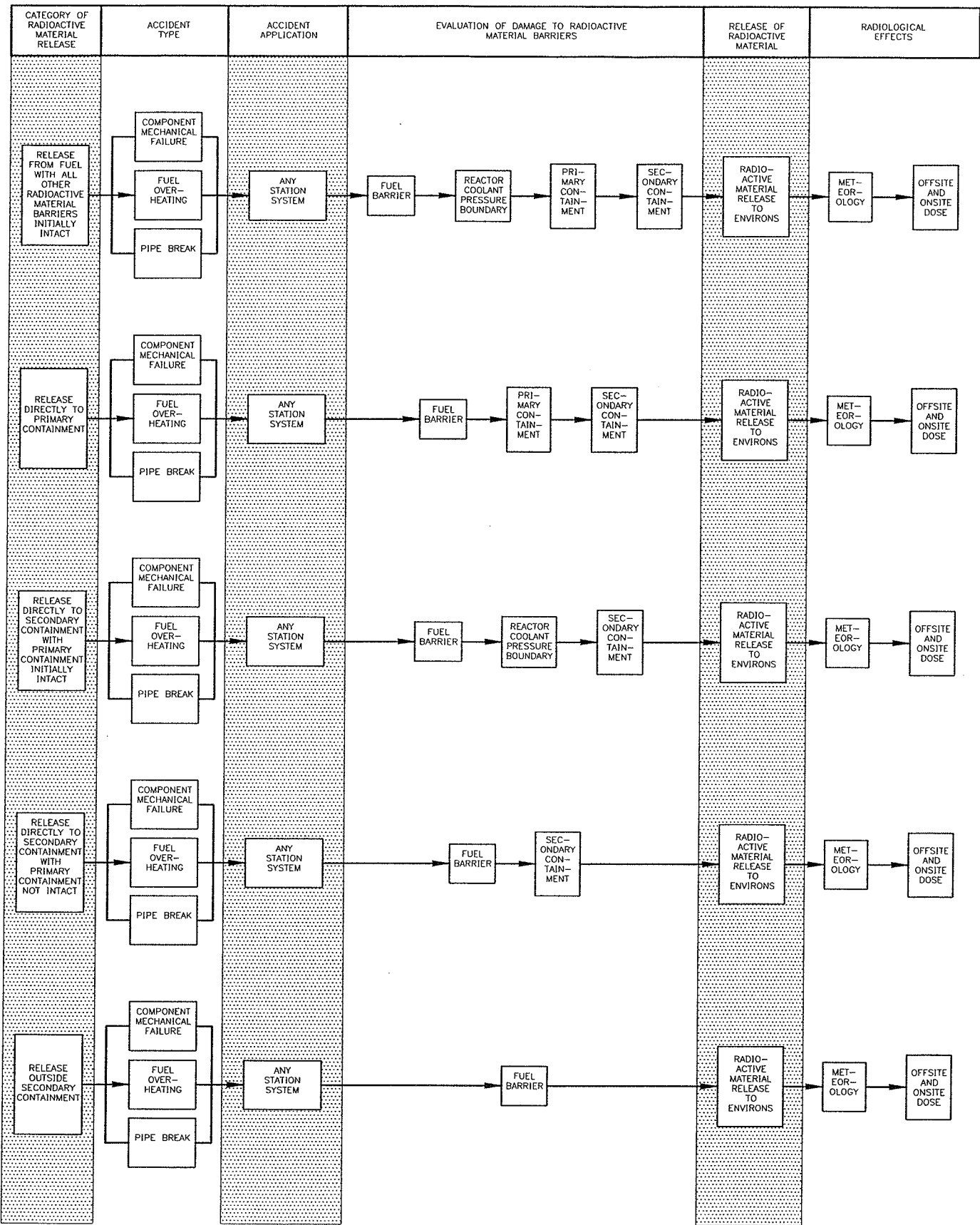


Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

STATION SAFETY ANALYSIS—
 METHOD FOR IDENTIFYING
 AND EVALUATING
 ABNORMAL OPERATIONAL TRANSIENTS

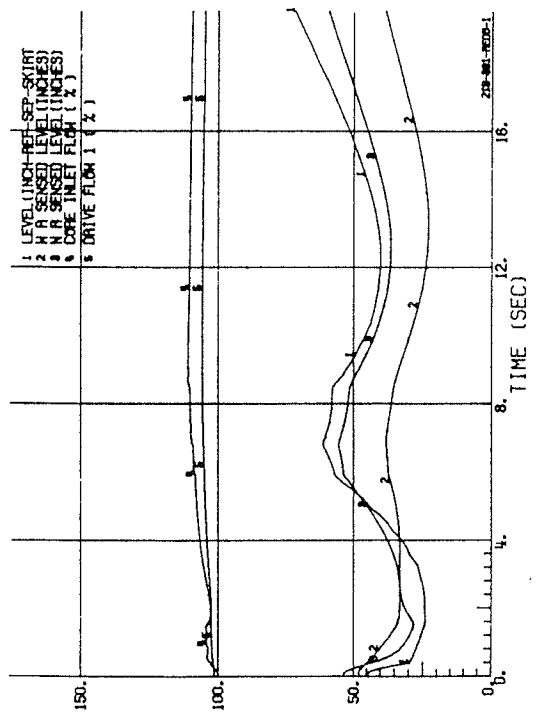
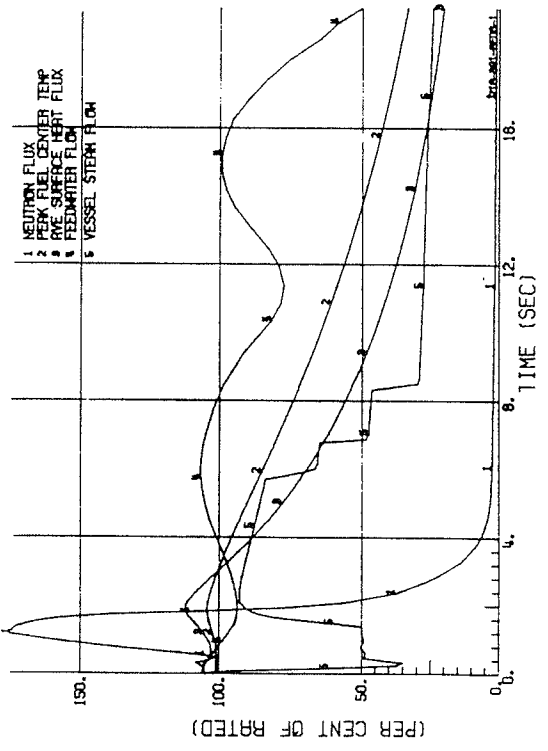
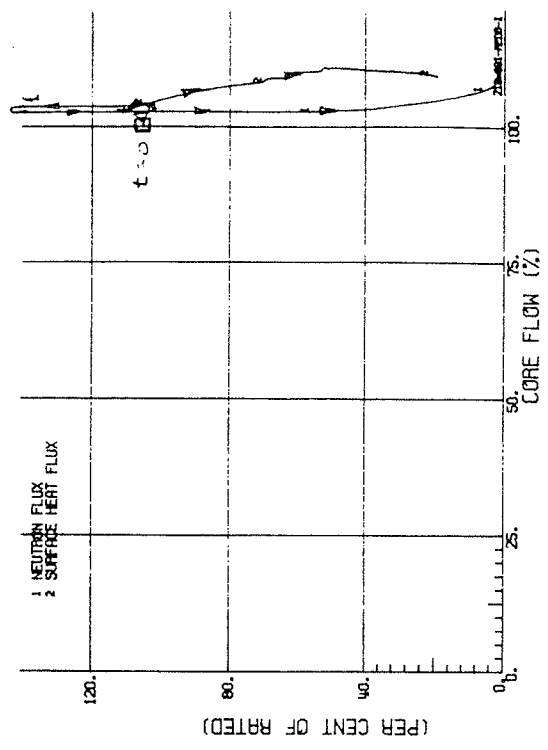
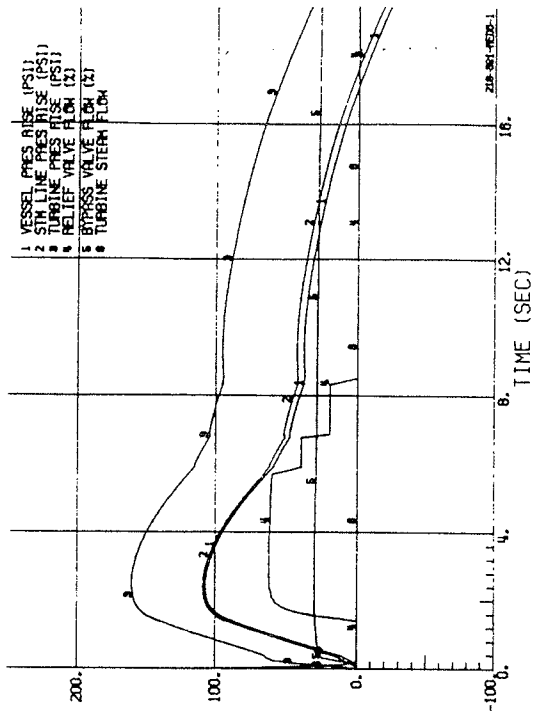
FIGURE XIV-4-1
 08/01/03



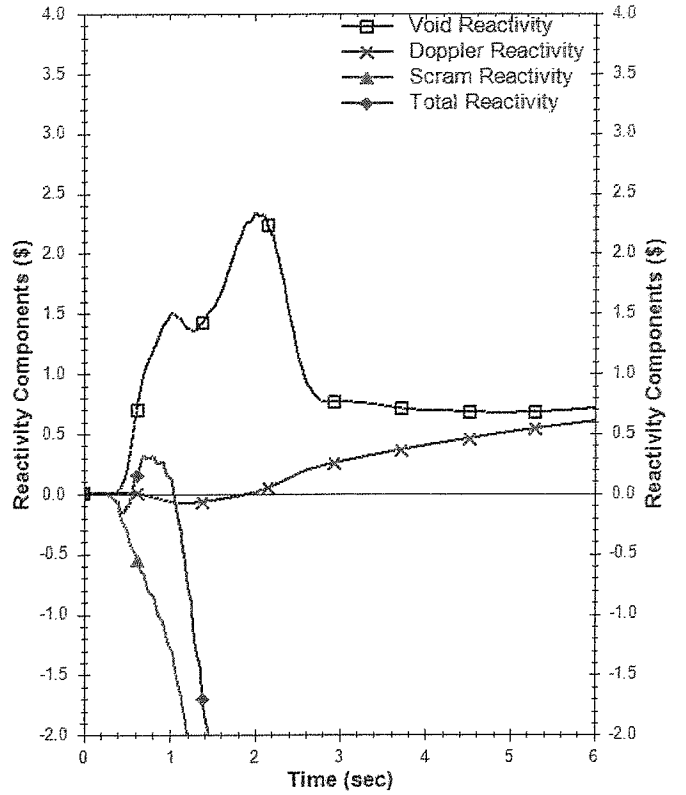
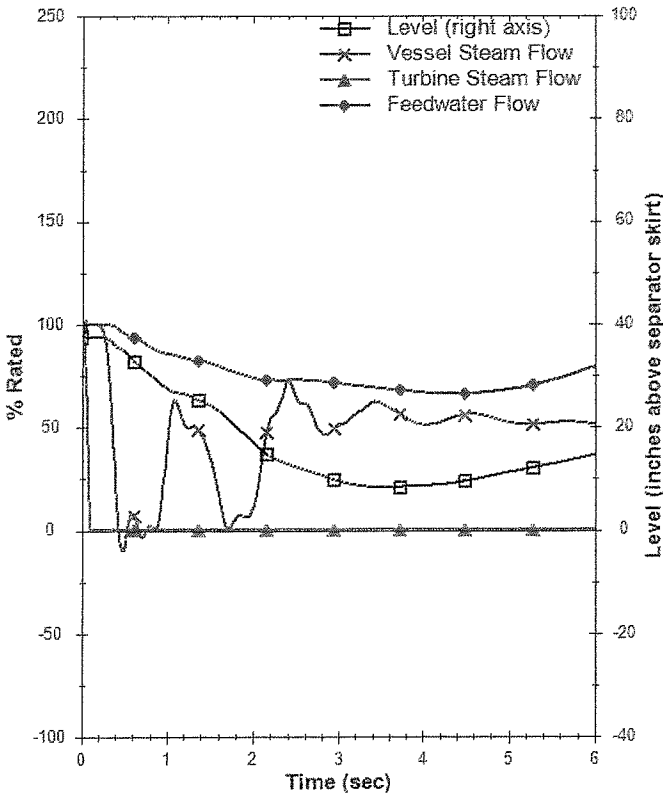
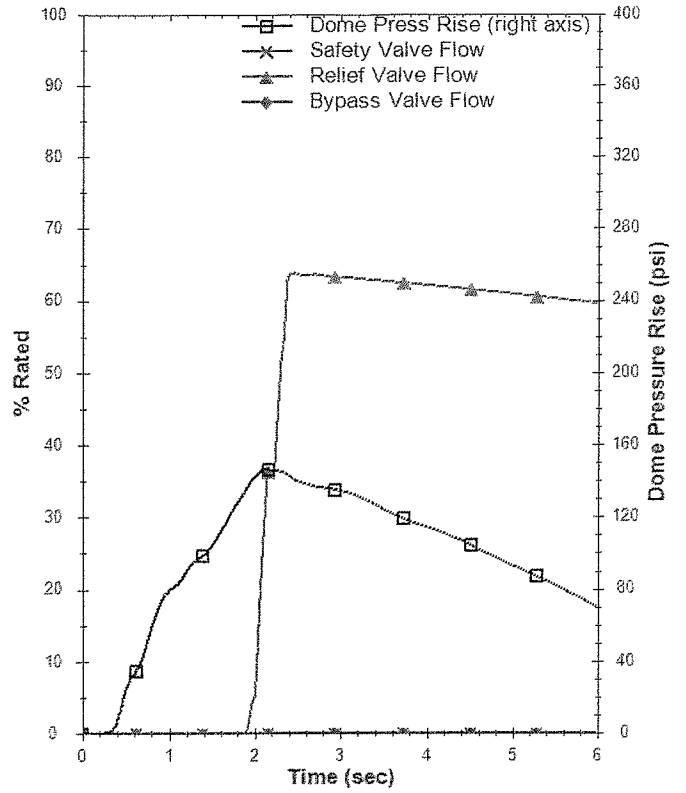
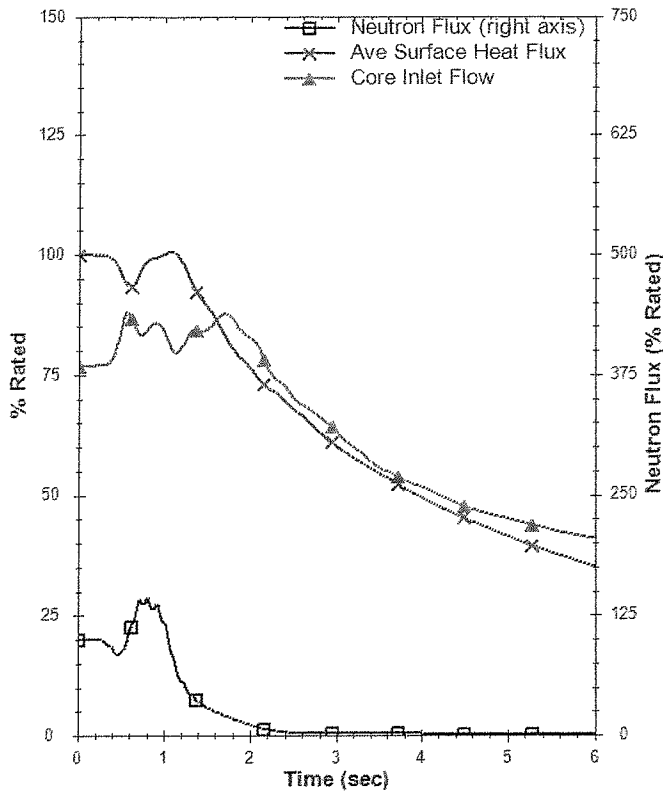
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

STATION SAFETY ANALYSIS—
 METHOD FOR IDENTIFYING
 AND EVALUATING ACCIDENTS

FIGURE XIV-4-2
 08/01/03

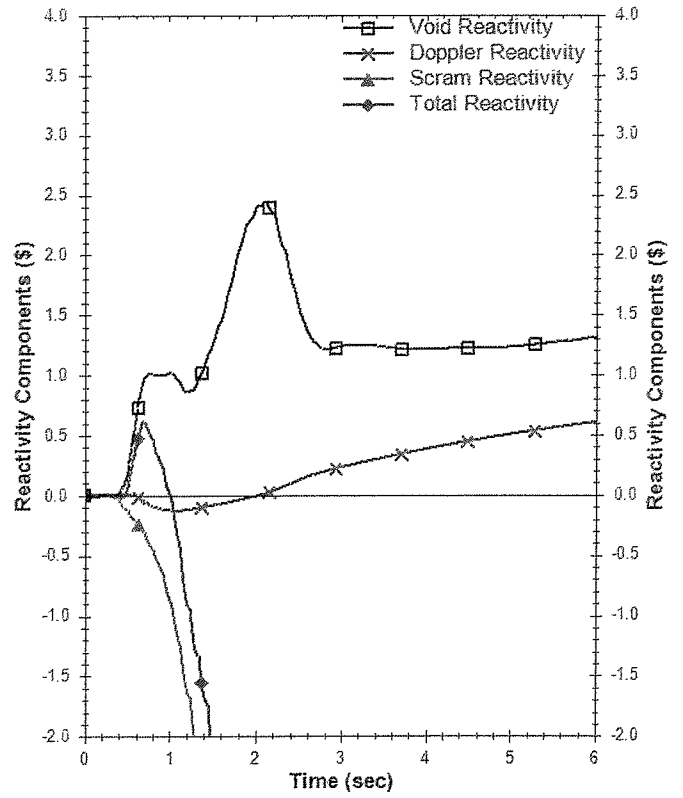
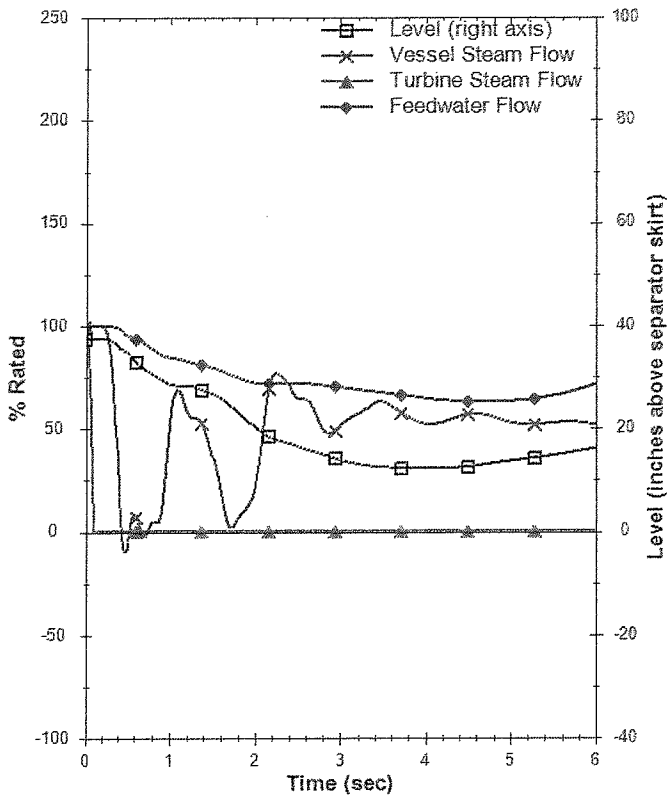
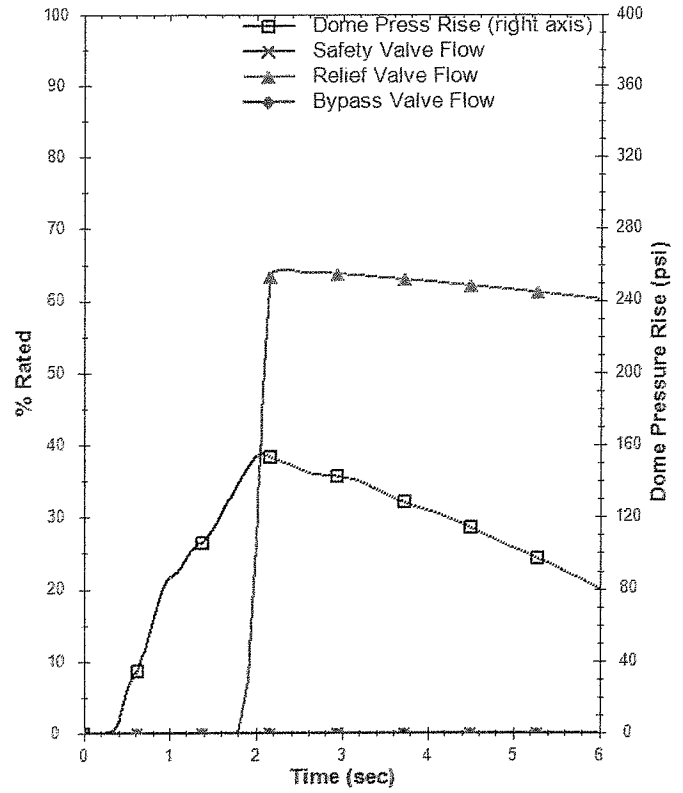
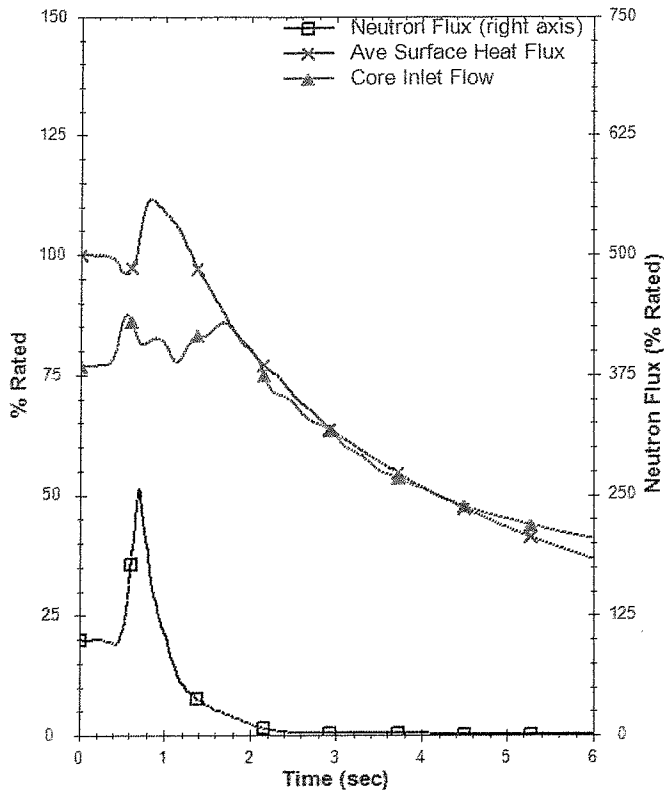


Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Generator Trip (Load Rejection)
 with Bypass
 Figure XIV-5-1
 07/22/96



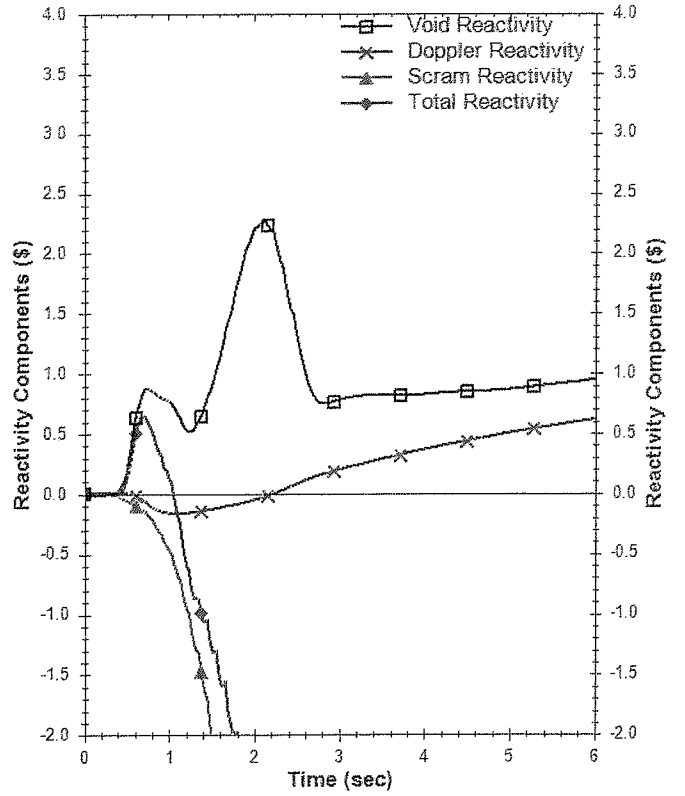
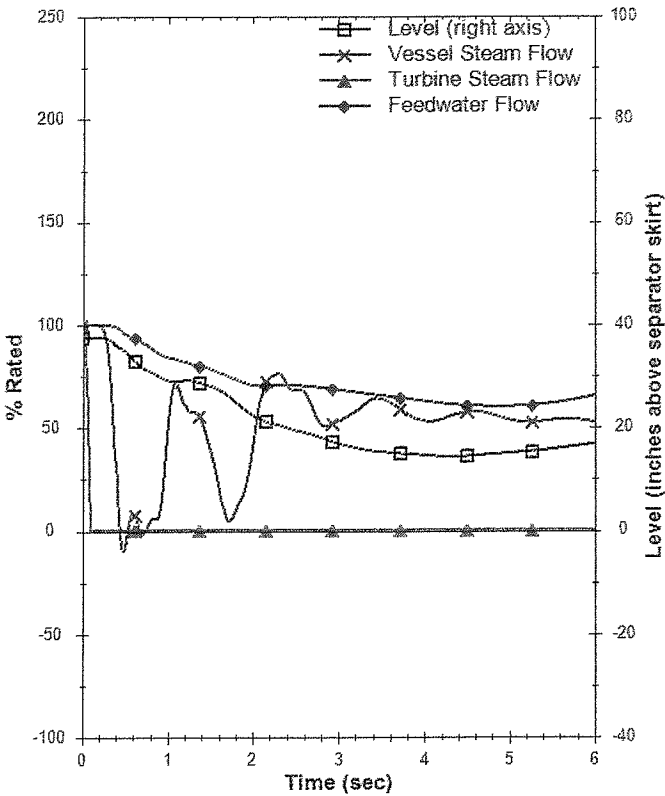
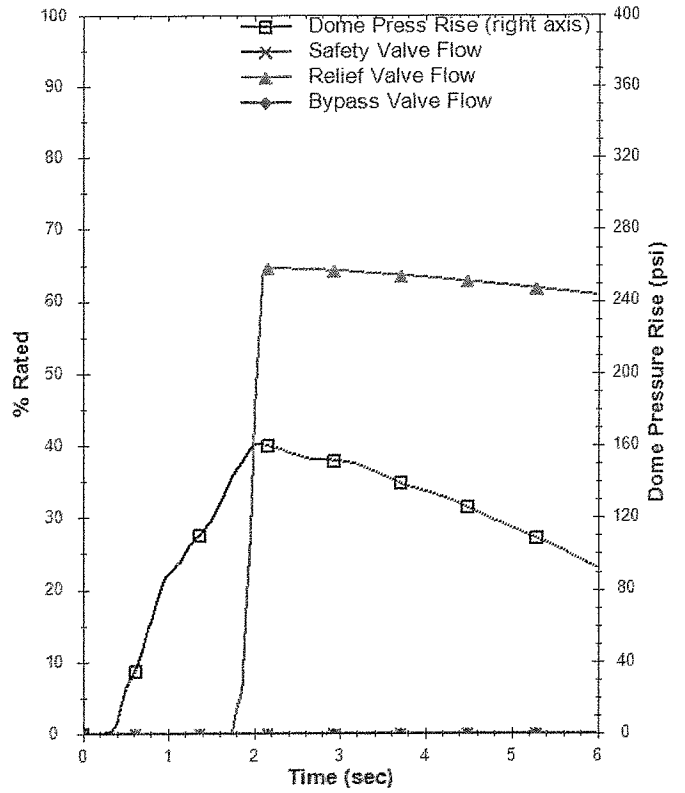
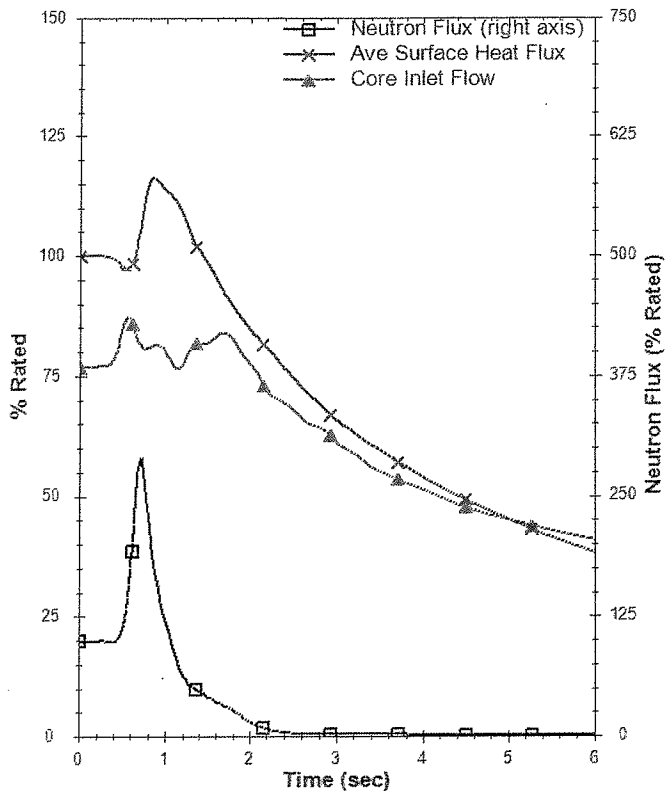
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COOPER NUCLEAR STATION
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 Generator Trip (Load Rejection) without Bypass
 BOC to MOC1 : MELLA-HBB
 Figure XIV-5-2a 01/21/19



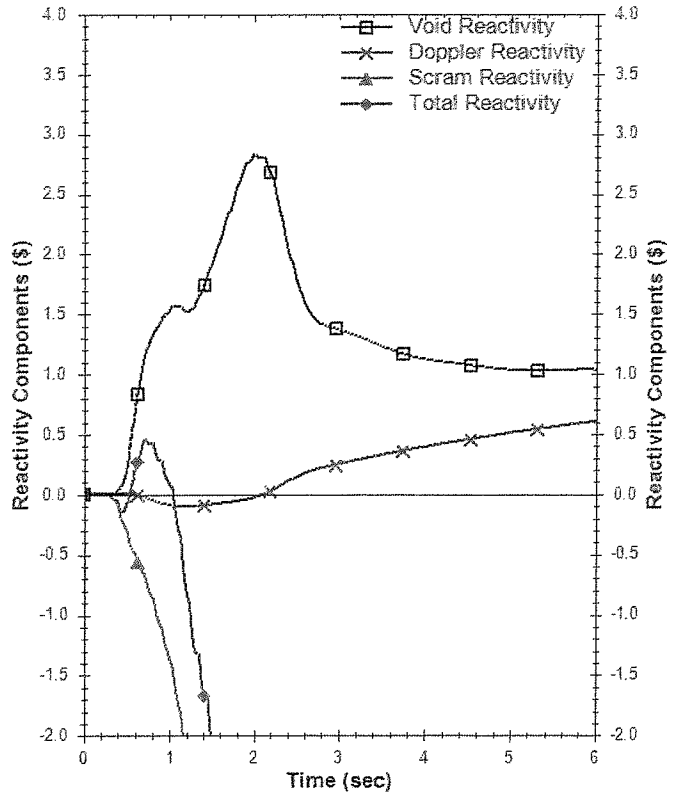
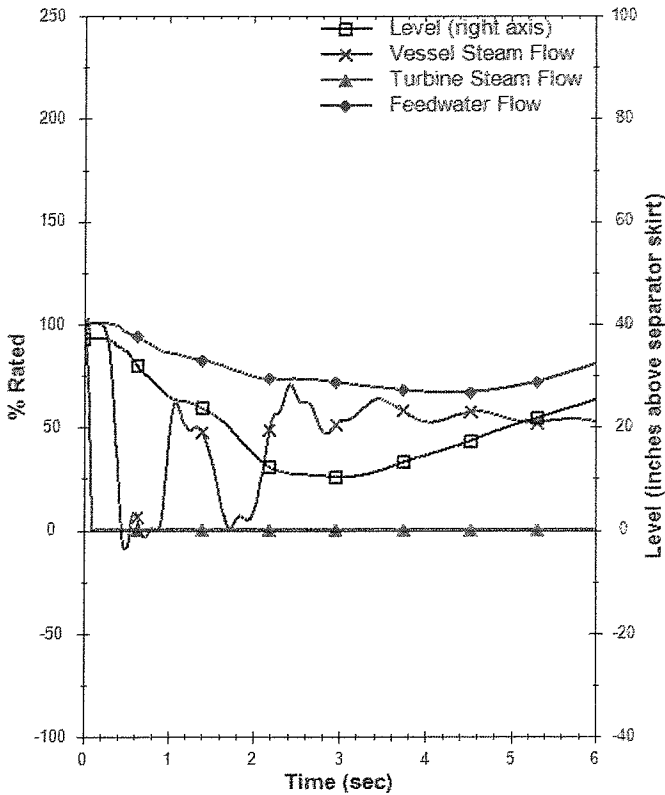
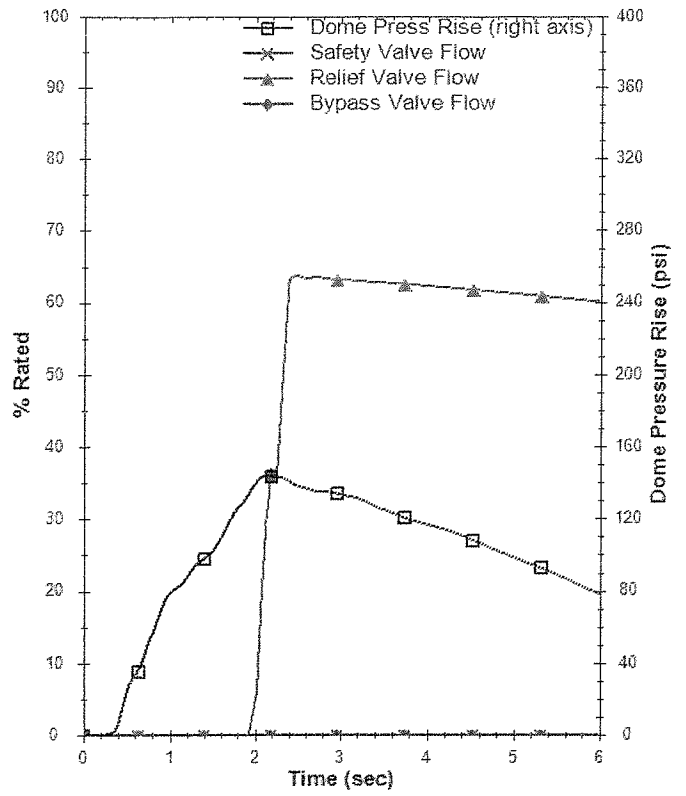
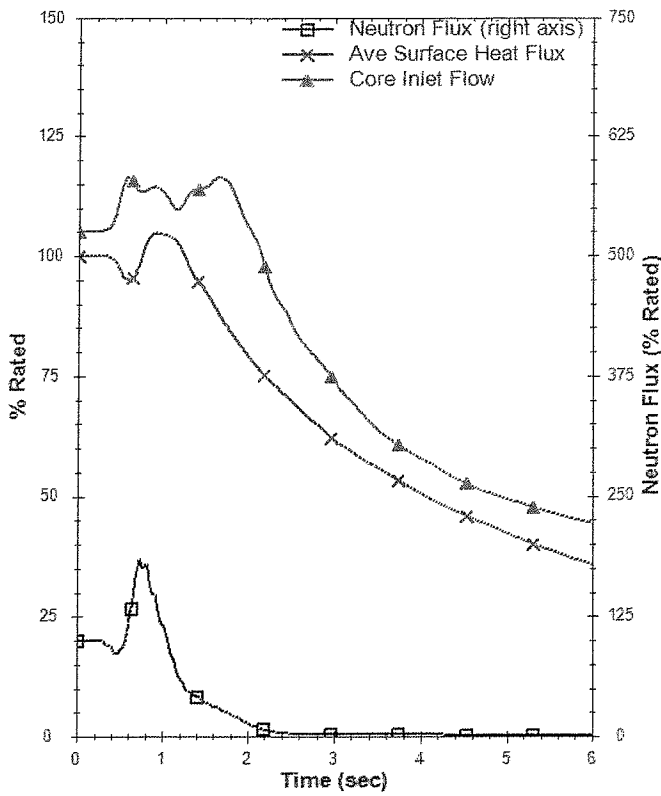
Nebraska Public Power District
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UPDATED SAFETY ANALYSIS REPORT (USAR)

 Generator Trip (Load Rejection) without Bypass
 MOC1 to MOC2 : MELLLA-HBB
 Figure XIV-5-2b 01/21/19



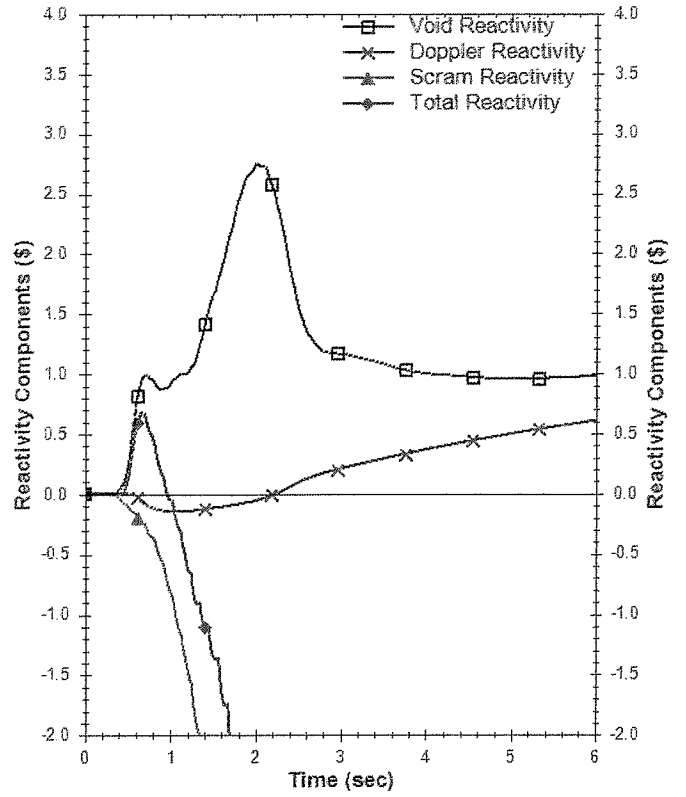
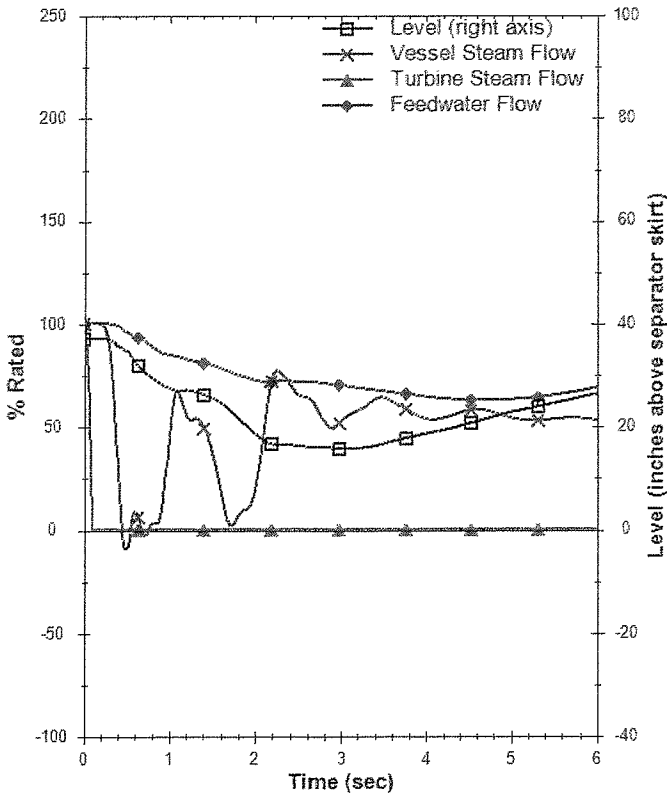
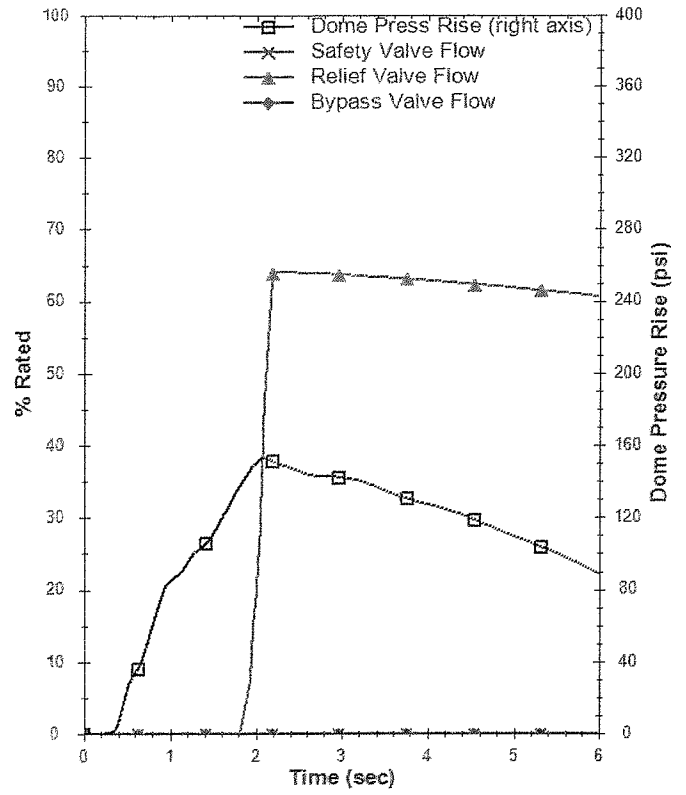
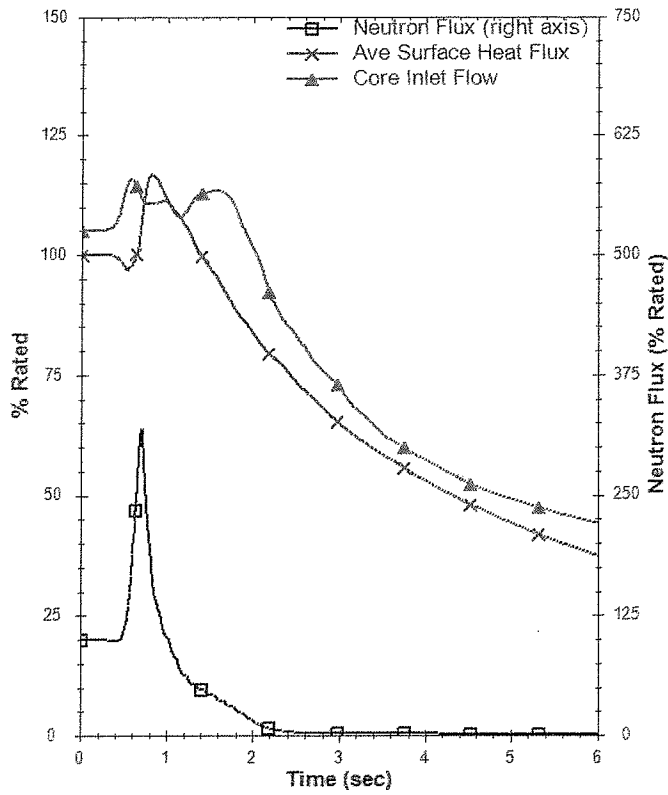
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

 Generator Trip (Load Rejection) without Bypass
 MOC2 to EOC : MELLA-HBB
 Figure XIV-5-2c 01/21/19



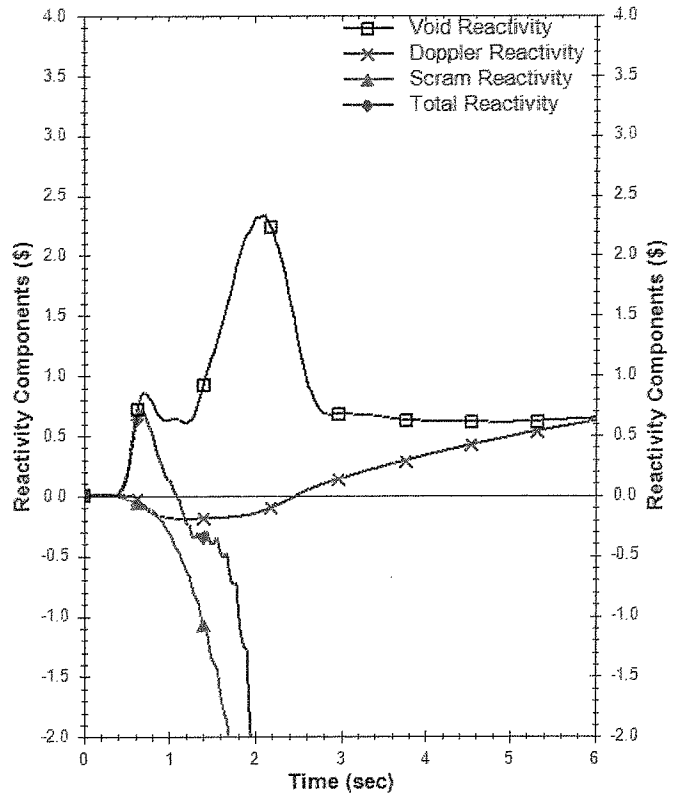
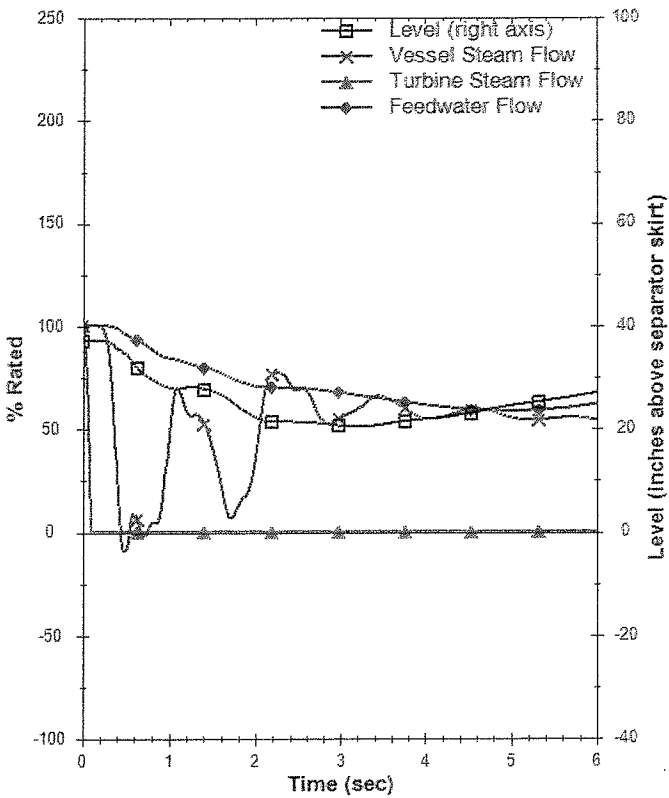
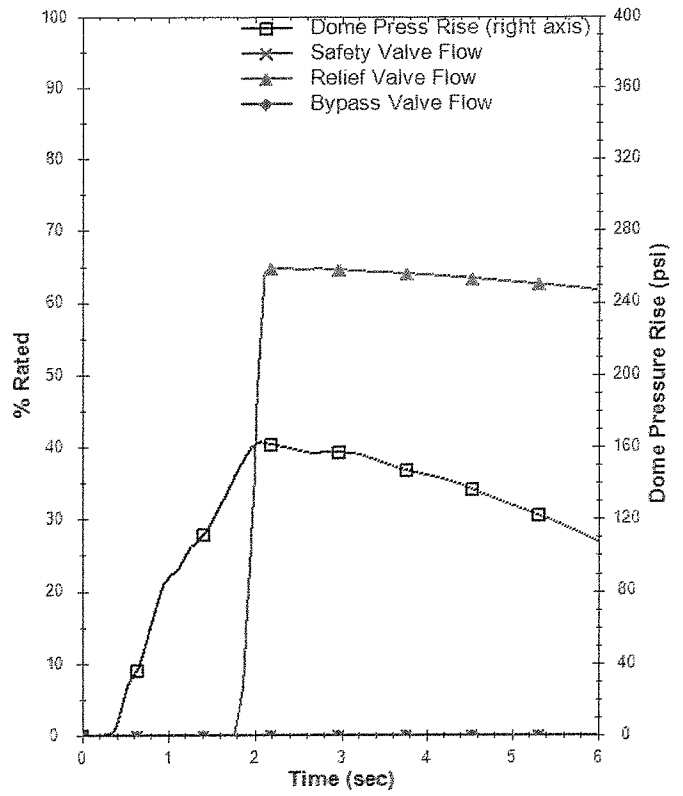
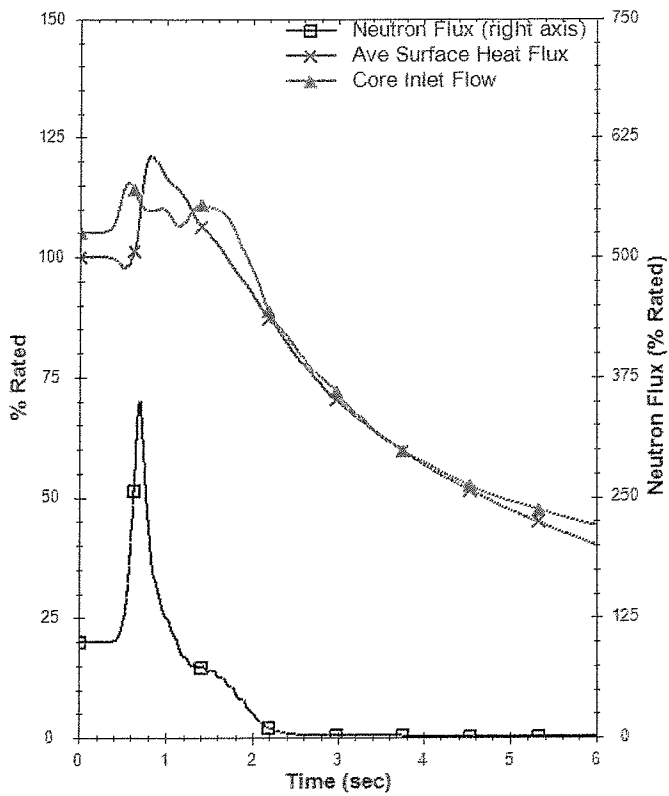
Nebraska Public Power District
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 -UPDATED SAFETY ANALYSIS REPORT (USAR)

 Generator Trip (Load Rejection) without Bypass
 BOC to MOC1 : ICF-HBB
 Figure XIV-5-2d 01/21/19



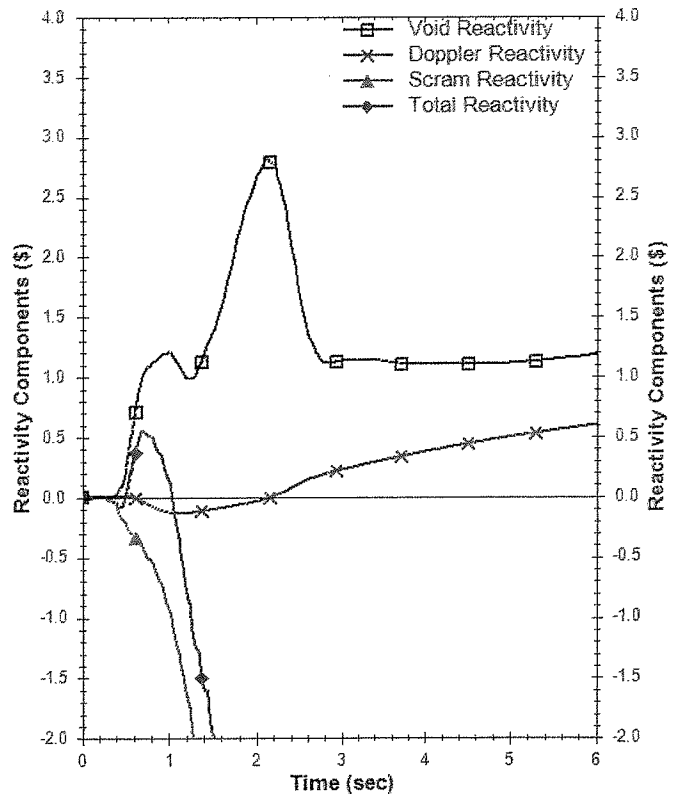
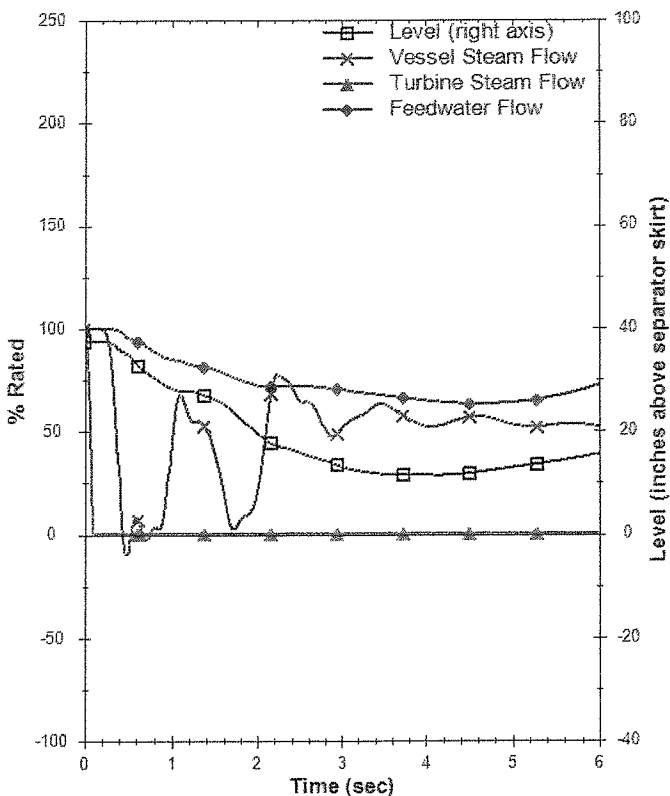
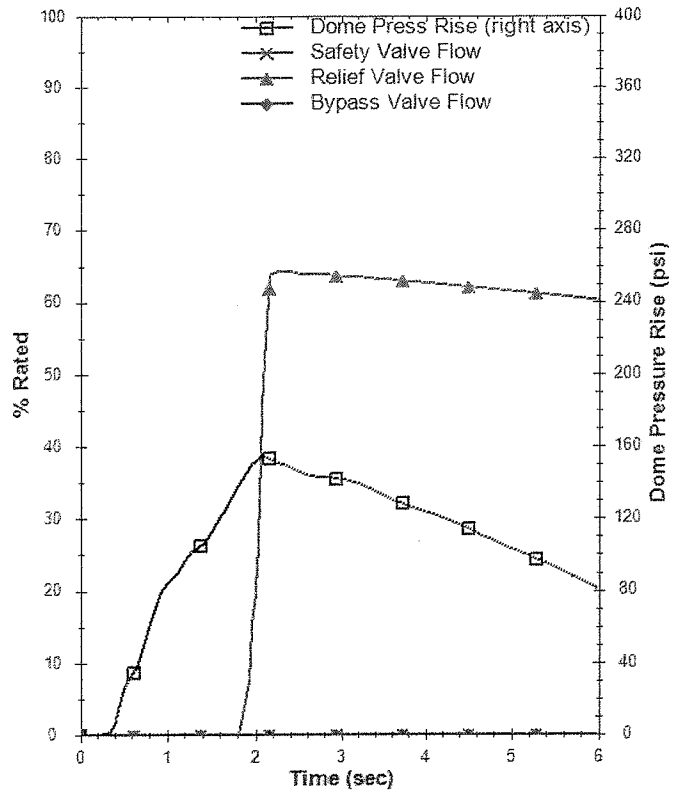
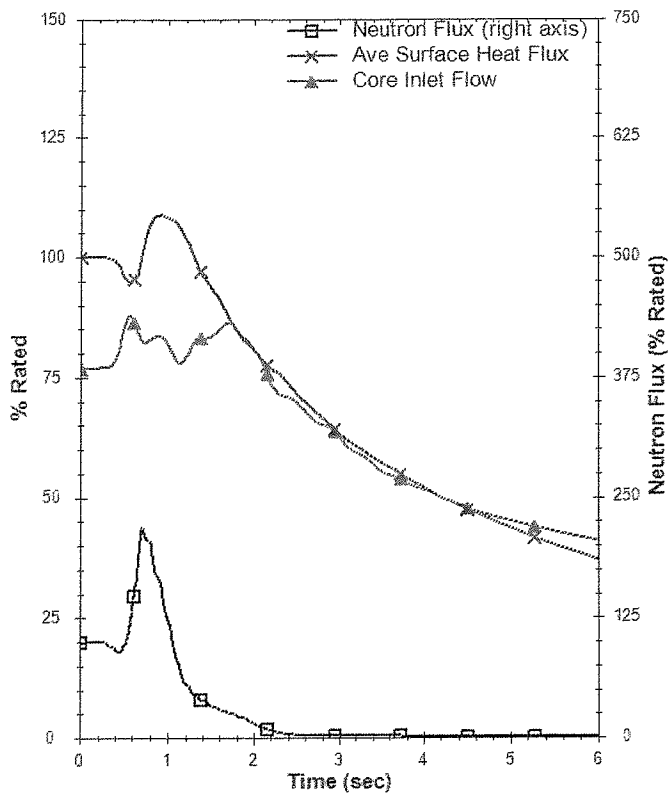
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Generator Trip (Load Rejection) without Bypass
 MOC1 to MOC2 : ICF-HBB
 Figure XIV-5-2e 01/21/19



