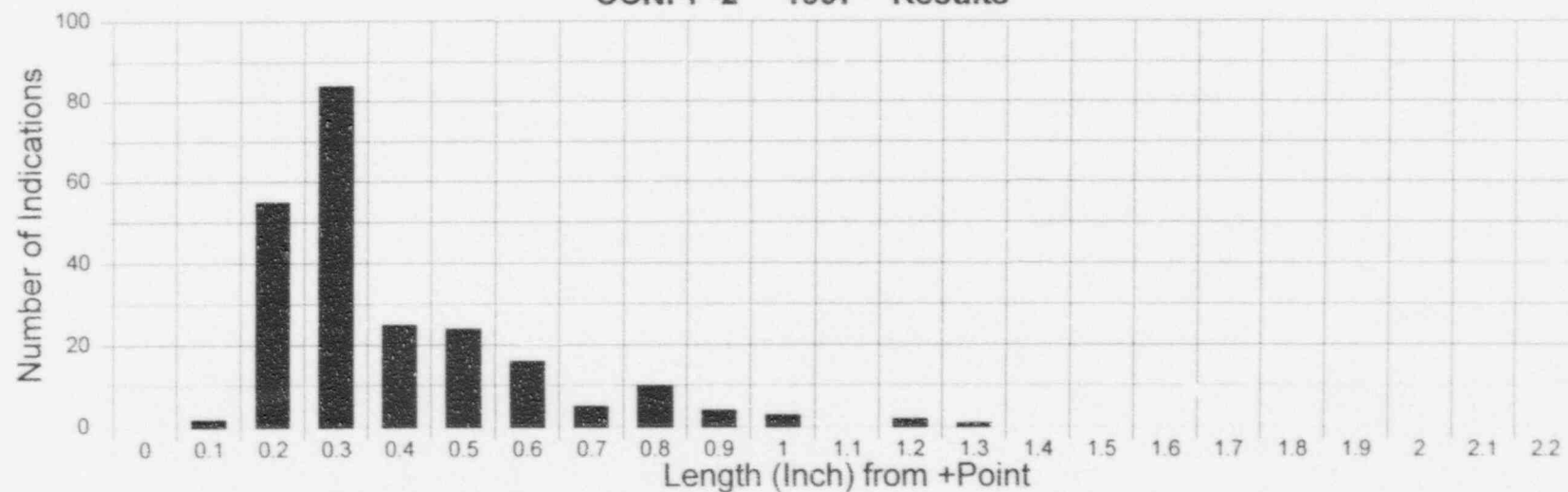
Comparison of AXIAL Flaw Length

Last Outage vs This Outage

CCNPP-2 1995 Results



CCNPP-2 1997 Results



In-situ Pressure Testing

- Latest EPRI guidance used for candidate selection and test methods
- 3 candidates selected to date considering many factors such as length, voltage response, estimated depth, and regional locations
- Testing to be conducted locally or full tube depending on flaw location and geometry
- Leakage integrity evaluated at NODP,MSLB, and 3x NODP conditions

Calvert Cliffs U2R11

Steam Generator Primary Side Maintenance

Estimated Completion Schedule

Steam Generator 21 Hot Leg

4/7	4/8	4/8	4/9	4/10	4/11	4/12	4/13	4/17	4/17	
0800	1600	2200	2200	0400	1600	1600	2200	2200	1000	
TTS MRPC	Dent MRPC	Plug MRPC	Rem SM-22	TTS and Stay Dome Exp.	Data Closeout	In-Situ Test	Plug VT	Plugging / Stabilization	Bowl Closeout	ND MW
32	6	24	6	36	24	12	6	96	24	12
Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs

Calvert Cliffs U2R11

Steam Generator Primary Side Maintenance

Estimated Completion Schedule

Steam Generator 21 Cold Leg

4/6	4/8	4/9		4/13	4/13	4/15
2200	1000	1000		1000	2200	1000
Steam Blanket	Data		Plugging /	In-Situ	Bowl	ND
Exp	Closeout		Stabilization	Test	Closeout	MW
36	24		96	12	24	12
Hrs	Hrs		Hrs	Hrs	Hrs	Hrs

Calvert Cliffs U2R11

Steam Generator Primary Side Maintenance

Estimated Completion Schedule

Steam Generator 22 Hot Leg

4/7	4/8	4/8	4/9	4/9	4/10		4/14	4/16
0800	0200	1000	1000	1600	2200		2200	1000
TTS	Dent	Plug	05H-06H	Data	Plug	Plugging /	Bowl	ND
MRPC	MRPC	MRPC	R1-3	Closeout	VT	Stabilization	Closeout	MW
18	8	24	6	24	6	96	24	12
Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs

Calvert Cliffs U2R11

Steam Generator Primary Side Maintenance

Estimated Completion Schedule

Steam Generator 22 Cold Leg

4/8	4/9	4/9	4/10	4/11	4/15	4/17
0800	0000	0600	1800	1800	1800	0600
TTS	Dent	Steam Blanket	Data	Plugging /	Bowl	ND
MRPC	MRPC	Exp	Closeout	Stabilization	Closeout	MW
16	6	36	24	96	24	12
Hrs	Hrs	Hrs	Hrs	Hrs	Hrs	Hrs