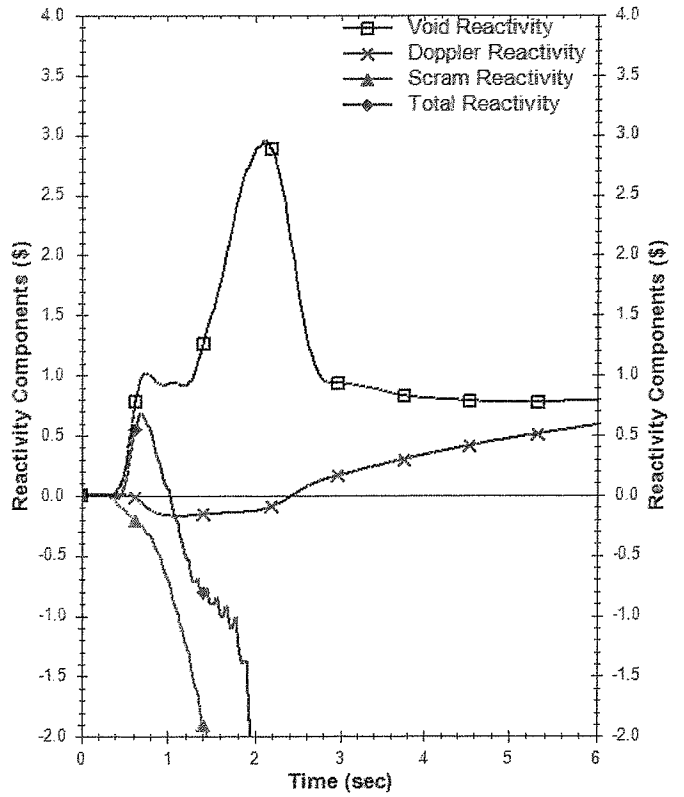
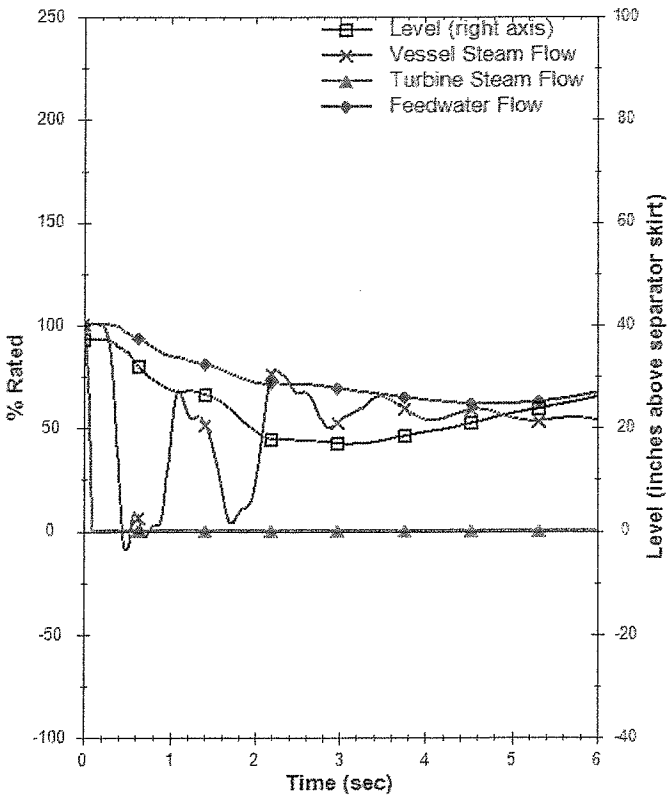
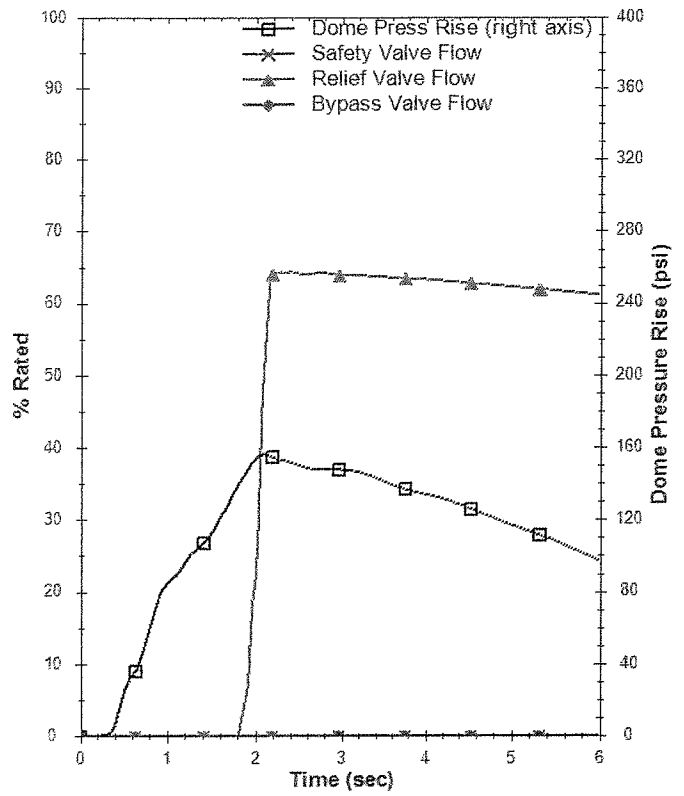
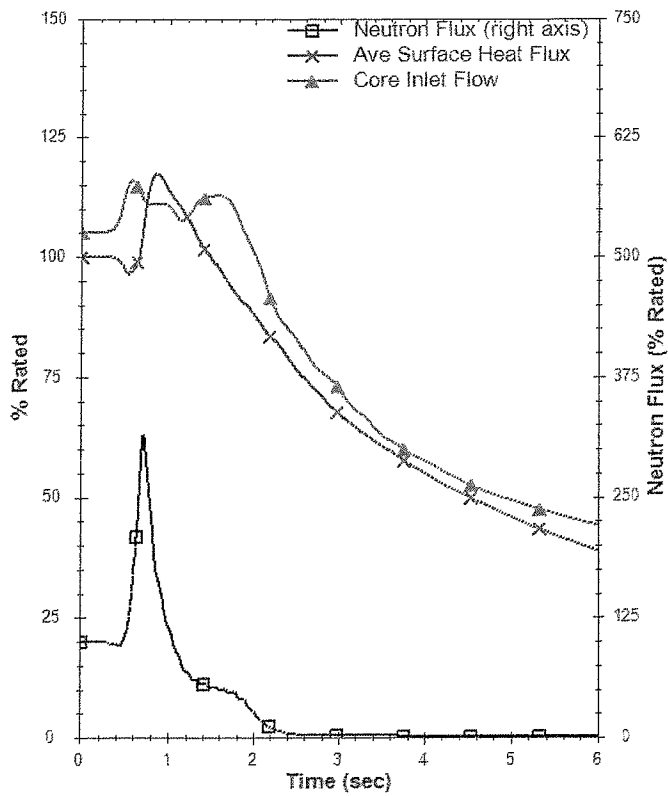
Nebraska Public Power District
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UPDATED SAFETY ANALYSIS REPORT (USAR)

Generator Trip (Load Rejection) without Bypass
 MOC2 to EOC : ICF-HBB
 Figure XIV-5-2f 01/21/19



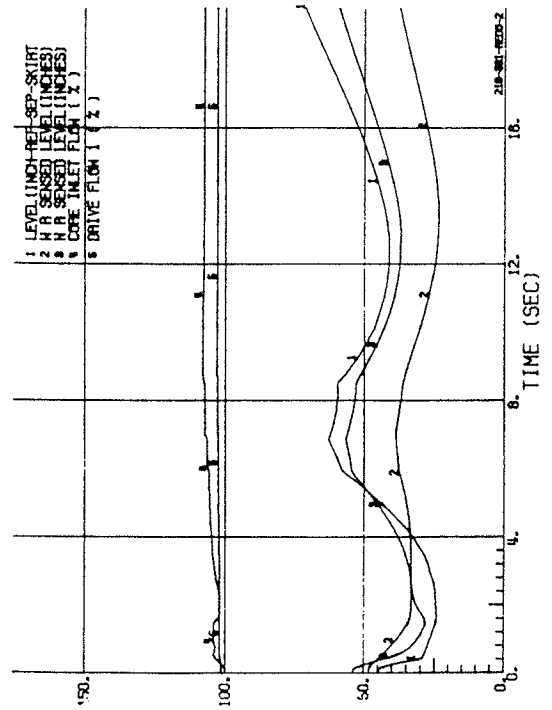
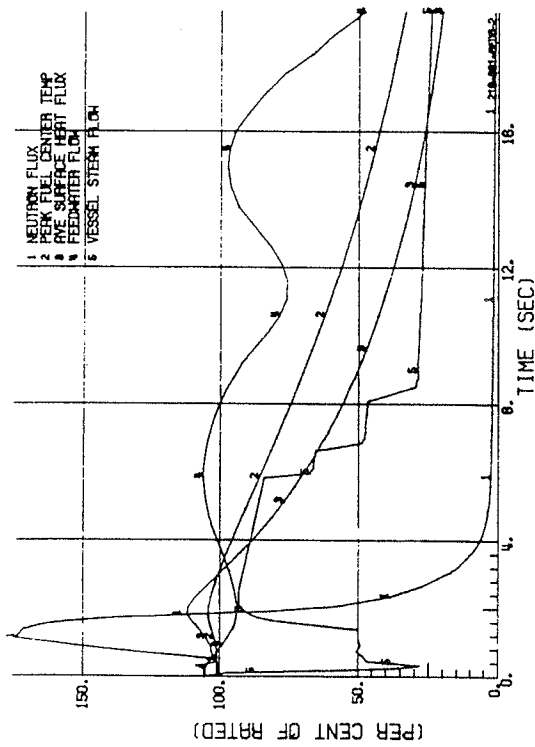
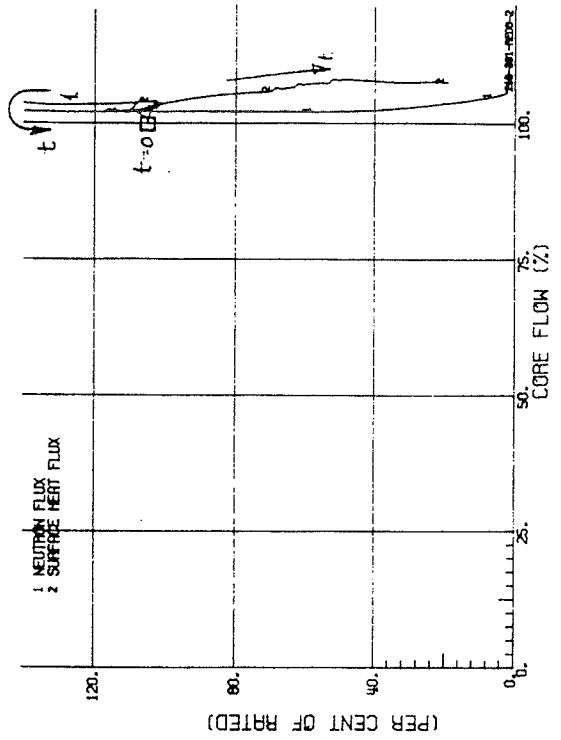
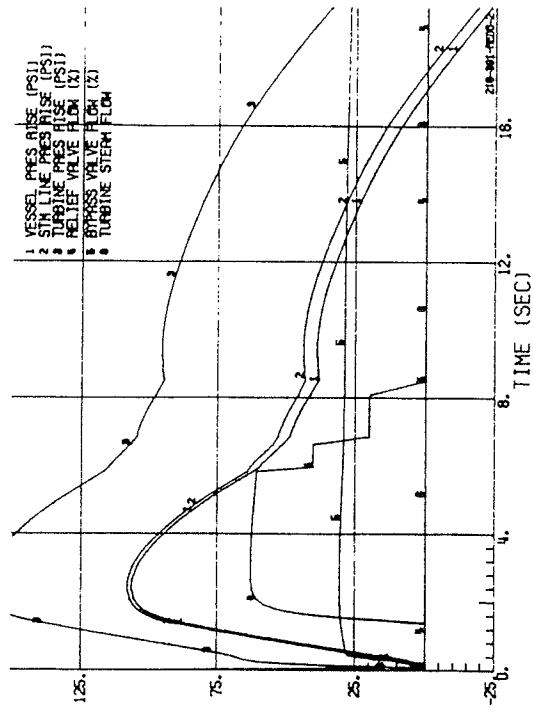
Nebraska Public Power District
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 UPDATED SAFETY ANALYSIS REPORT (USAR)

Generator Trip (Load Rejection) without Bypass
 EOC : MELLA-UB
 Figure XIV-5-2g 01/21/19

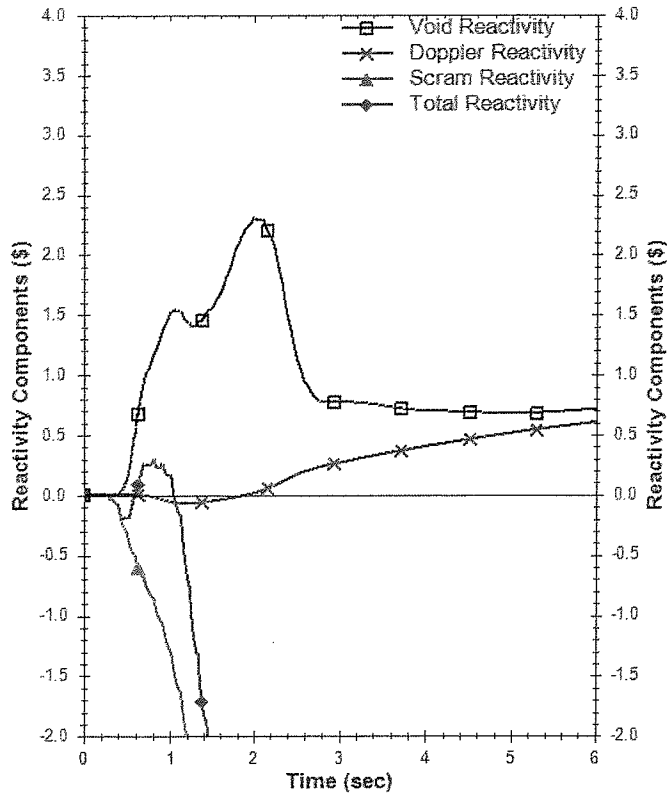
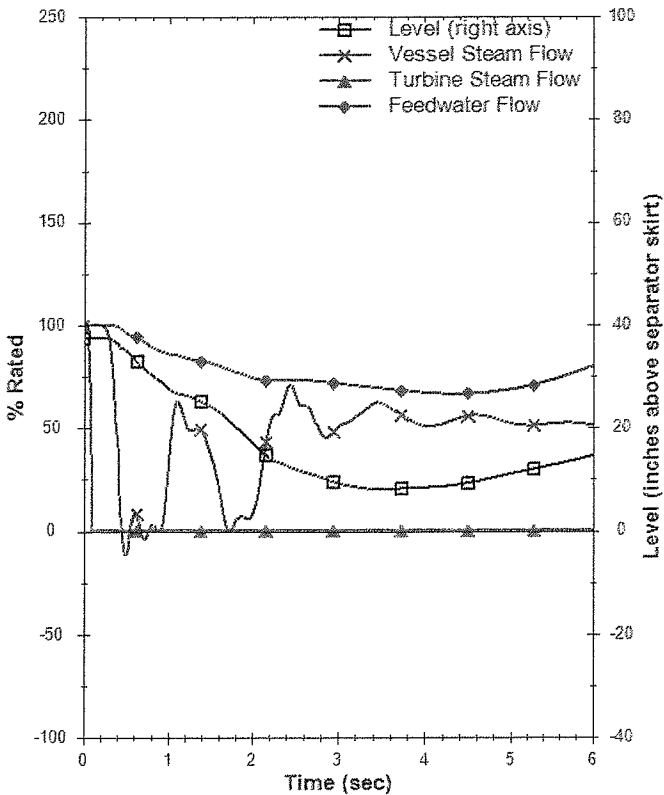
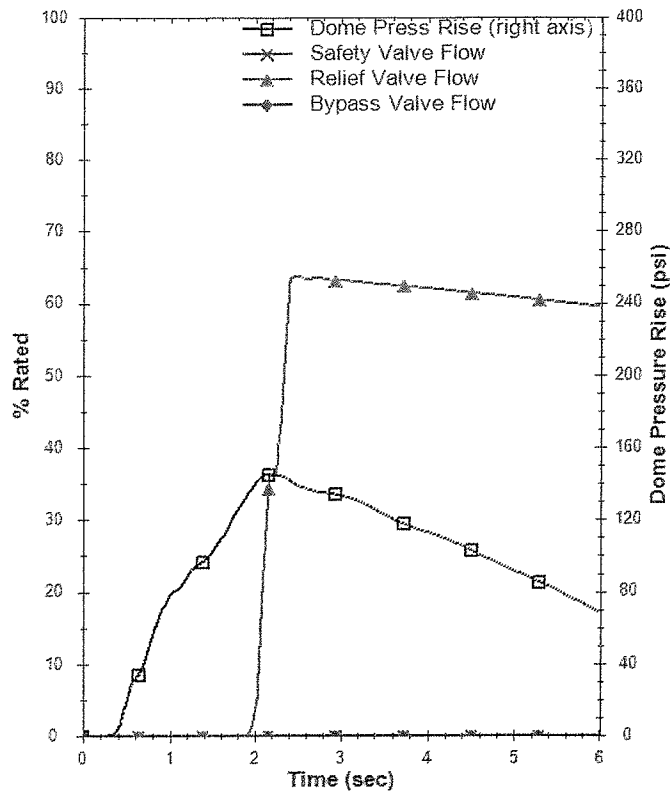
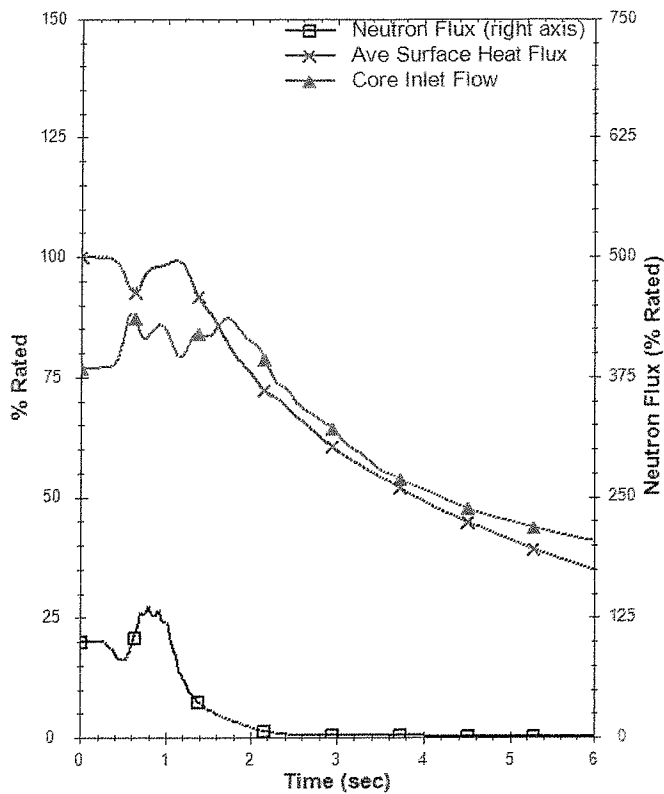


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UPDATED SAFETY ANALYSIS REPORT (USAR)

 Generator Trip (Load Rejection) without Bypass
 EOC : ICF-UB
 Figure XIV-5-2h 01/21/19

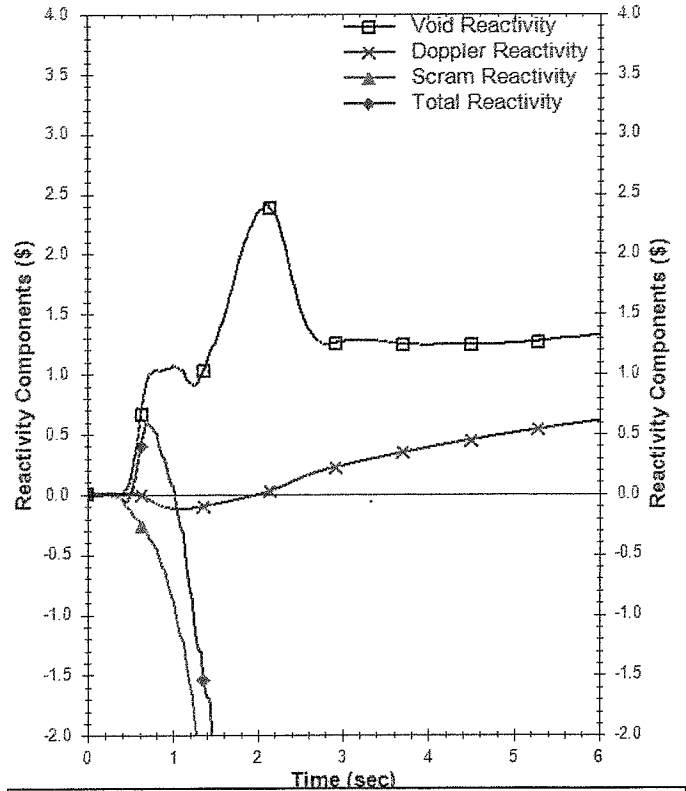
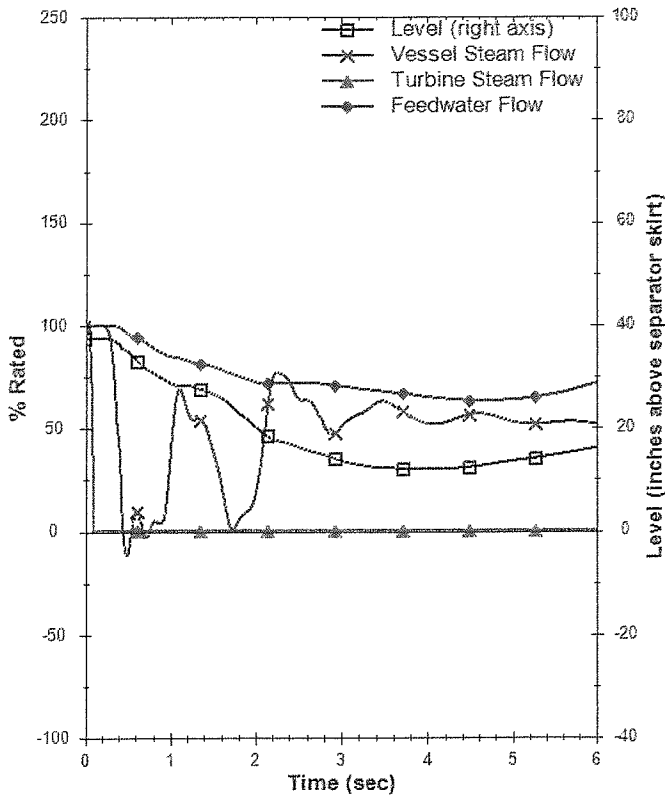
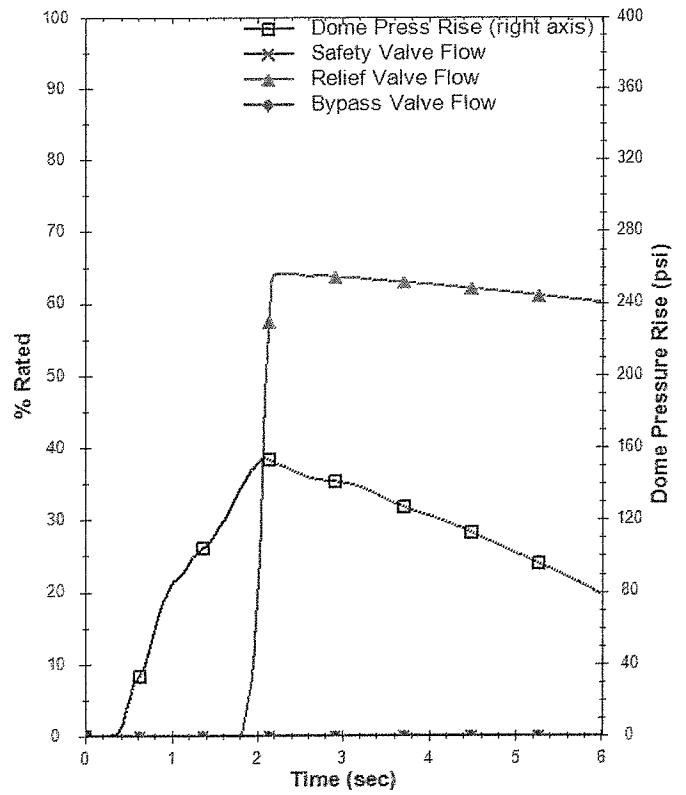
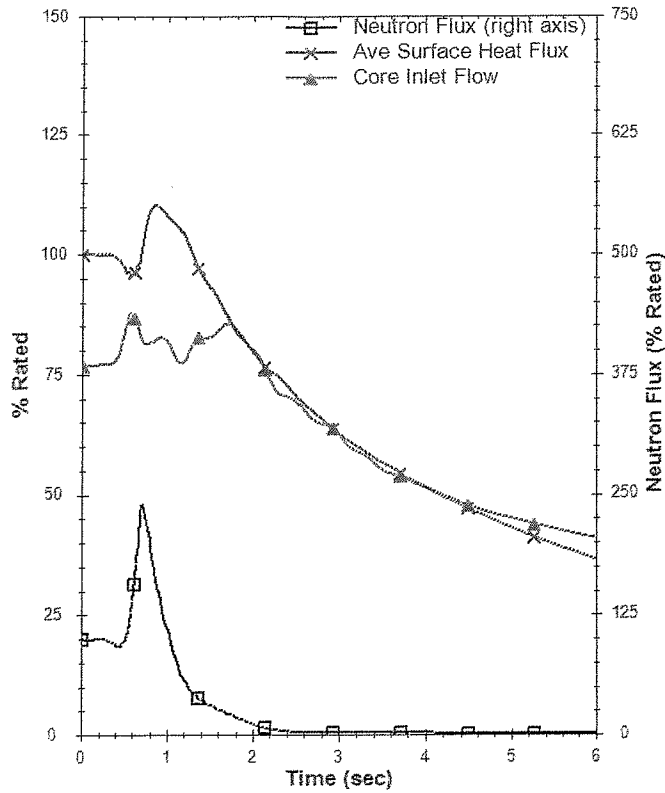


Nebraska Public Power District
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 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Turbine Trip with Bypass
 Figure XIV-5-3
 07/22/96



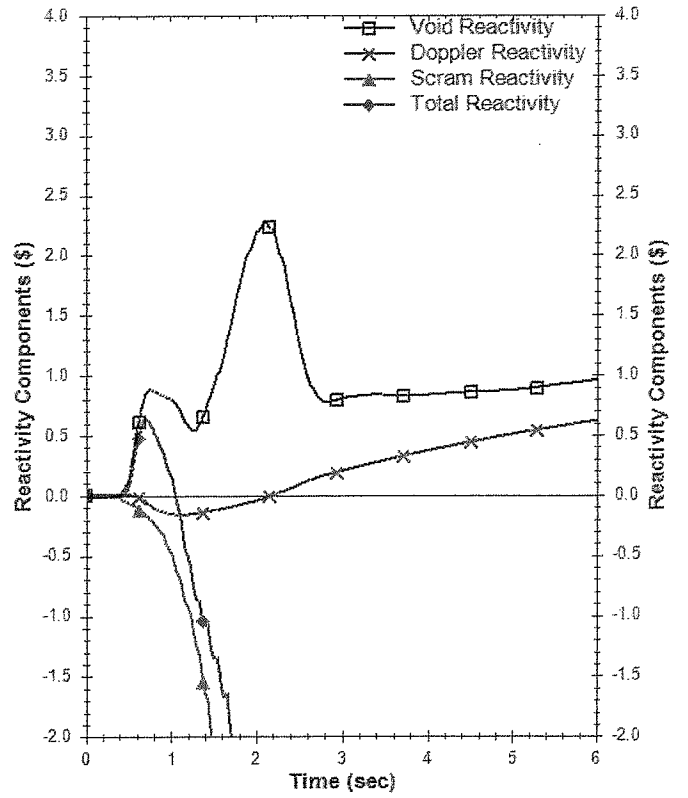
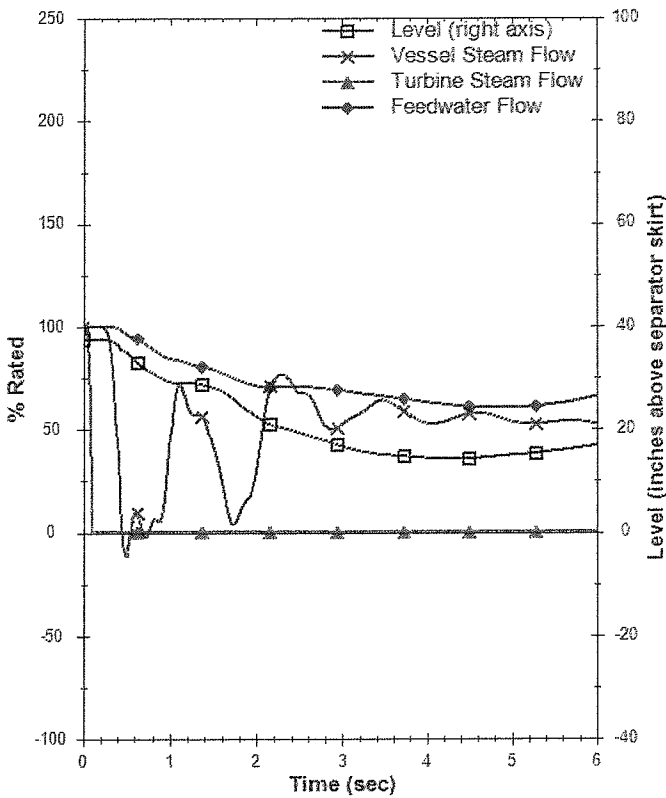
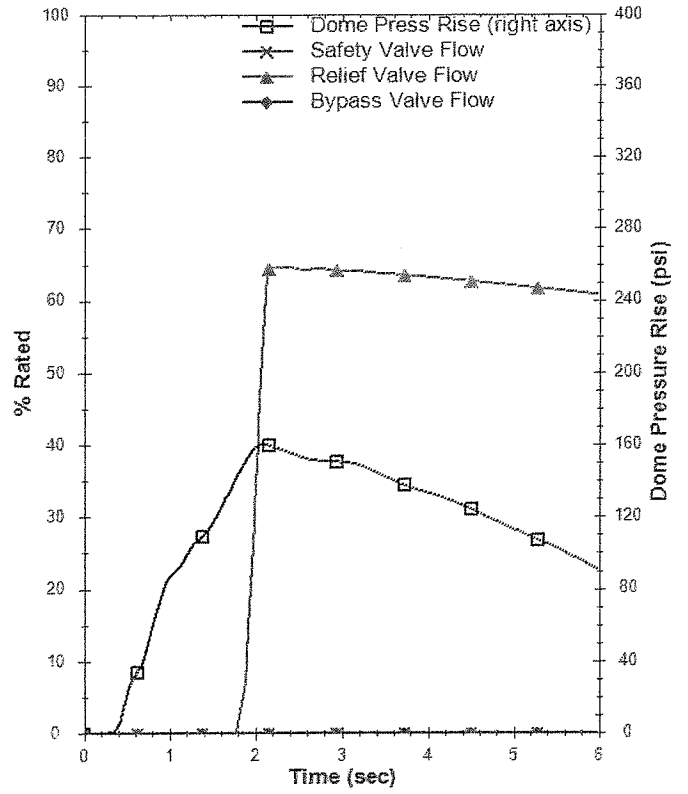
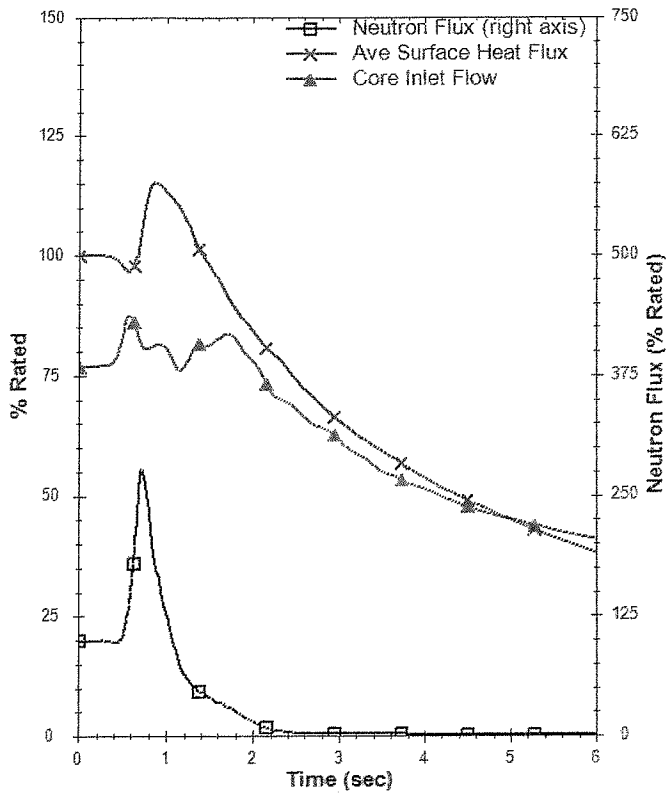
Nebraska Public Power District
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Turbine Trip without Bypass
 BOC to MOC1 : MELLA-HBB
 Figure XIV-5-4a 01/21/19



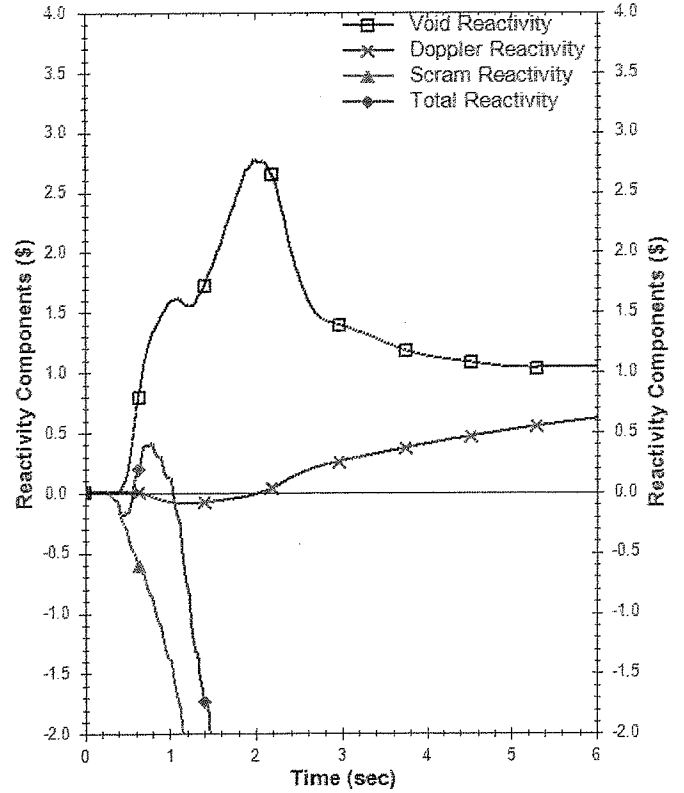
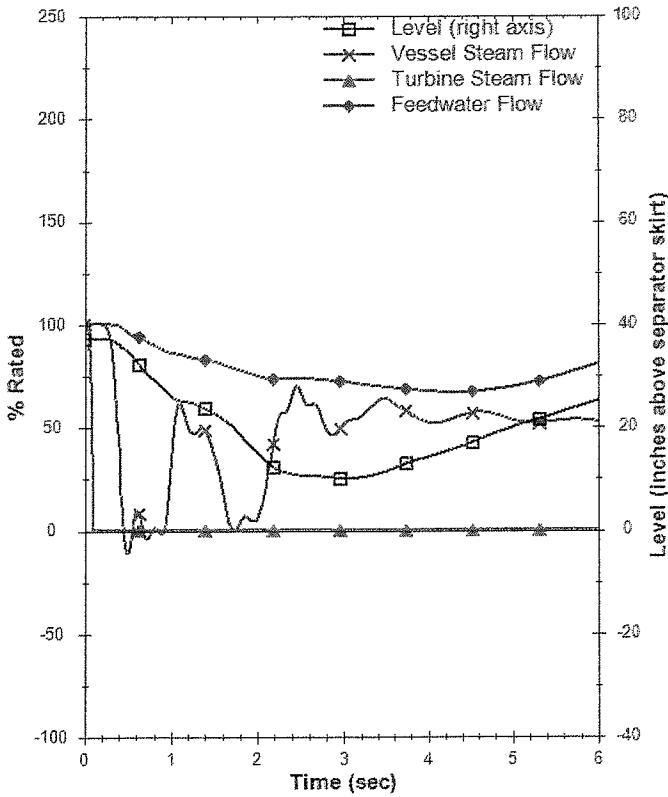
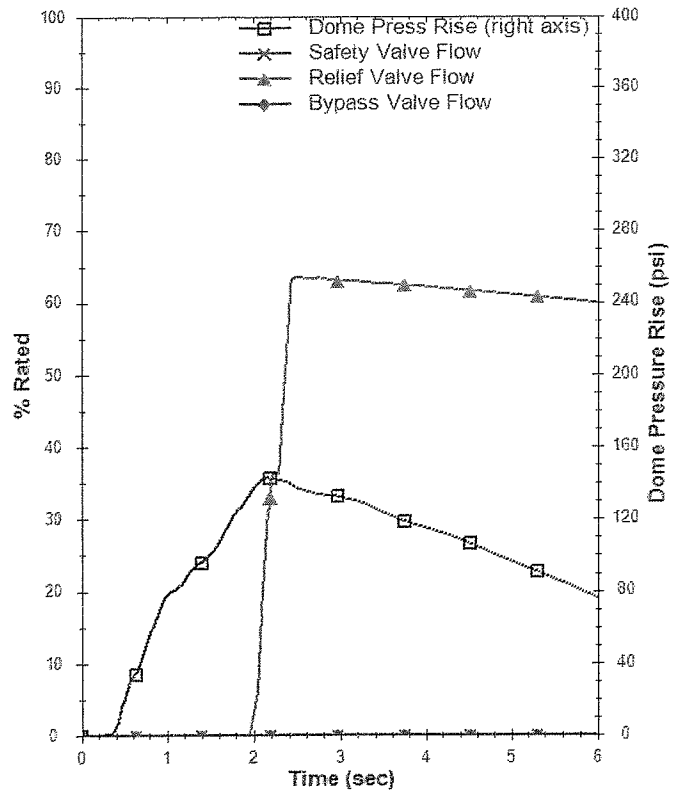
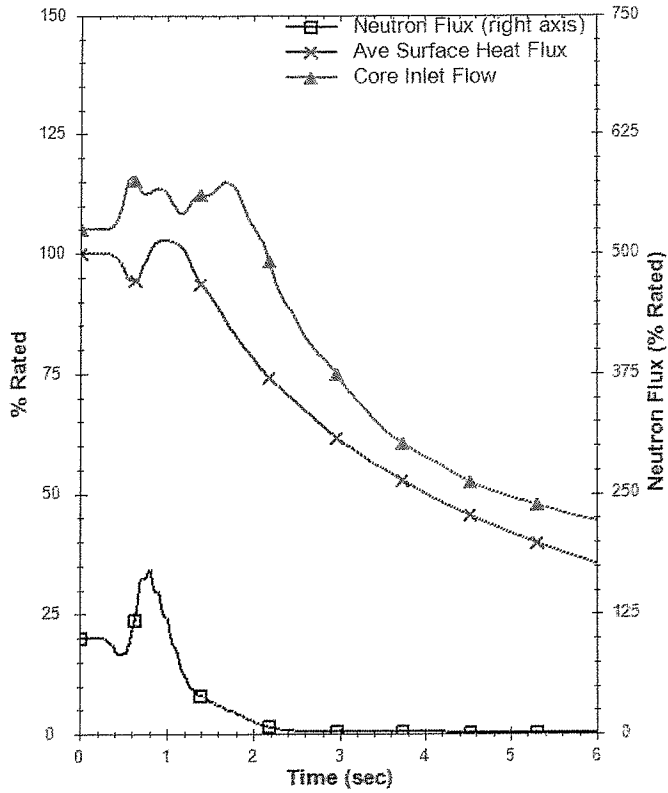
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Turbine Trip without Bypass
 MOC1 to MOC2 : MELLA-HBB
 Figure XIV-5-4b 01/21/19



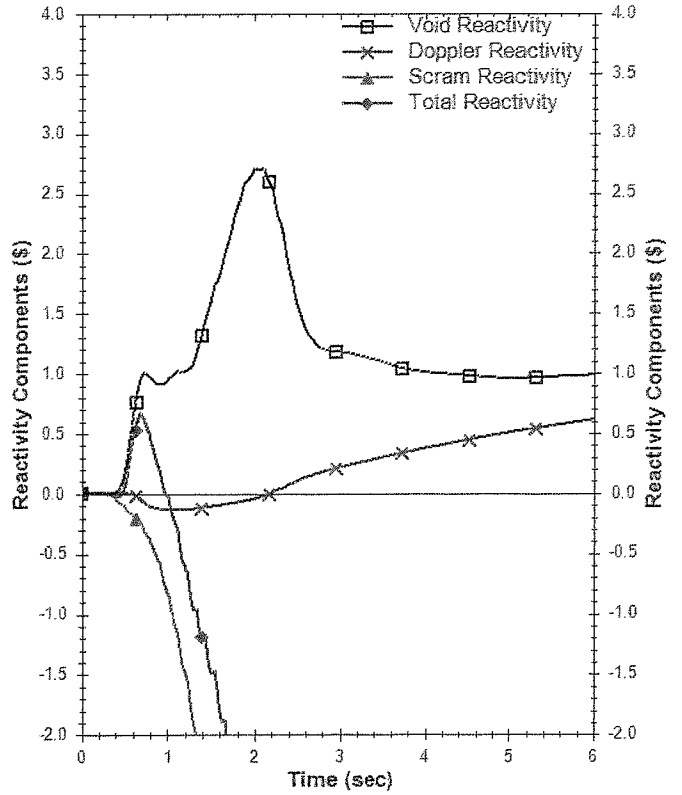
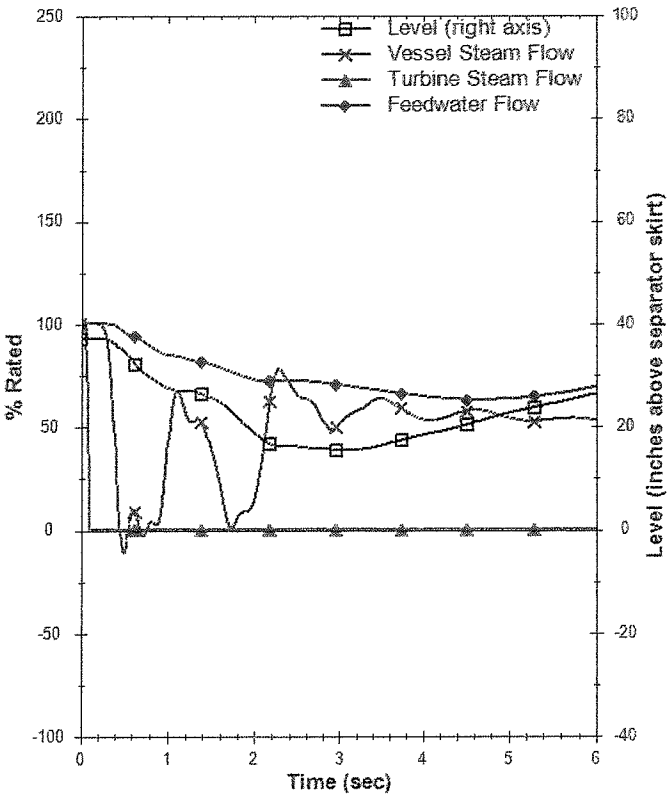
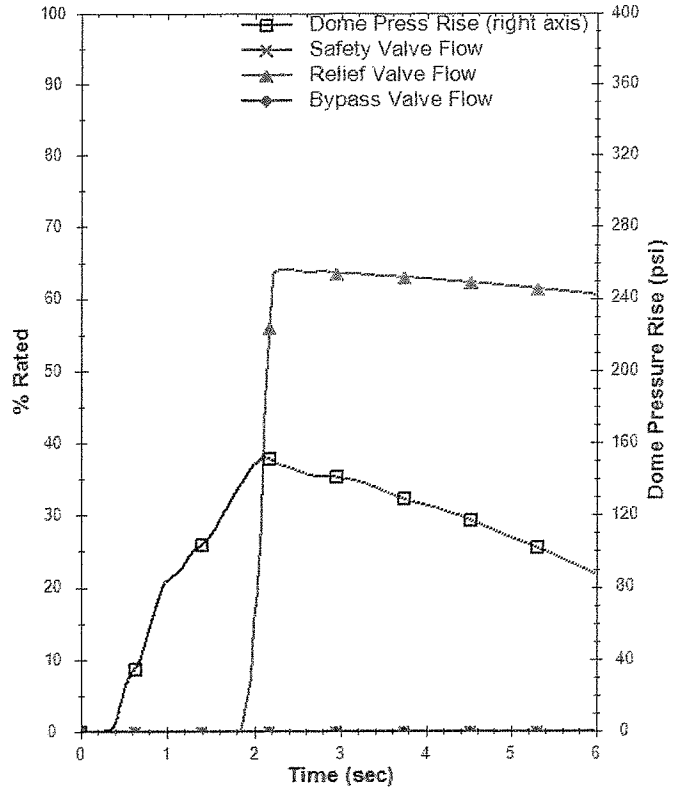
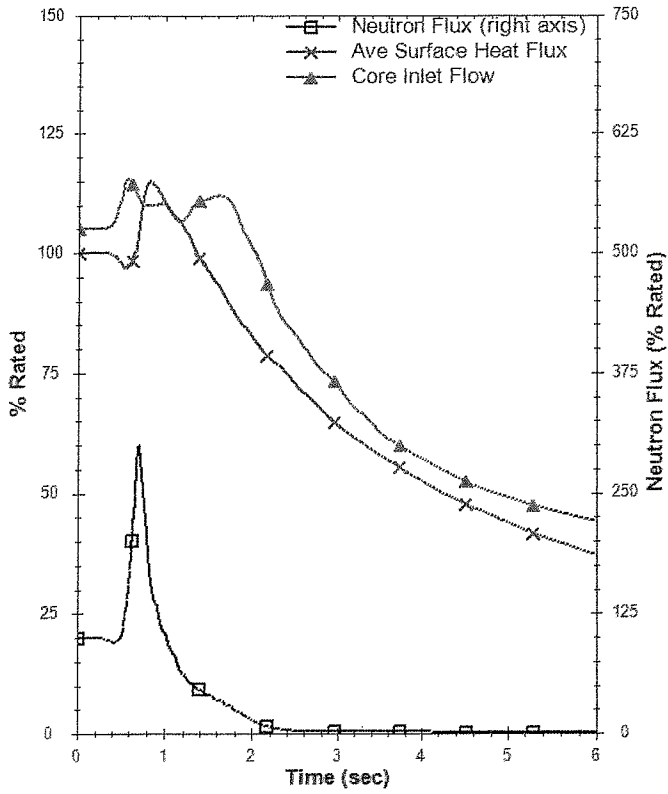
Nebraska Public Power District
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Turbine Trip without Bypass
 MOC2 to EOC : MELLA-HBB
 Figure XIV-5-4c 01/21/19



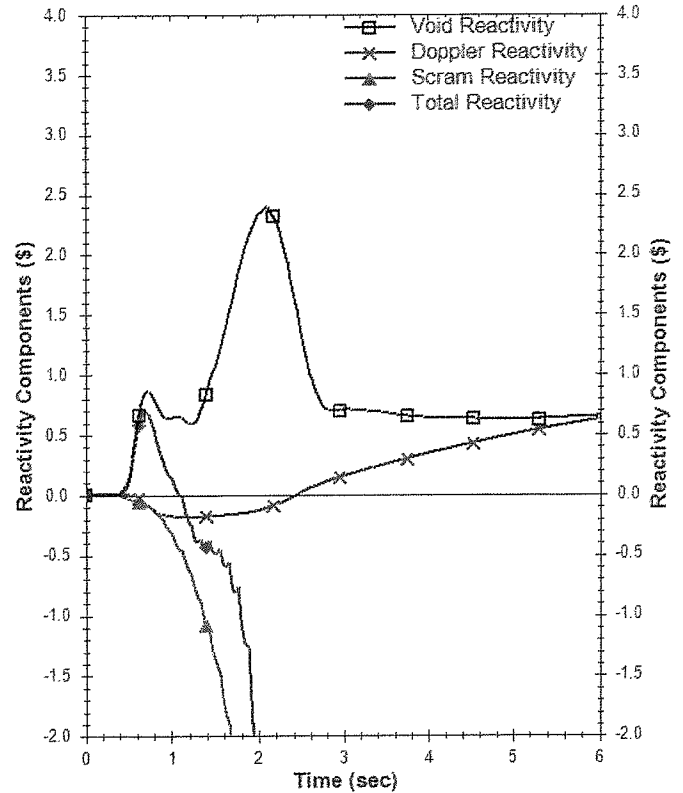
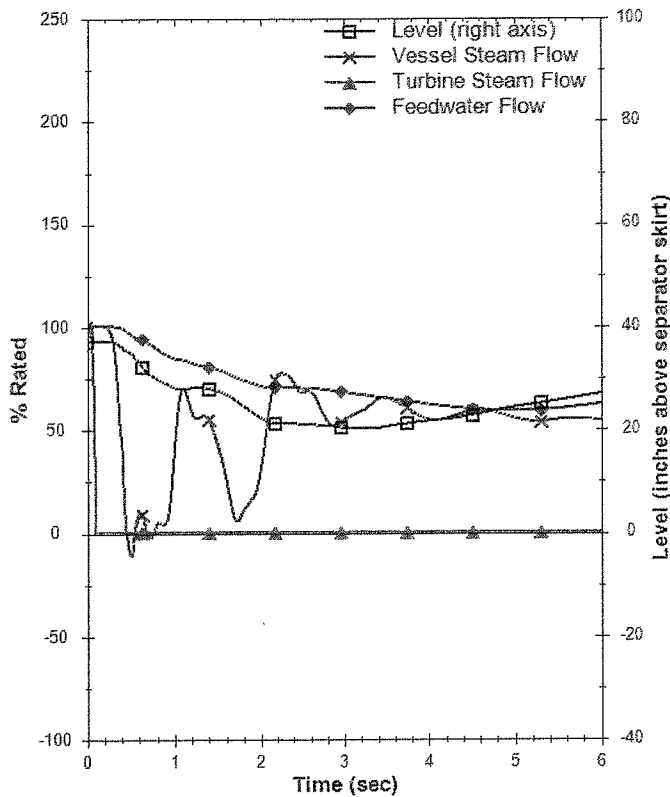
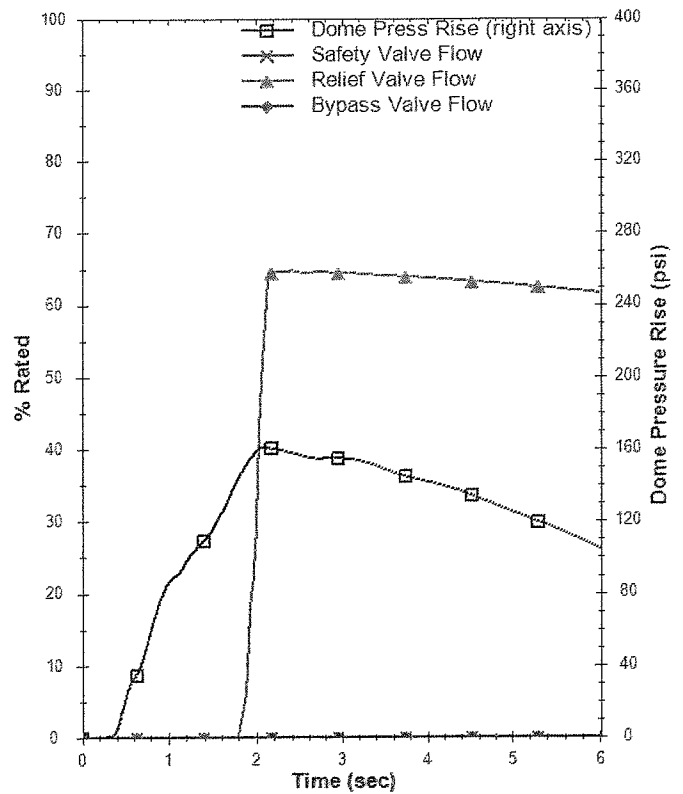
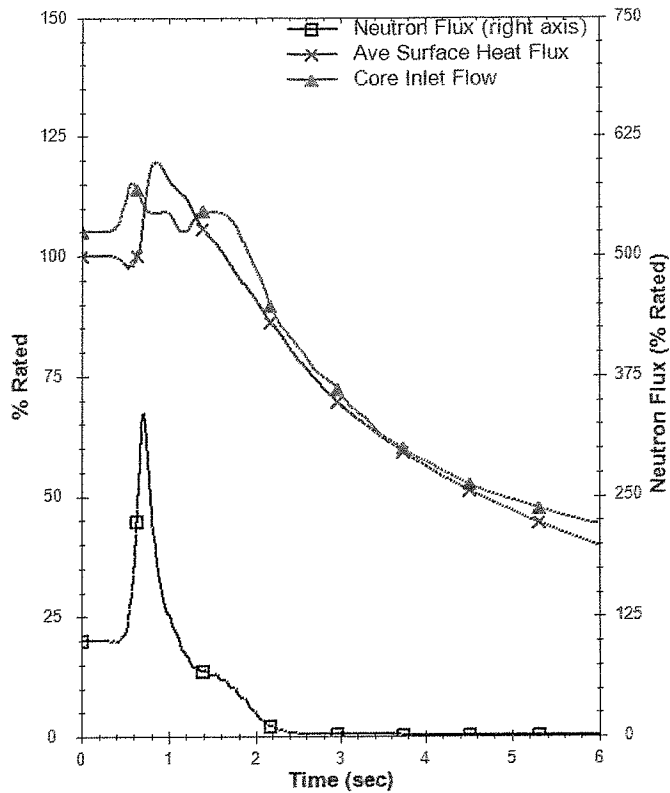
Nebraska Public Power District
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Turbine Trip without Bypass
 BOC to MOC1 : ICF-HBB
 Figure XIV-5-4d 01/21/19



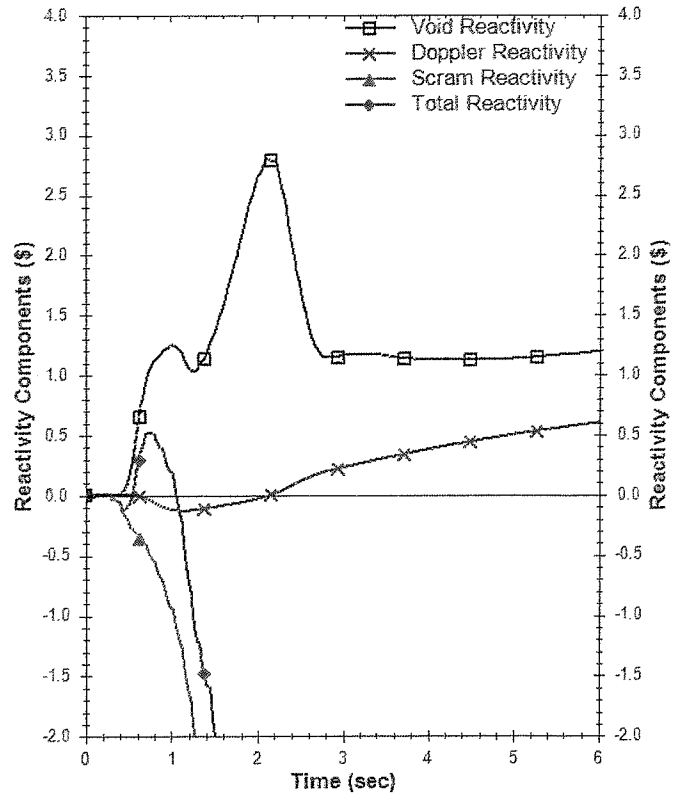
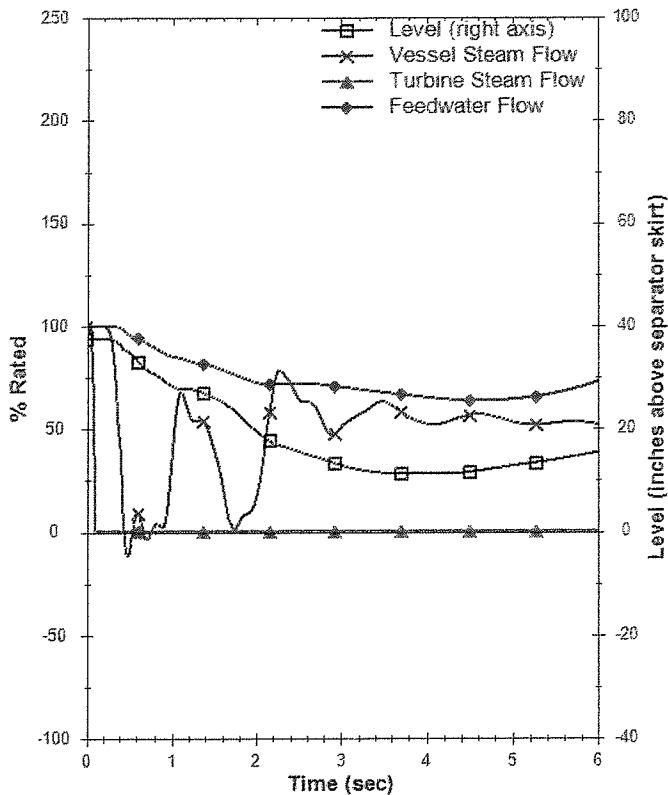
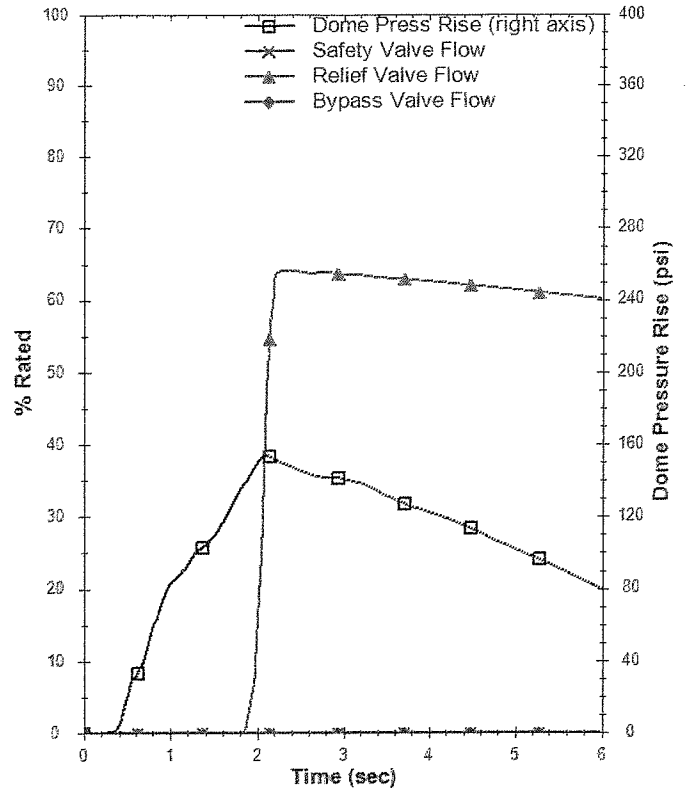
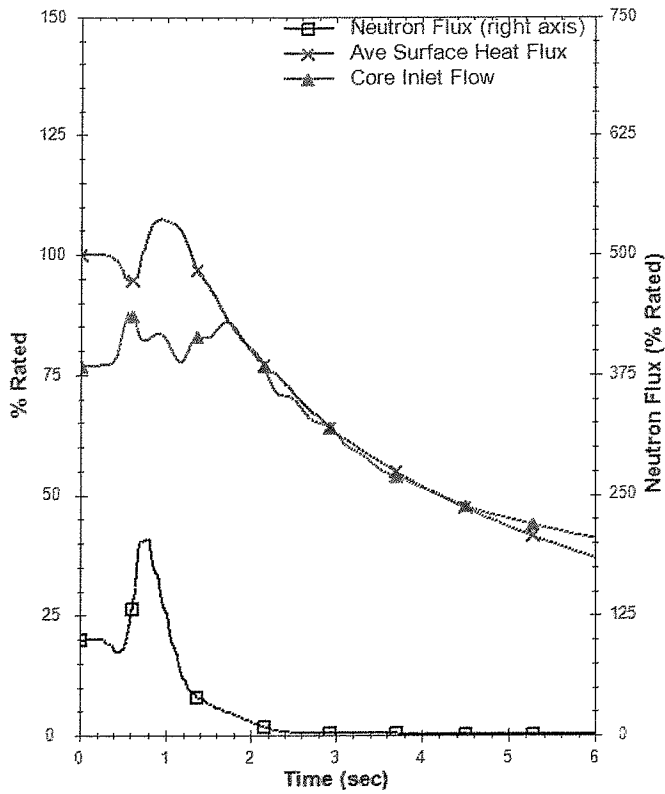
Nebraska Public Power District
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Turbine Trip without Bypass
 MOC1 to MOC2 : ICF-HBB
 Figure XIV-5-4e 01/21/19



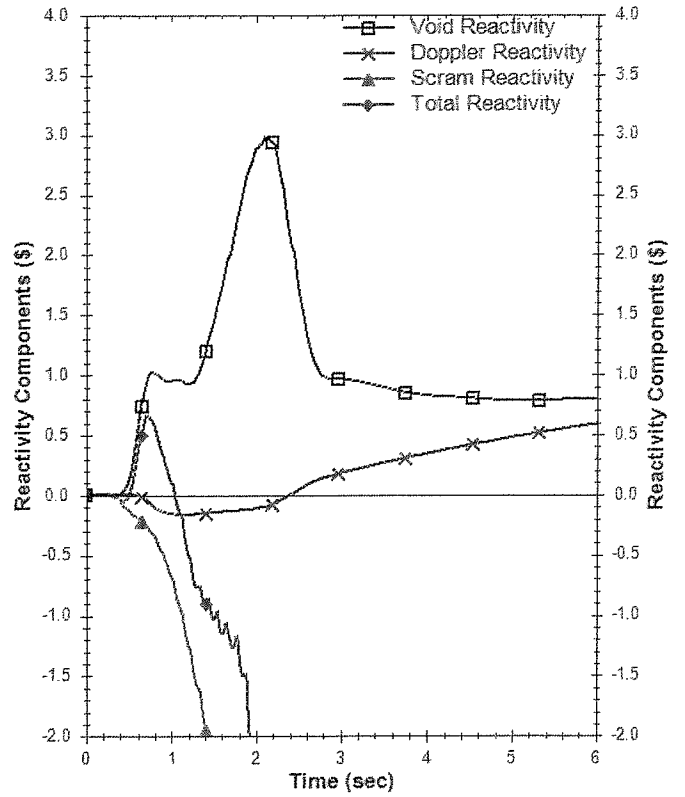
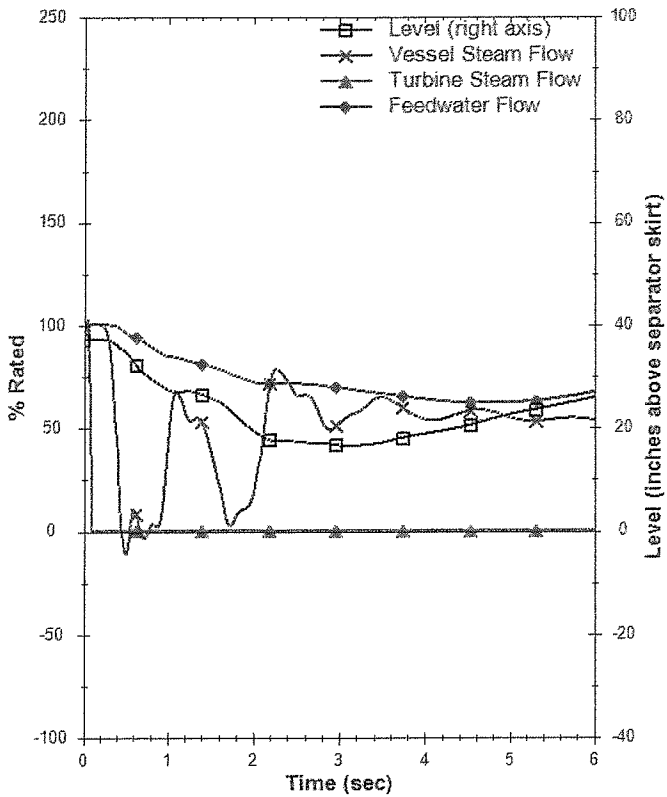
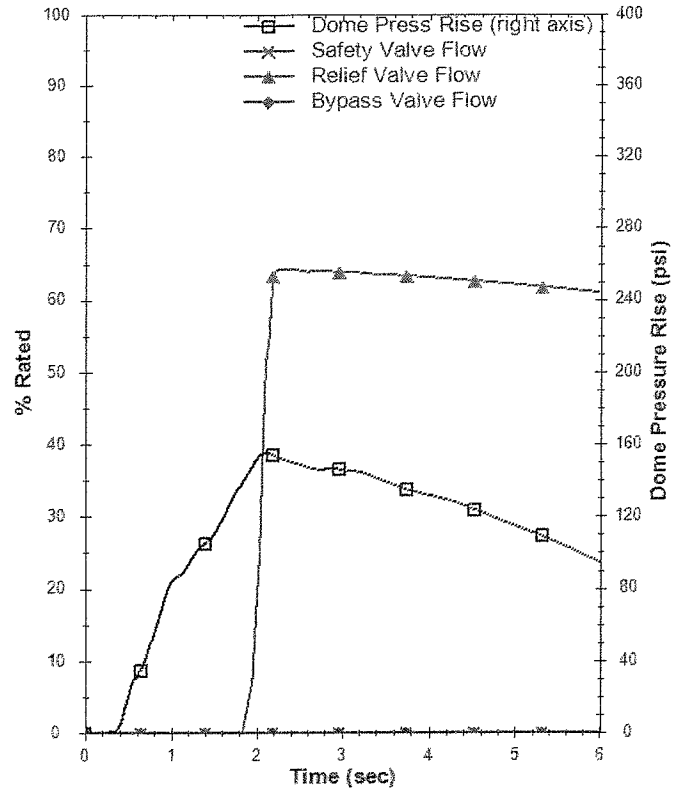
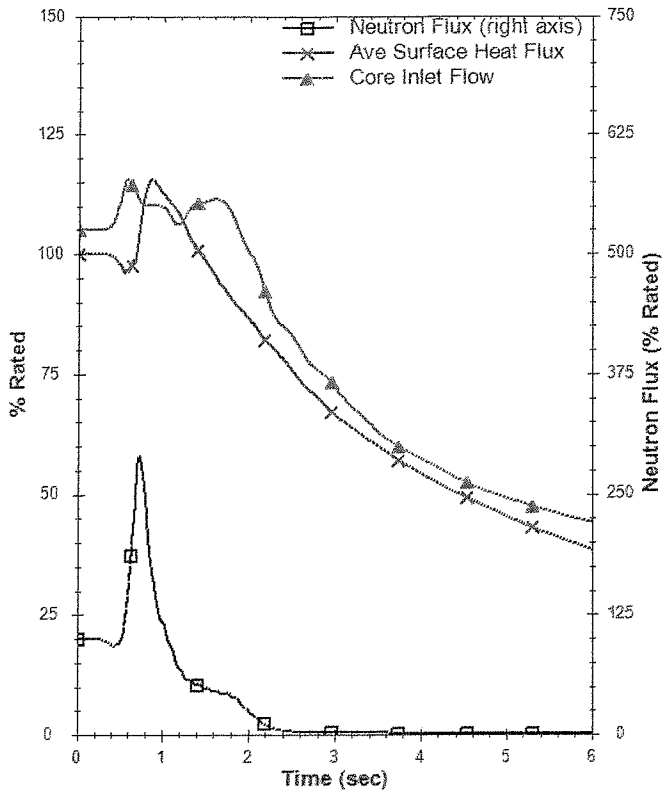
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Turbine Trip without Bypass
 MOC2 to EOC : ICF-HBB
 Figure XIV-5-4f 01/21/19



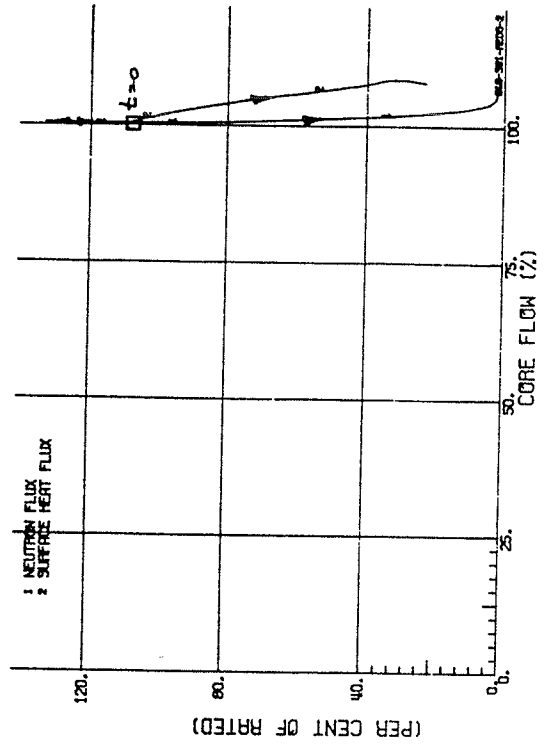
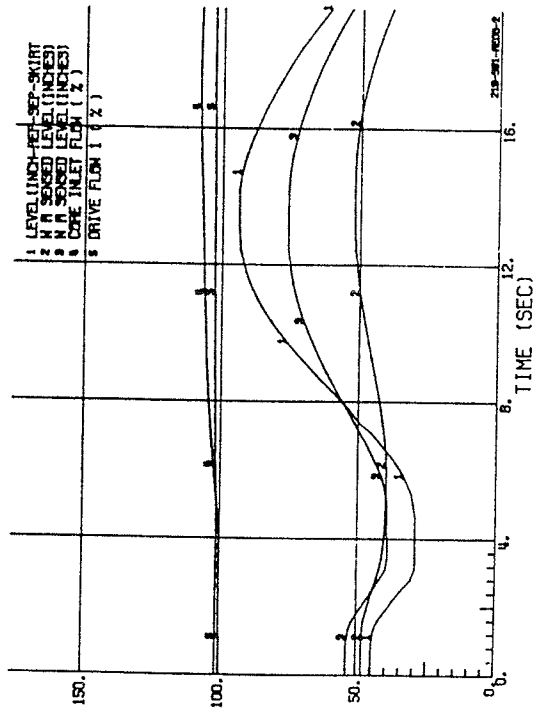
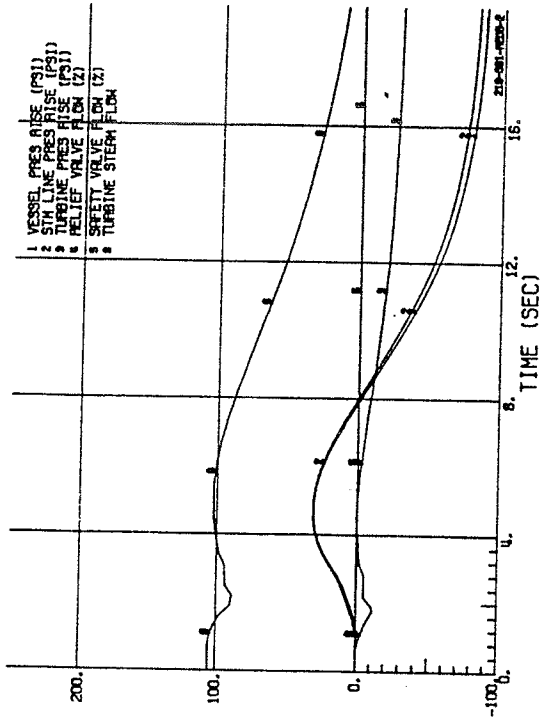
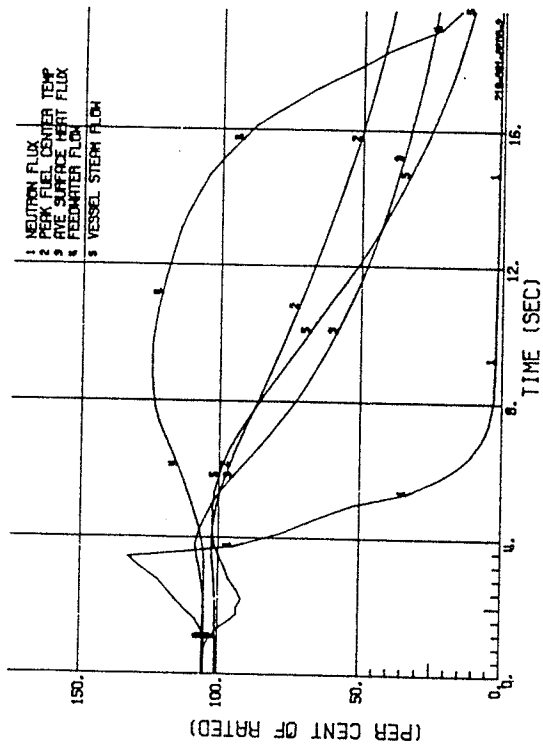
Nebraska Public Power District
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Turbine Trip without Bypass
 EOC : MELLA-UB
 Figure XIV-5-4g 01/21/19

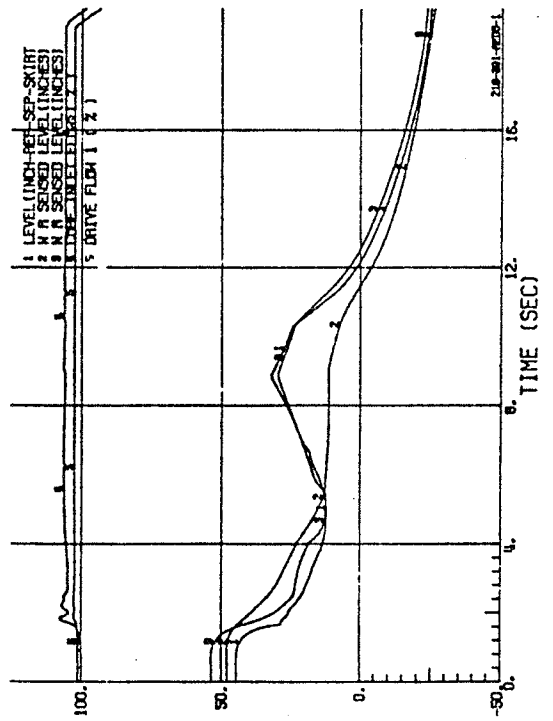
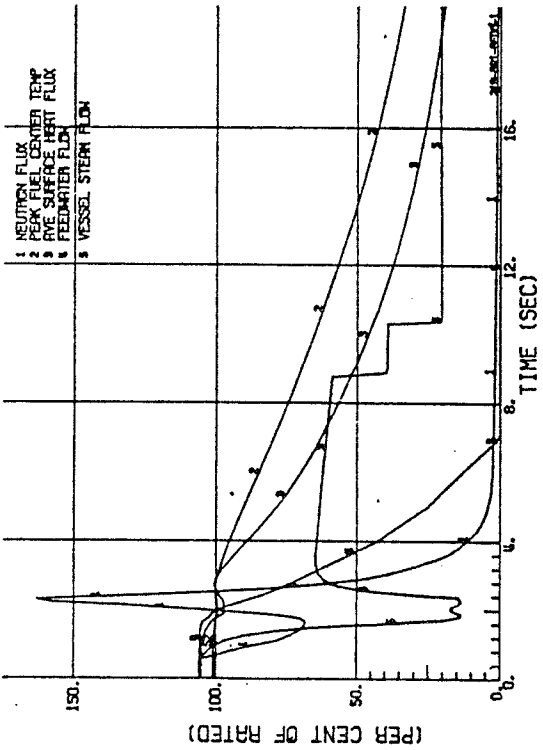
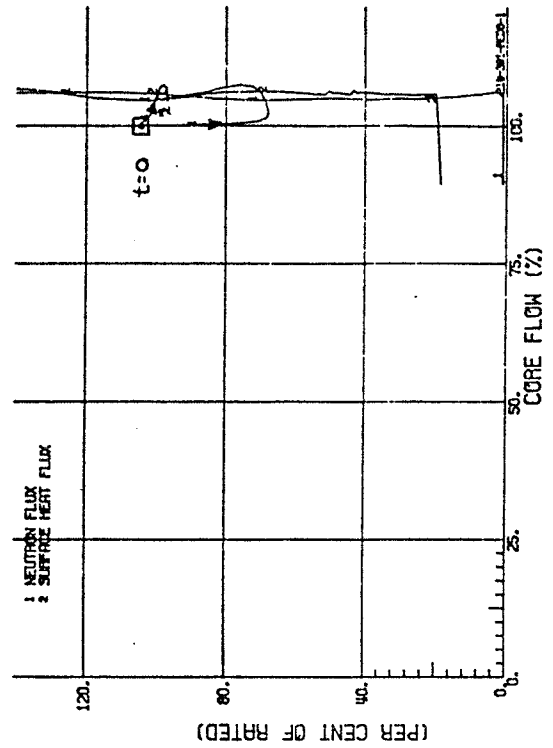
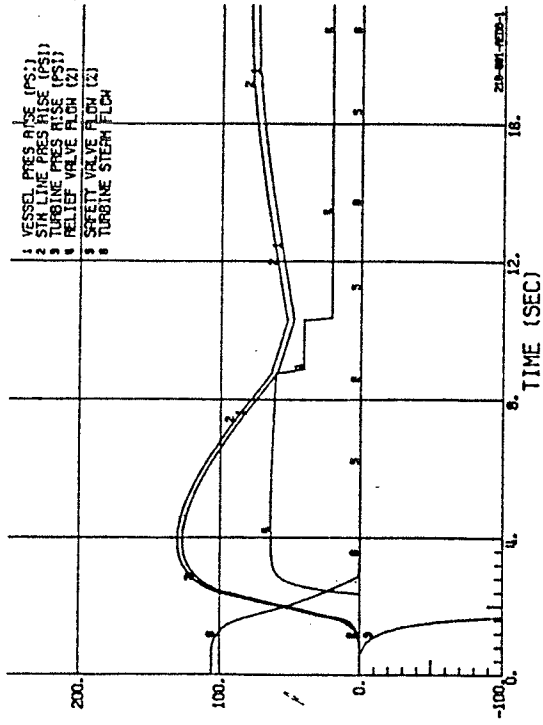


Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

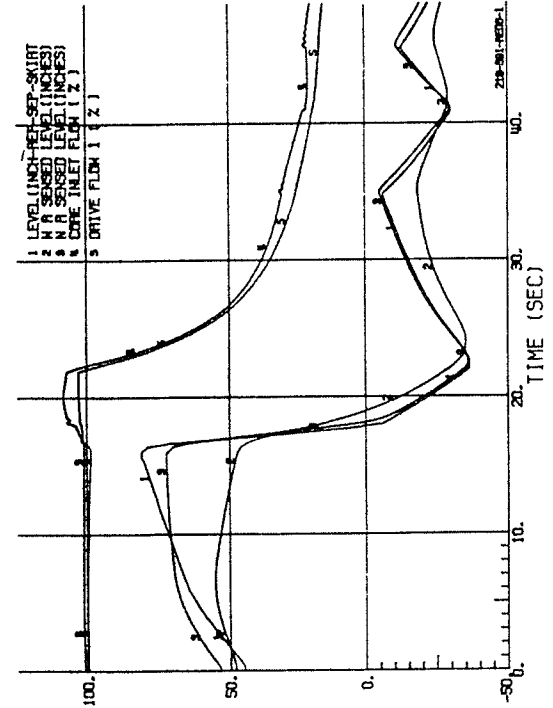
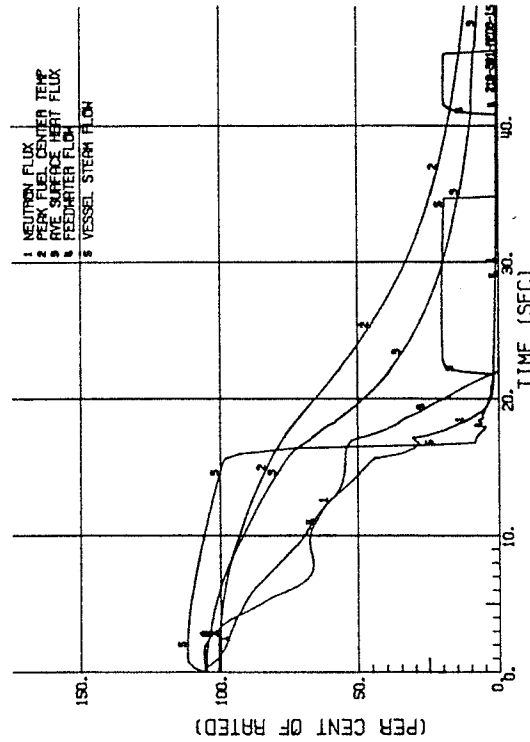
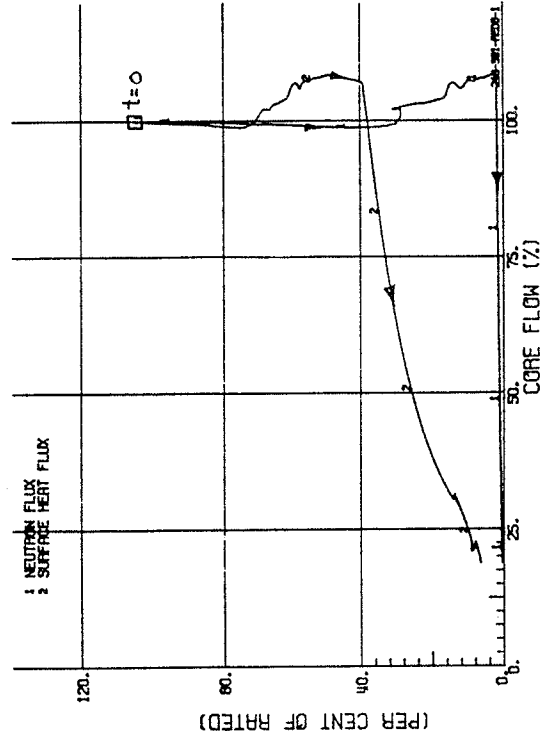
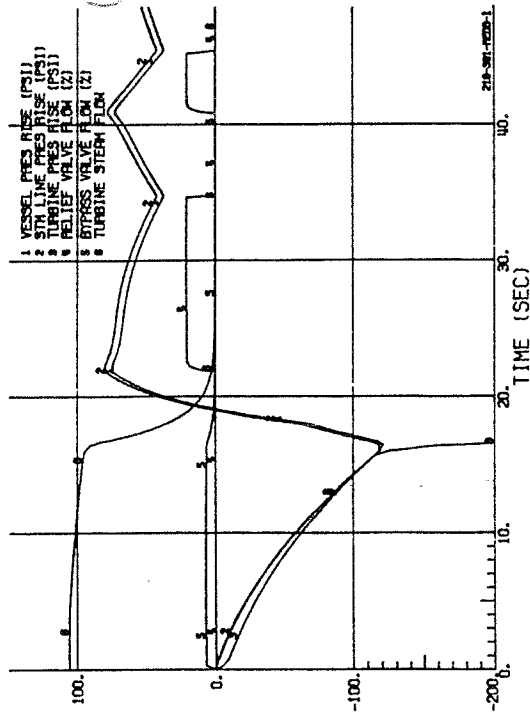
Turbine Trip without Bypass
 EOC : ICF-UB
 Figure XIV-5-4h 01/21/19



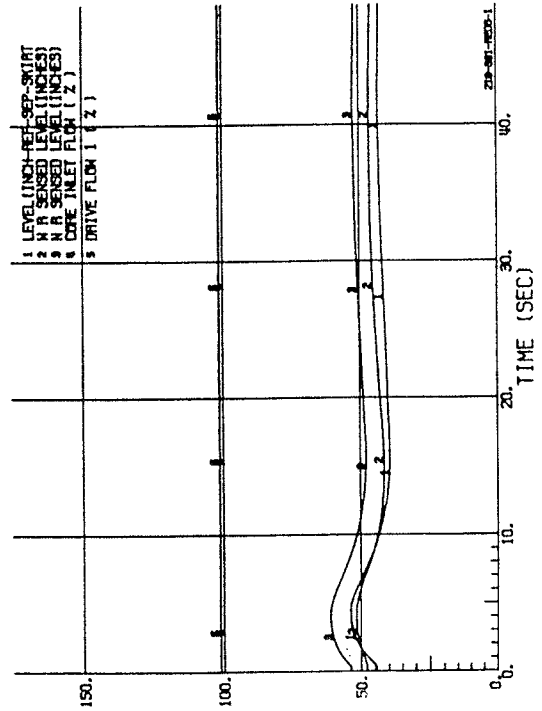
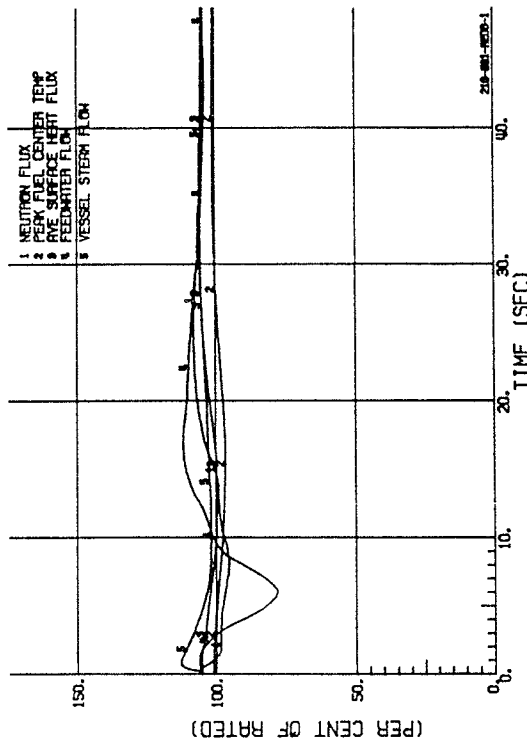
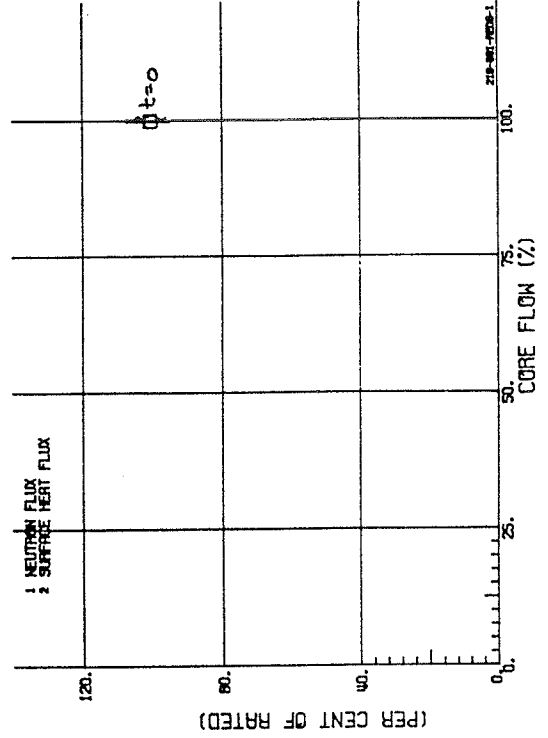
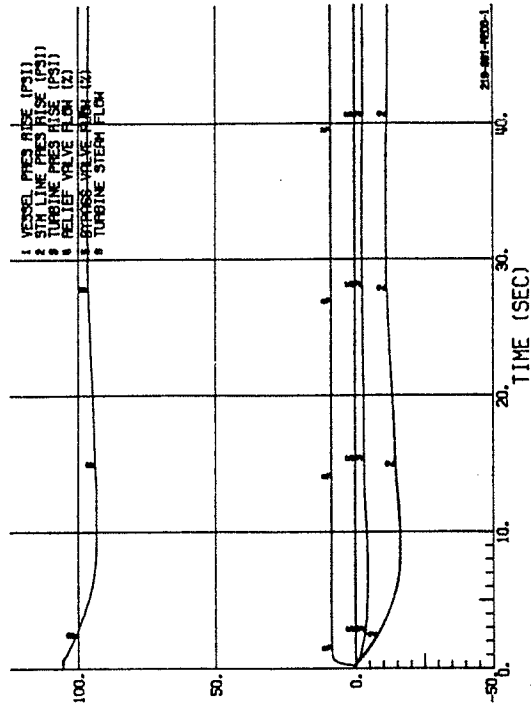
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Closure of One Main Steam
 Isolation Valve (MSIV)
 Figure XIV-5-5
 07/22/96



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 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Closure of All Main Steam
 Isolation Valves (MSIVs)
 Figure XIV-5-6
 07/22/96



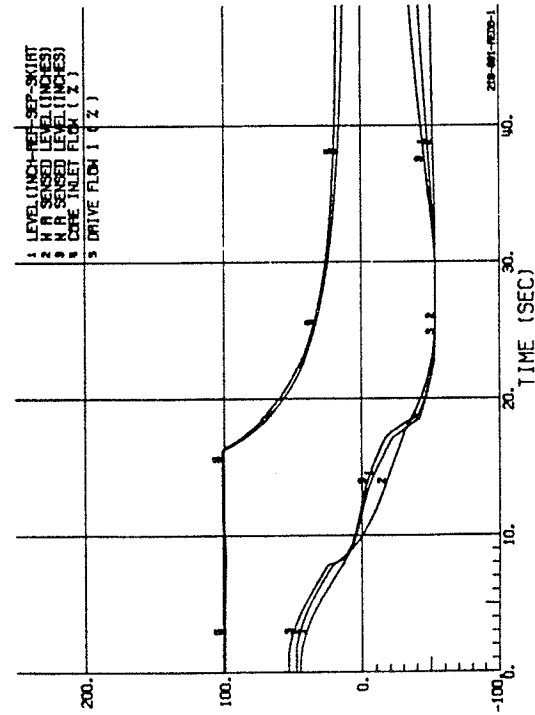
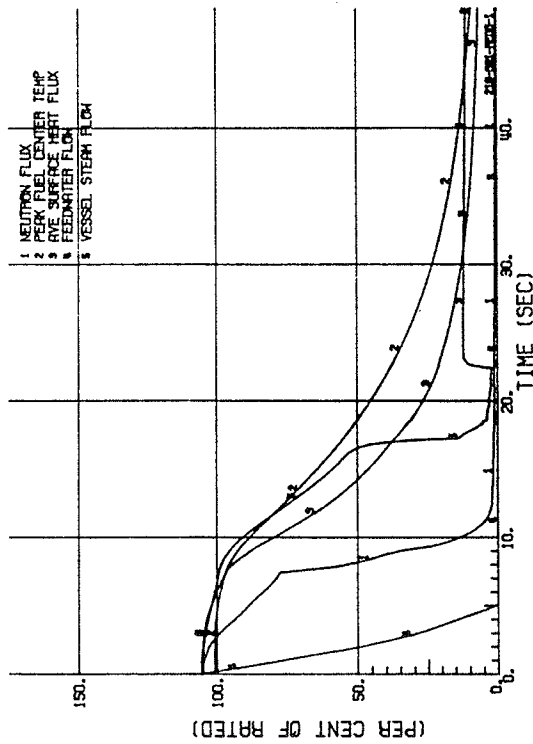
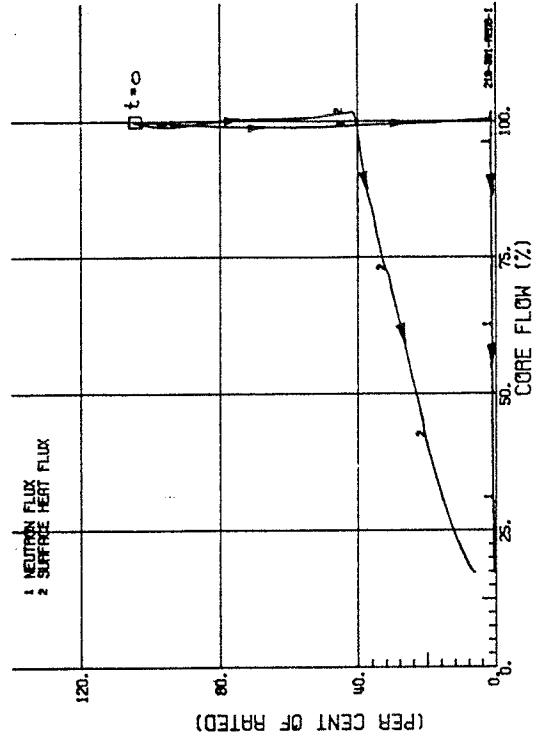
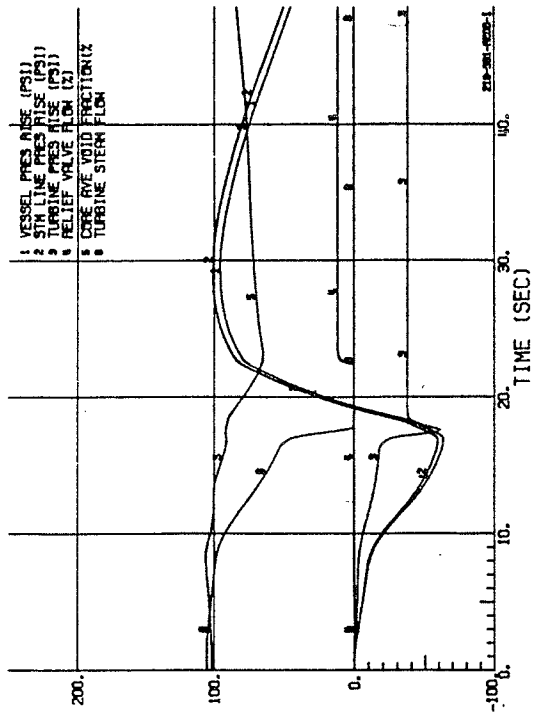
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 DEH Pressure Controller
 Output Fails High
 Figure XIV-5-8
 07/22/96



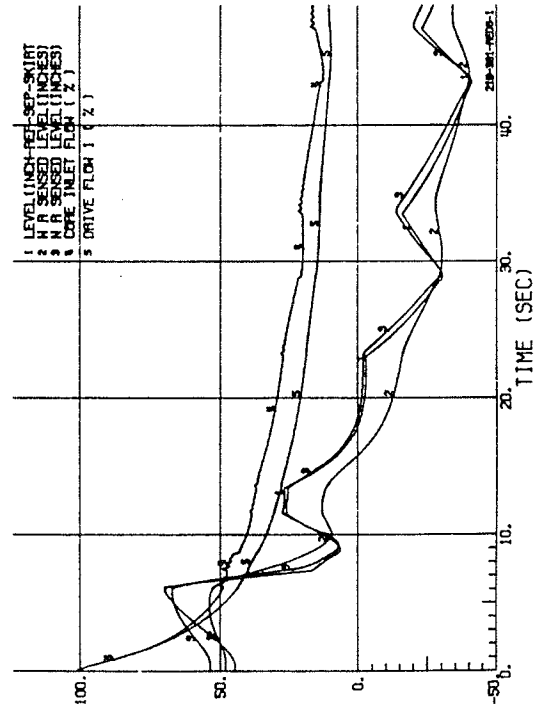
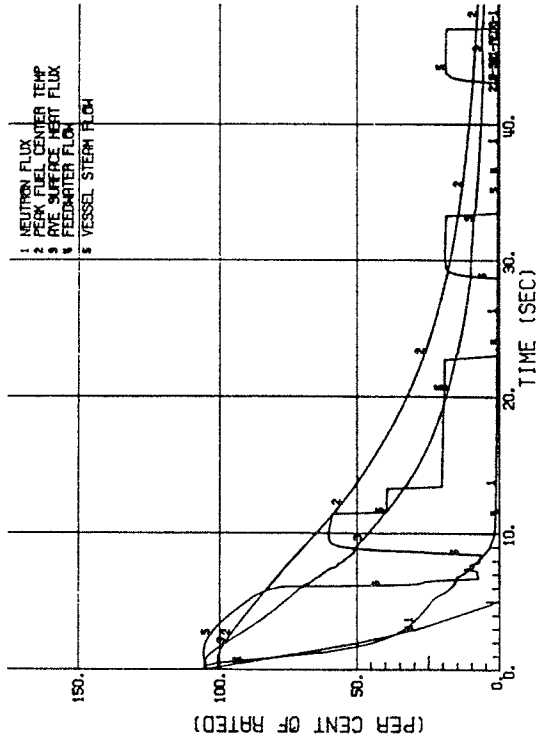
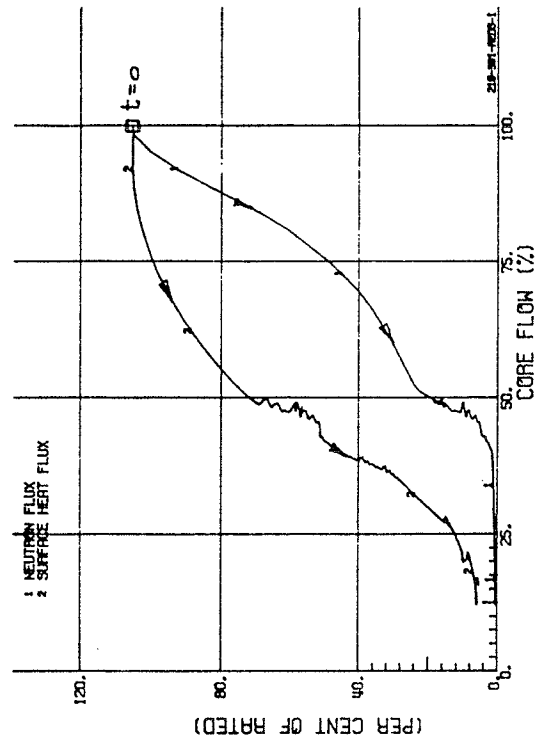
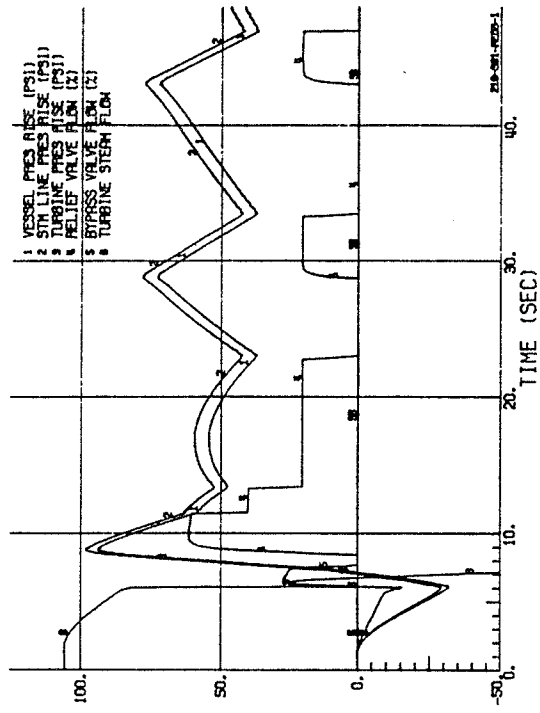
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent Opening of a
 Safety/Relief Valve
 Figure XIV-5-9

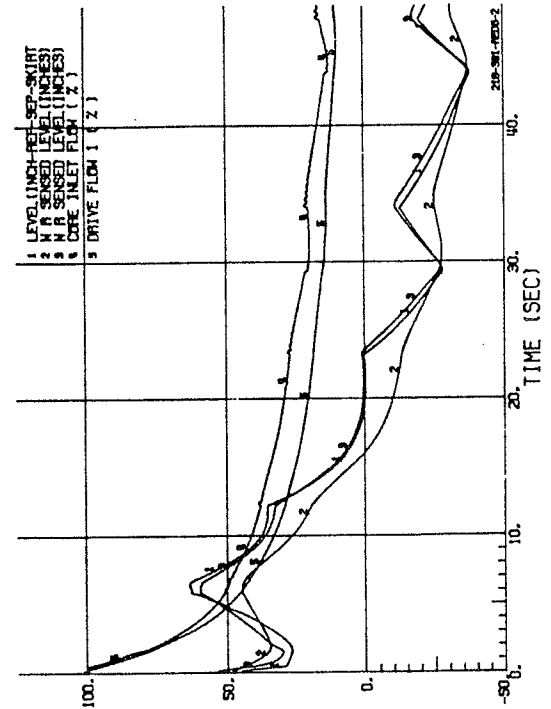
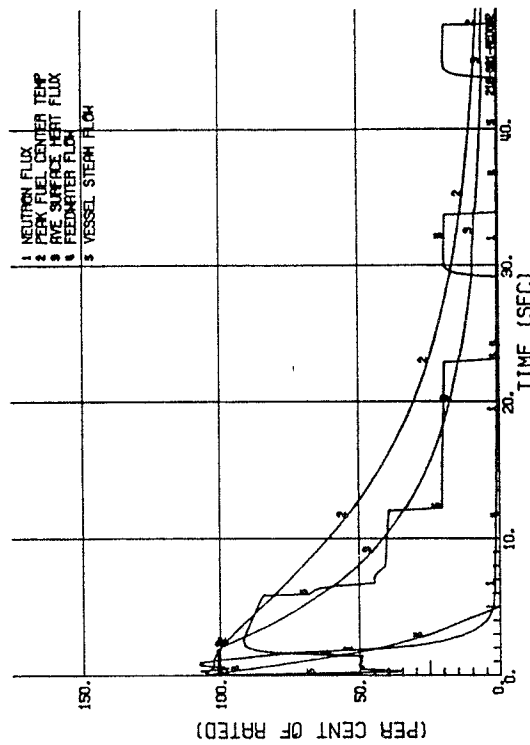
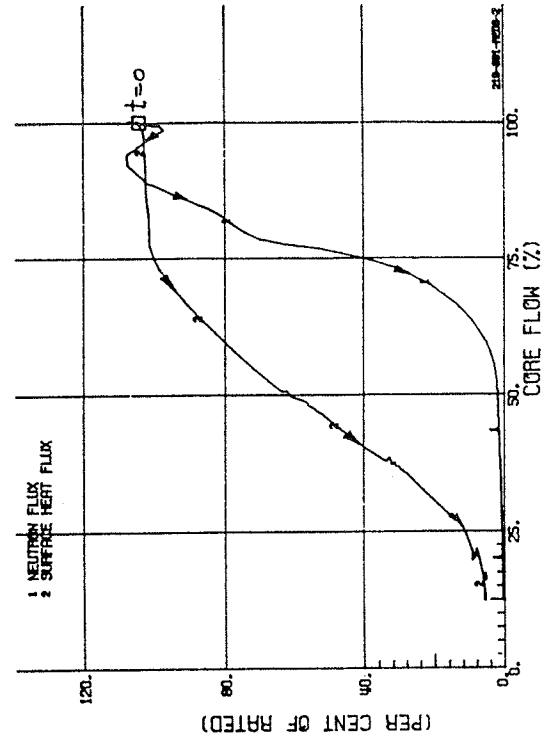
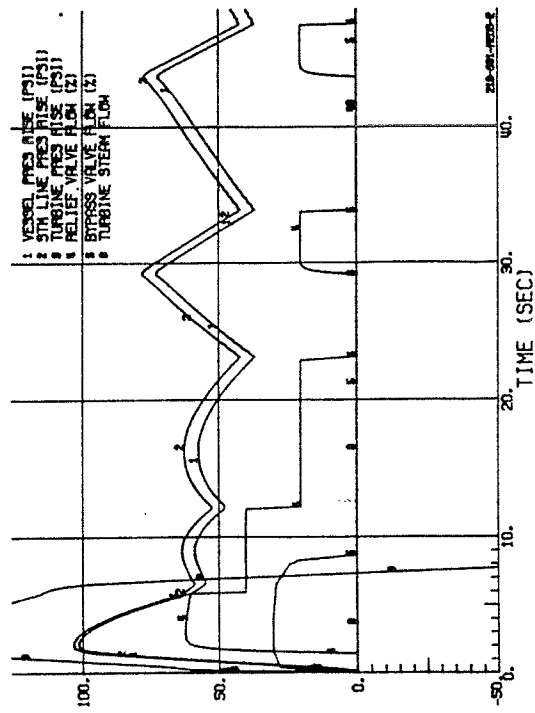
07/22/96



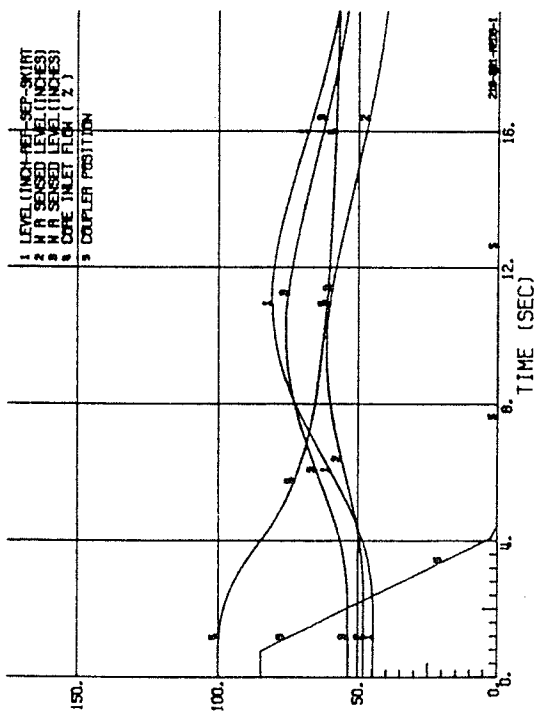
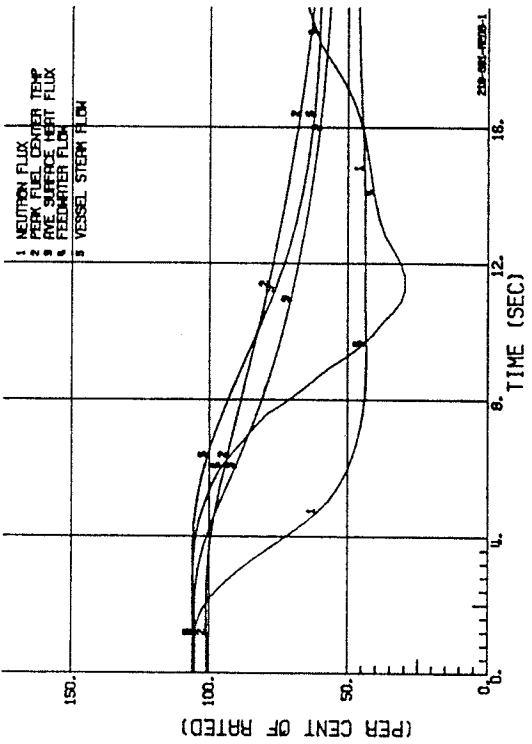
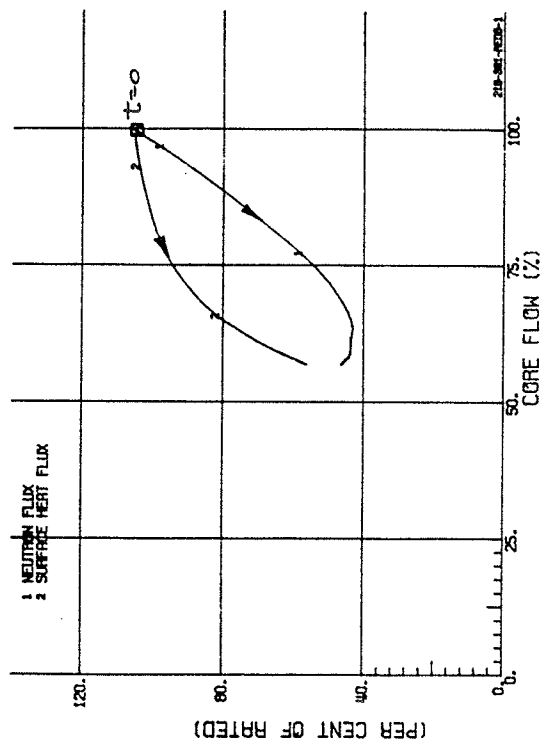
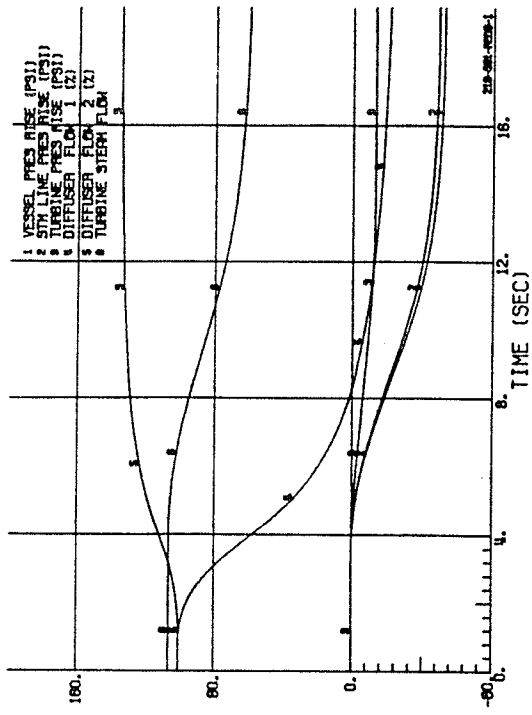
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Loss of Feedwater Flow
 Figure XIV-5-10
 07/22/96



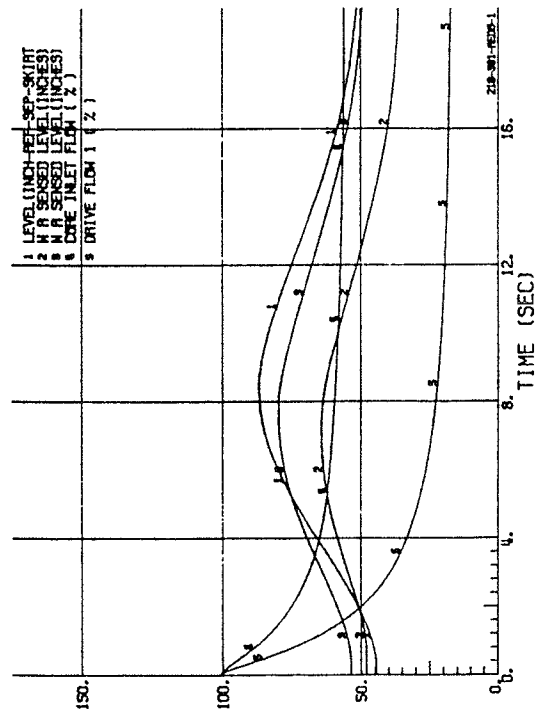
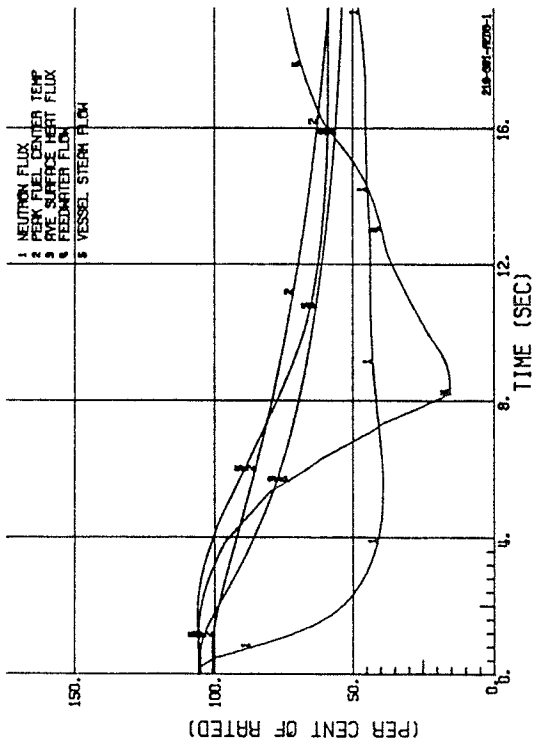
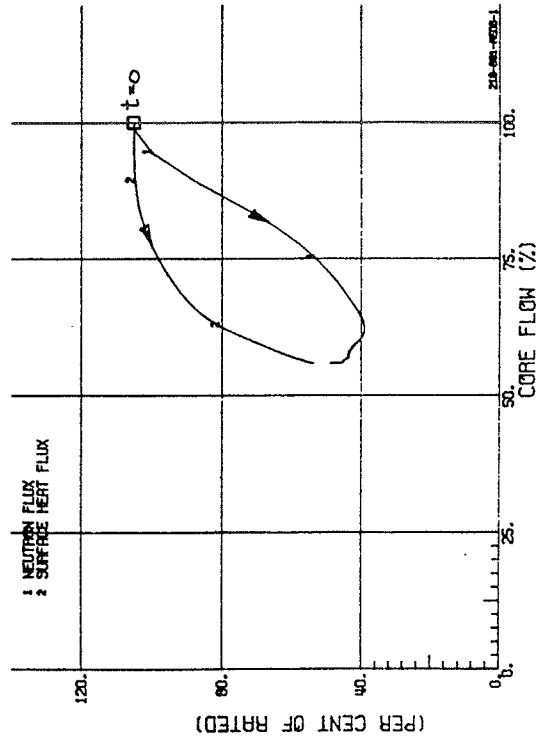
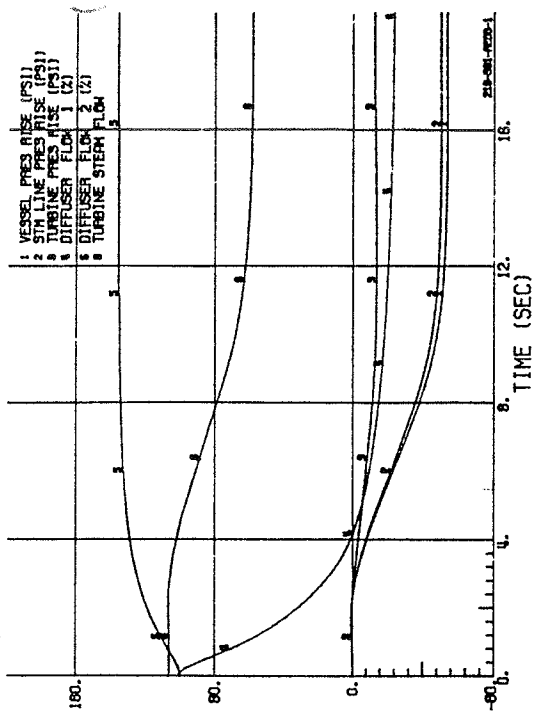
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Loss of Auxiliary Power
 (Trip without Transfer)
 Figure XIV-5-11
 07/22/96



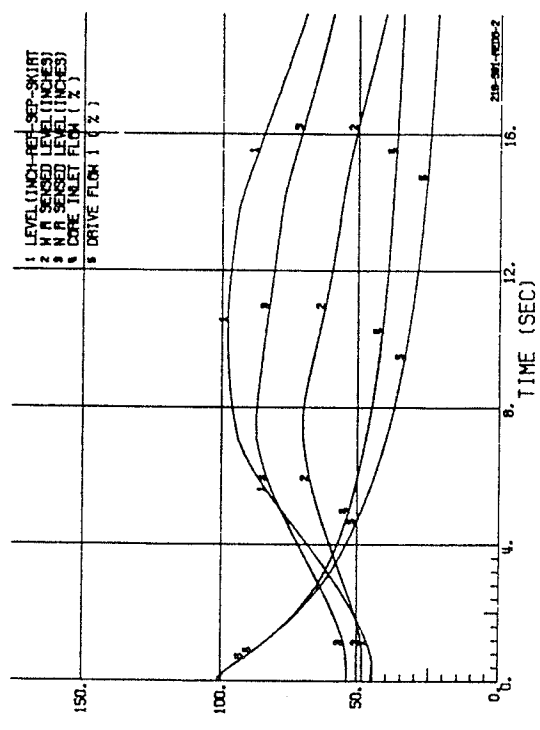
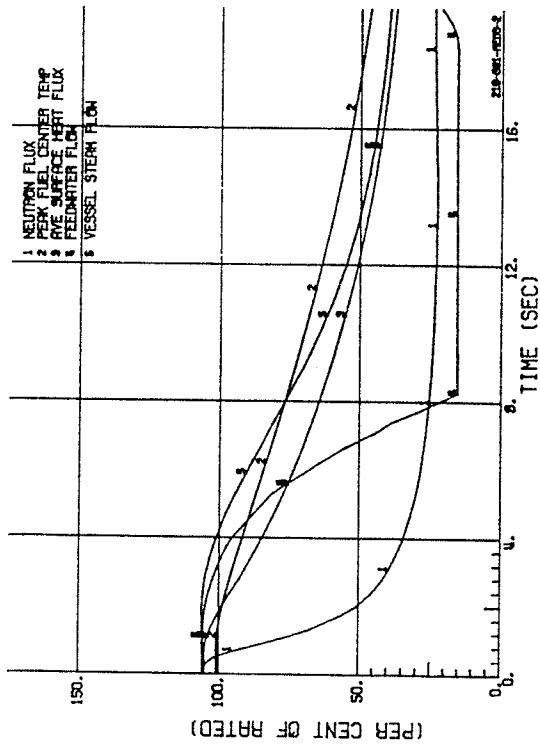
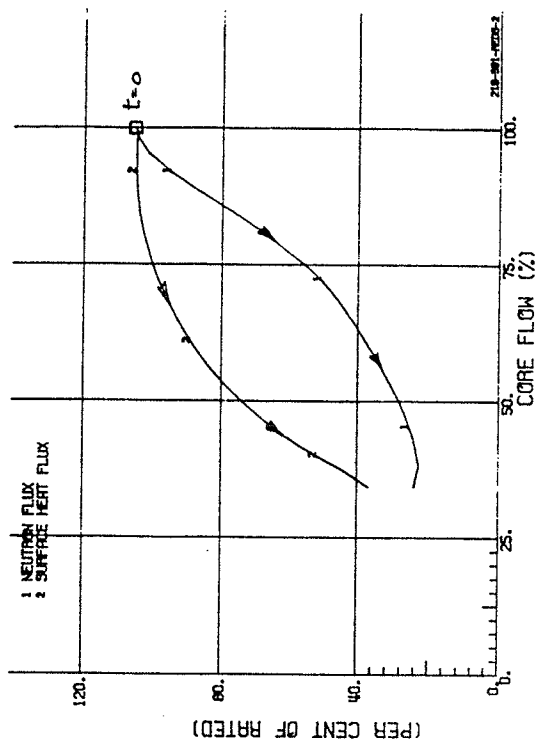
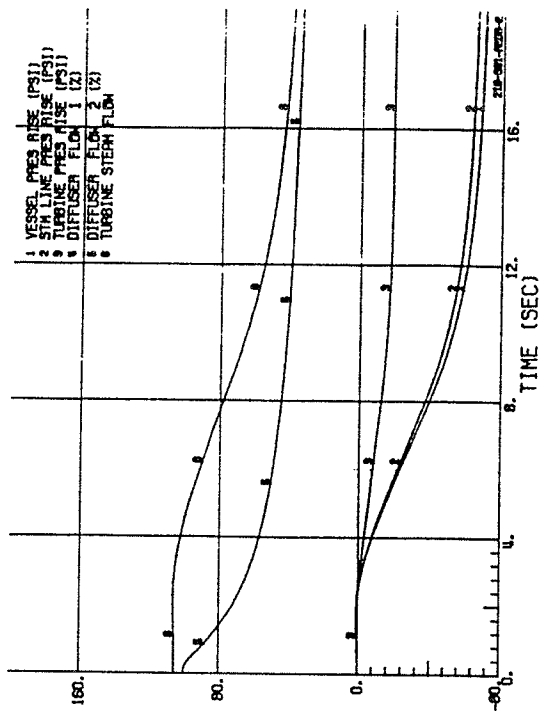
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Loss of Auxiliary Power
 (Loss of Grid Connection)
 Figure XIV-5-12
 07/22/96



Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Recirculation Flow Controller
 Failure - Decreasing Flow
 Figure XIV-5-13
 07/22/96

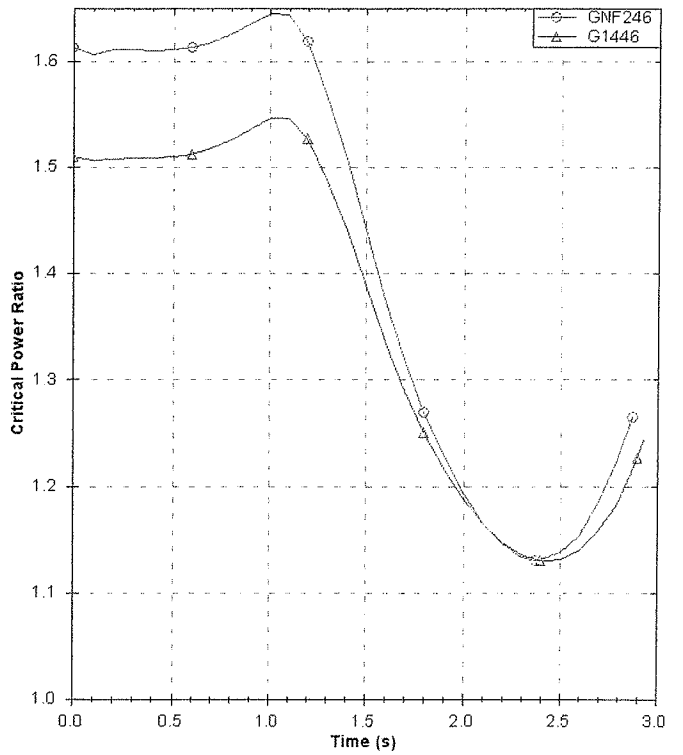
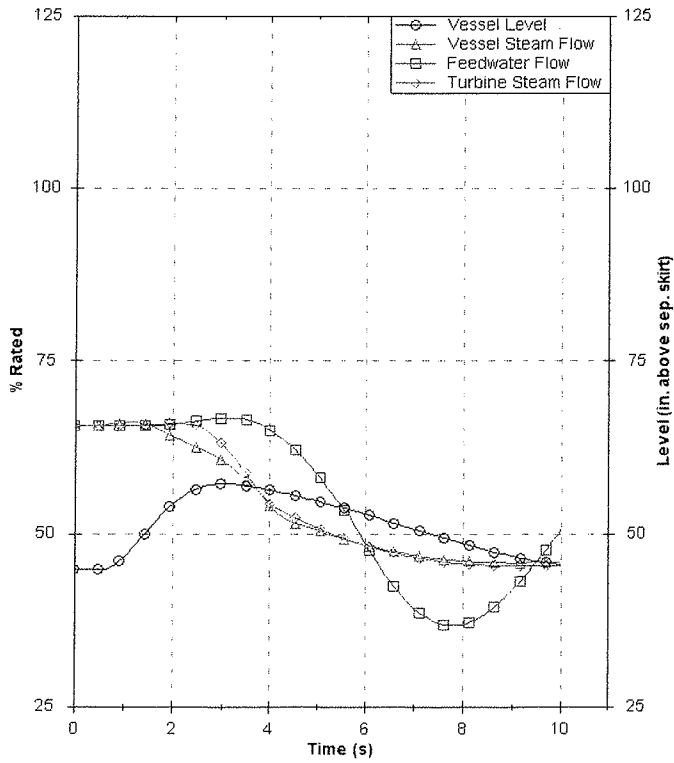
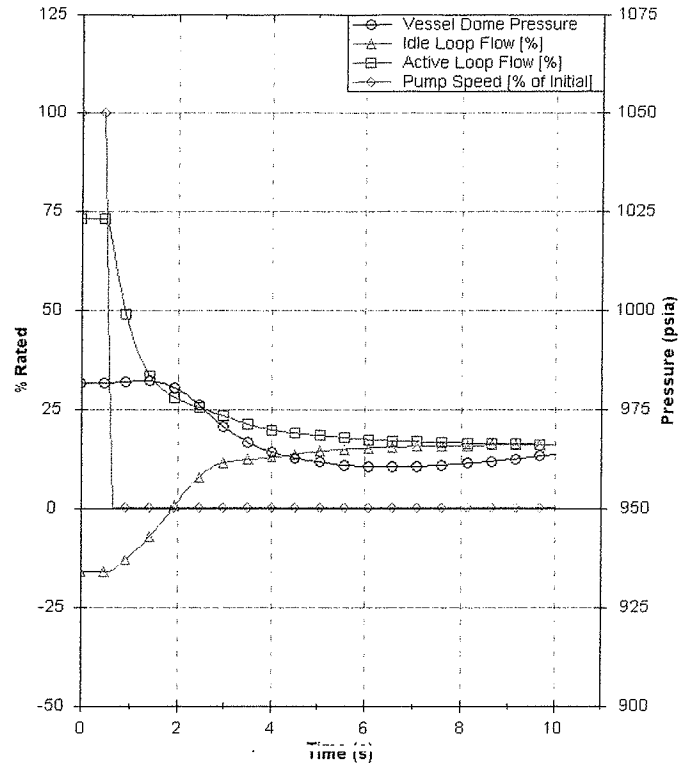
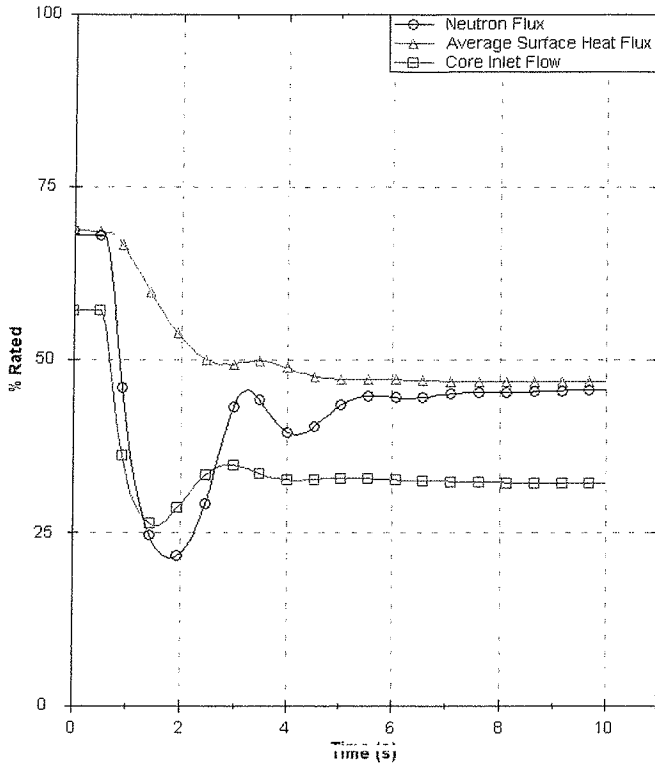


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 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Trip of One Recirculation Pump
 Figure XIV-5-14
 07/22/96



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 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Trip of Two Recirculation Pumps
 Figure XIV-5-15
 07/22/96

**SLO Pump Seizure for hp1 CYCLE 28
POWER: 68.5% RATED FLOW: 57.1% RATED**

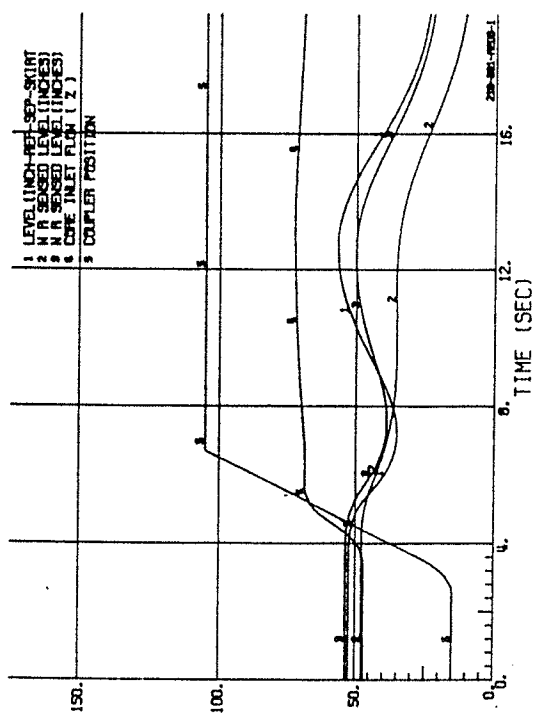
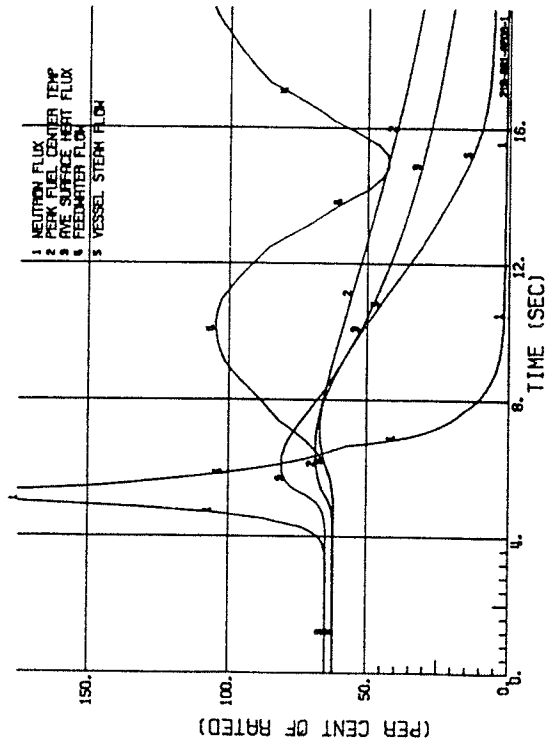
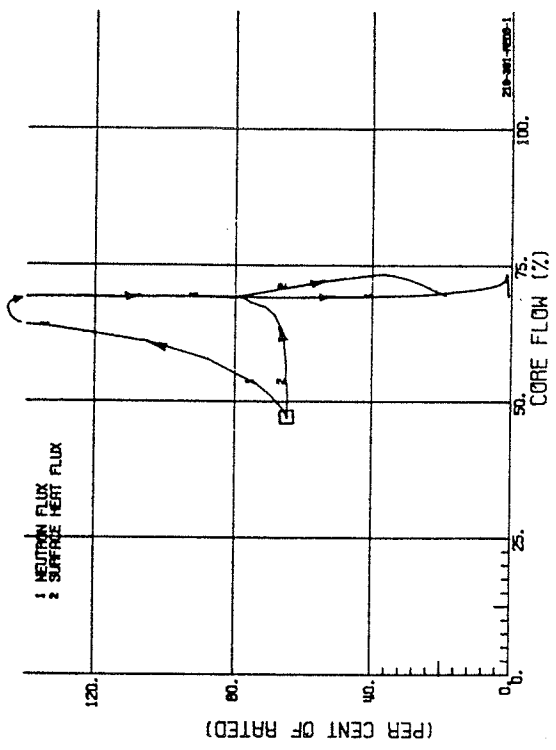
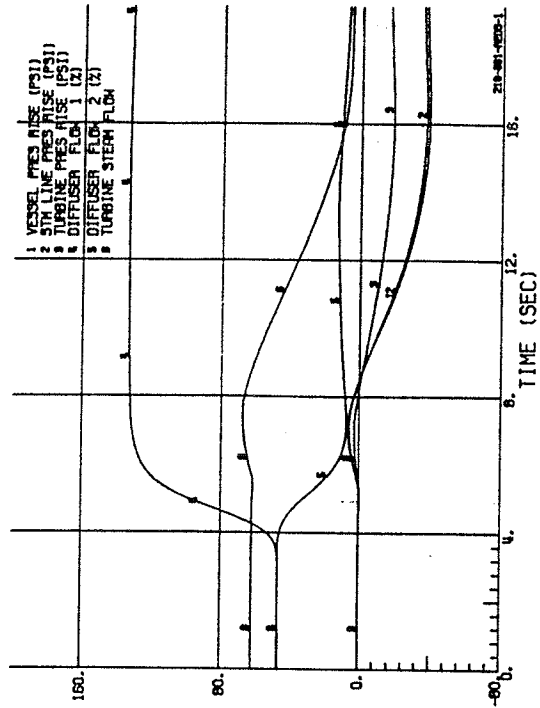


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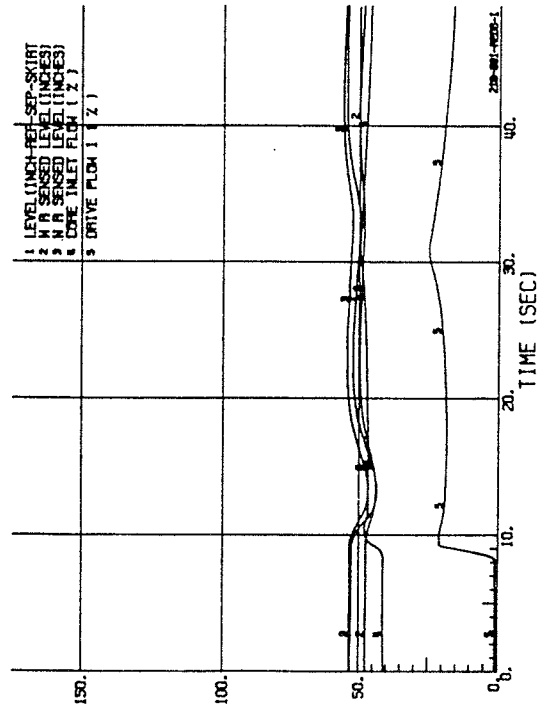
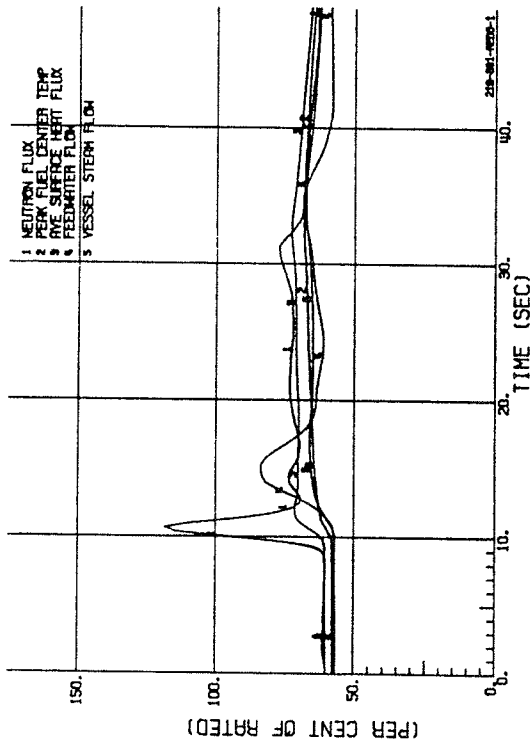
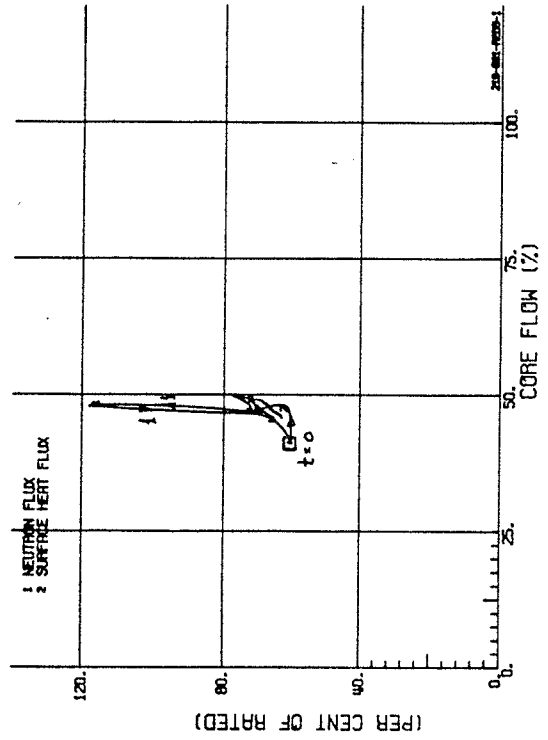
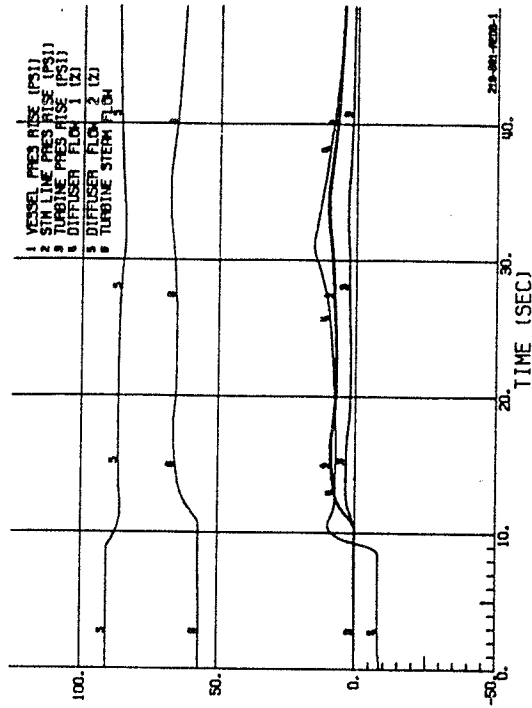
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Single Loop Operation Pump Seizure

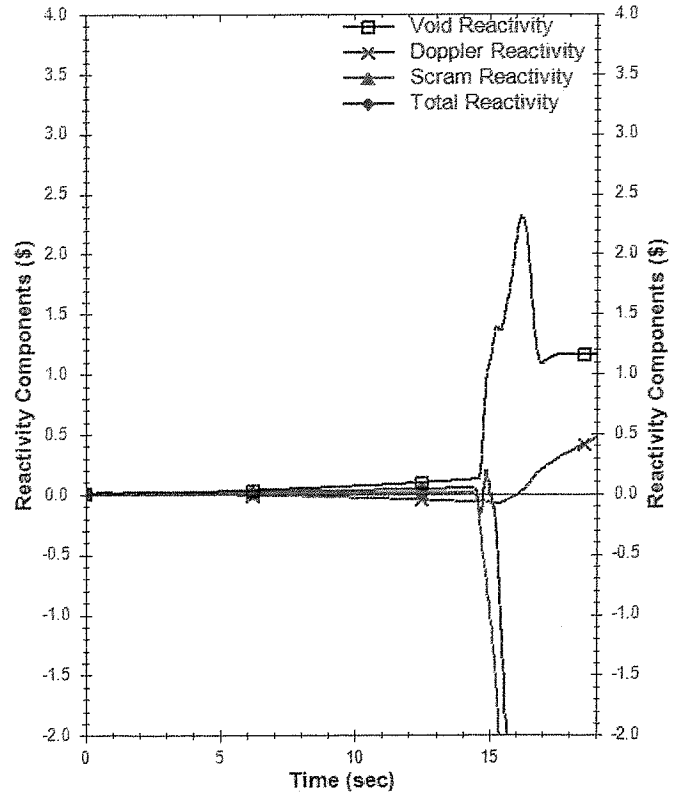
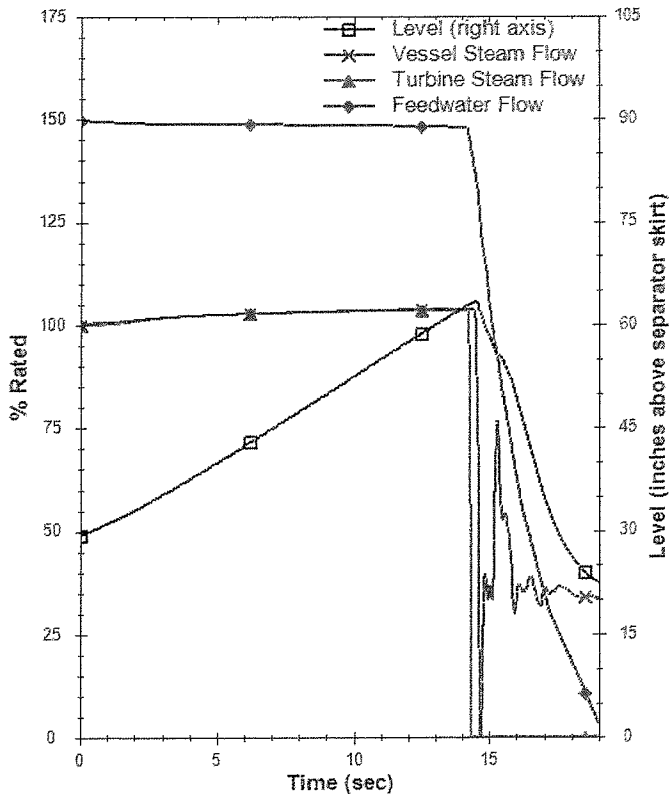
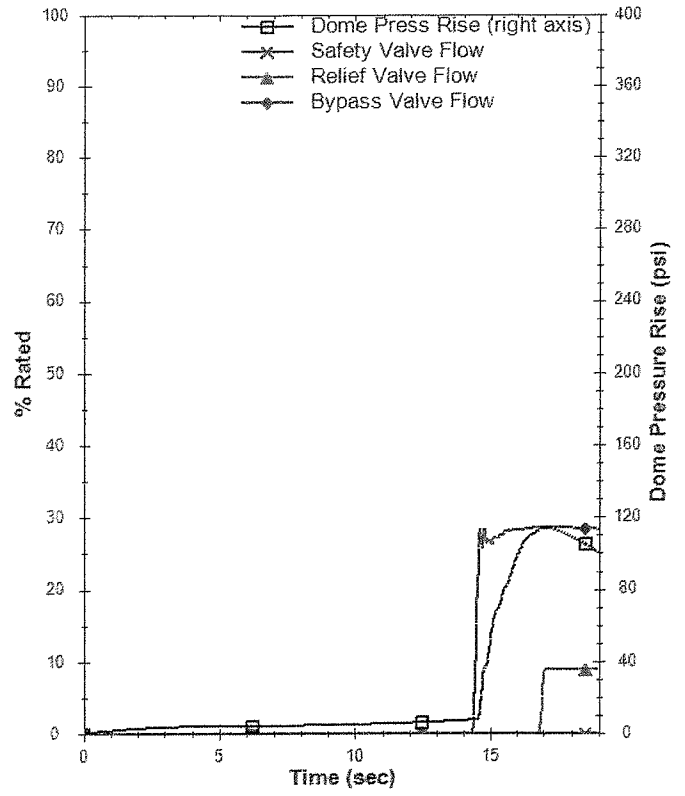
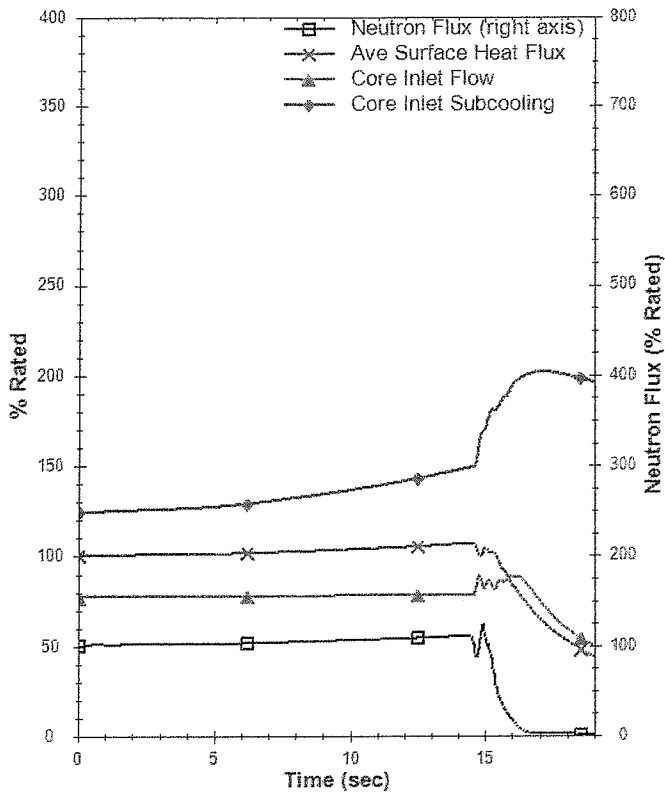
Figure XIV-5-15a 02/22/17



Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Recirculation Flow Controller
 Failure - Increasing Flow
 Figure XIV-5-16
 07/22/96

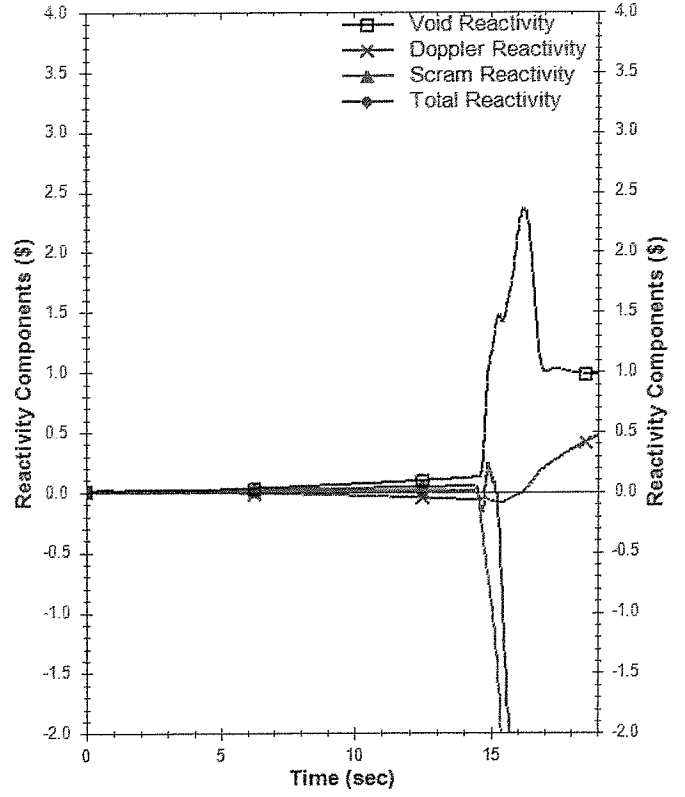
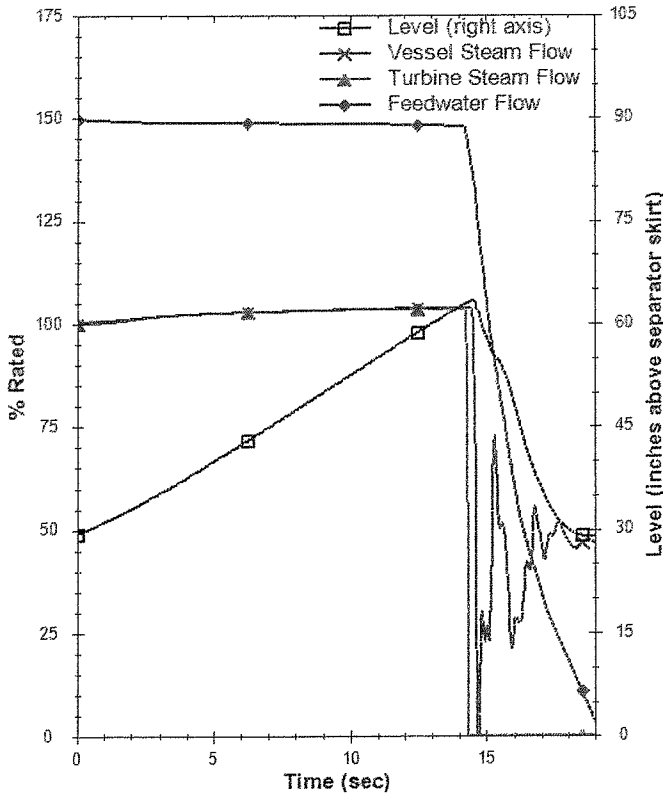
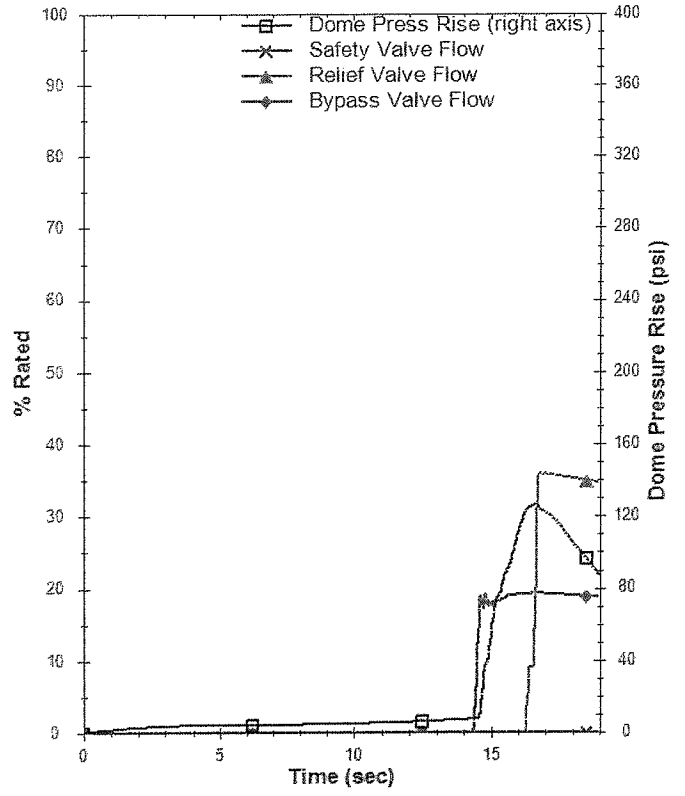
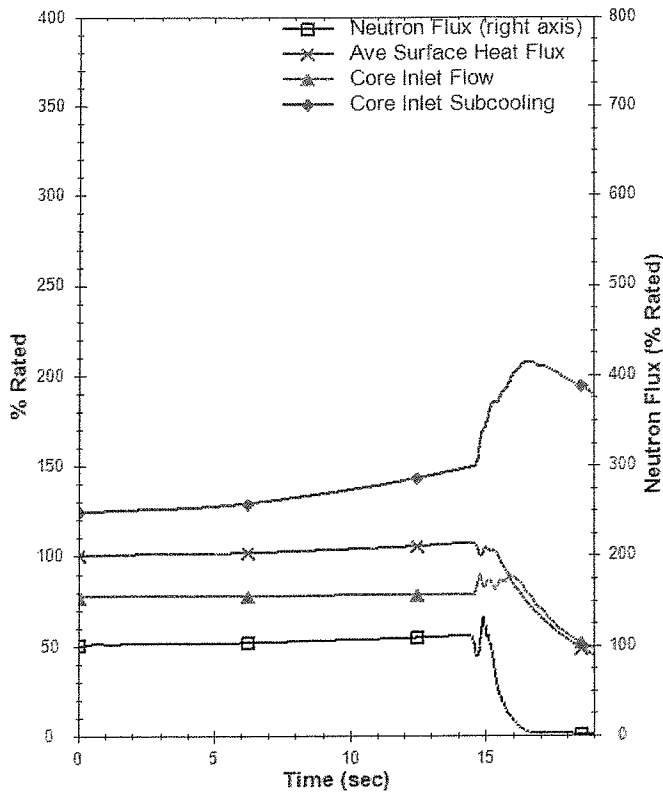


Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 Startup of Idle Recirculation
 Pump
 Figure XIV-5-17
 07/22/96



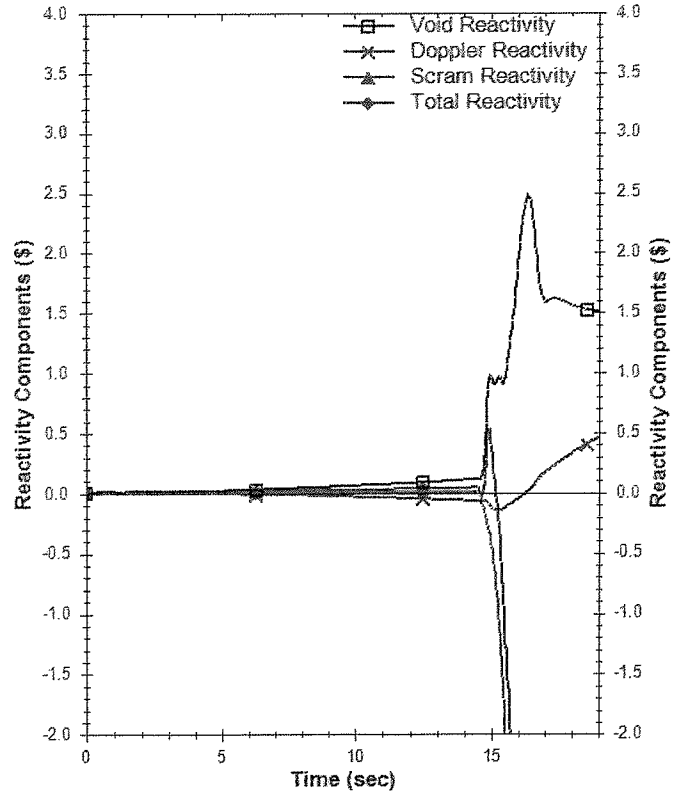
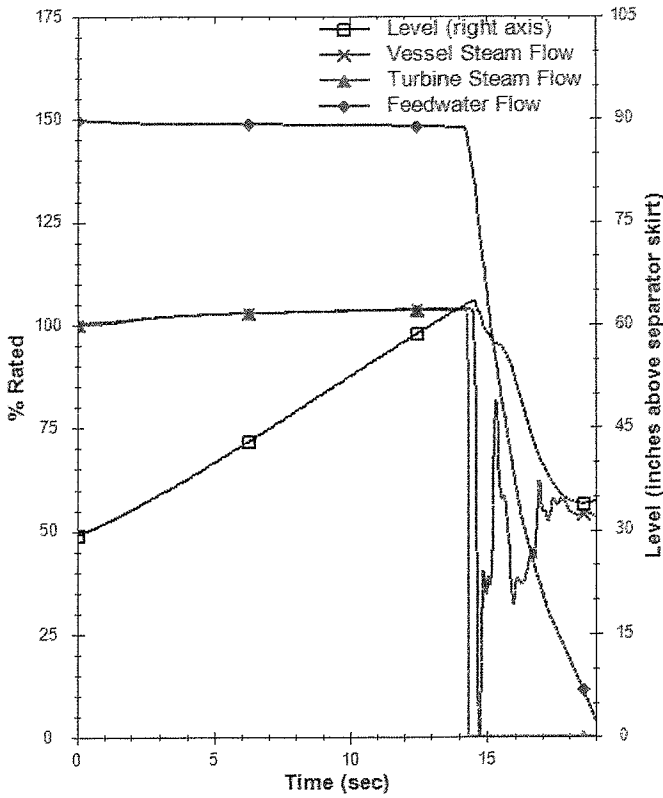
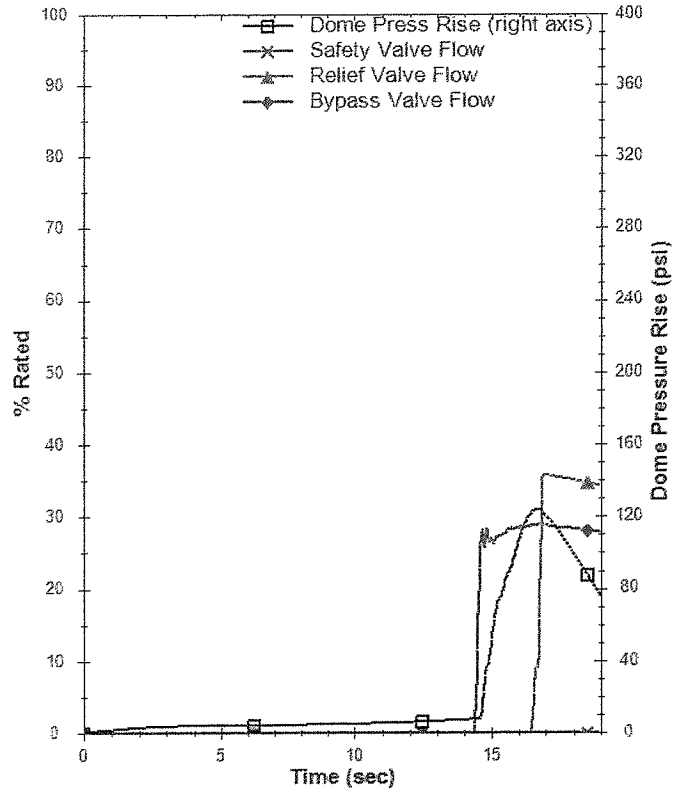
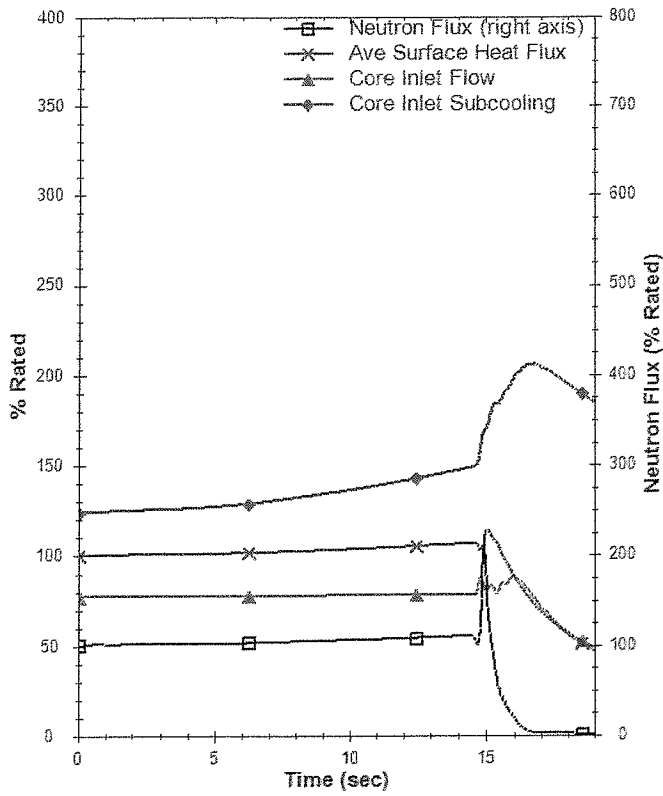
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 BOC to MOC1 : MELLA-HBB
 Figure XIV-5-18a 01/21/19



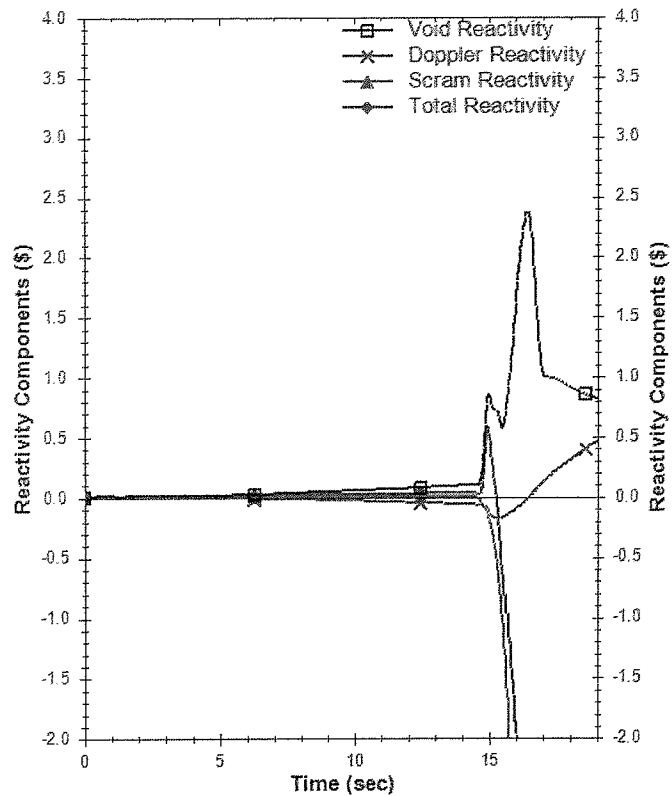
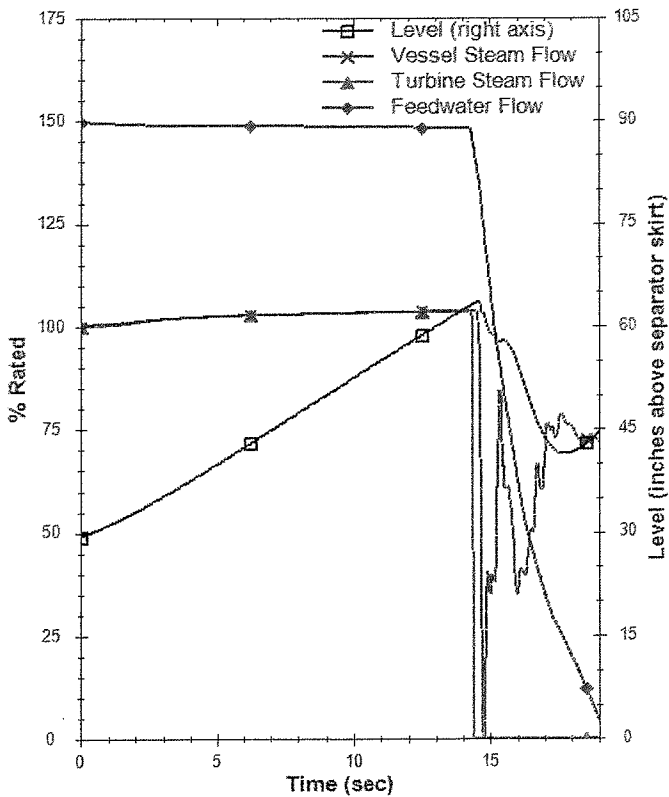
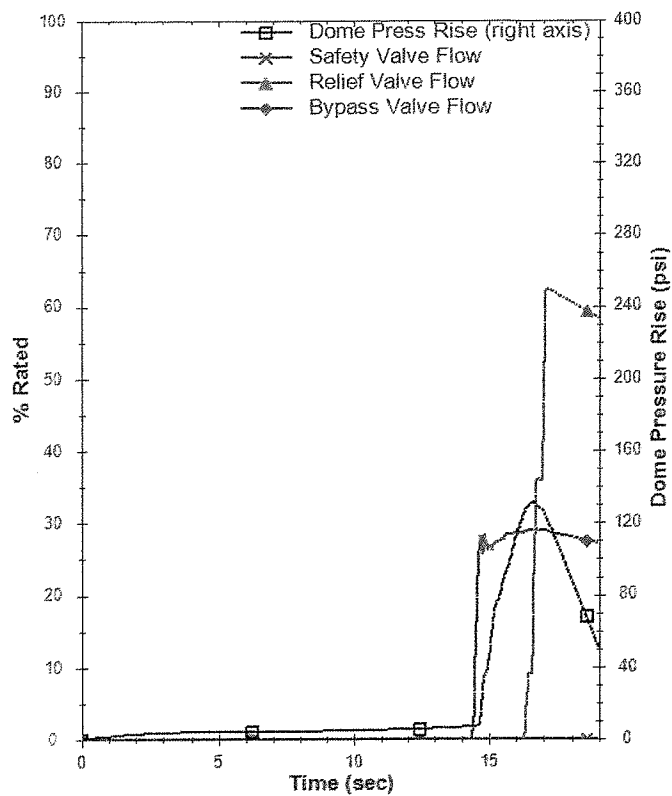
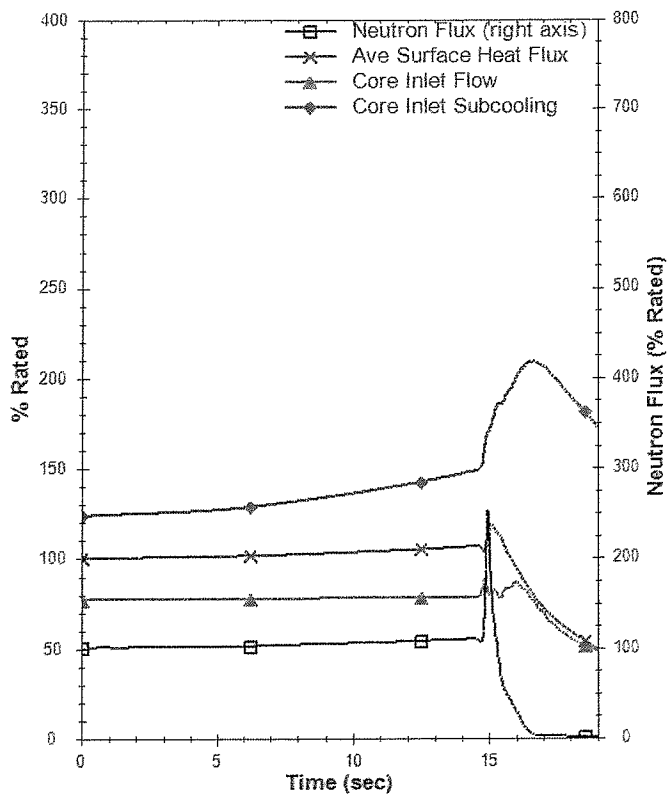
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 BOC to MOC1 : MELLA-HBB - 1 TBVOOS
 Figure XIV-5-18b 01/21/19



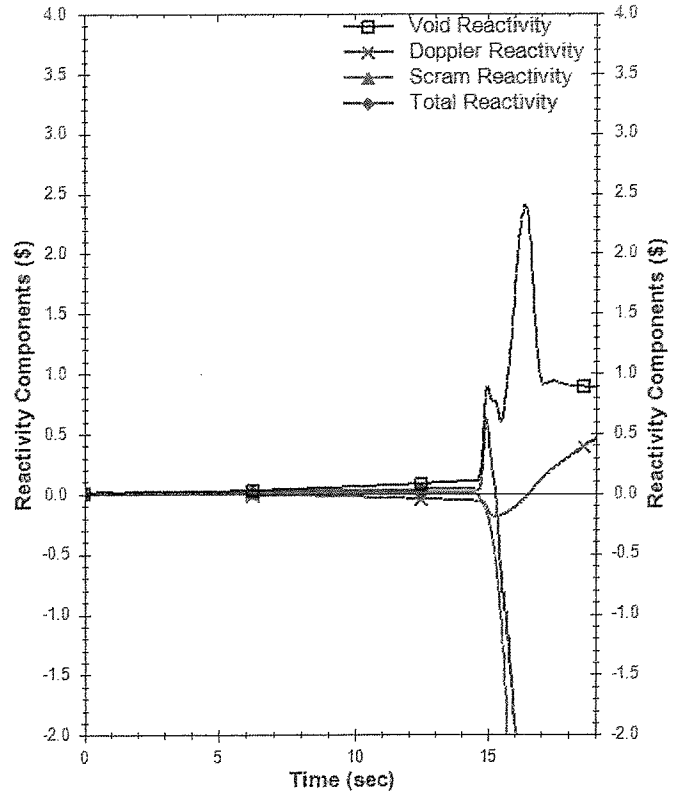
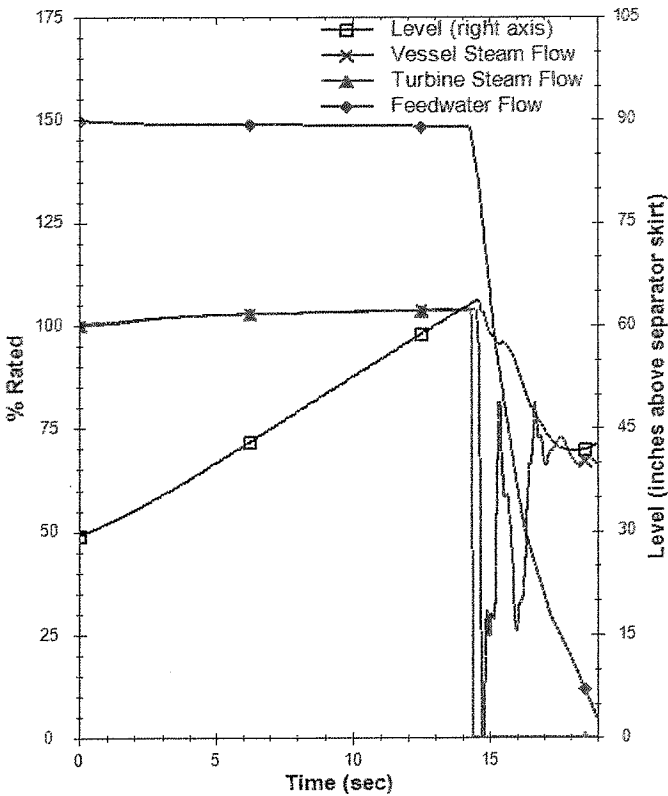
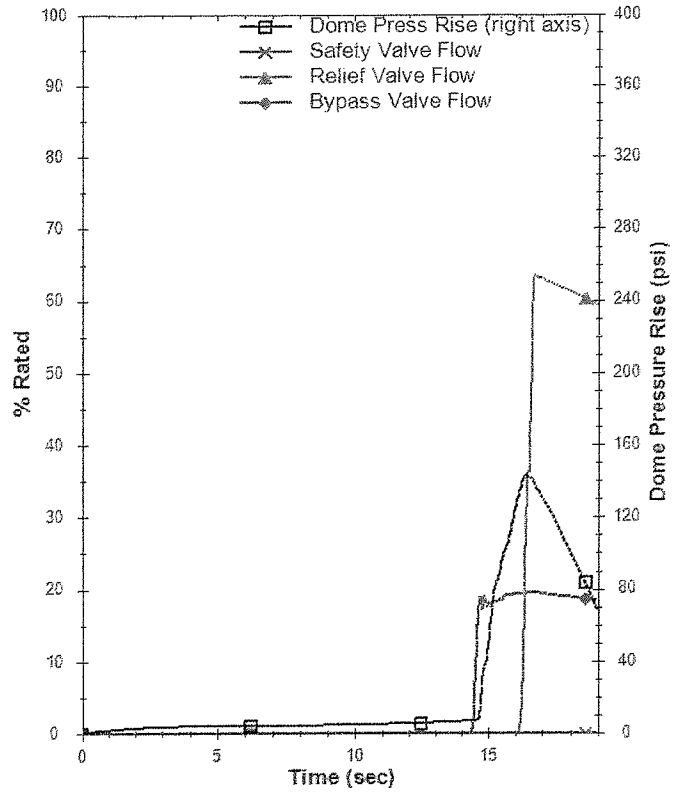
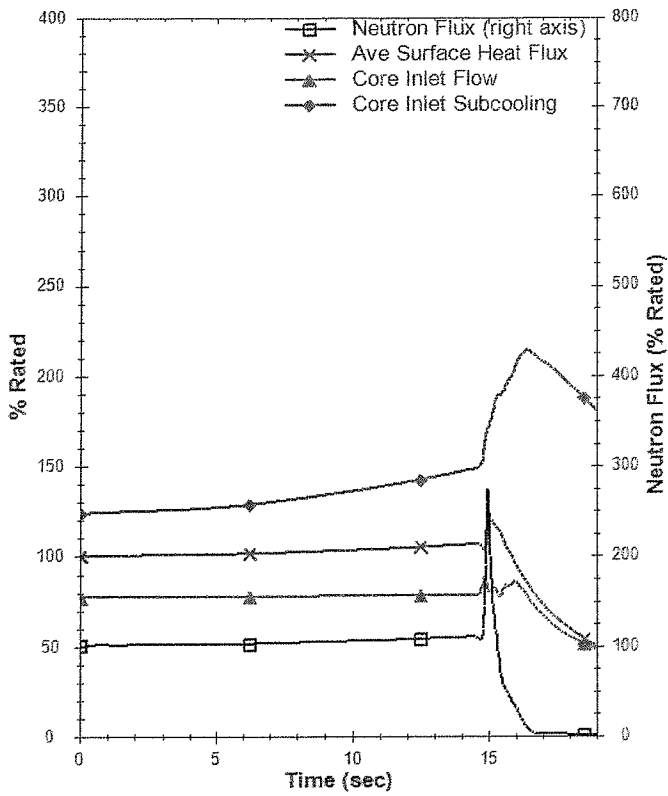
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 MOC1 to MOC2 : MELLLA-HBB
 Figure XIV-5-18c 01/21/19



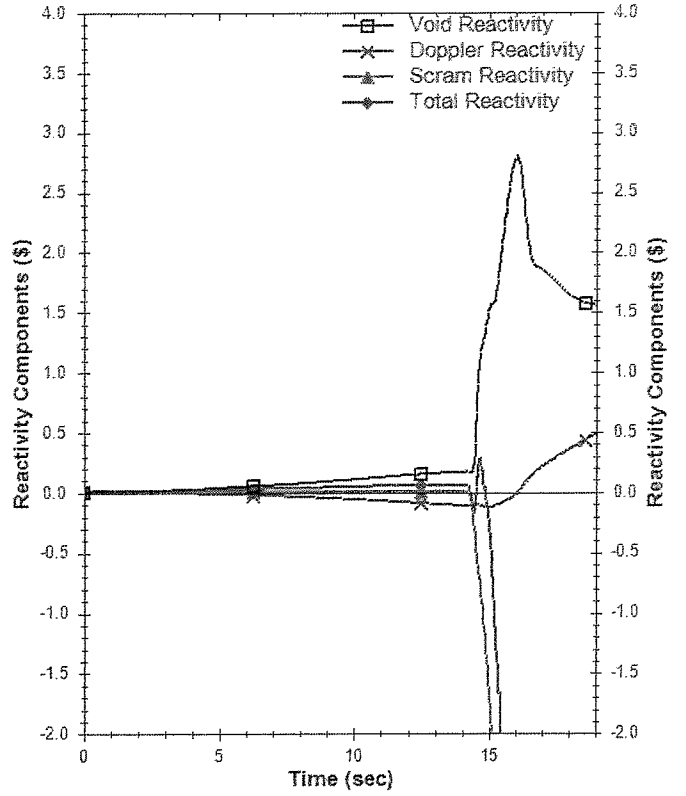
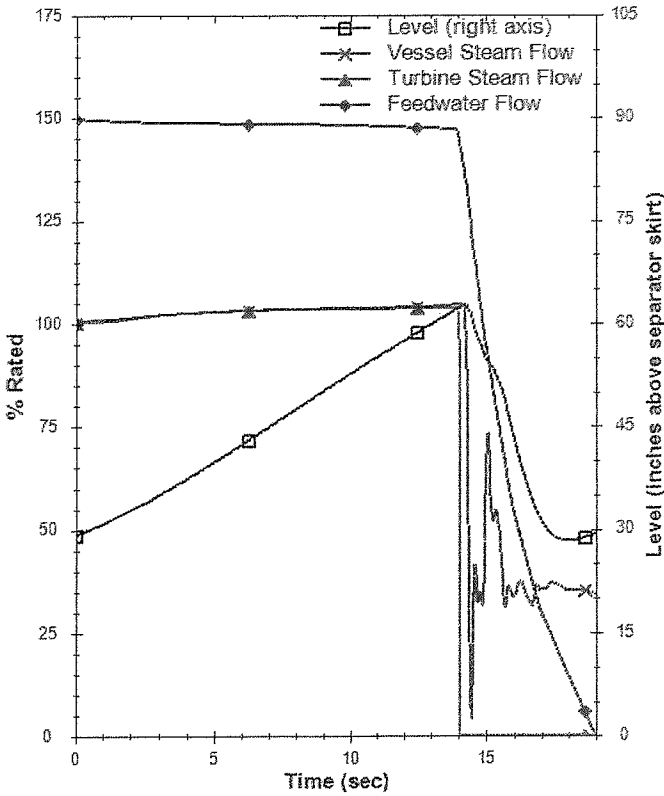
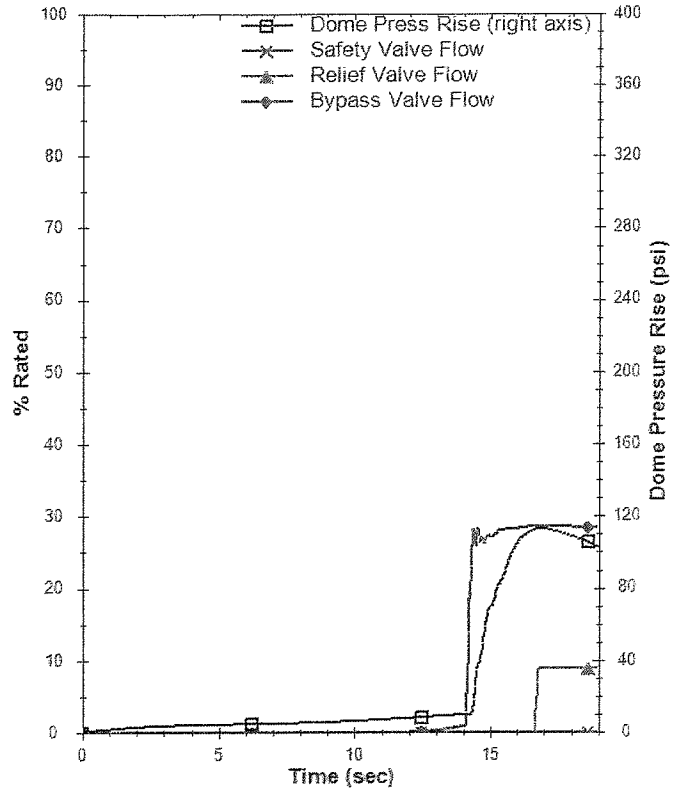
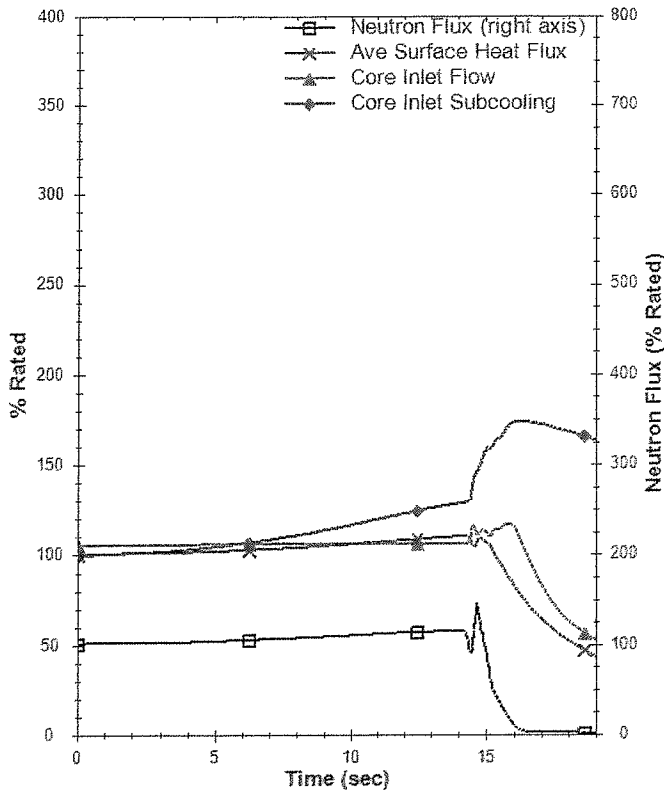
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 MOC2 to EOC : MELLA-HBB
 Figure XIV-5-18d 01/21/19



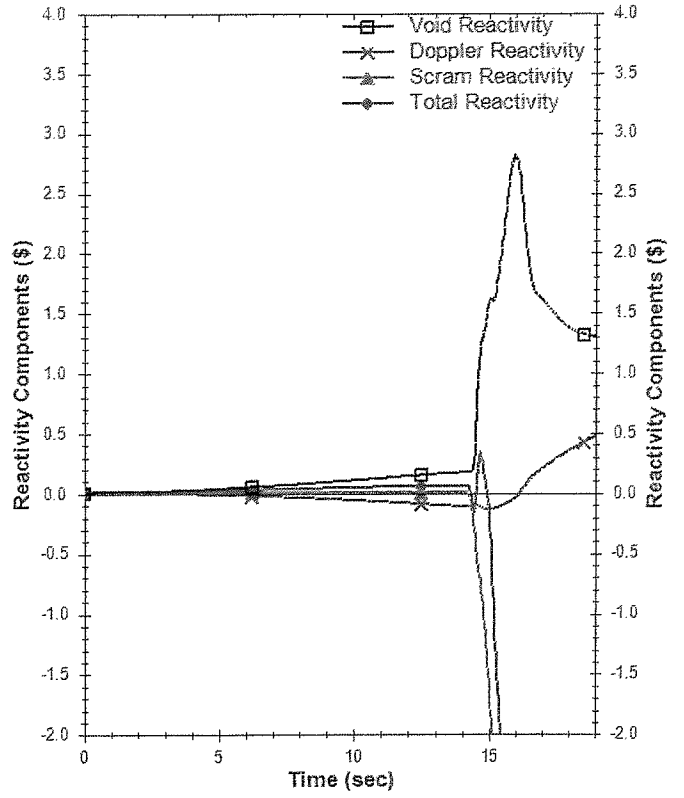
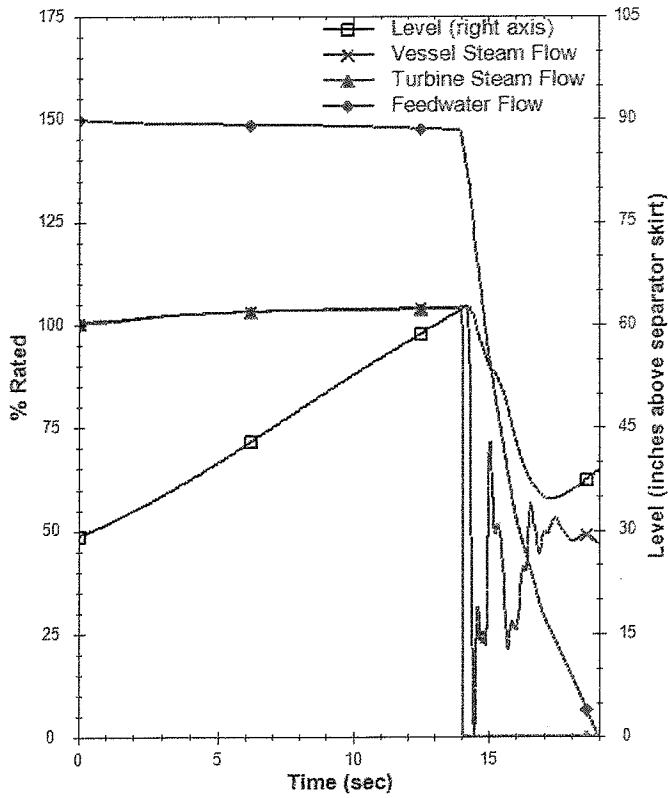
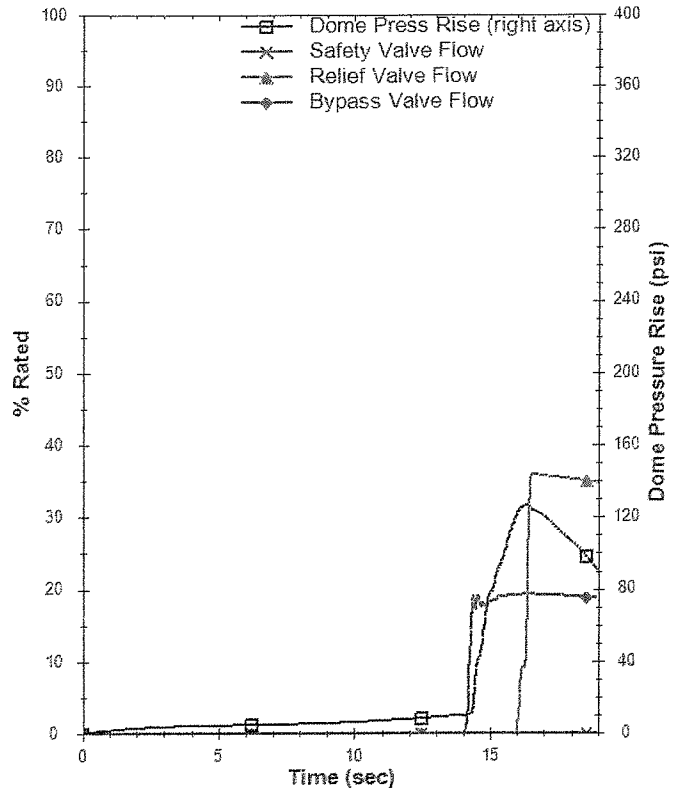
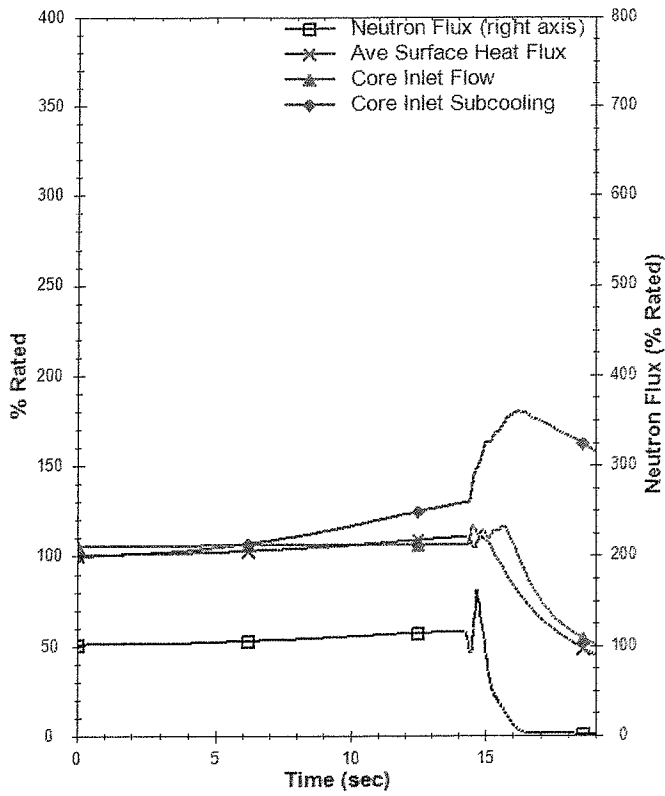
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 MOC1 to EOC : MELLA-HBB - 1 TBVOOS
 Figure XIV-5-18e 01/21/19



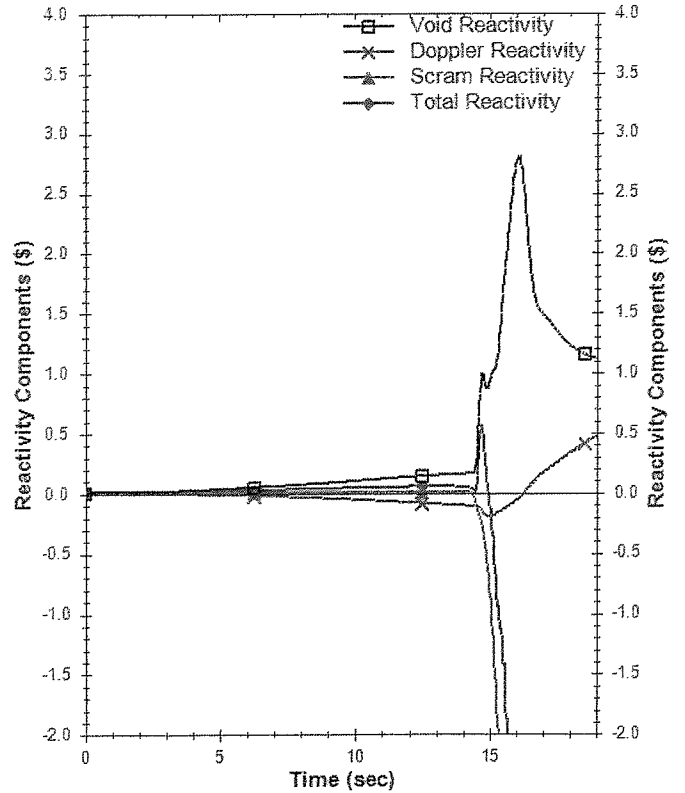
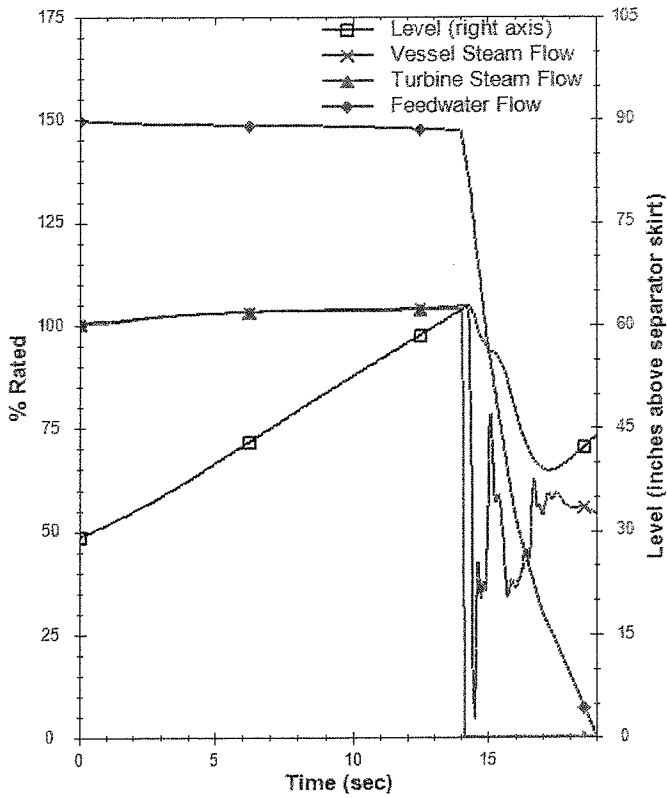
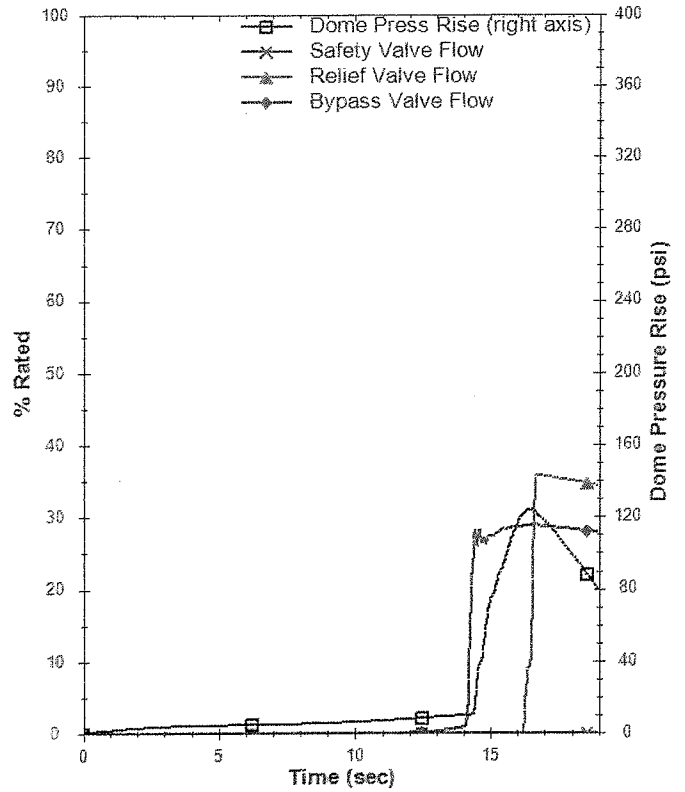
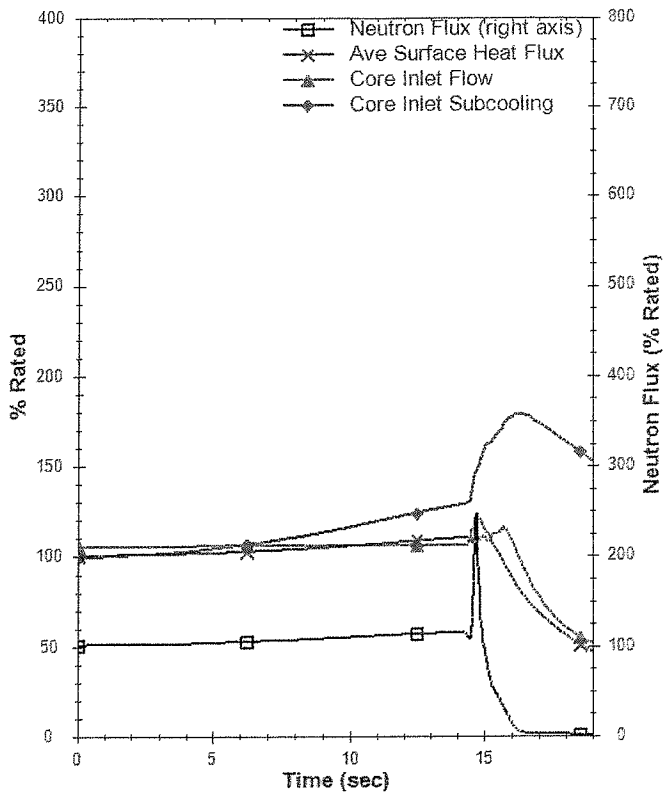
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 BOC to MOC1 : ICF-HBB
 Figure XIV-5-18f 01/21/19



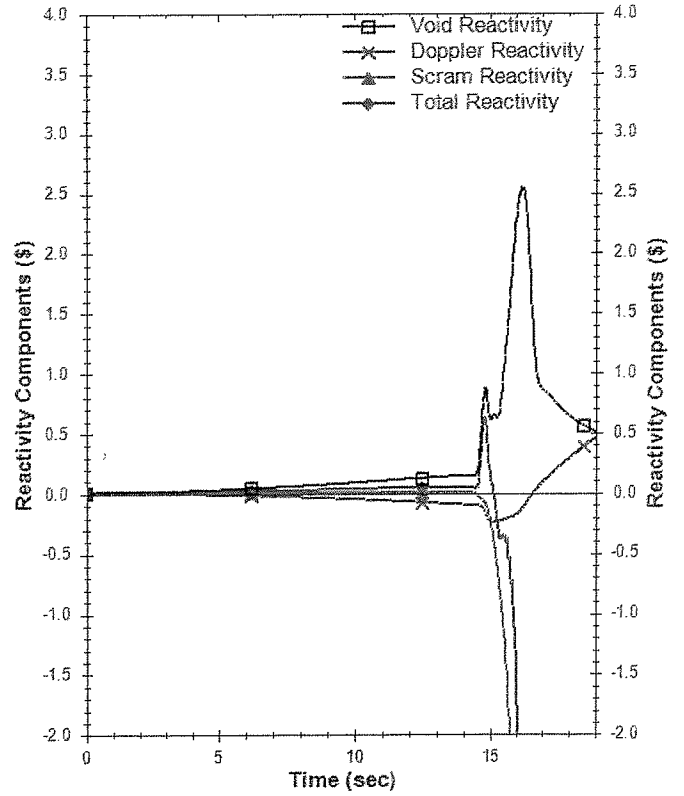
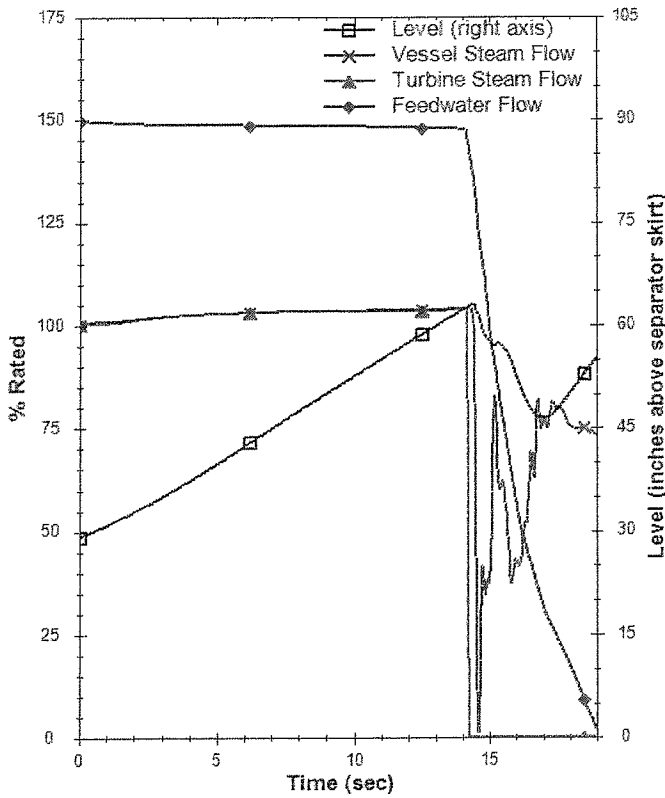
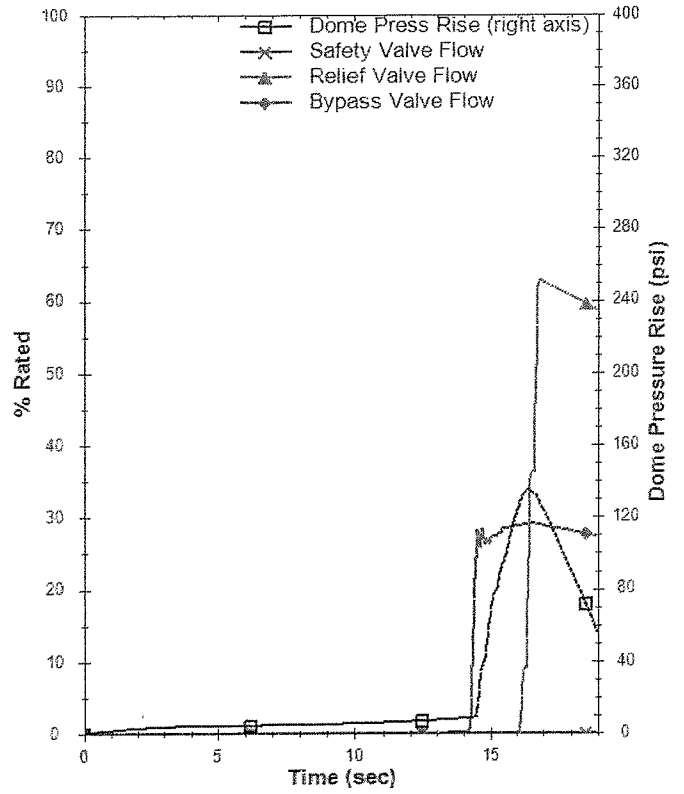
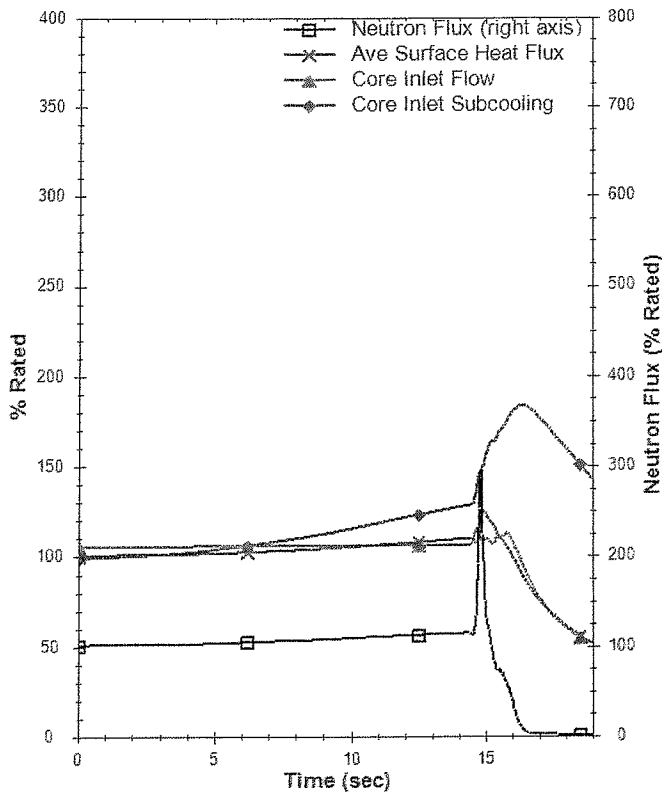
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 BOC to MOC1 : ICF-HBB - 1 TBVOOS
 Figure XIV-5-18g 01/21/19



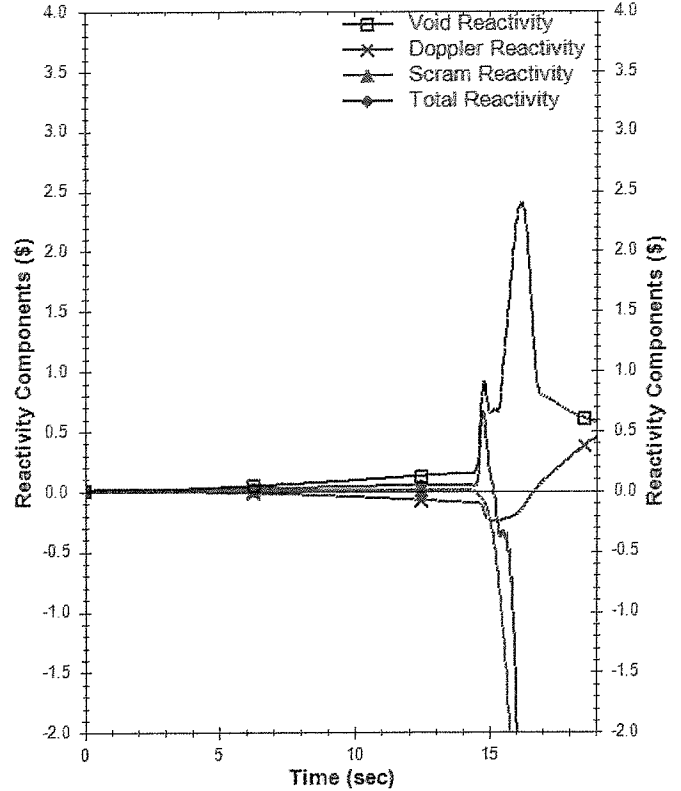
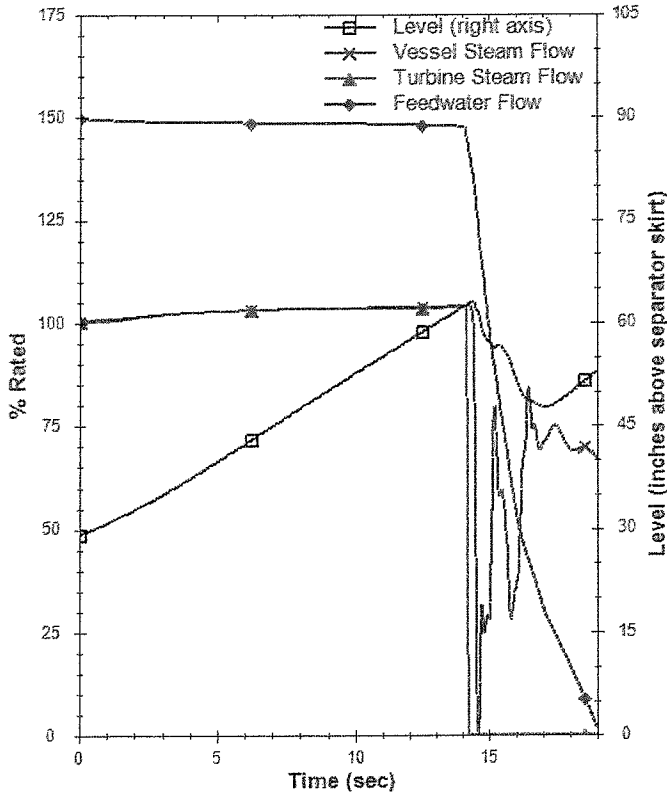
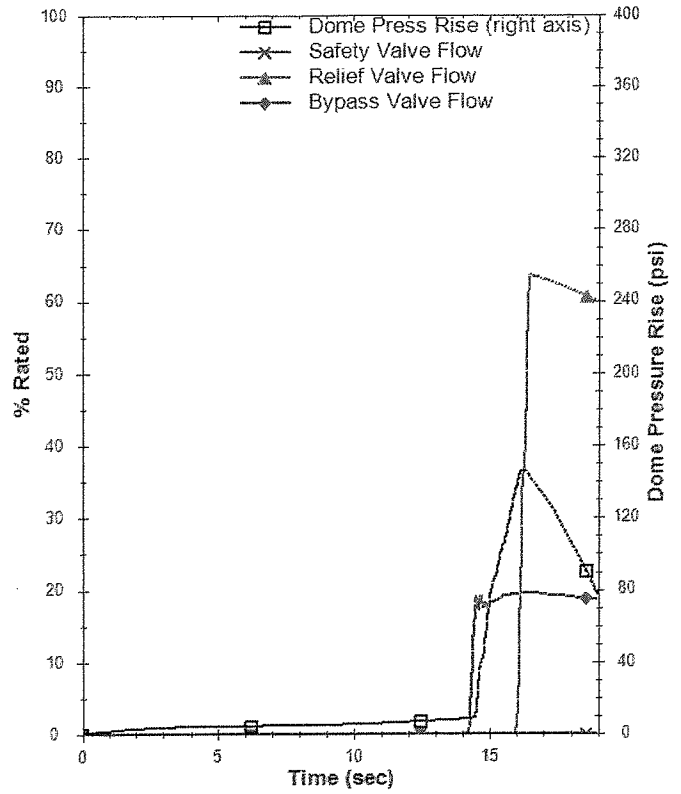
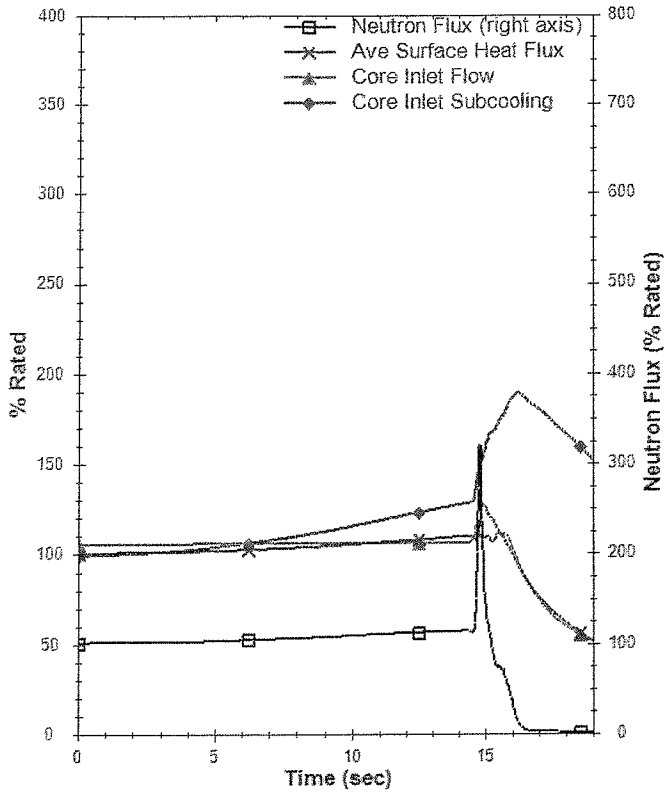
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 MOC1 to MOC2 : ICF-HBB
 Figure XIV-5-18h 01/21/19



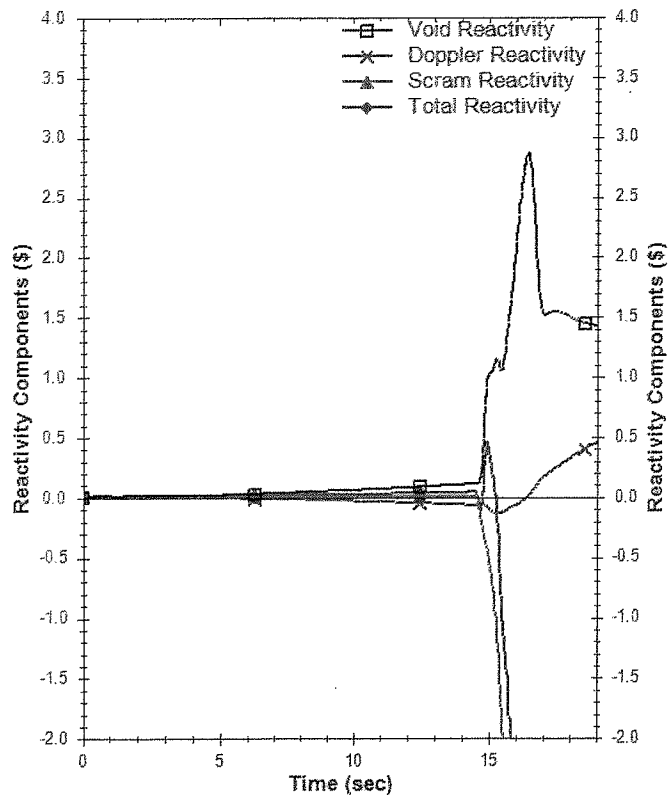
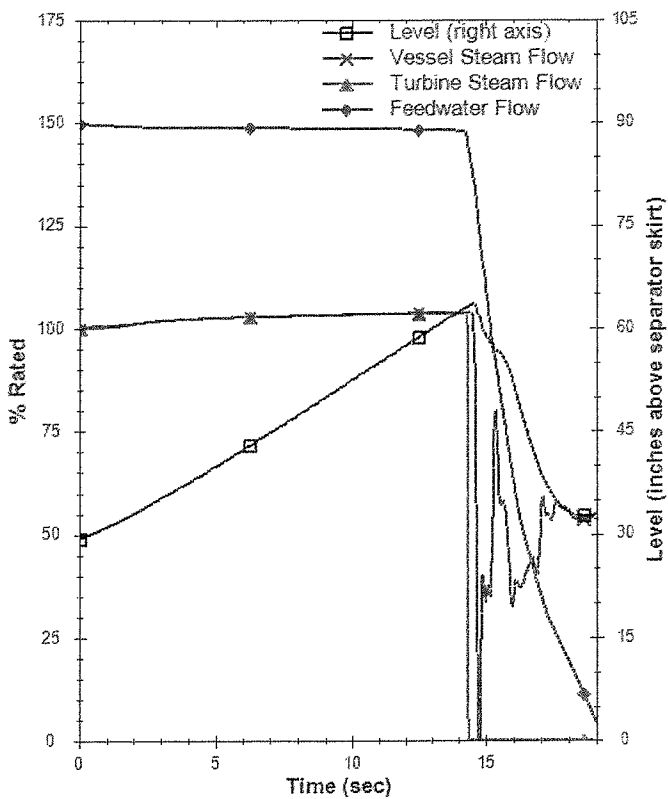
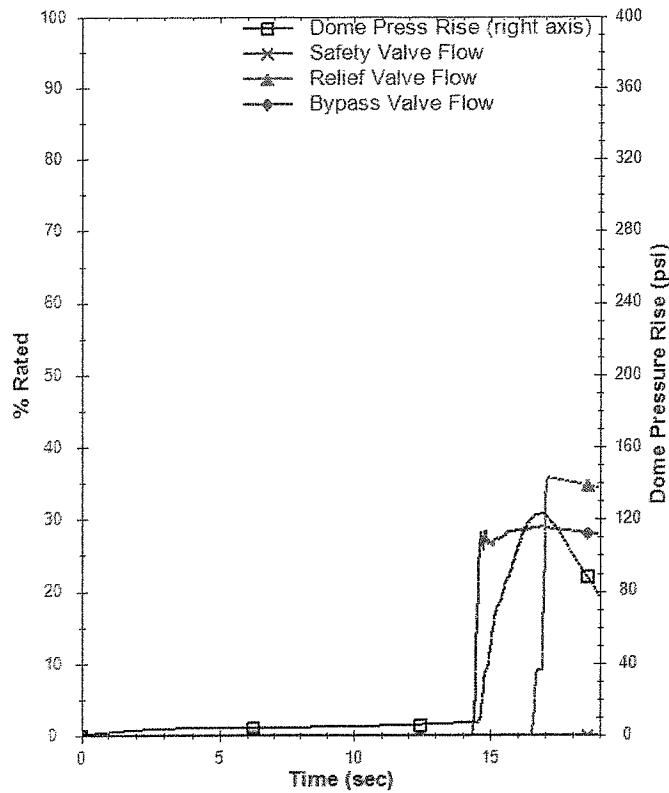
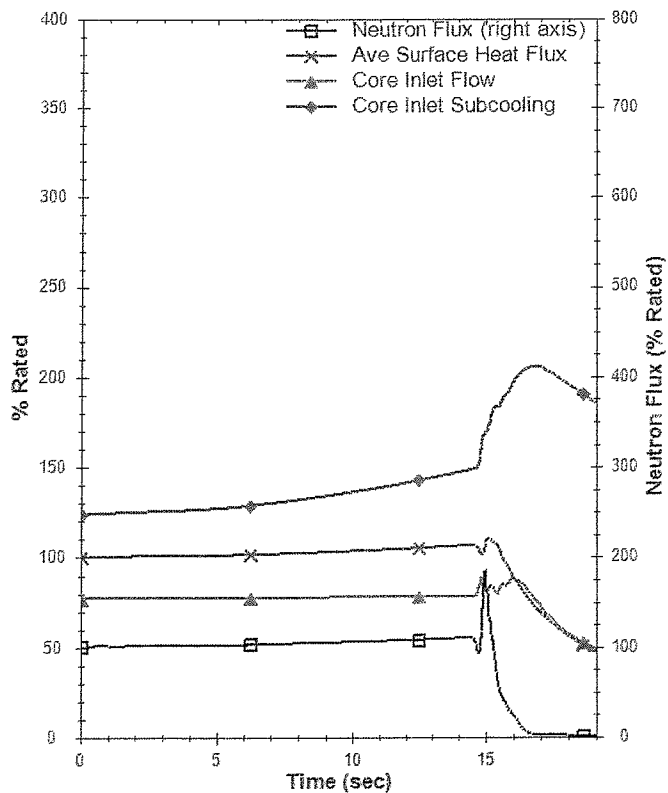
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 MOC2 to EOC : ICF-HBB
 Figure XIV-5-18i 01/21/19



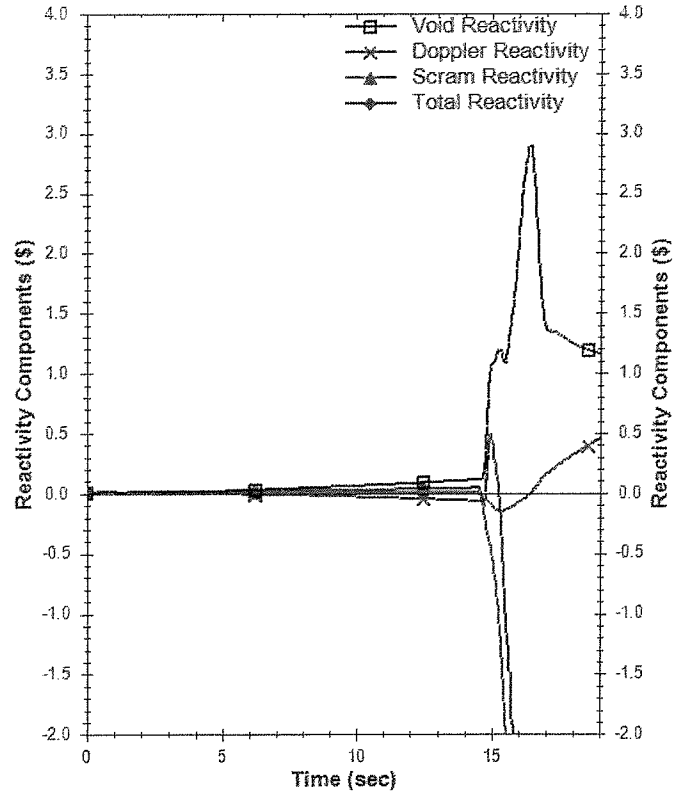
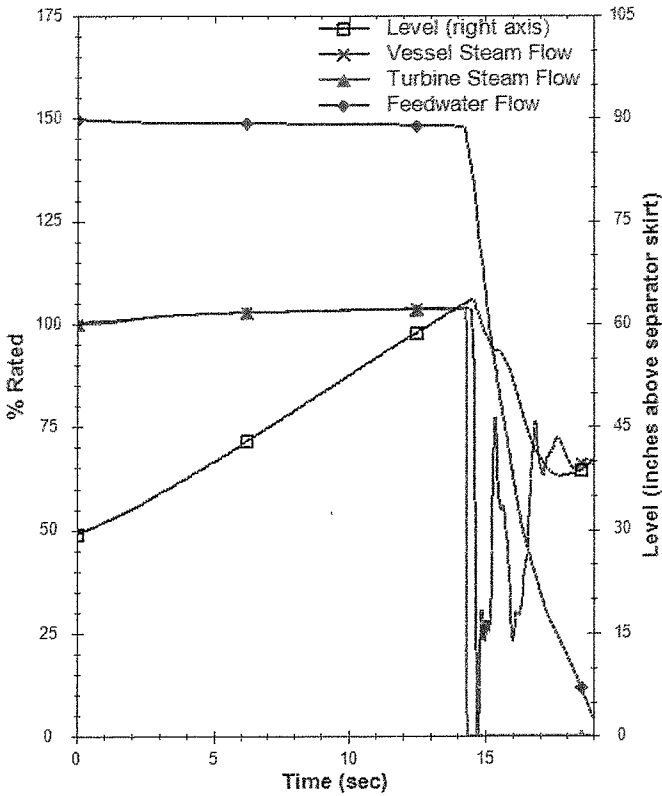
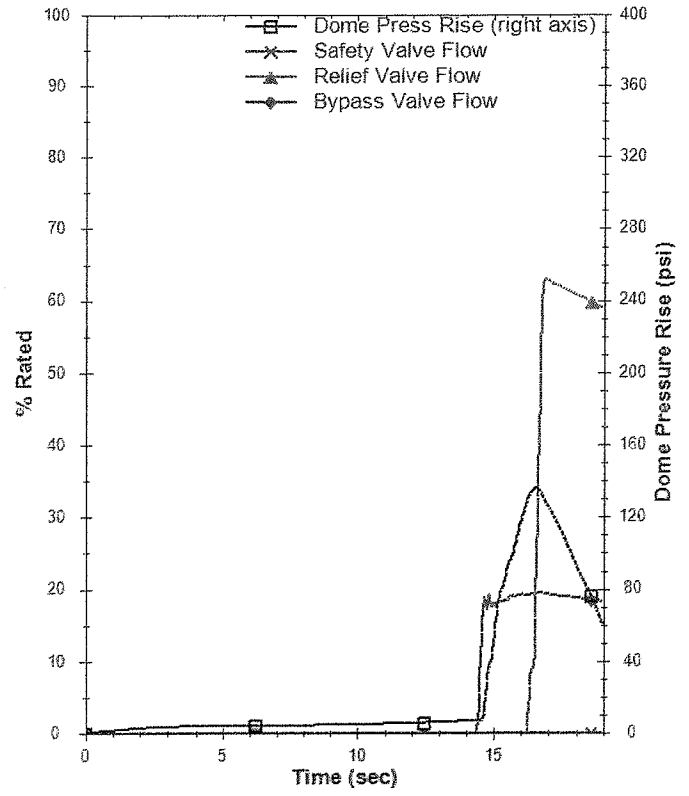
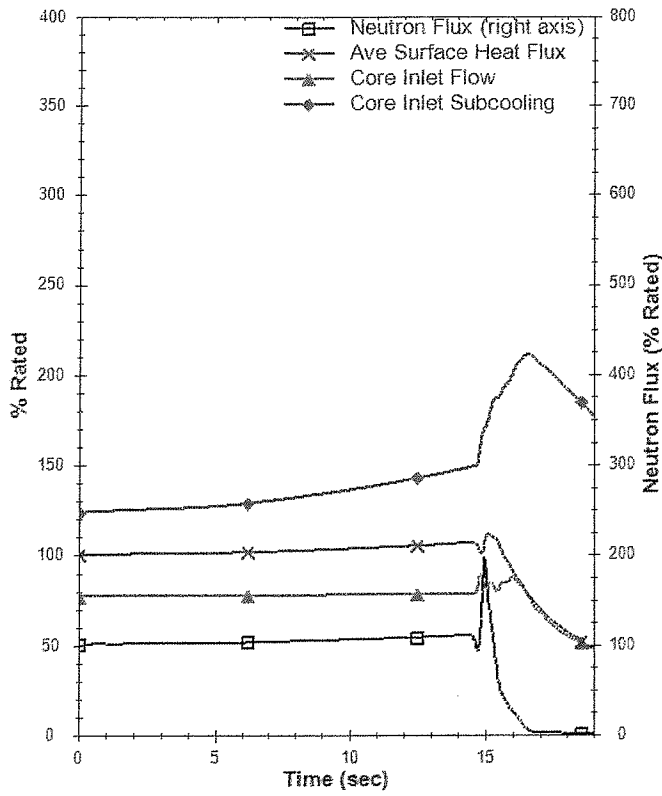
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 MOC1 to EOC : ICF-HBB - 1 TBVOOS
 Figure XIV-5-18j 01/21/19



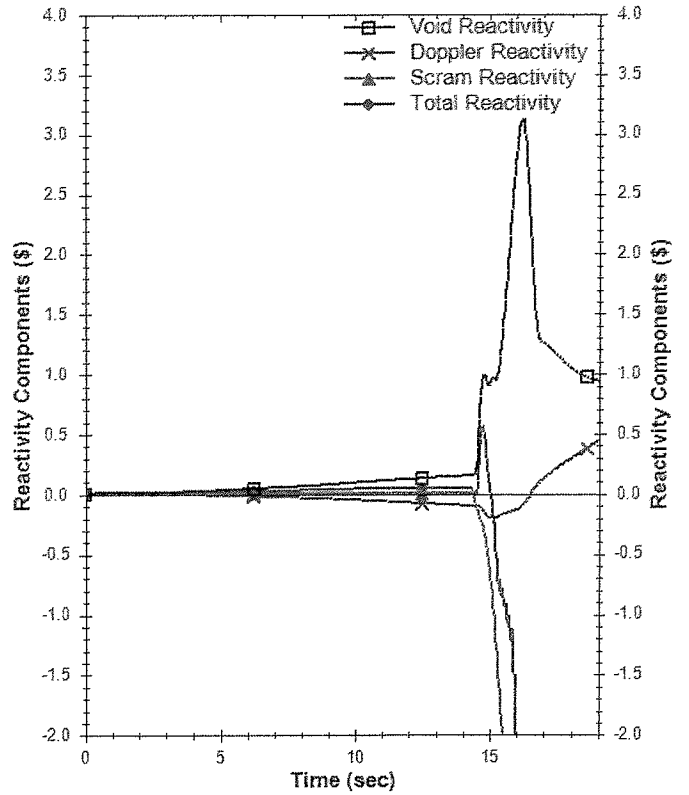
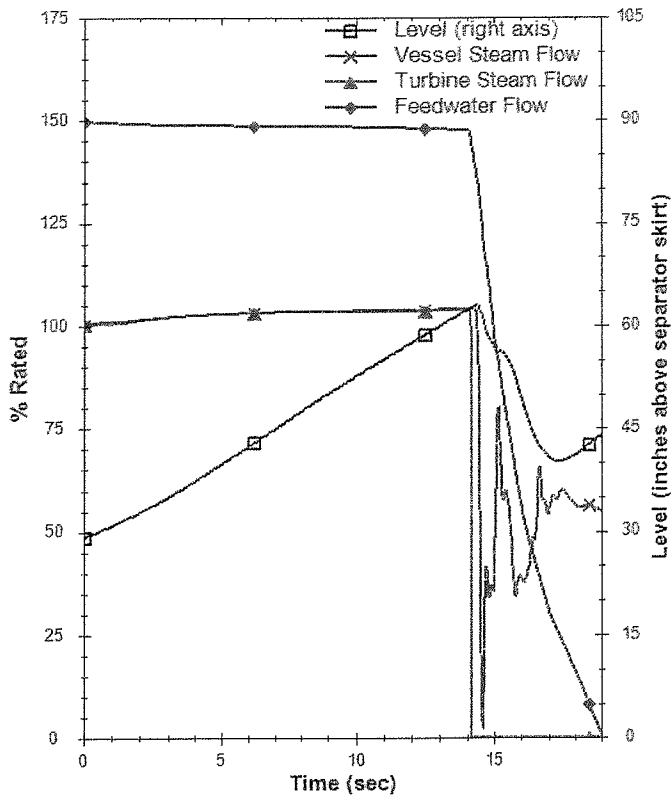
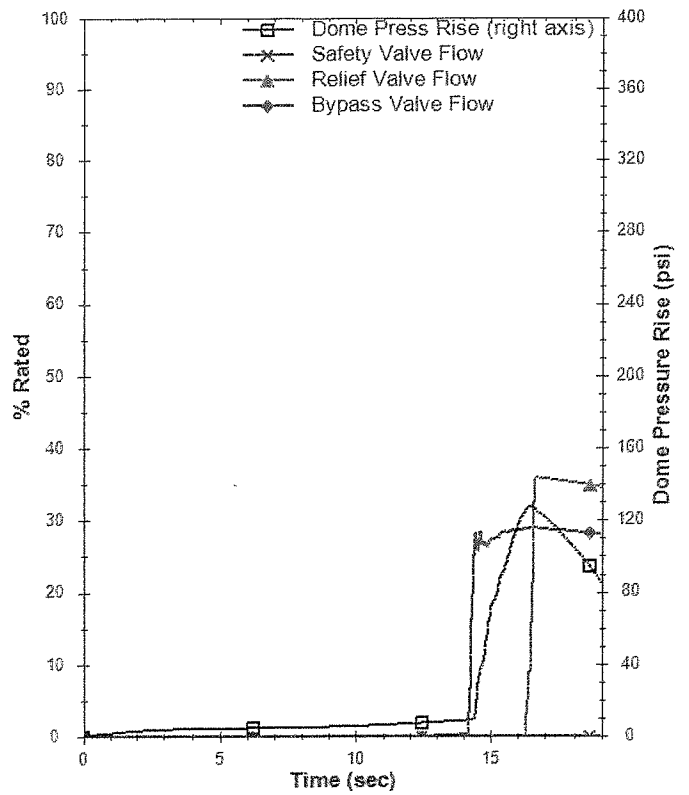
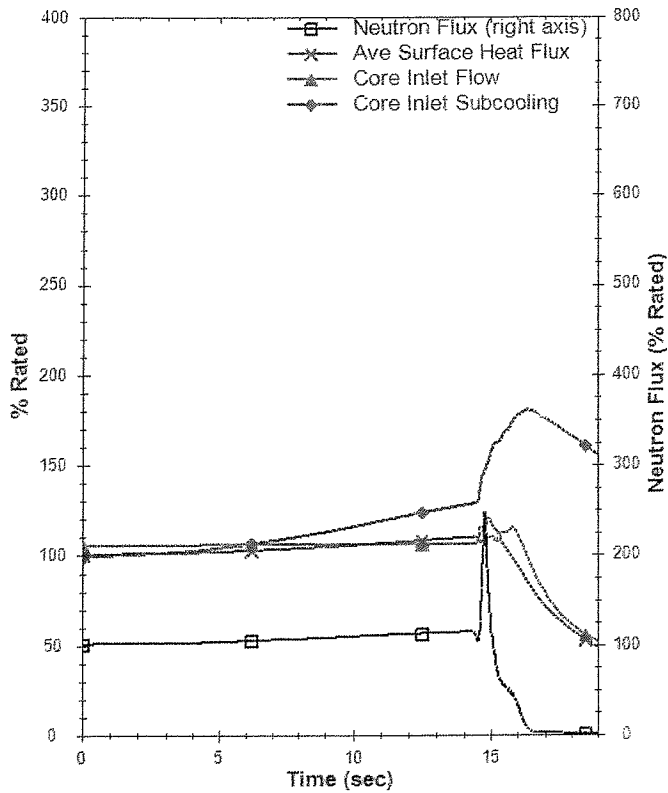
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 EOC : MELLA-UB
 Figure XIV-5-18k 01/21/19



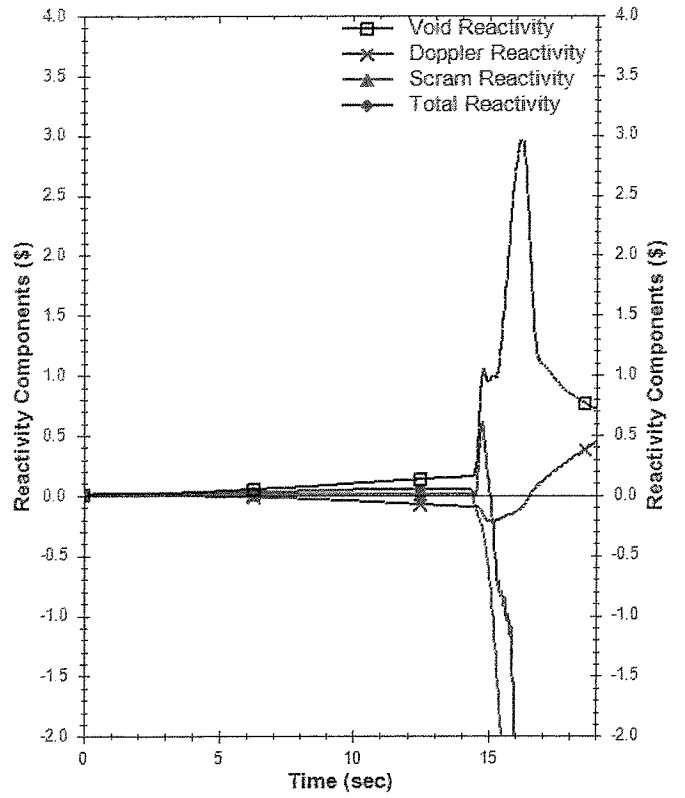
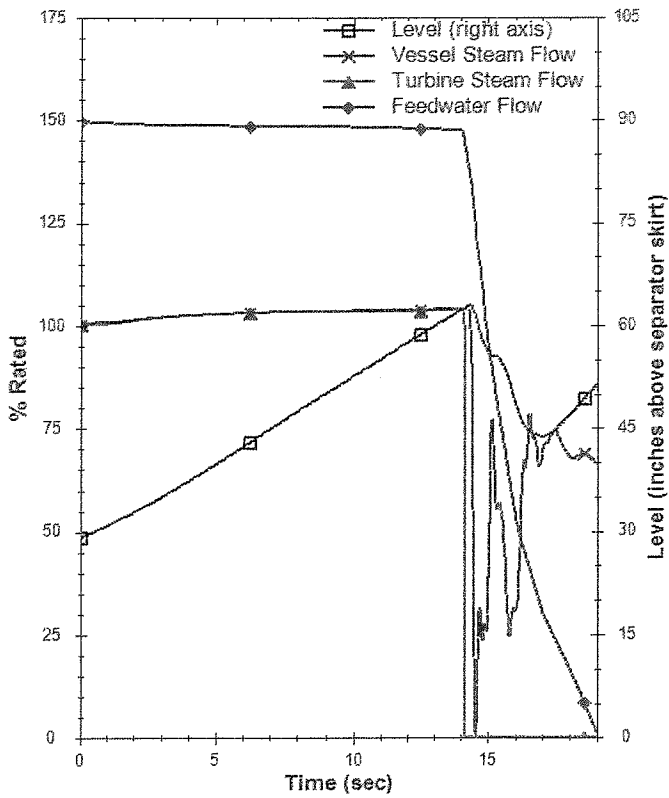
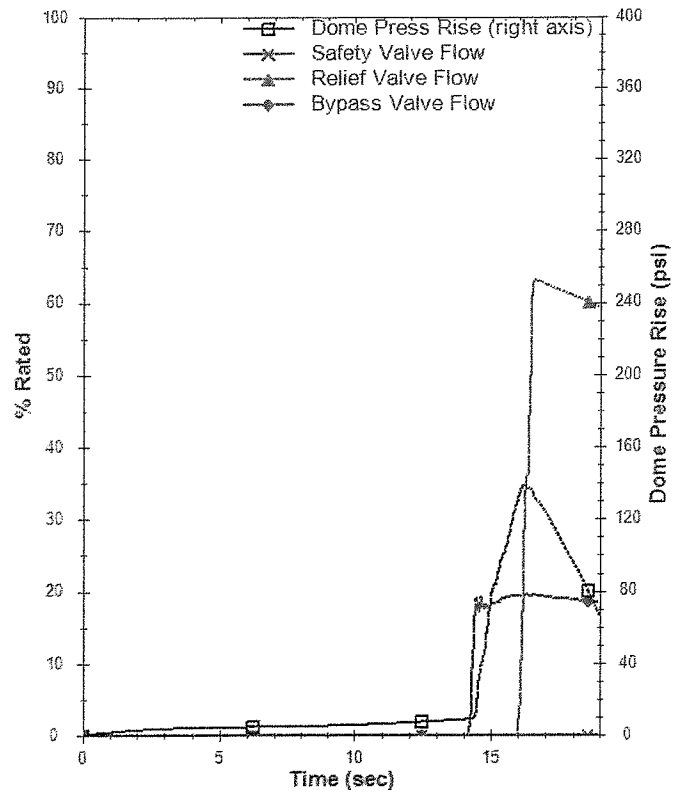
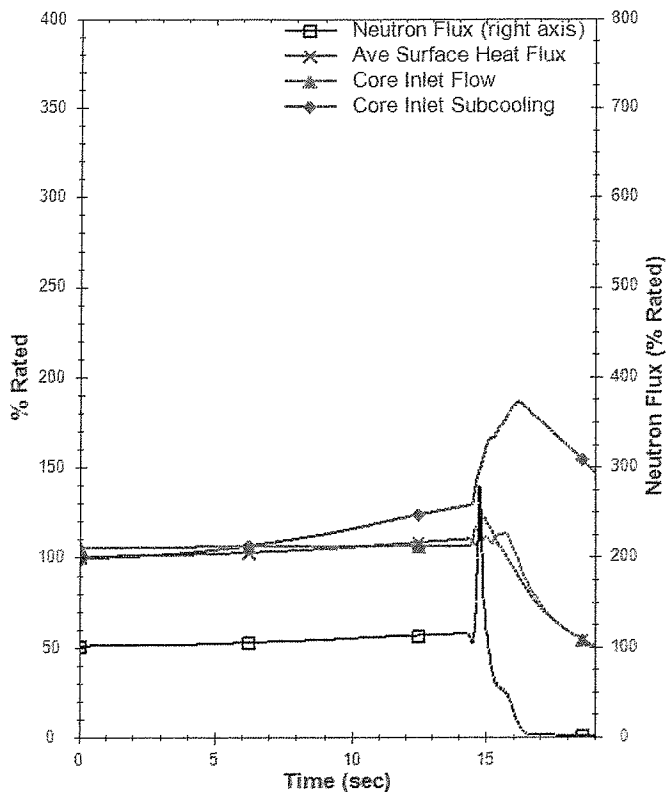
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 EOC : MELLA-UB - 1 TBVOOS
 Figure XIV-5-181 01/21/19



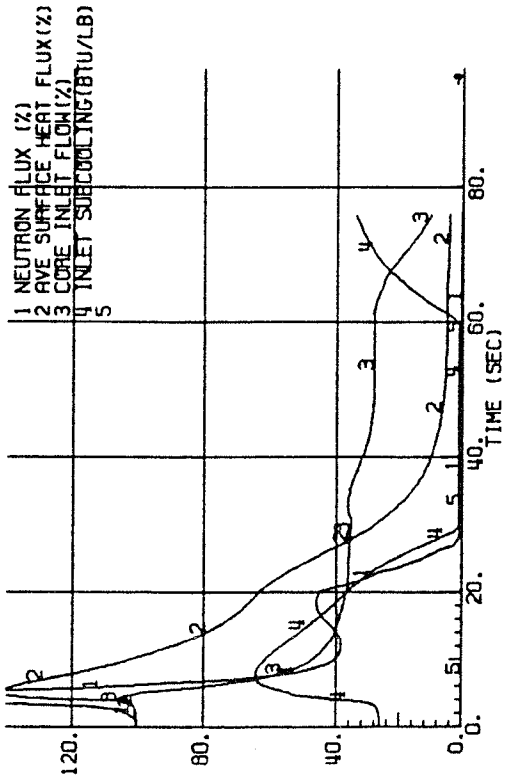
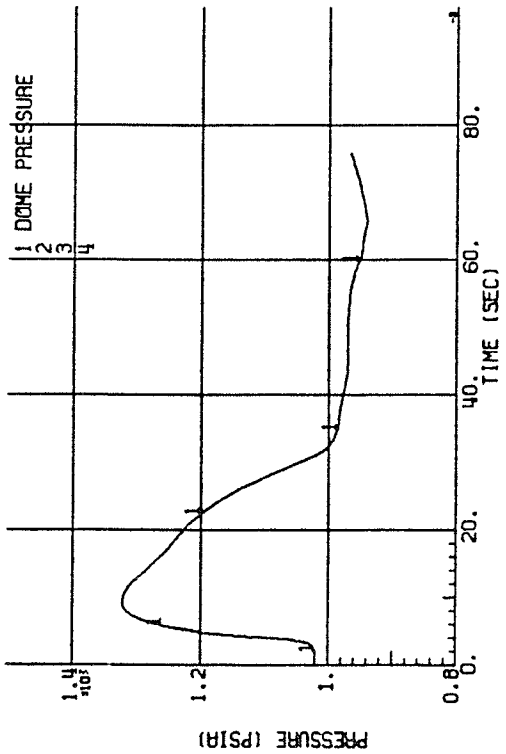
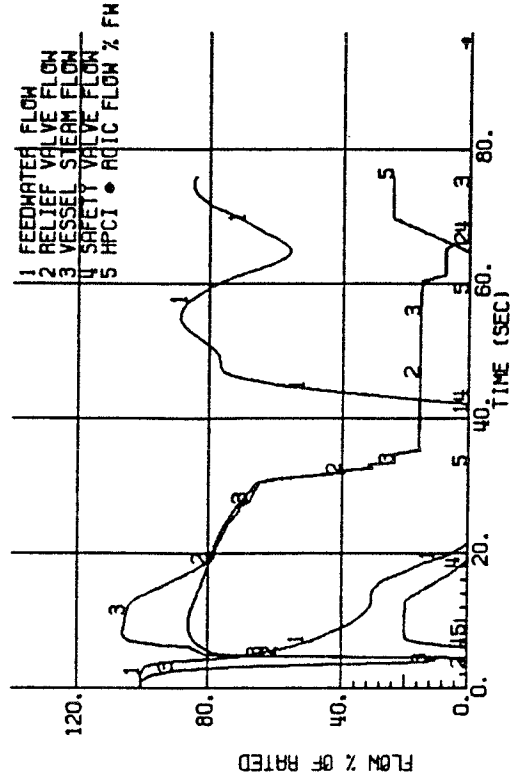
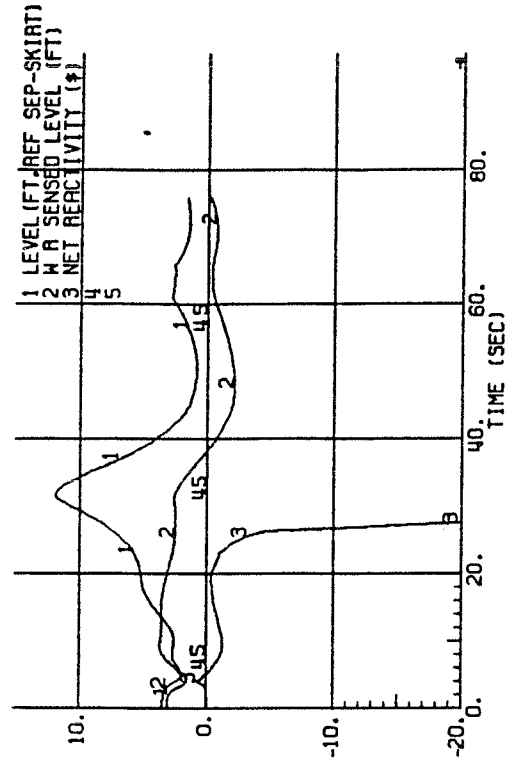
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Feedwater Controller Failure - Maximum demand
 EOC : ICF-UB
 Figure XIV-5-18m 01/21/19

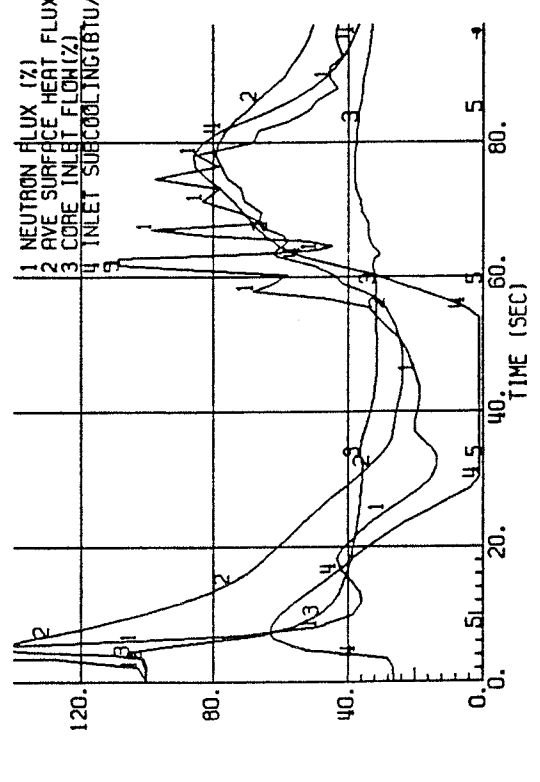
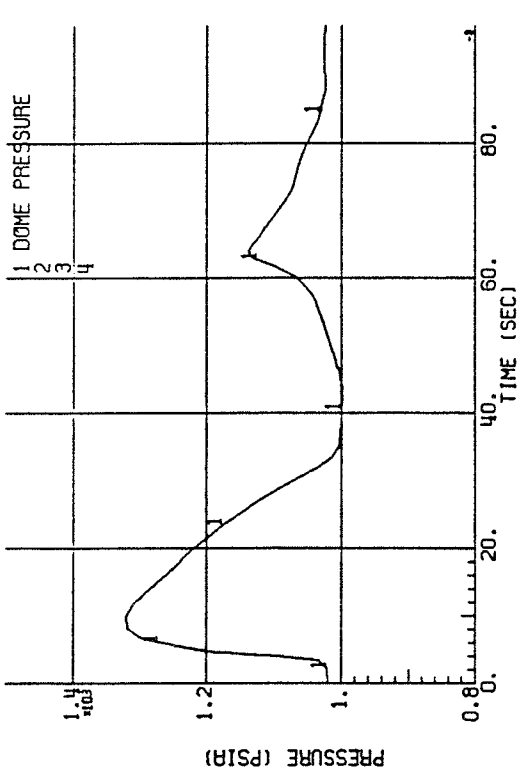
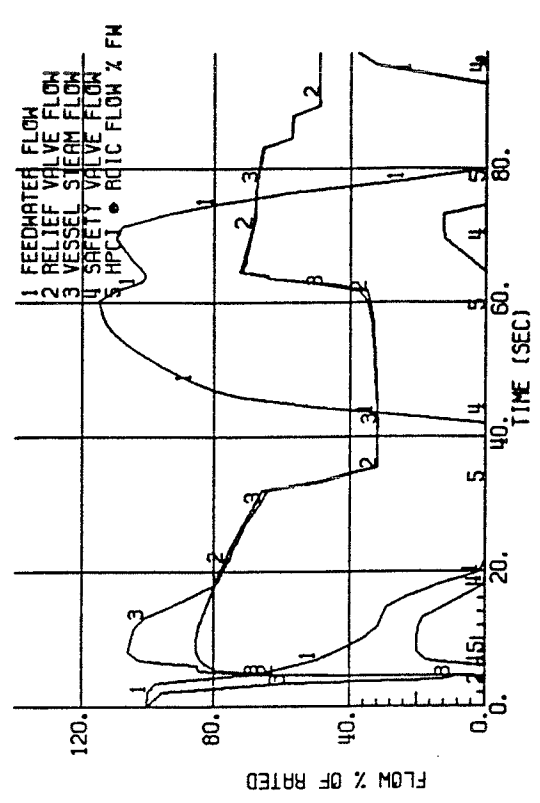
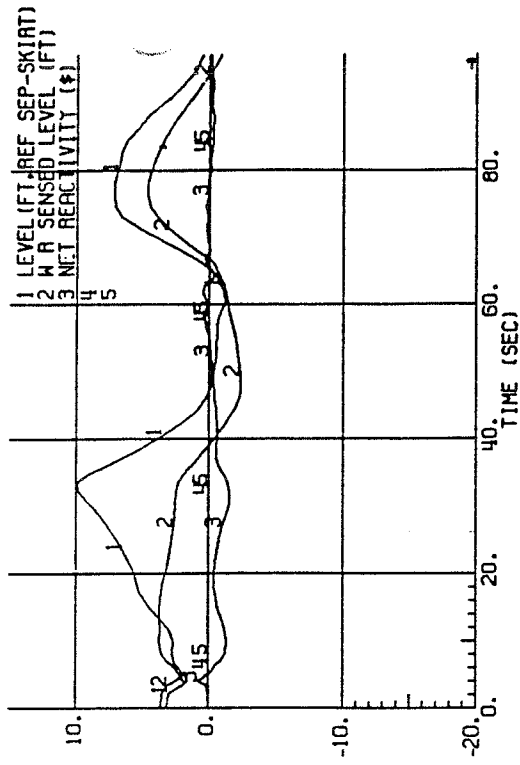


Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

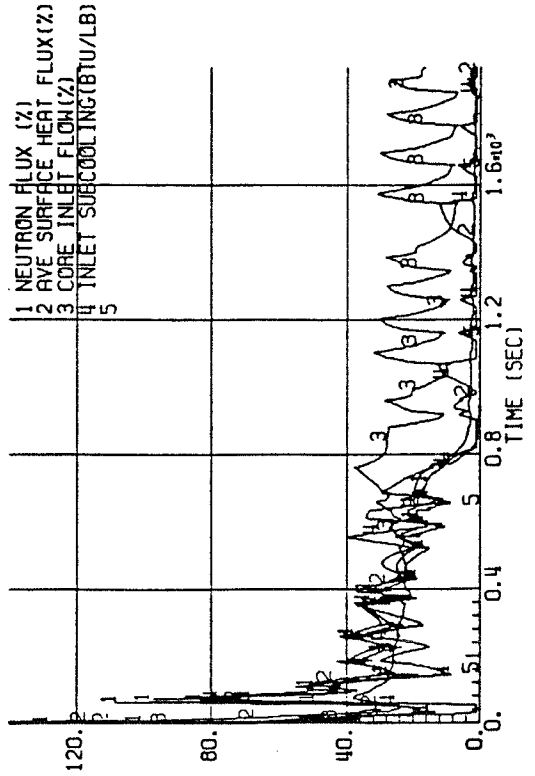
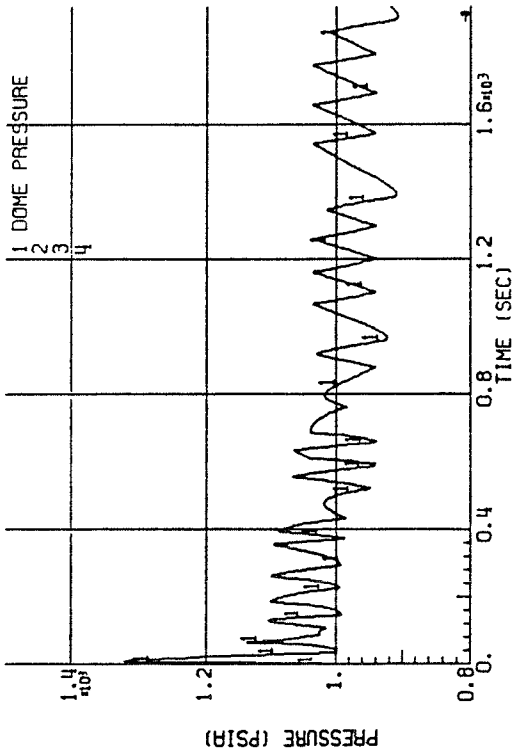
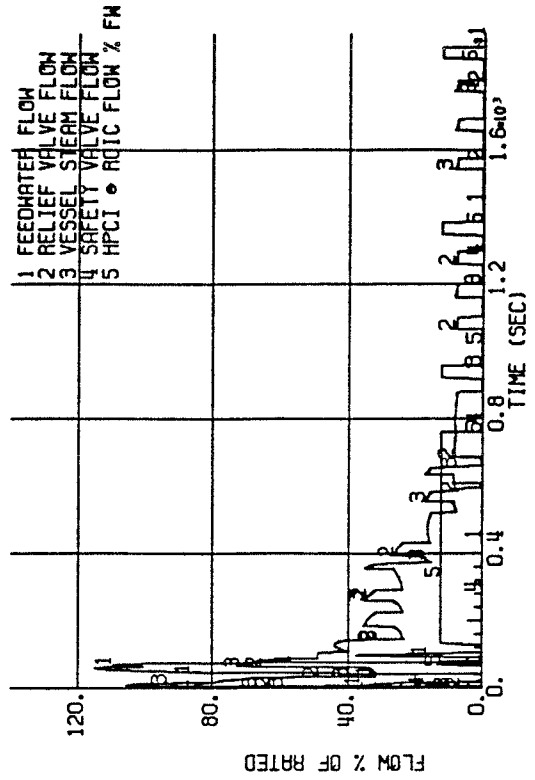
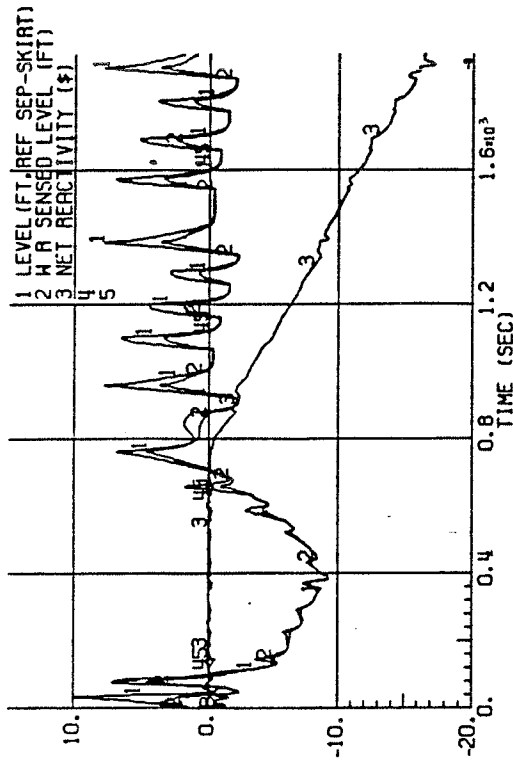
Feedwater Controller Failure - Maximum demand
 EOC : ICF-UB - 1 TBVOOS
 Figure XIV-5-18n 01/21/19



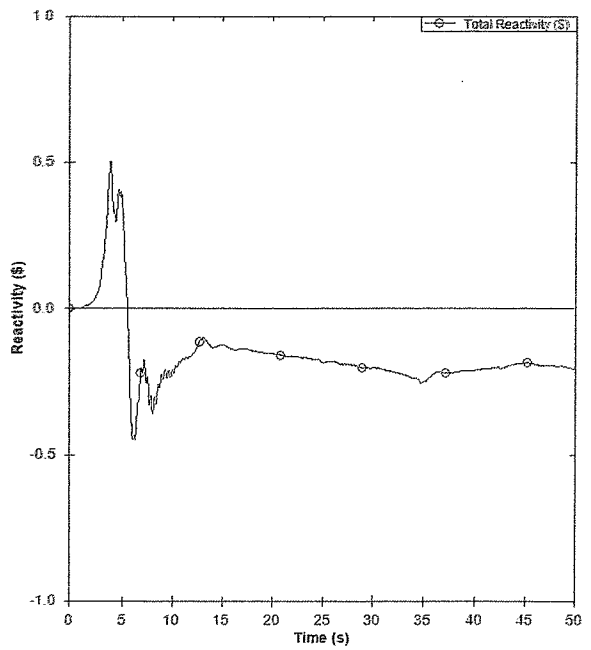
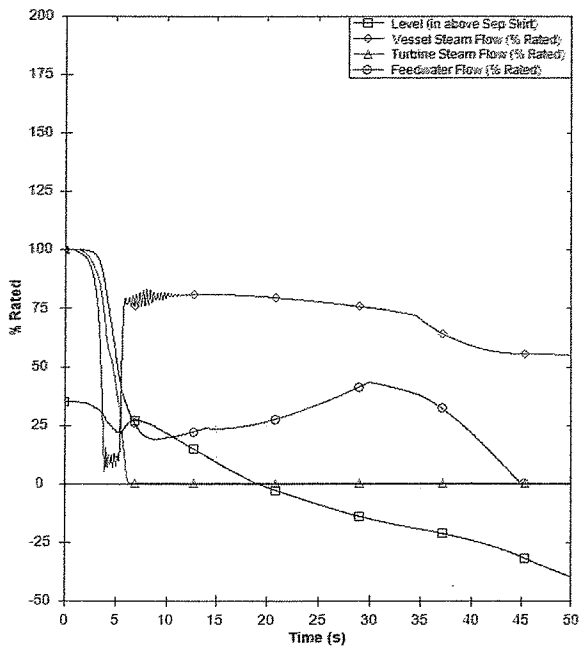
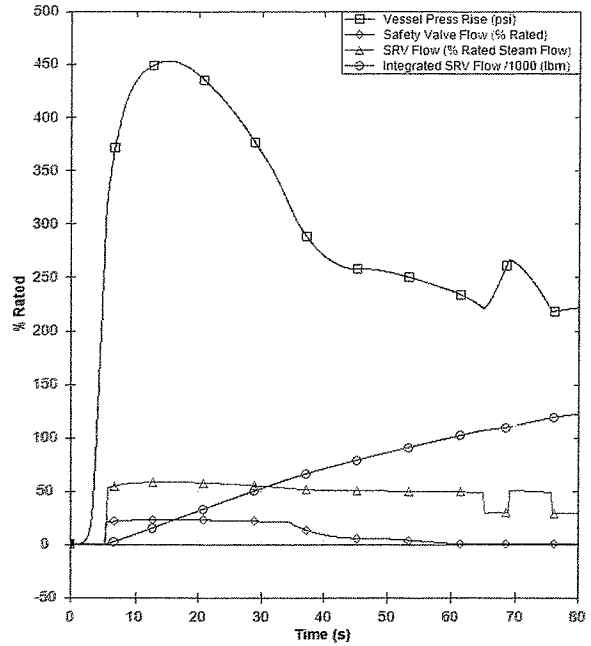
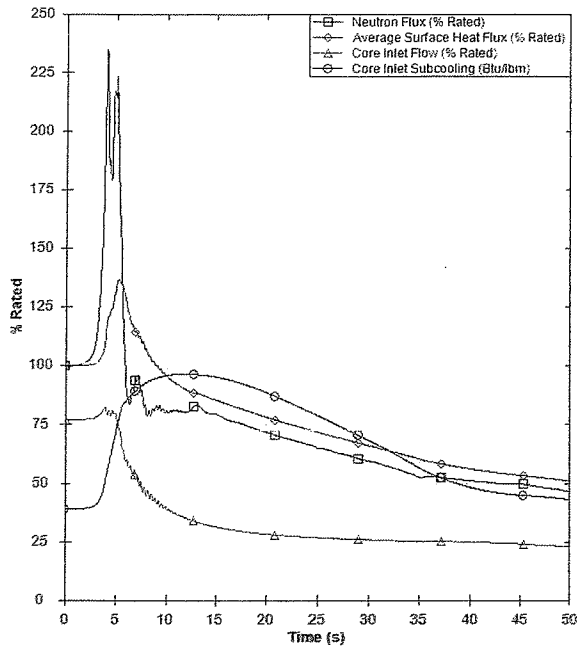
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)
ATWS - MSIV Closure - with ARI
Figure XIV-5-19
07/22/96



Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 ATWS - MSIV Closure - No ARI
 (First 100 Seconds)
 Figure XIV-5-20
 07/22/96

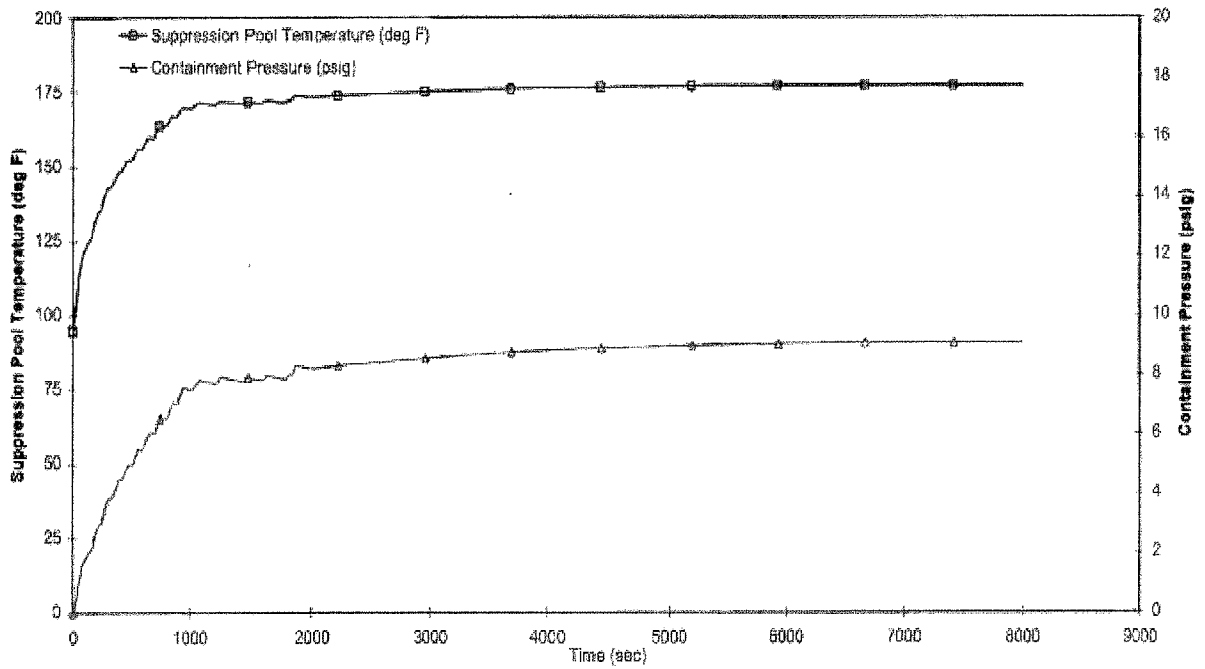
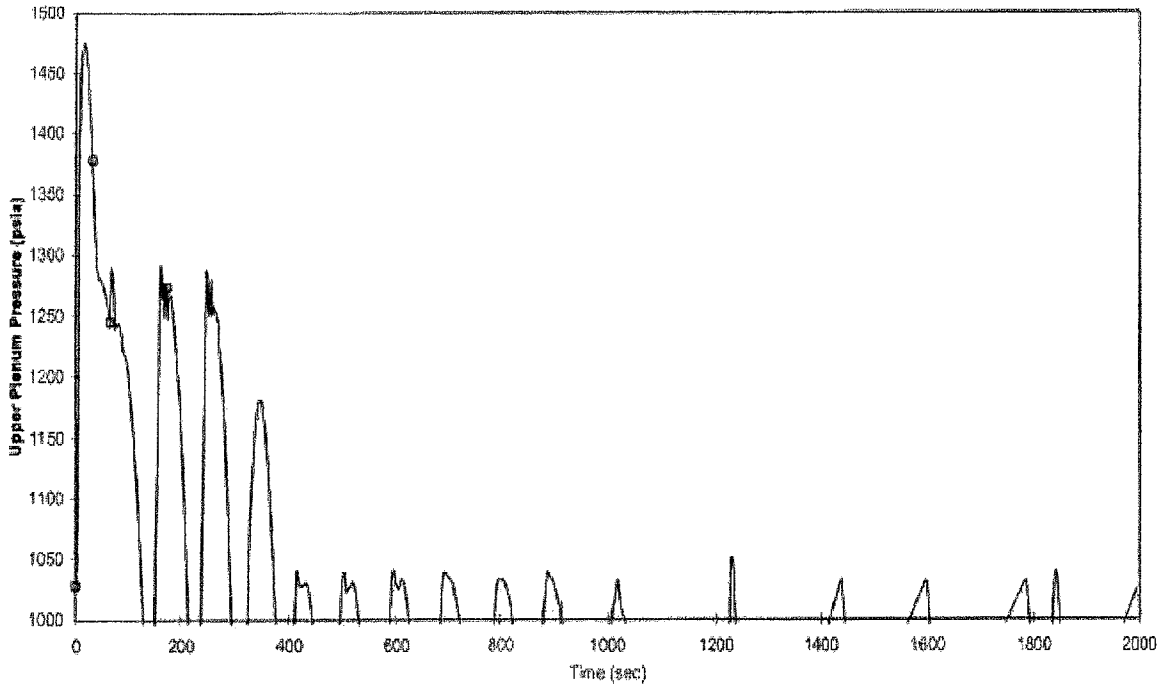


Nebraska Public Power District
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 UPDATED SAFETY ANALYSIS REPORT (USAR)
 ATWS - MSIV Closure - No ARI
 (Long Term Response)
 Figure XIV-5-21
 07/22/96



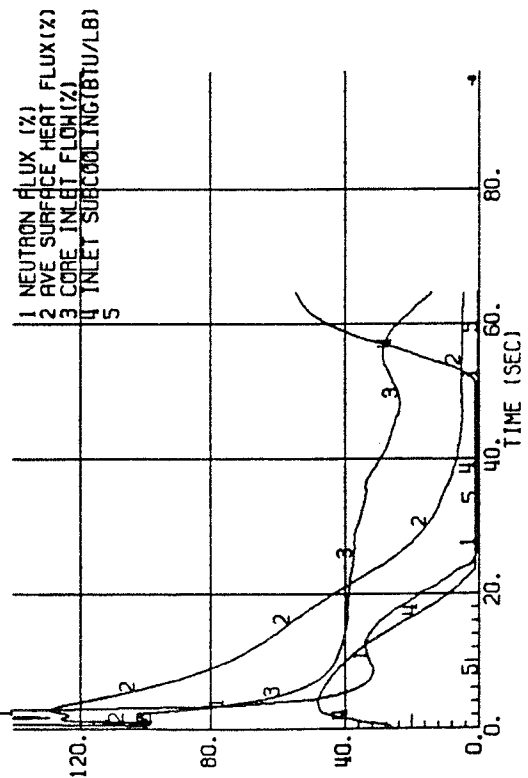
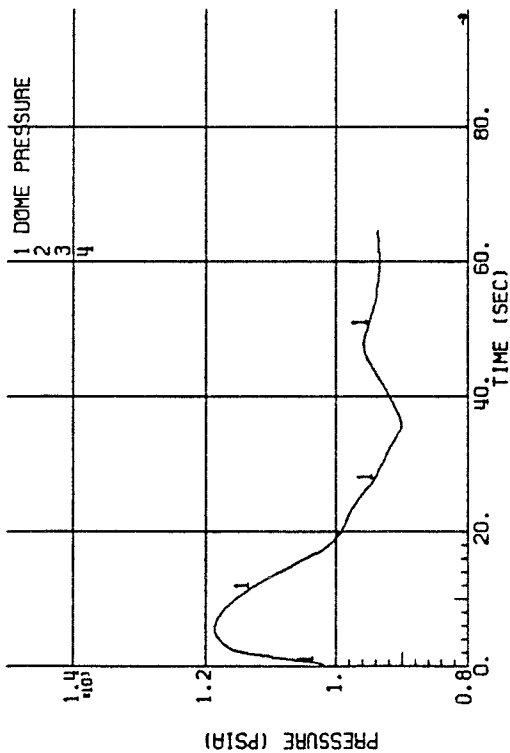
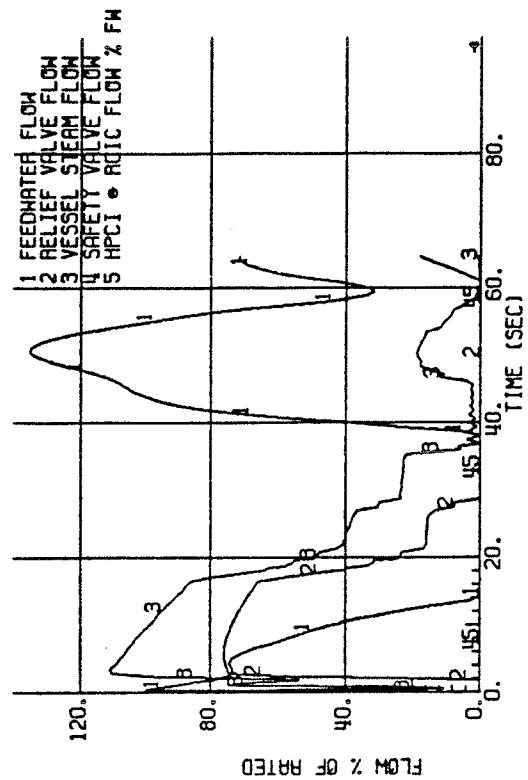
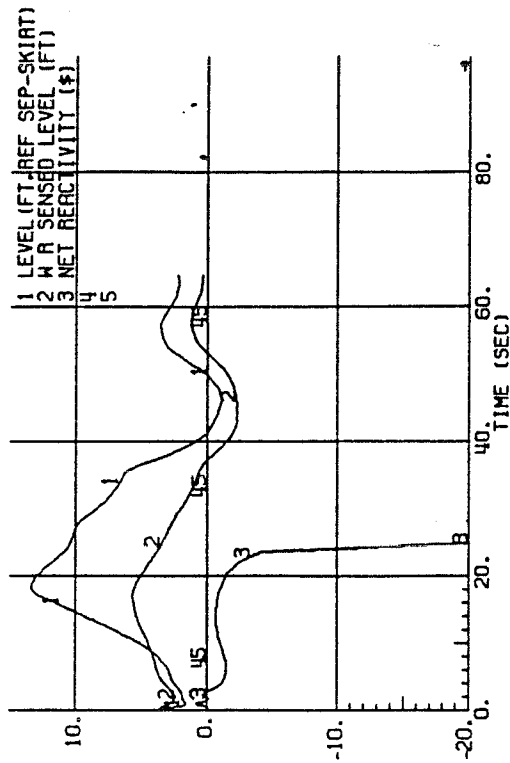
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

ATWS - MSIV Closure
 BOC, 76.8% Flow, 3 SRVOOS,
 MAX SRV Setpoint
 Figure XIV-5-21a 02/08/16



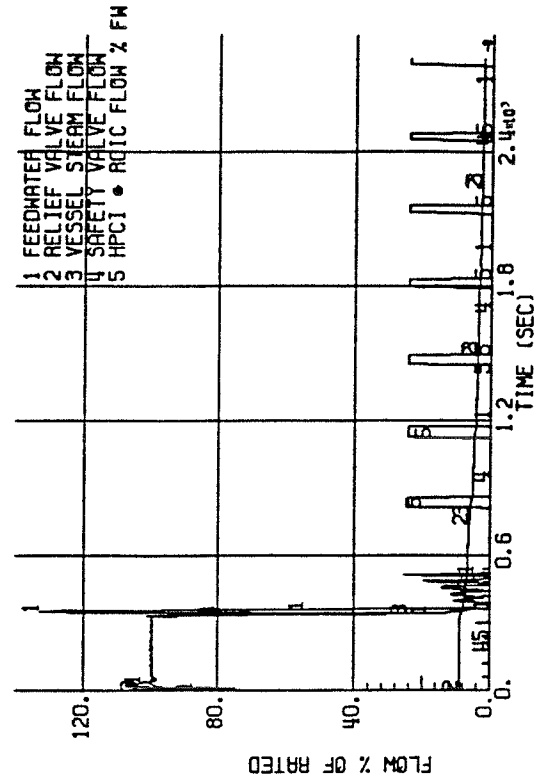
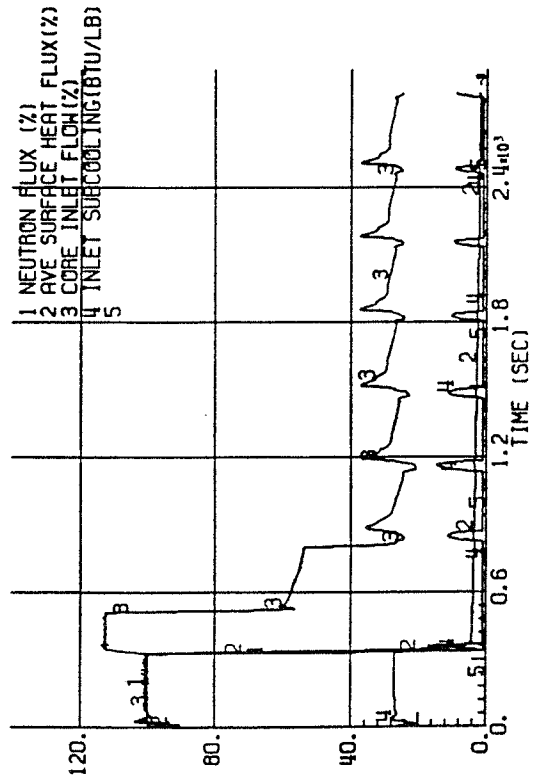
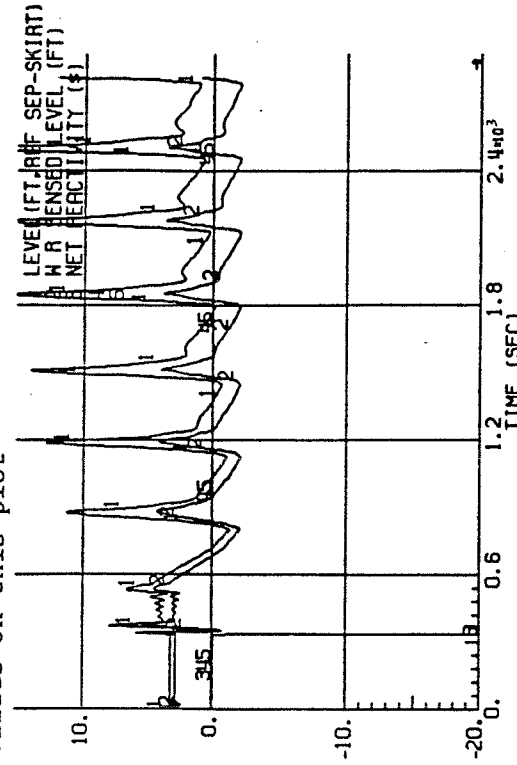
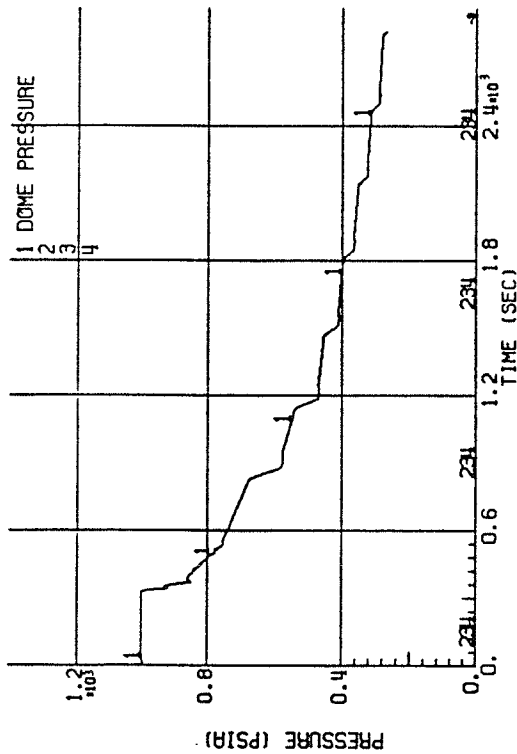
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

ATWS - MSIV Closure
 BOC, 76.8% Flow, 3 SRVOOS,
 MAX SRV Setpoint
 Figure XIV-5-21b 02/08/16



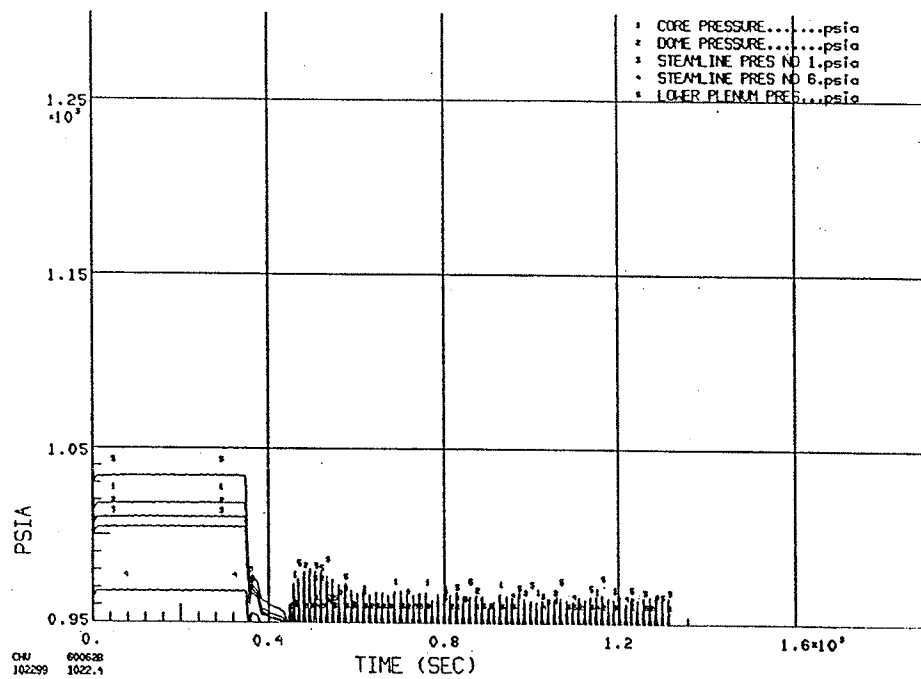
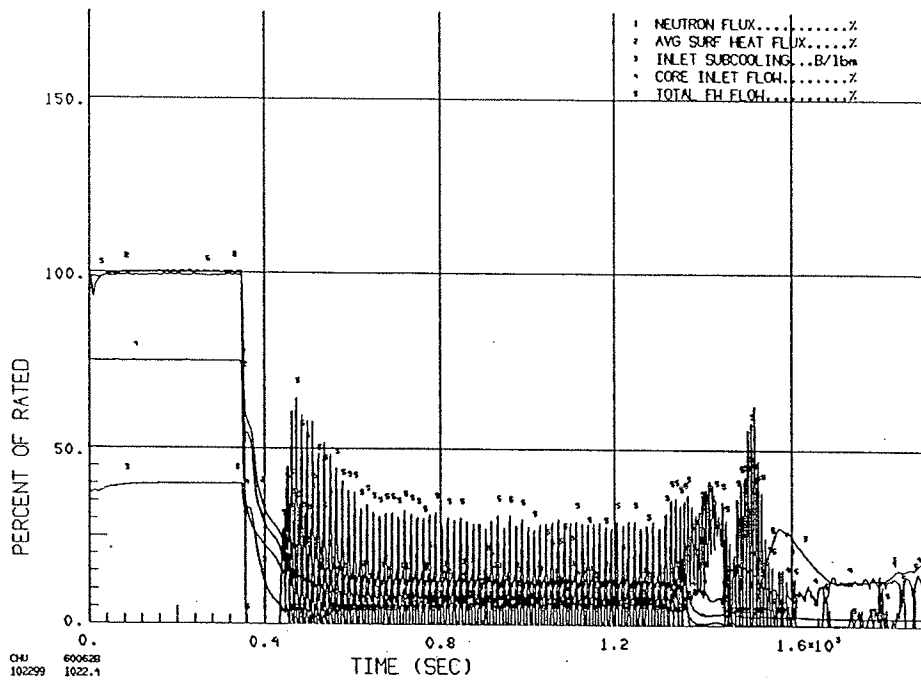
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)
ATWS - Turbine Trip with Bypass
- with ARI
Figure XIV-5-22
07/22/96

Note: 117 sec. should be added to all time values on this plot



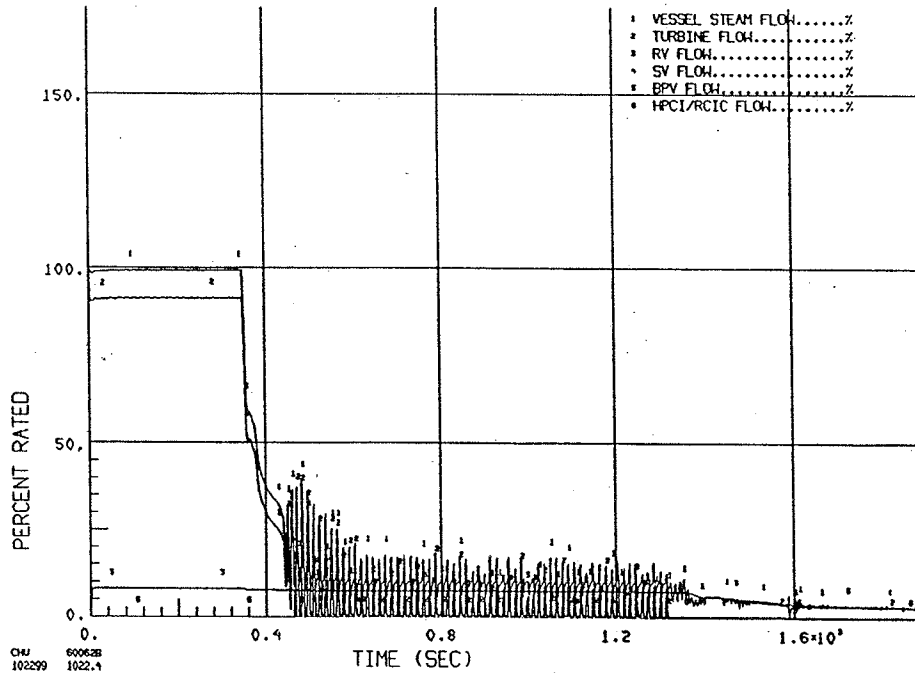
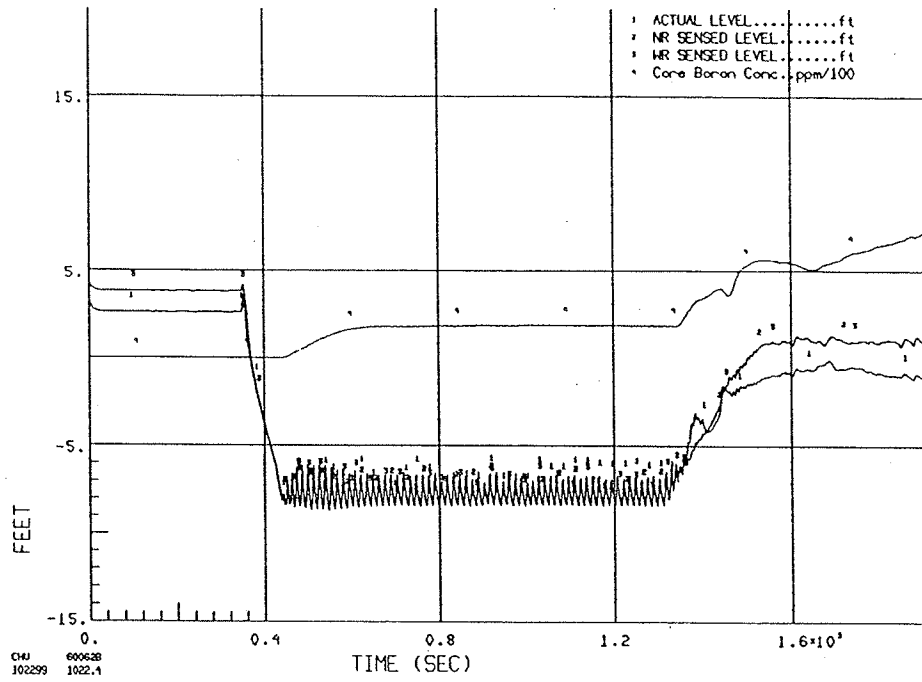
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)
ATWS - Inadvertent Opening of a
Relief Valve - with ARI
Figure XIV-5-23

07/22/96



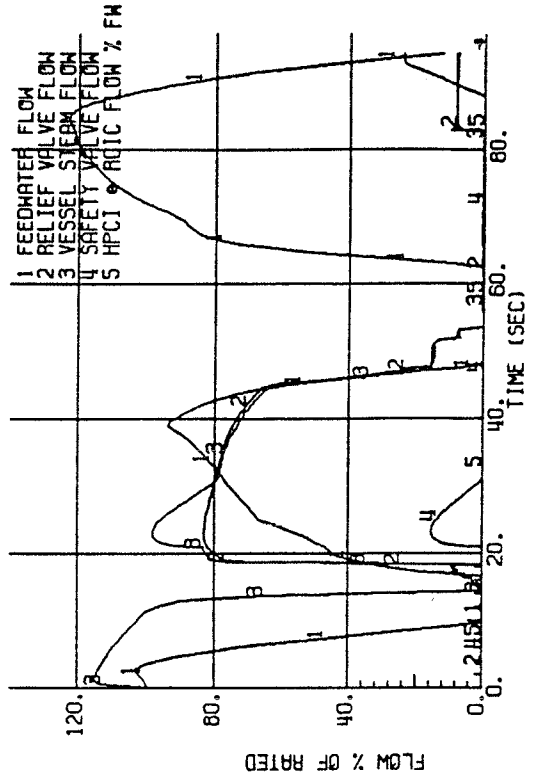
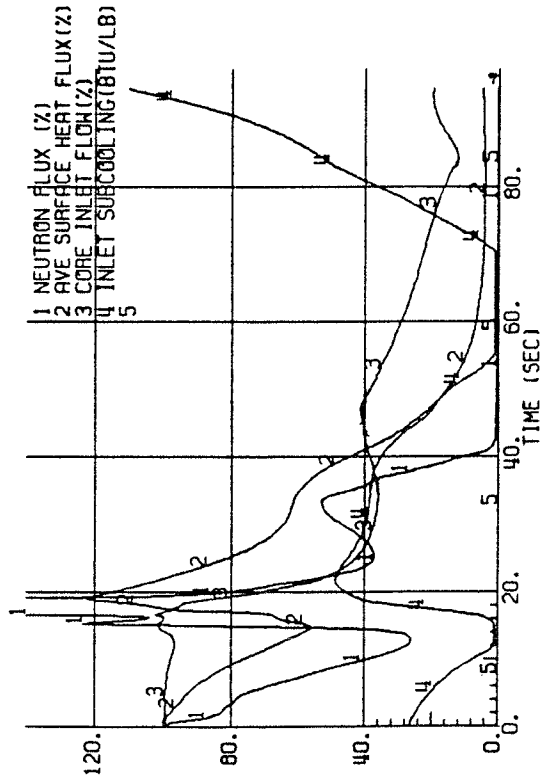
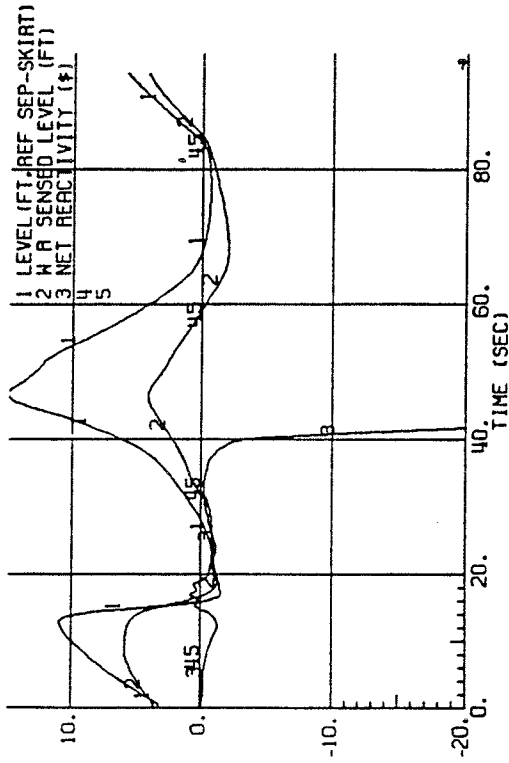
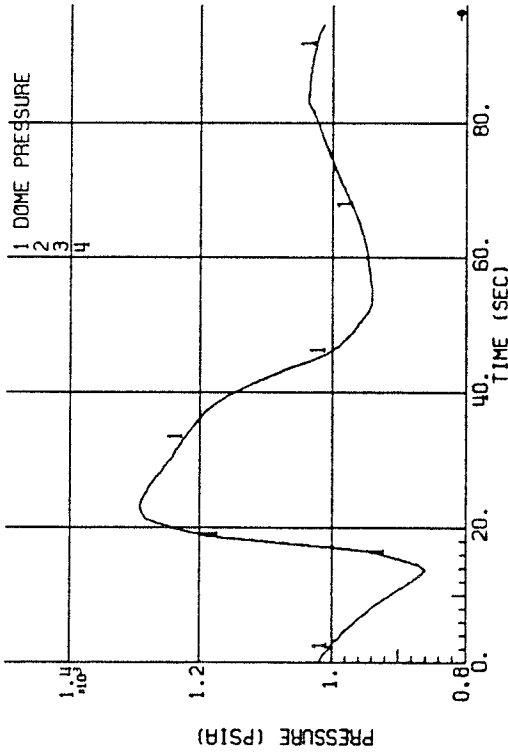
**Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)**

Transient Response of IORV
at MELL and EOC
Figure XIV-5-23a 09/19/00

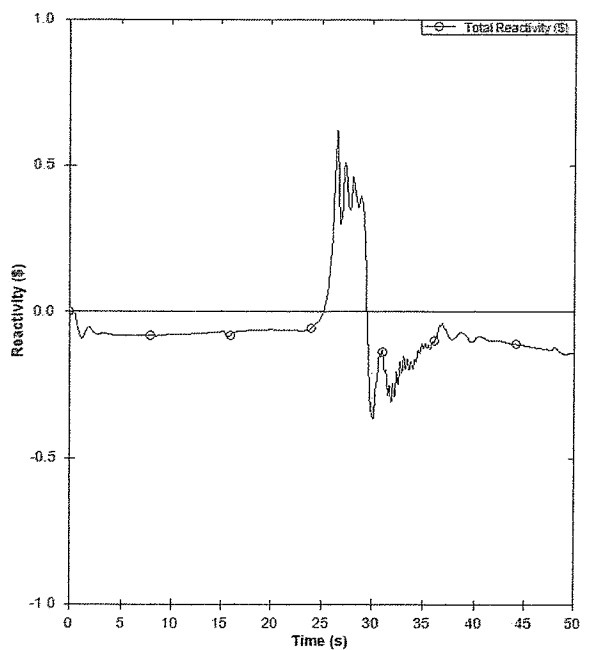
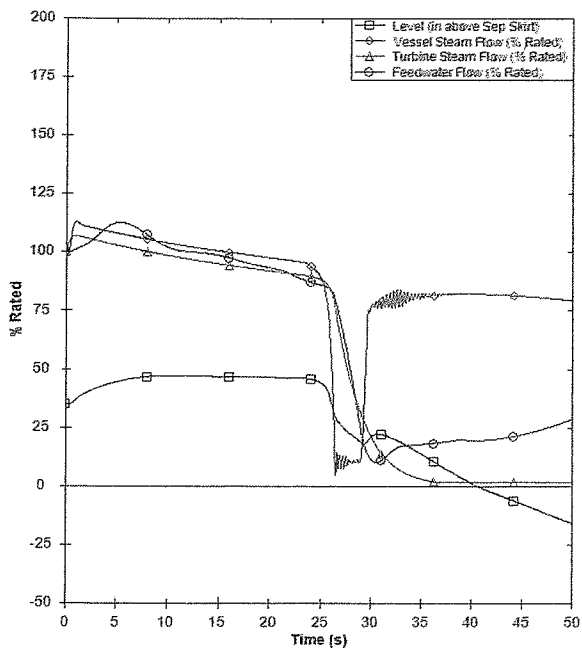
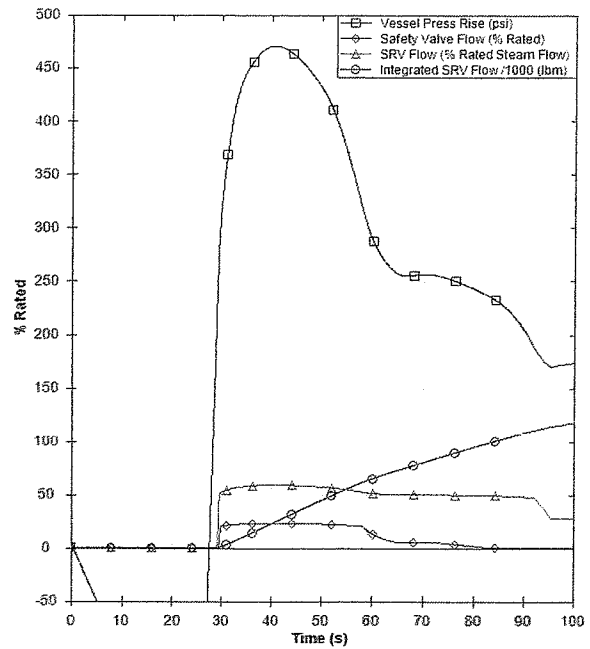
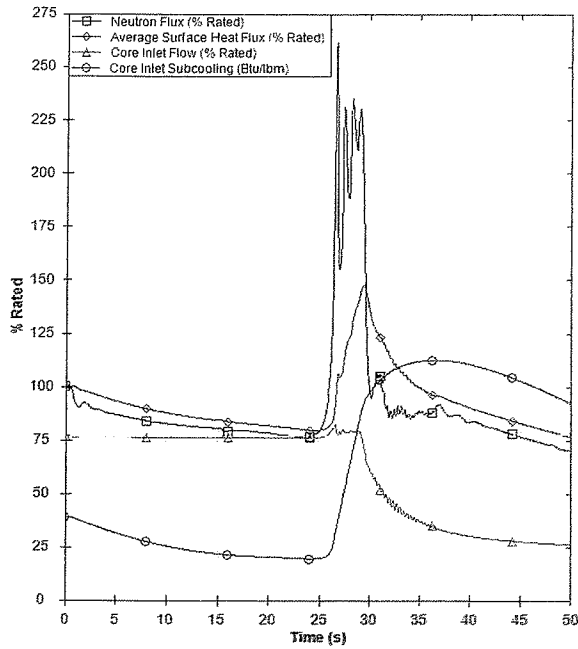


**Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)**

Transient Response of IORV
 at MELL and EOC
 Figure XIV-5-23b 09/19/00

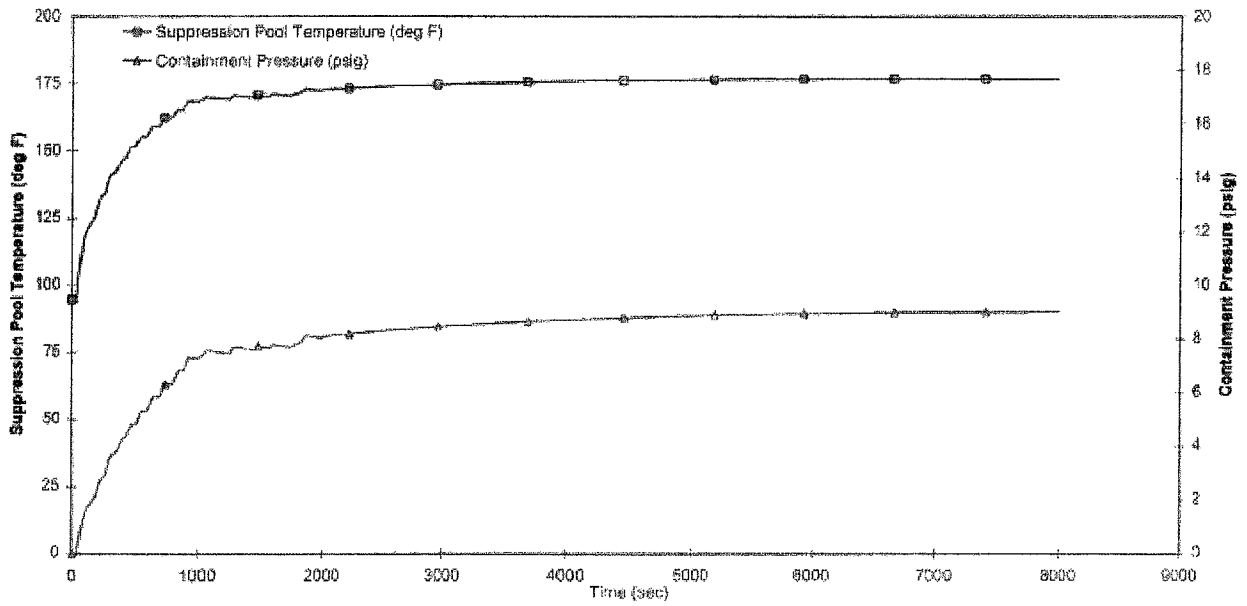
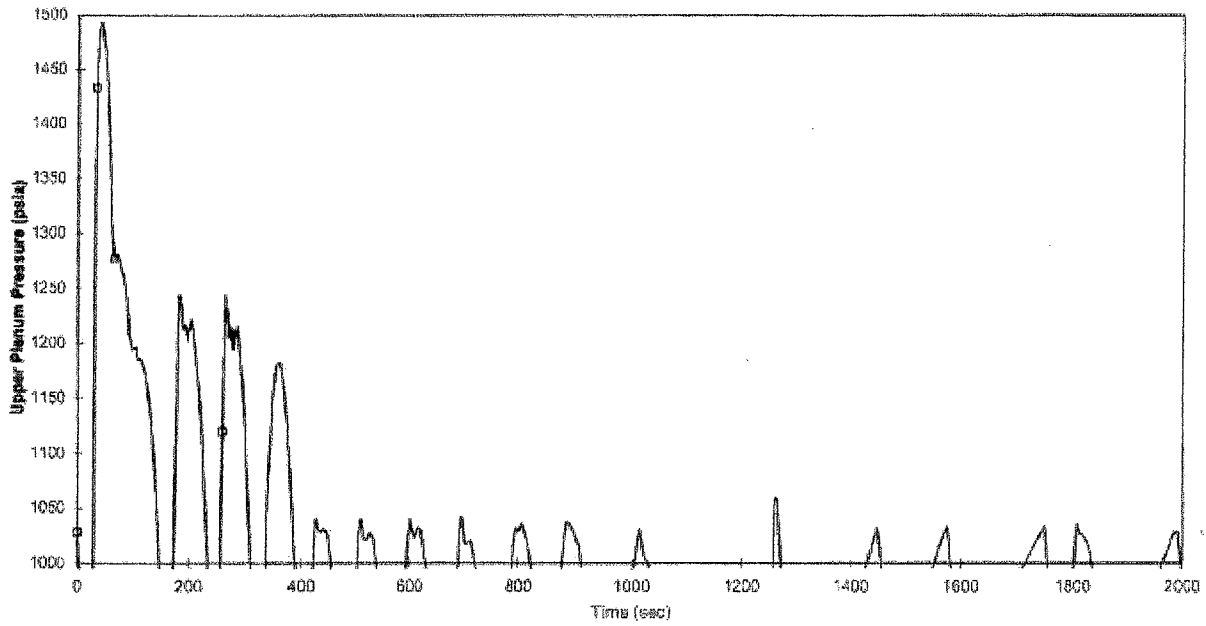


Nebraska Public Power District
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 UPDATED SAFETY ANALYSIS REPORT (USAR)
 ATWS - Pressure Regulator
 Failure Open - with ARI
 Figure XIV-5-24
 07/22/96



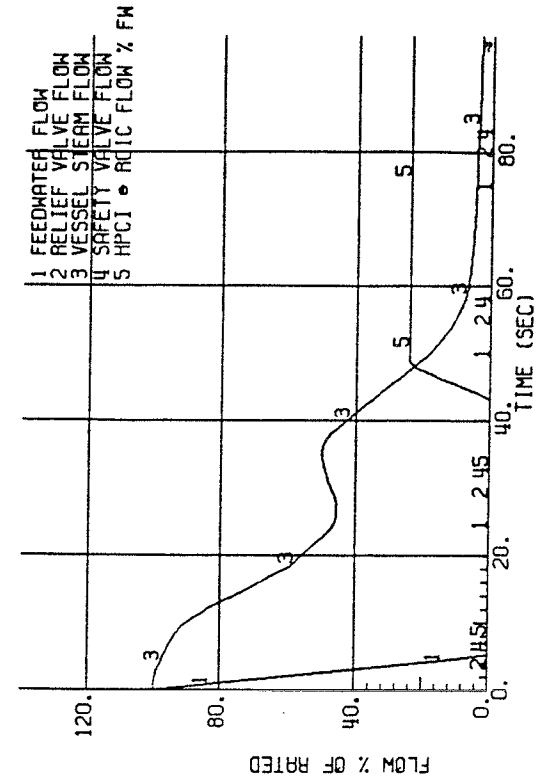
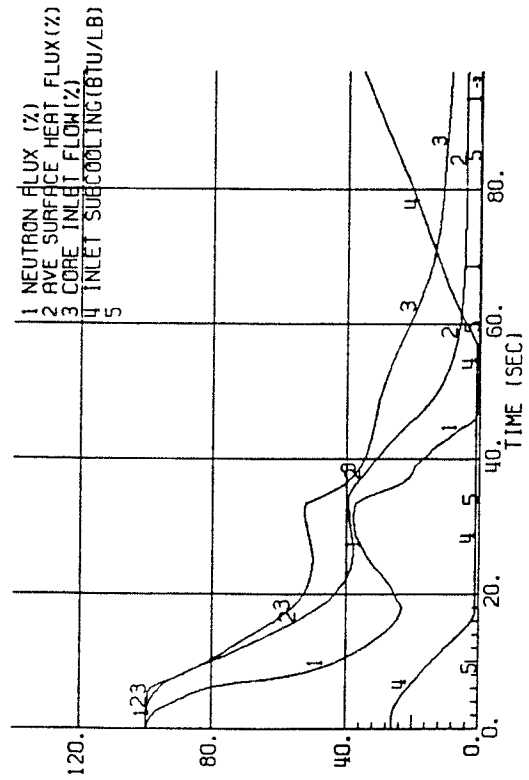
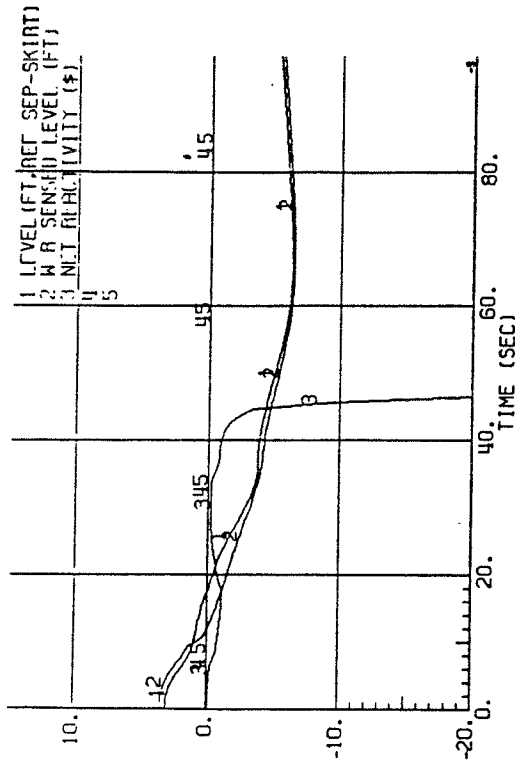
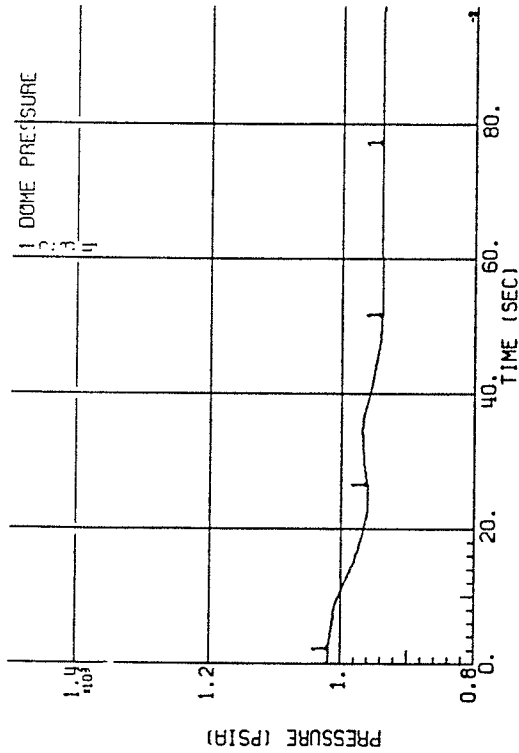
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

ATWS - Pressure Regulator Failure
 BOC, 76.8% Flow, 3 SRVOOS,
 +70 PSI SRV Setpoint
 Figure XIV-5-24a 02/08/16

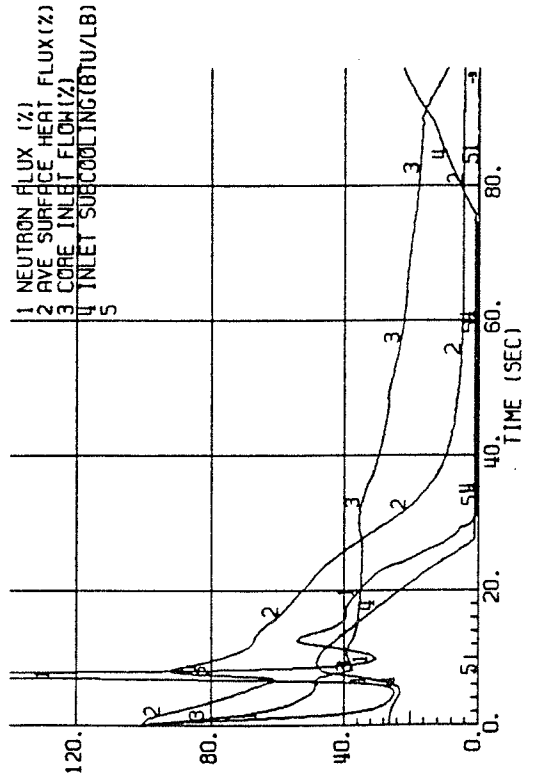
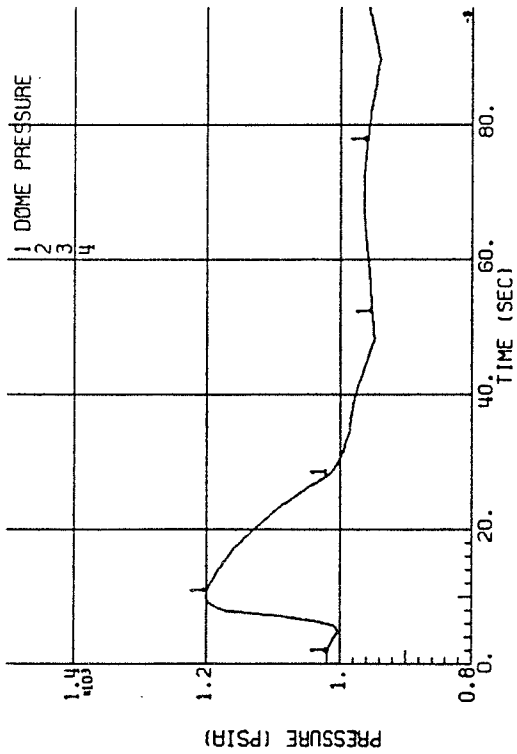
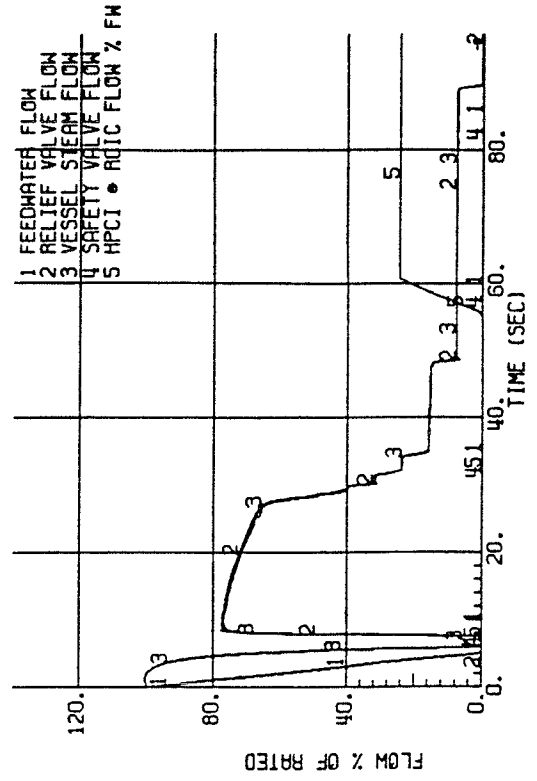
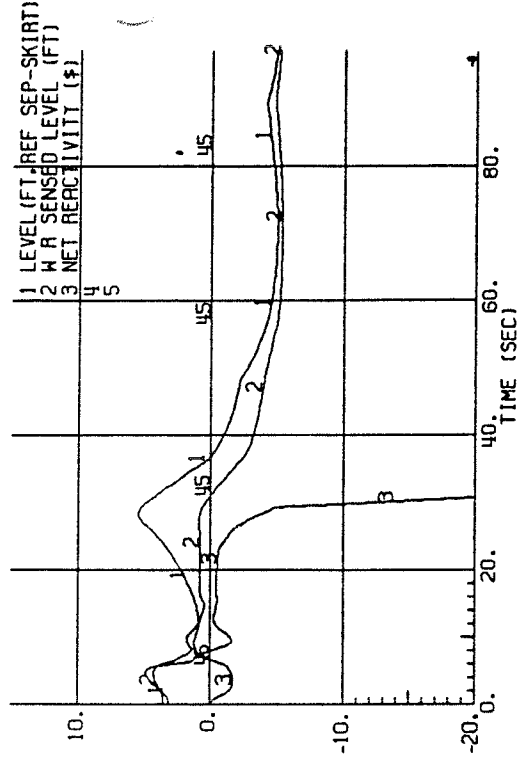


Nebraska Public Power District
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 UPDATED SAFETY ANALYSIS REPORT (USAR)

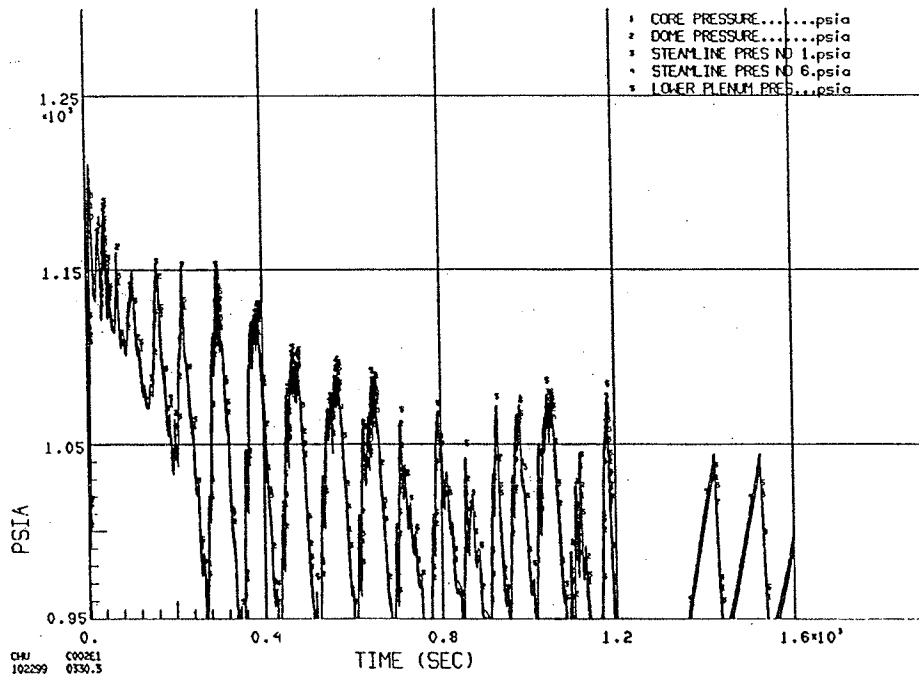
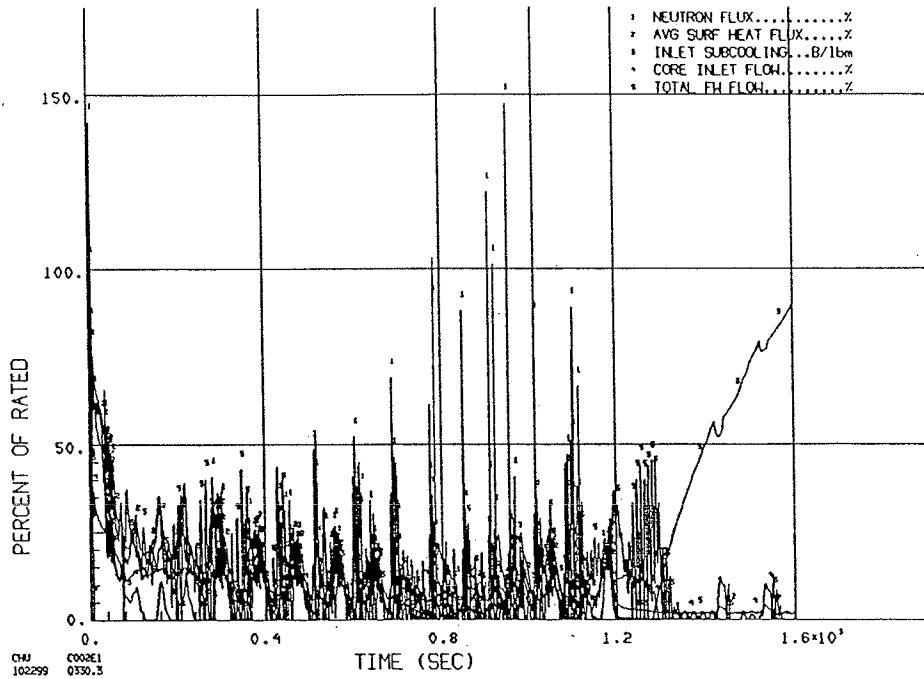
ATWS - Pressure Regulator Failure
 BOC, 76.8% Flow, 3 SRVOOS,
 +70 PSI SRV Setpoint
 Figure XIV-5-24b 02/08/16



Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)
 ATWS - Loss of Normal Feedwater
 - with ARI
 Figure XIV-5-25
 07/22/96

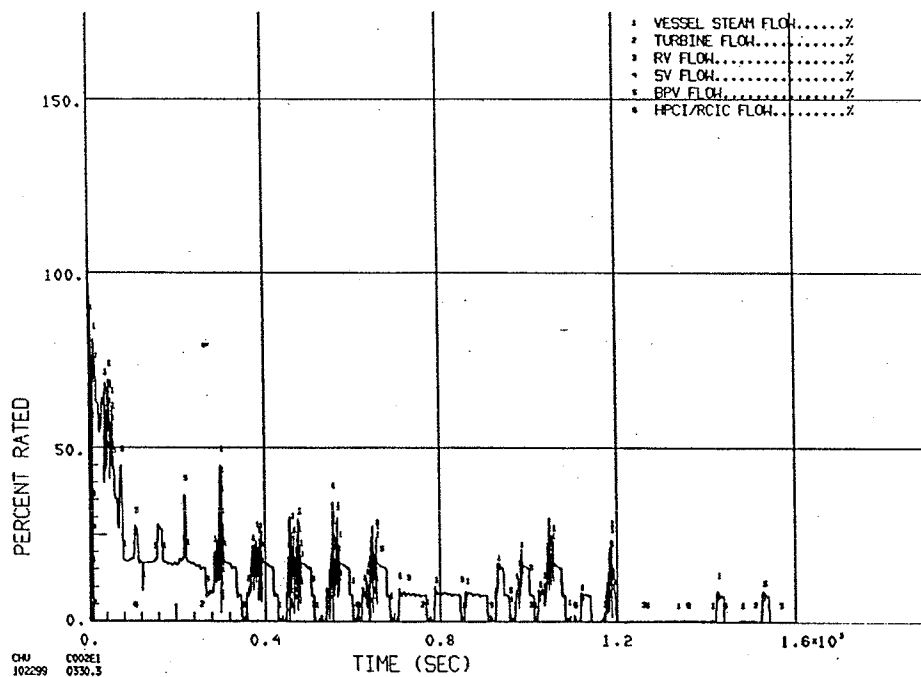
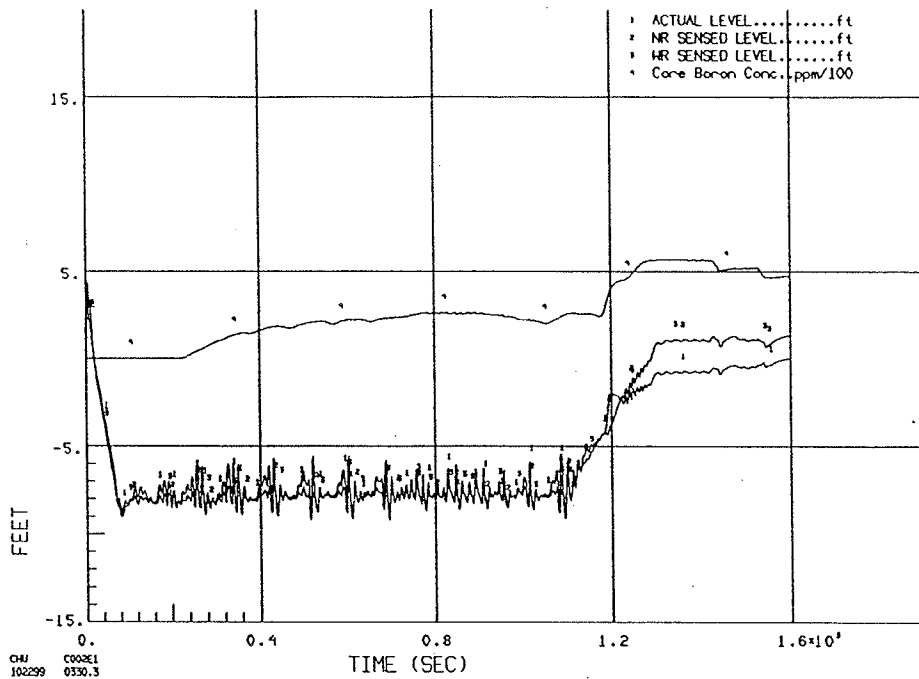


Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)
ATWS - Loss of Normal AC Power
- with ARI
Figure XIV-5-26
07/22/96



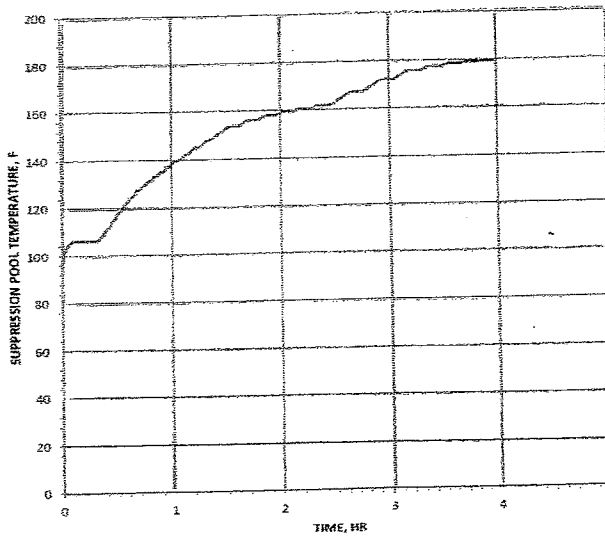
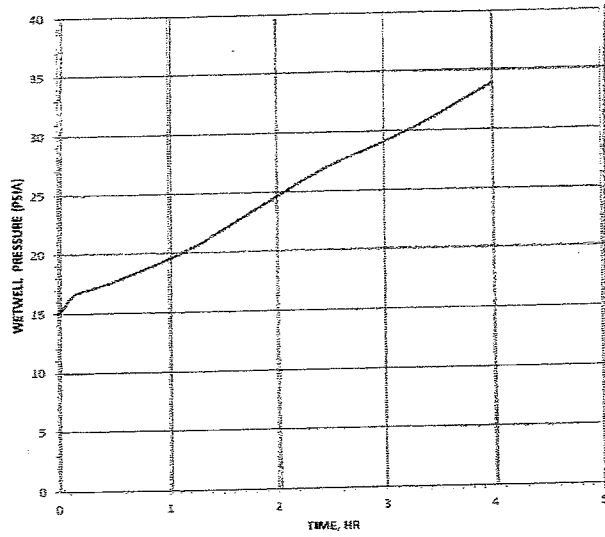
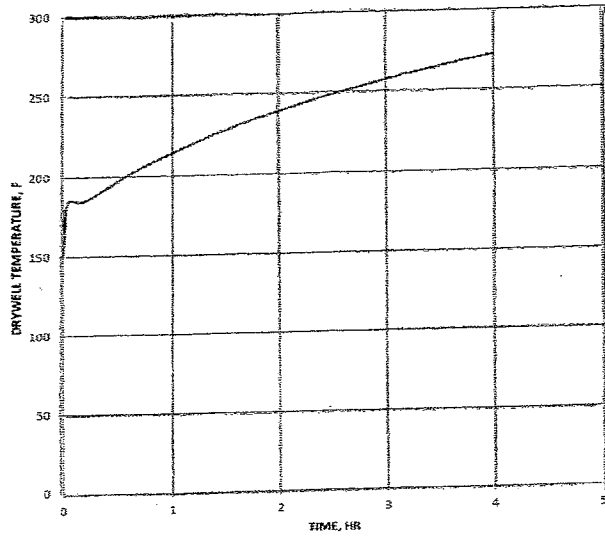
**Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)**

Transient Response of LOAP
 at MELLL and EOC
 Figure XIV-5-26a 09/19/00



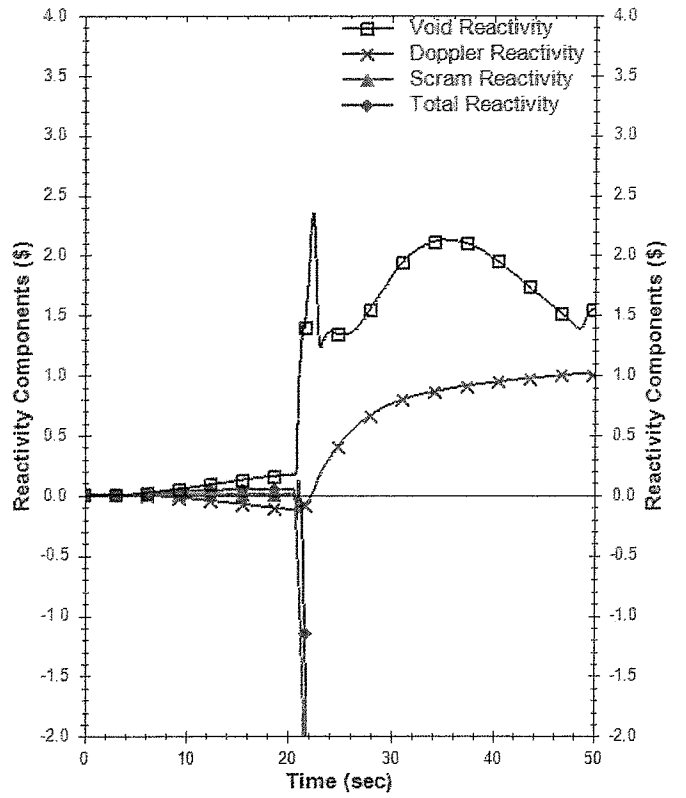
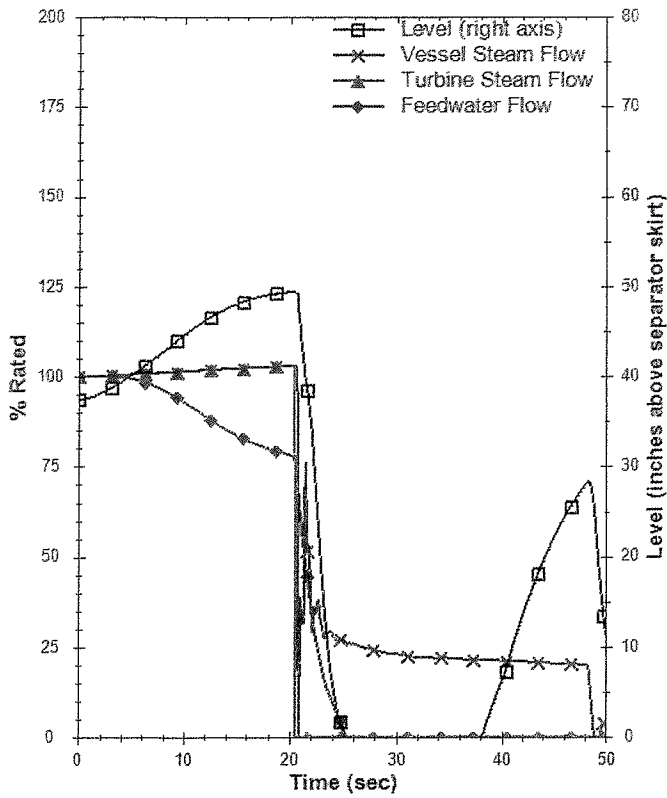
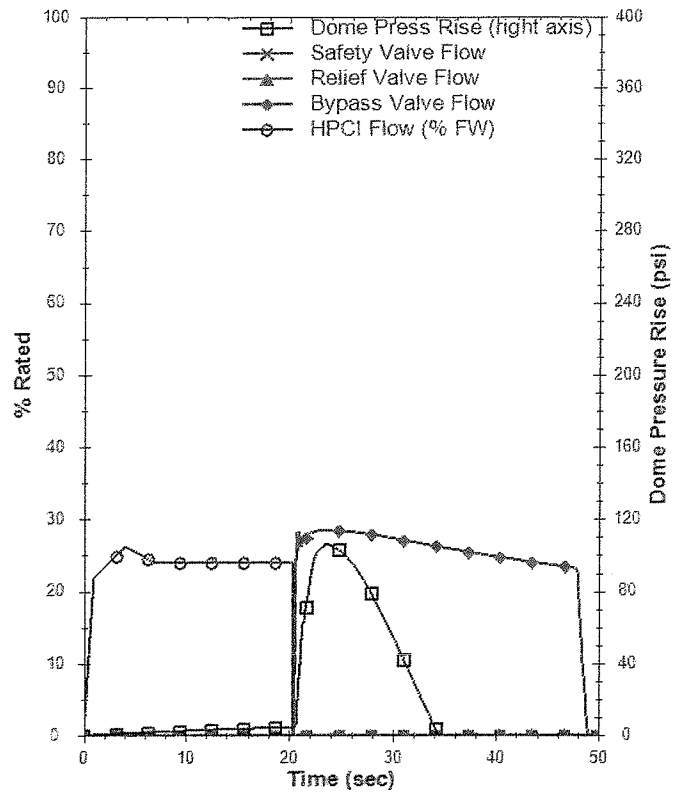
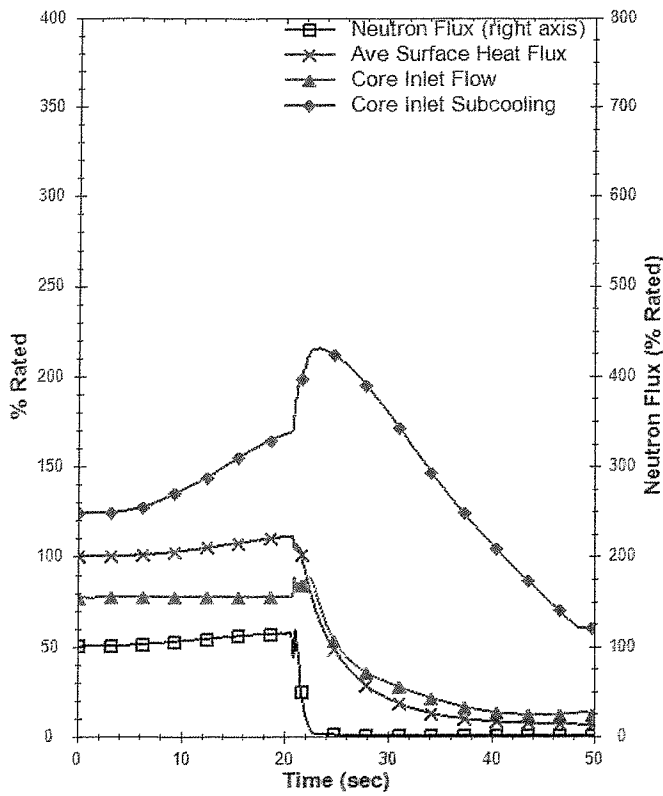
**Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)**

Transient Response of LOAP
 at MELL and EOC
 Figure XIV-5-26b 09/19/00



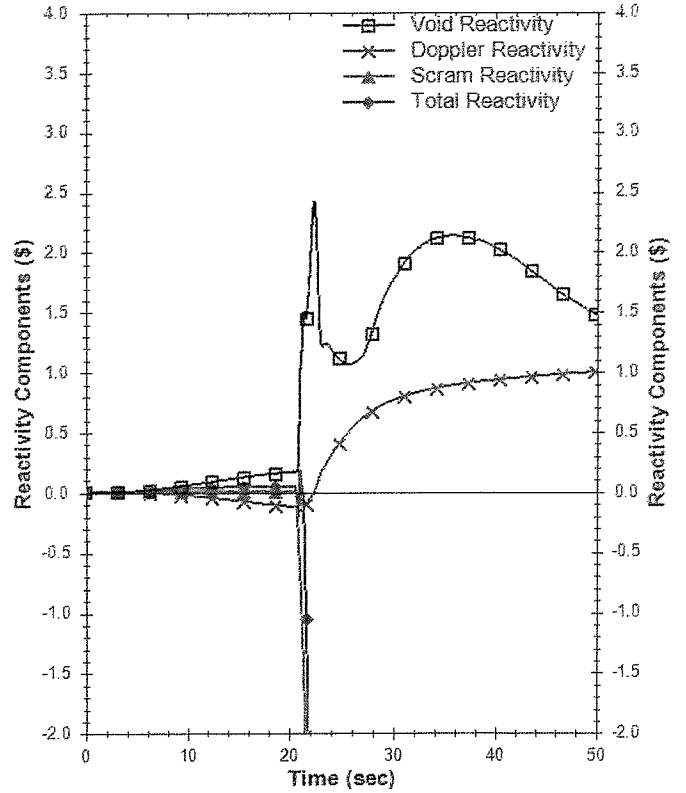
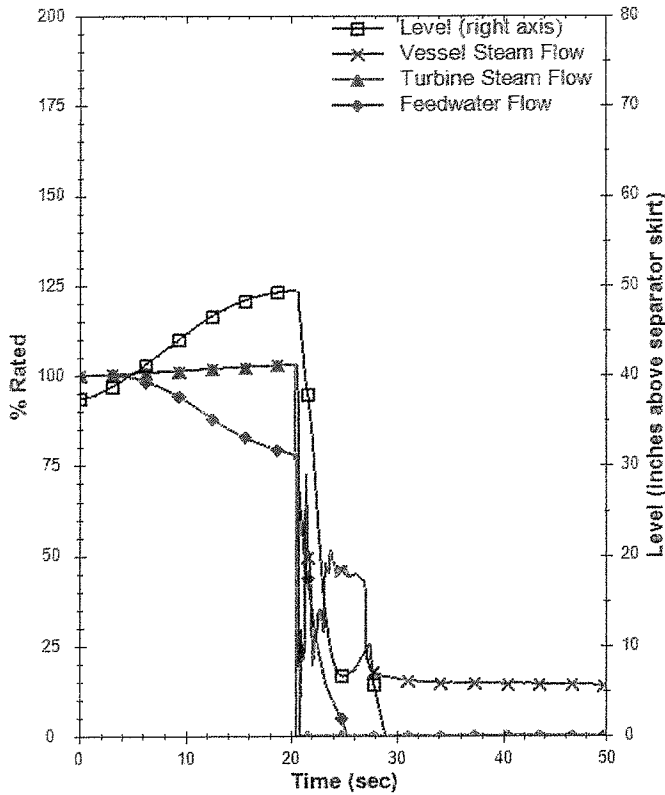
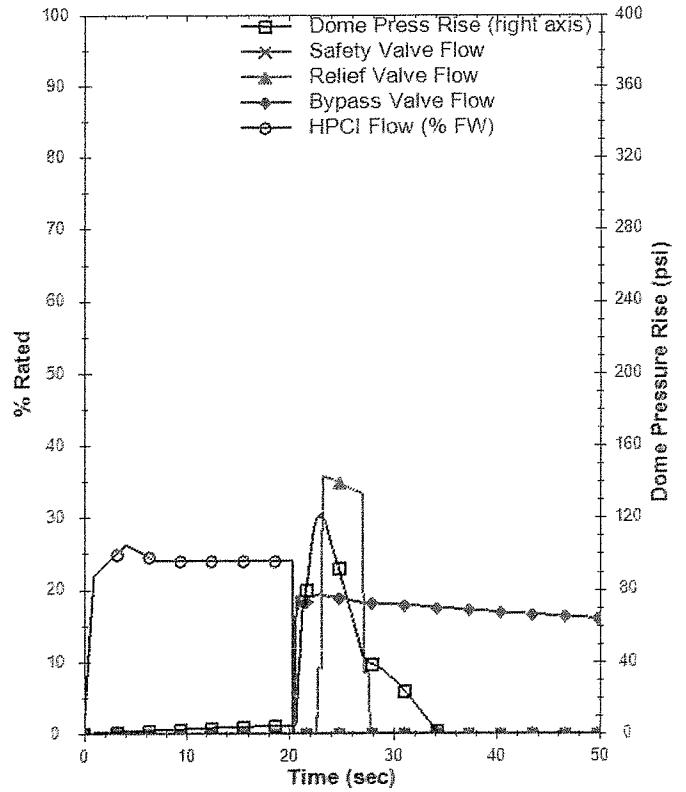
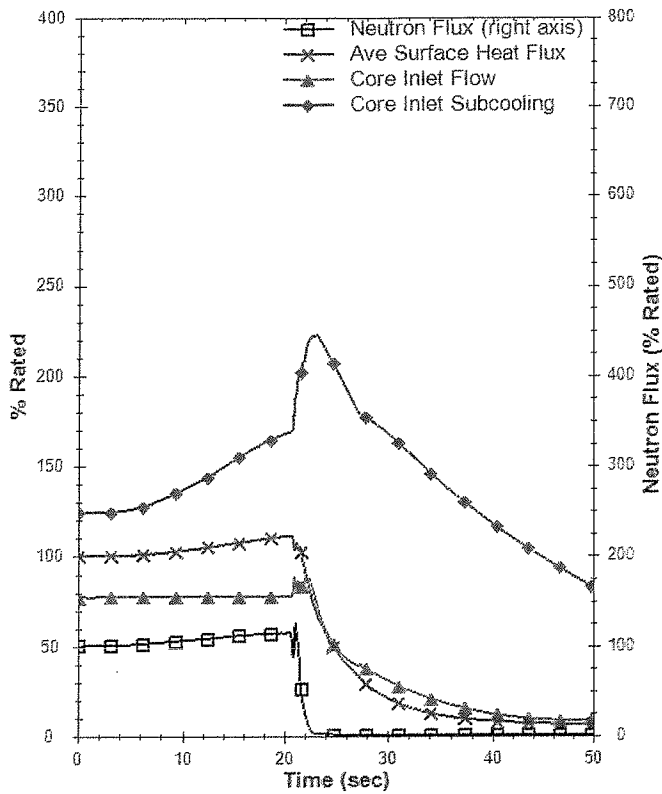
**Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)**

Station Blackout
Figure XIV-5-27 02/12/15



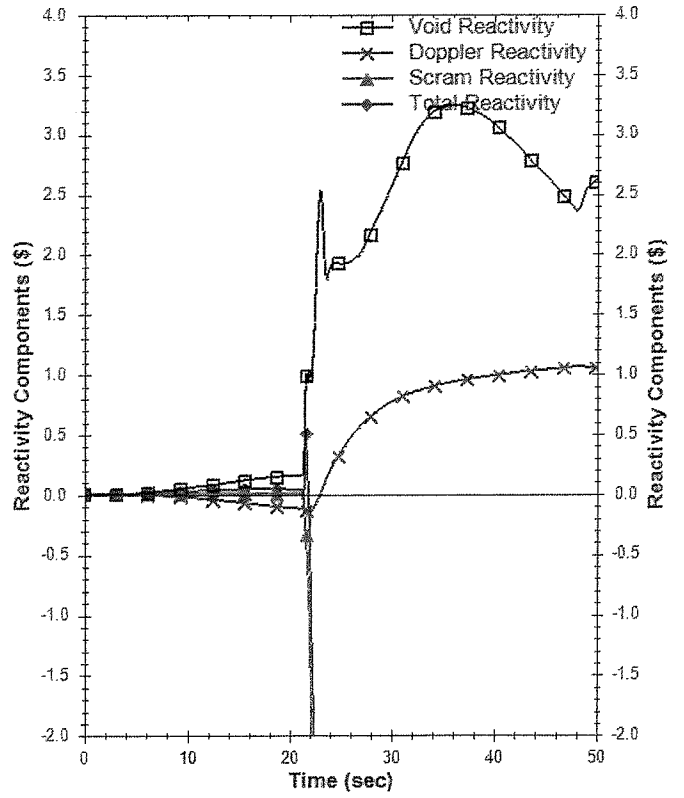
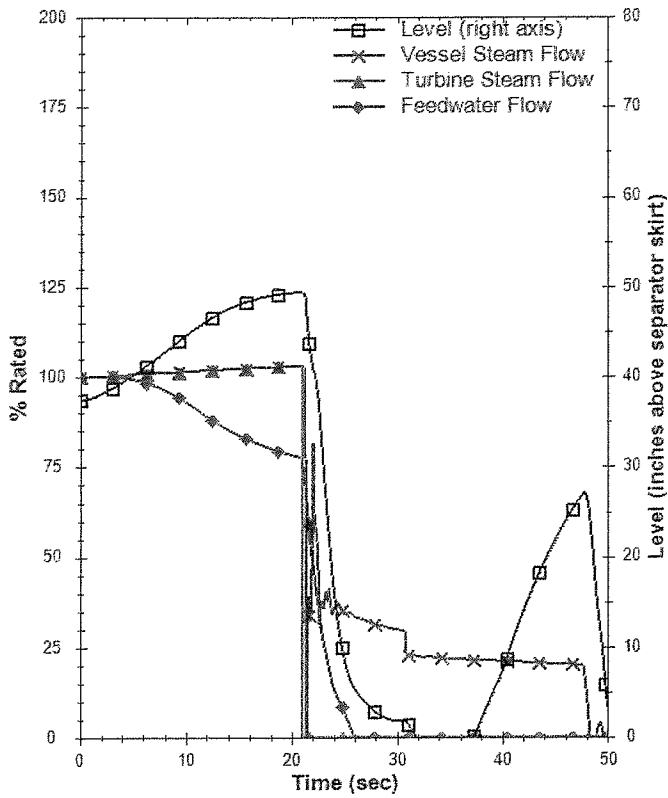
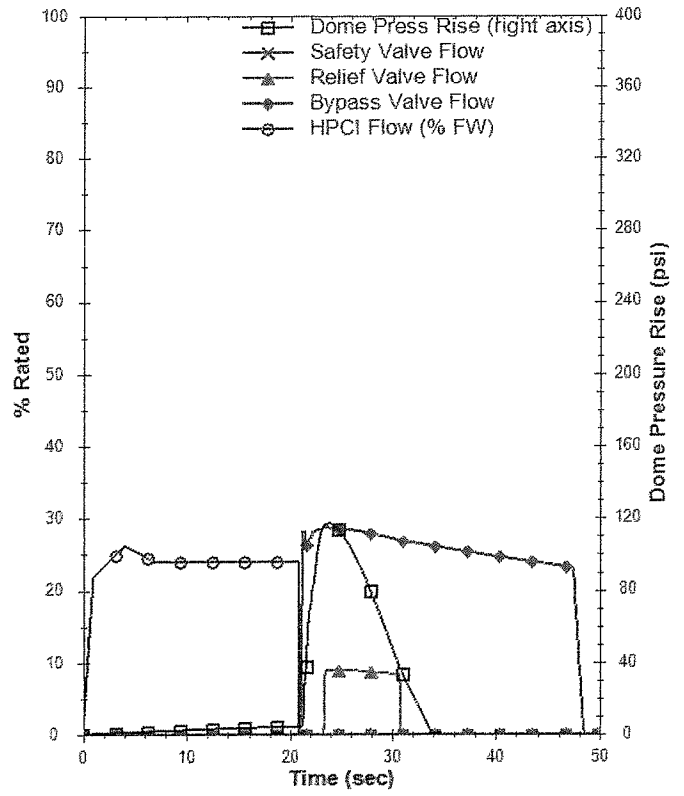
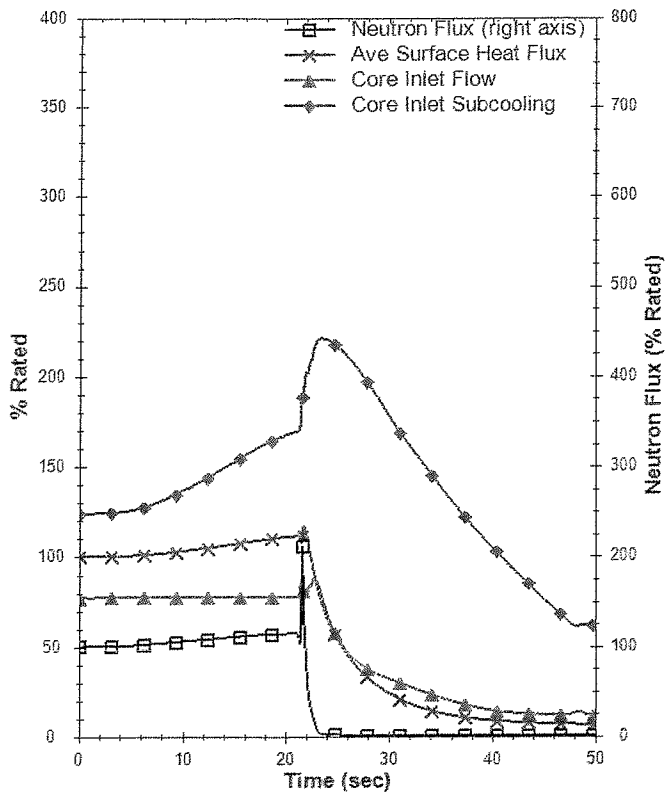
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 BOC to MOC1 : MELLA-HBB
 Figure XIV-5-28a 01/21/19



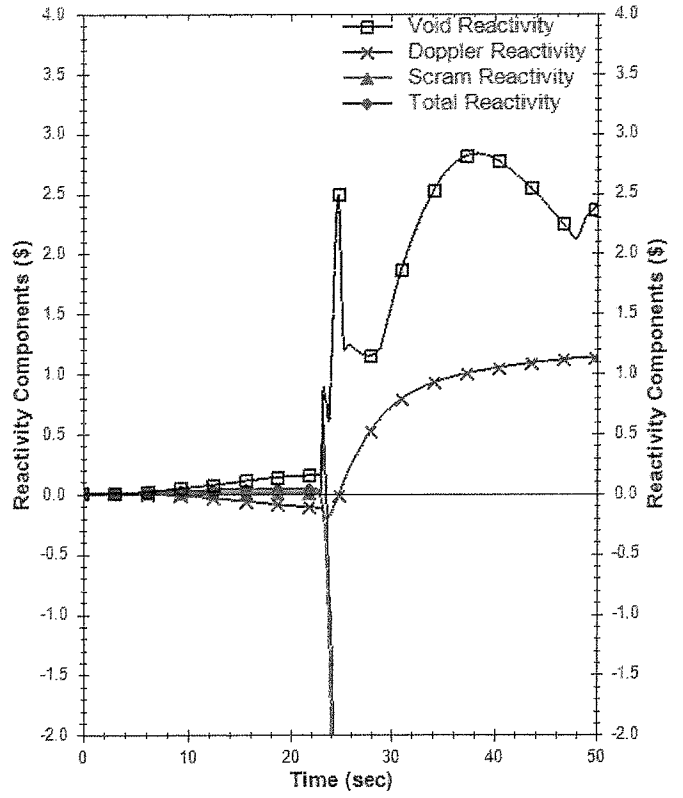
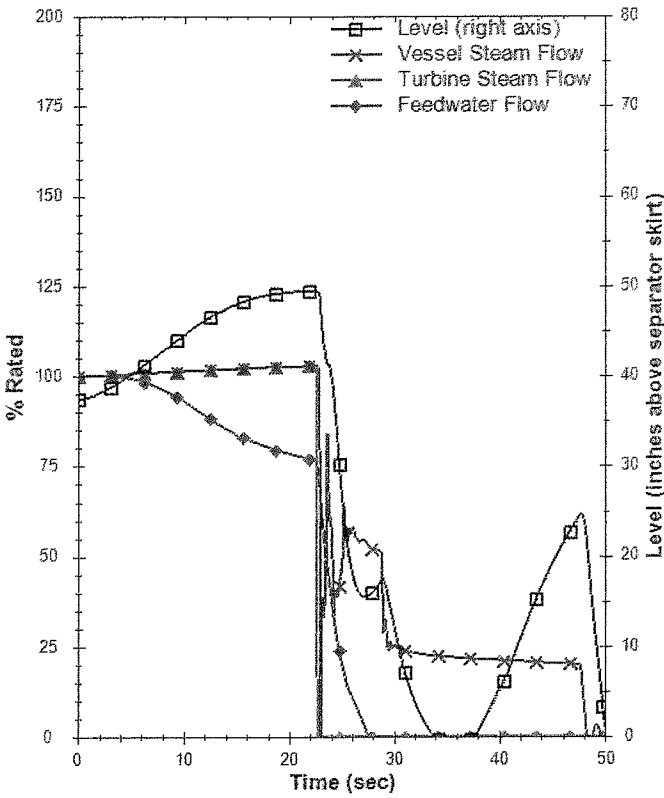
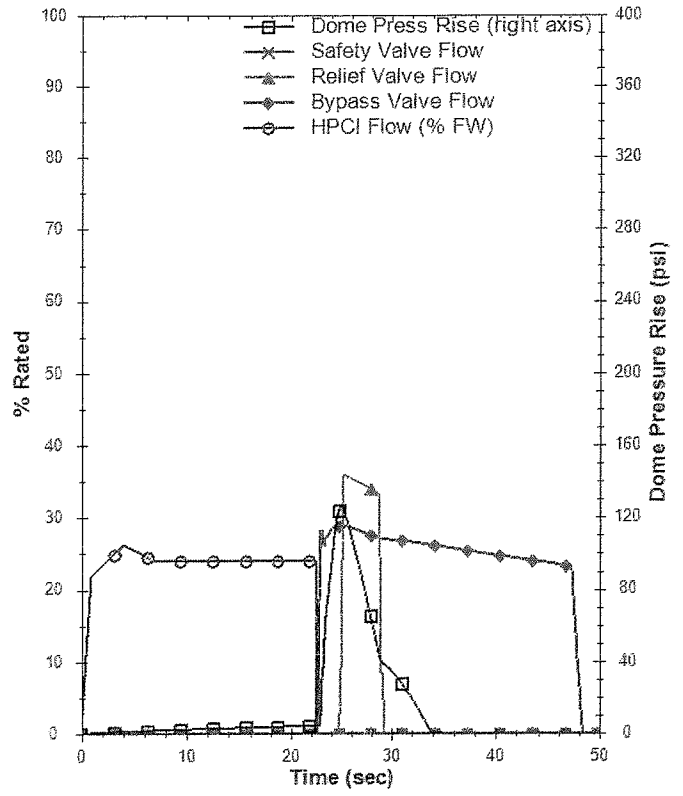
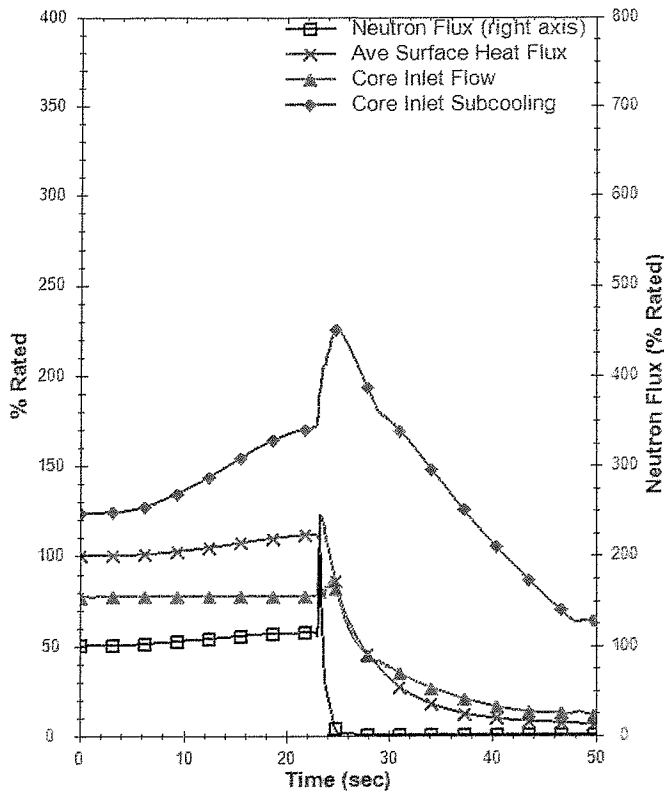
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
BOC to MOC1 : MELLA-HBB - 1 TBVOOS
Figure XIV-5-28b 01/21/19



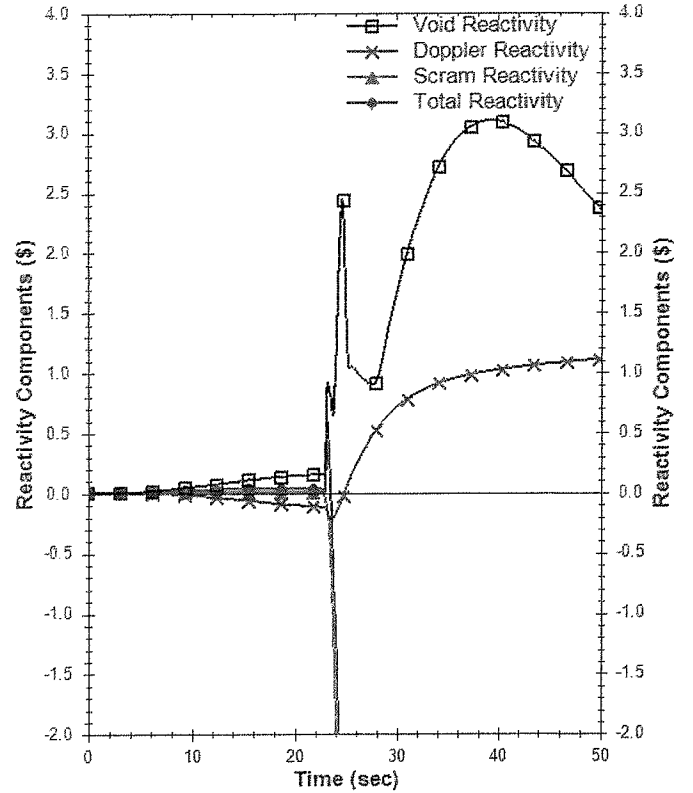
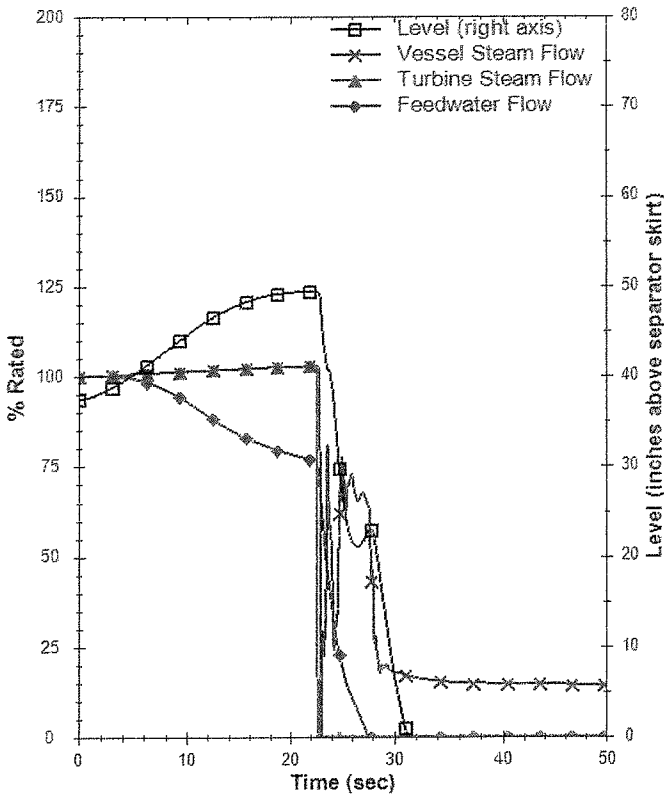
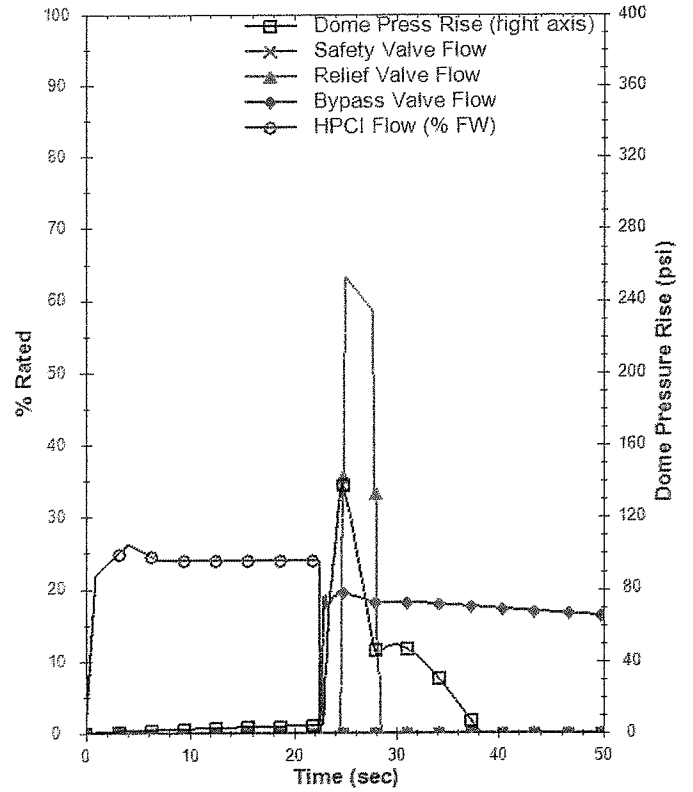
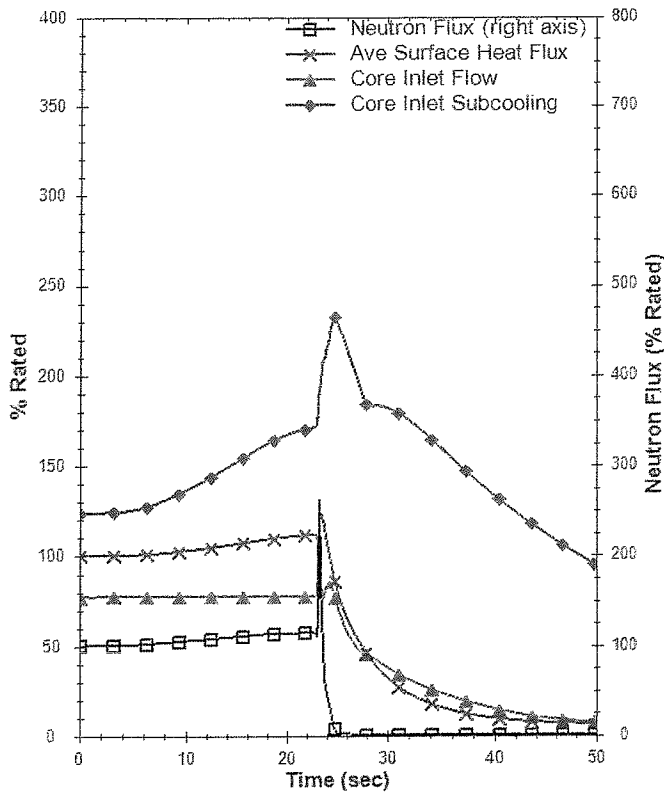
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 MOC1 to MOC2 : MELLA-HBB
 Figure XIV-5-28c 01/21/19



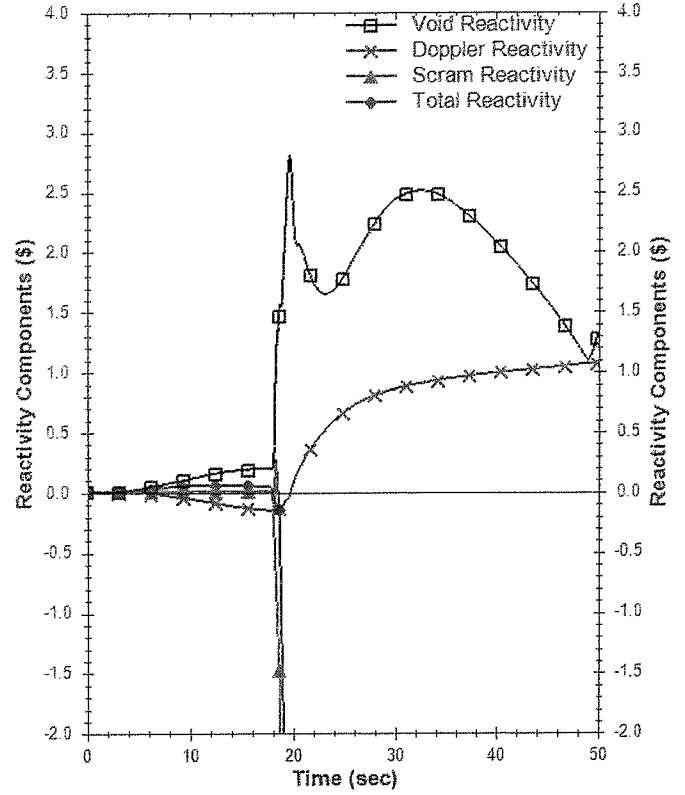
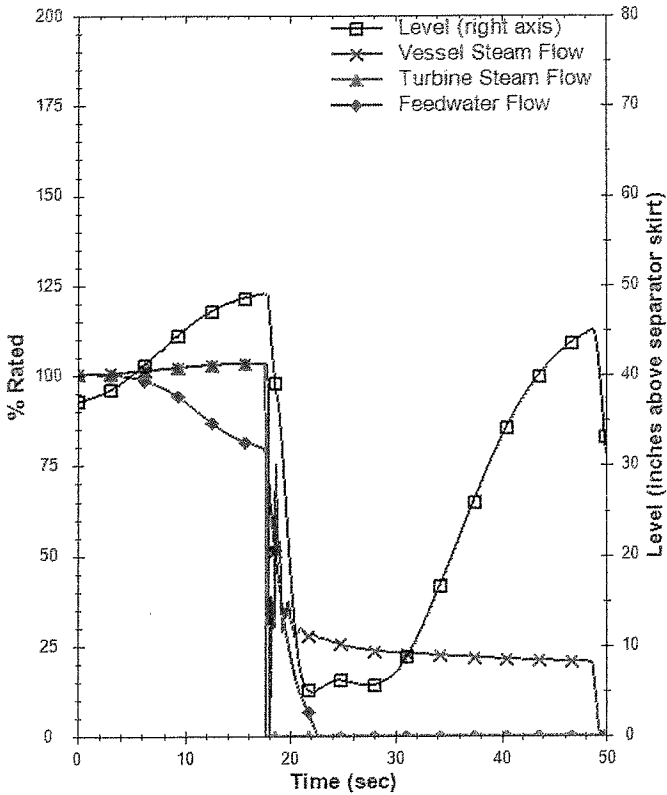
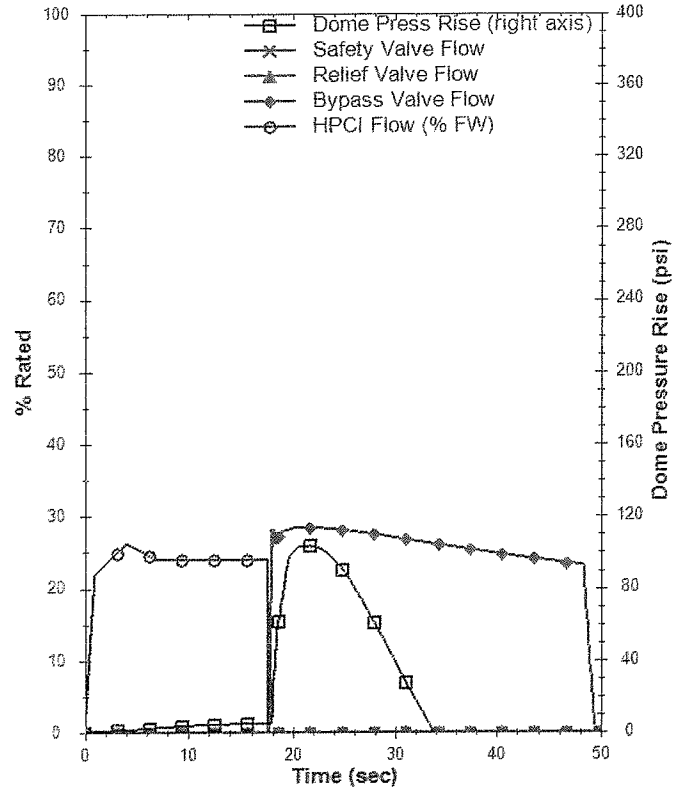
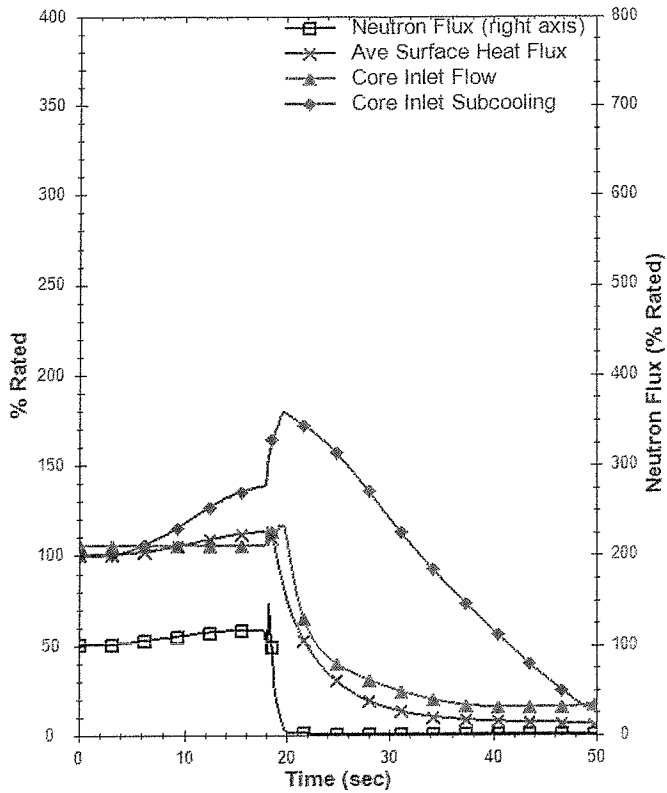
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 MOC2 to EOC : MELLLA-HBB
 Figure XIV-5-28d 01/21/19



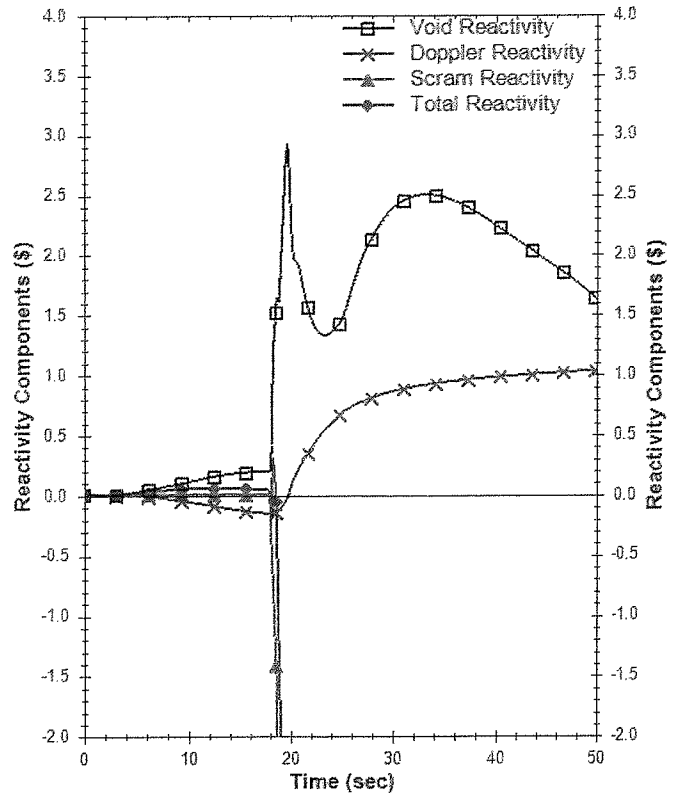
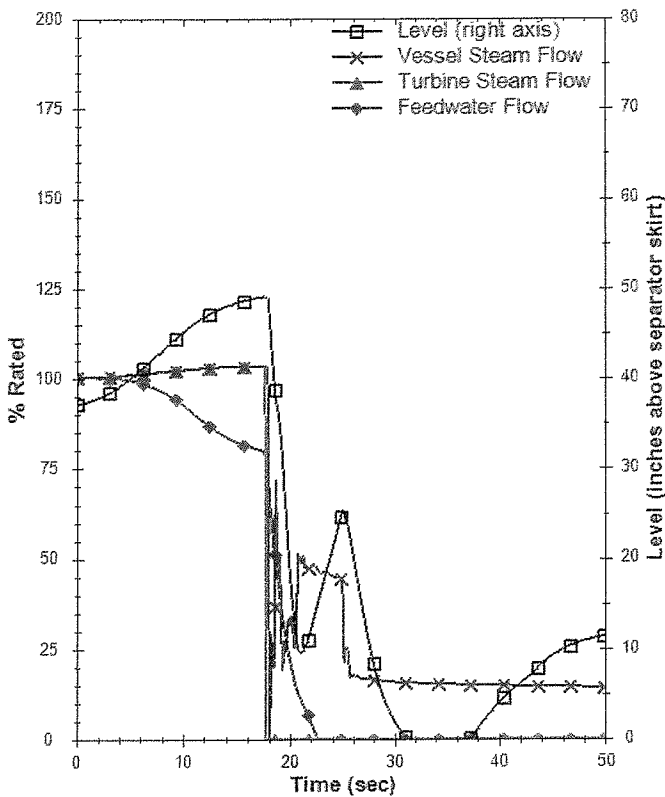
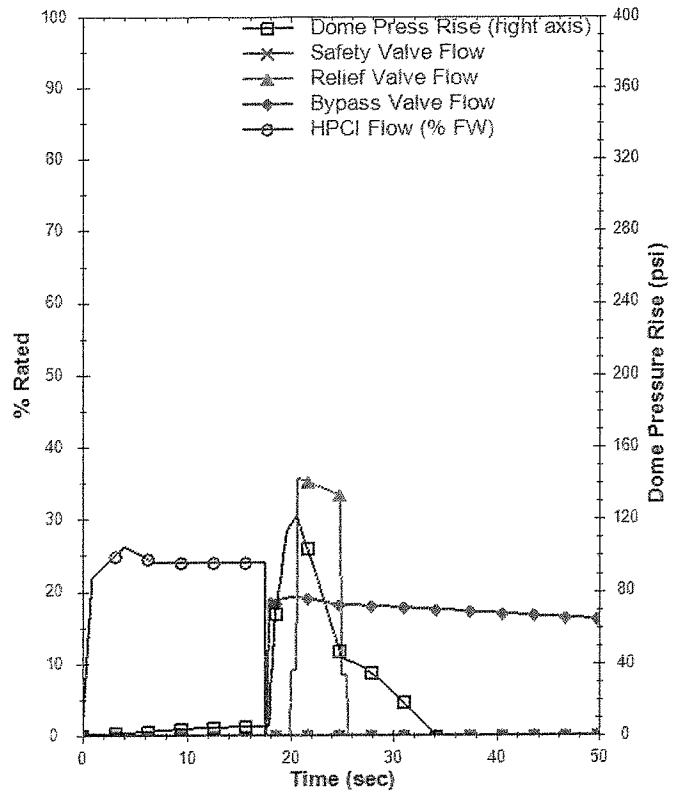
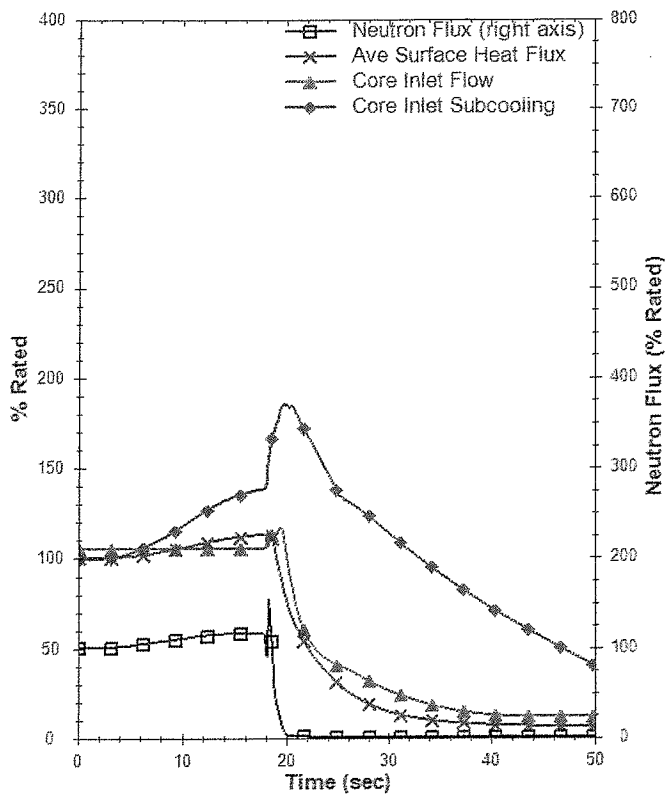
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 MOC1 to EOC : MELLA-HBB - 1 TBVOOS
 Figure XIV-5-28e 01/21/19



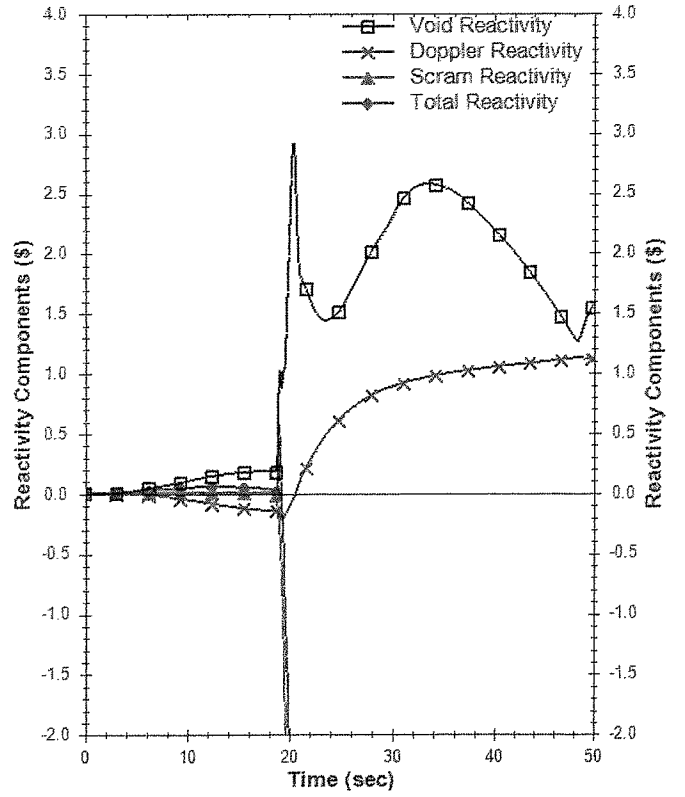
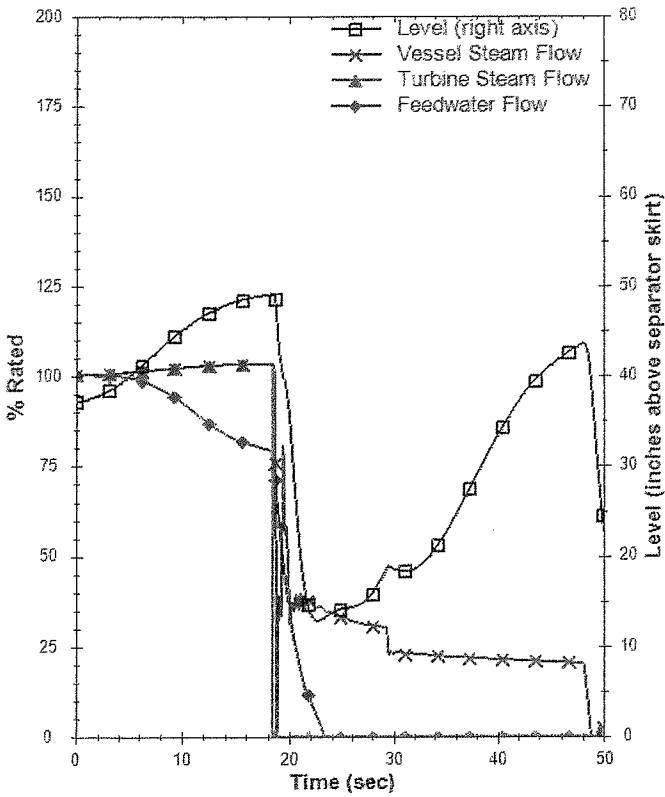
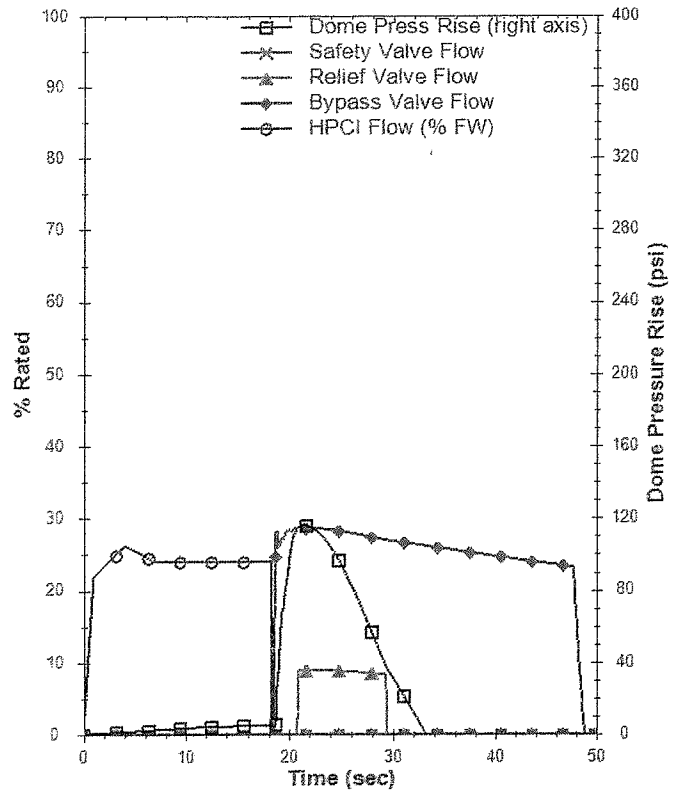
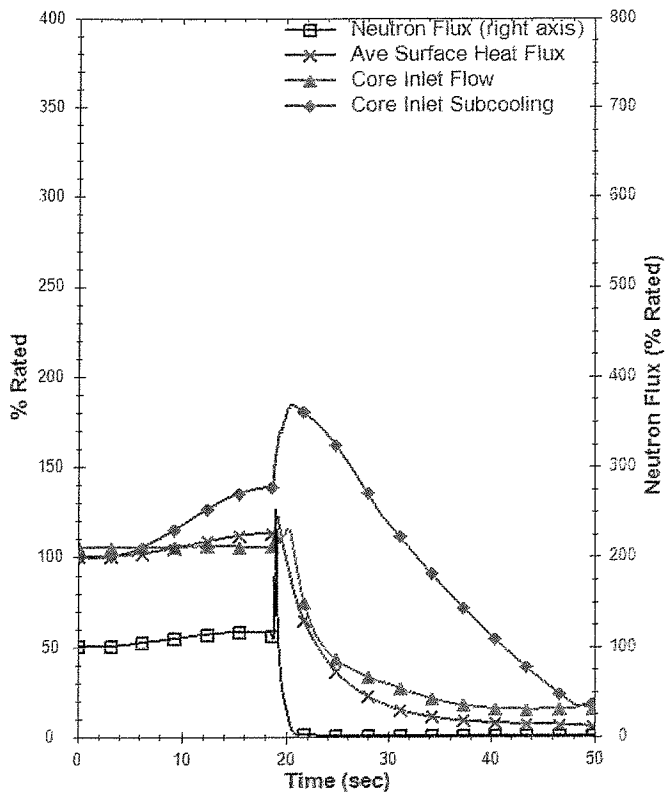
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 BOC to MOC1 : ICF-HBB
 Figure XIV-5-28f 01/21/19



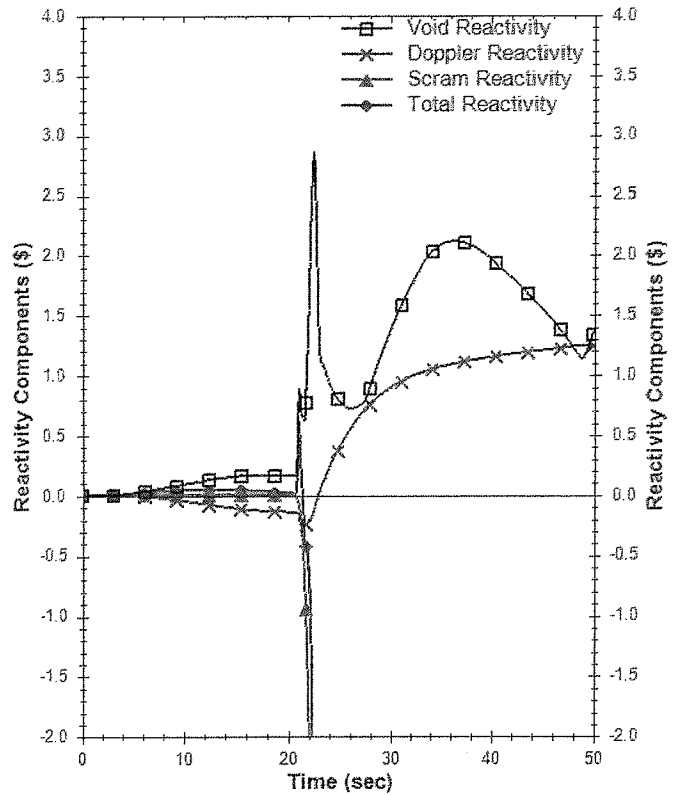
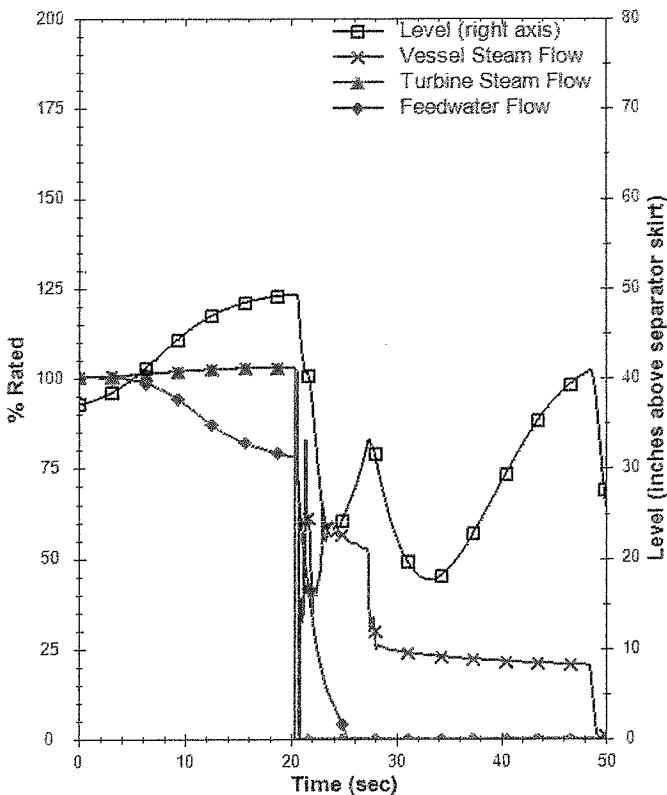
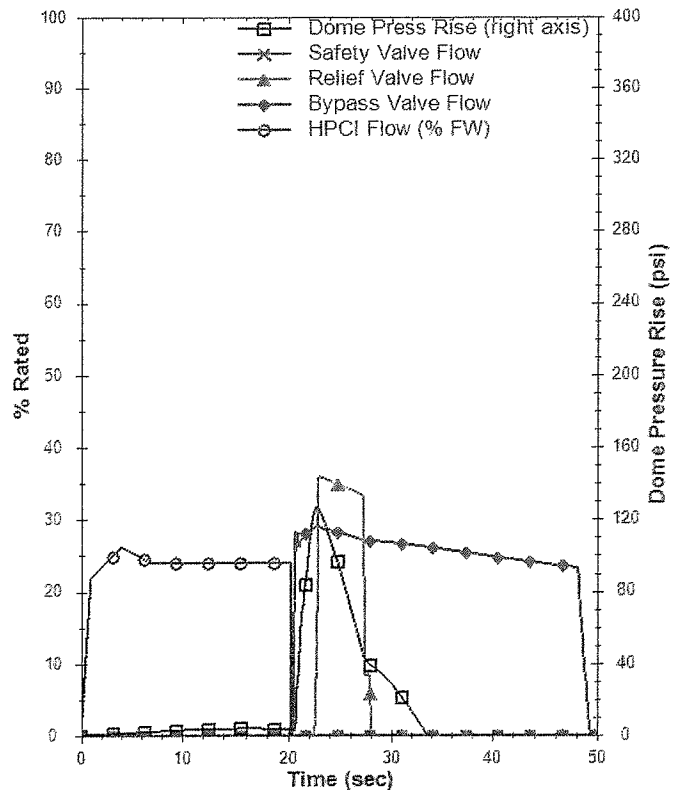
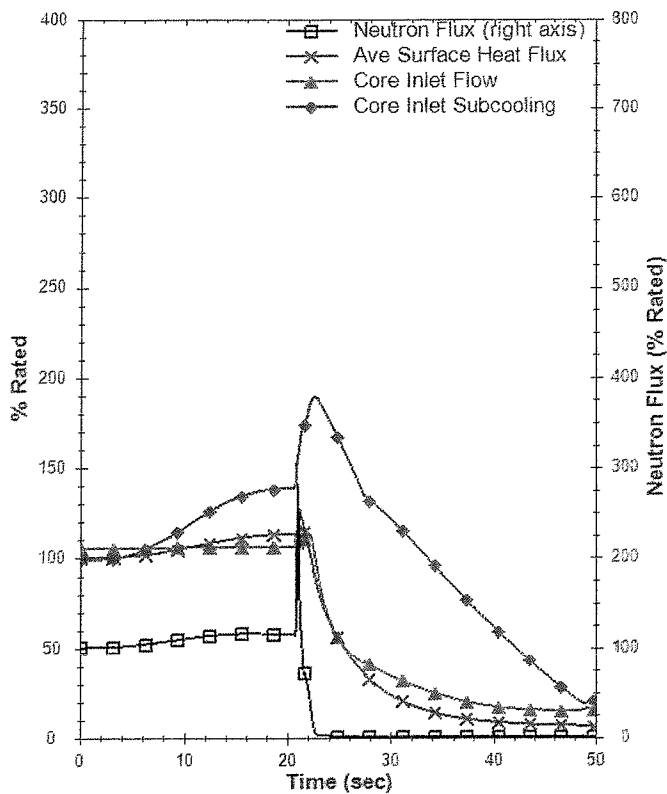
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 BOC to MOC1 : ICF-HBB - 1 TBVOOS
 Figure XIV-5-28g 01/21/198



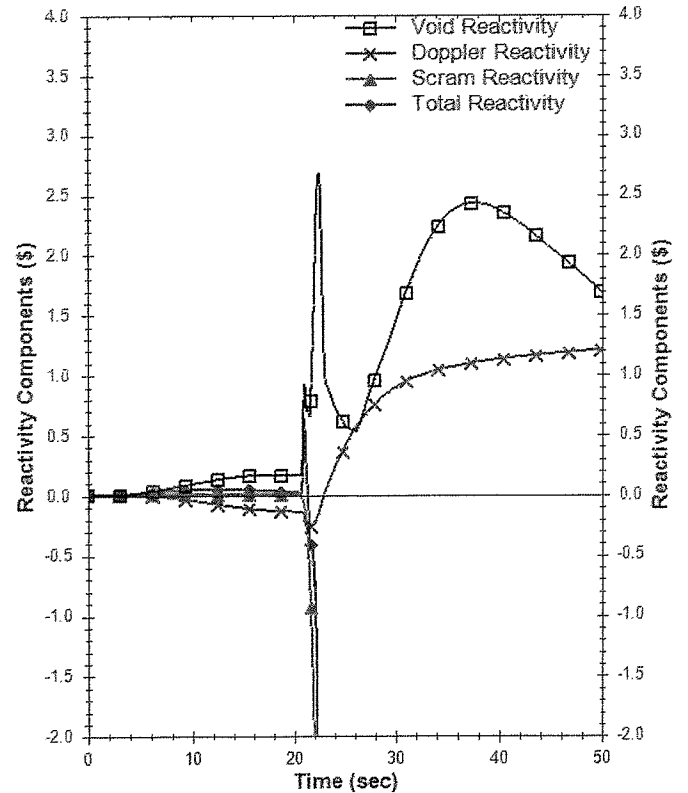
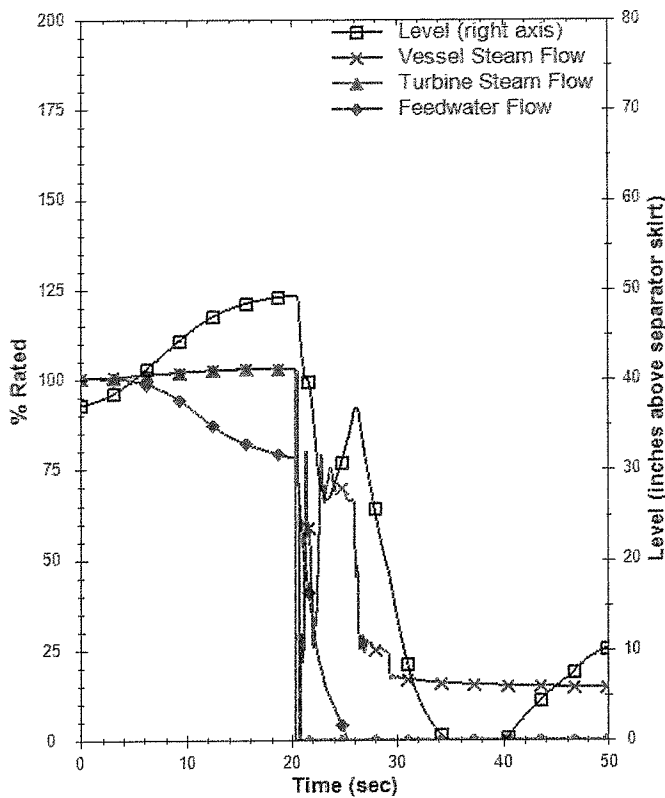
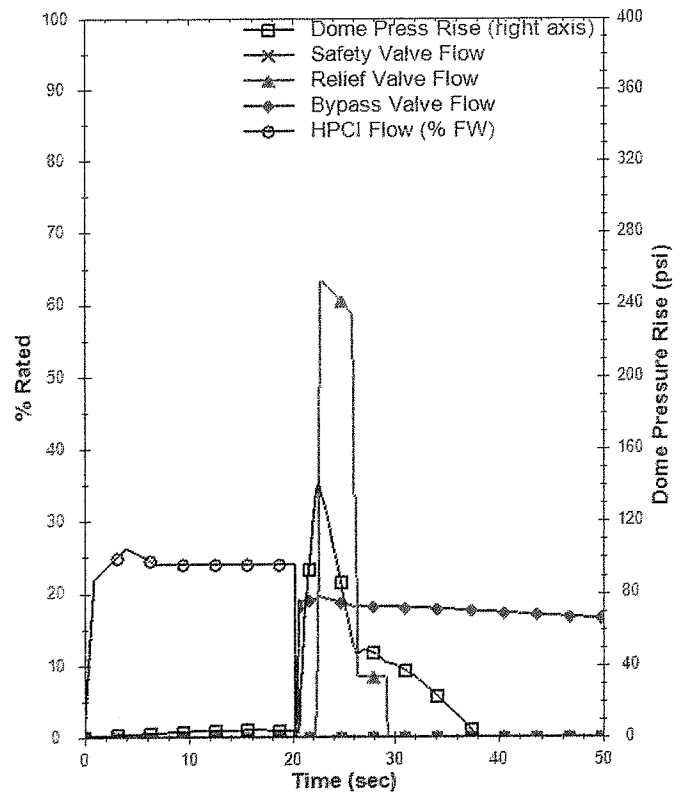
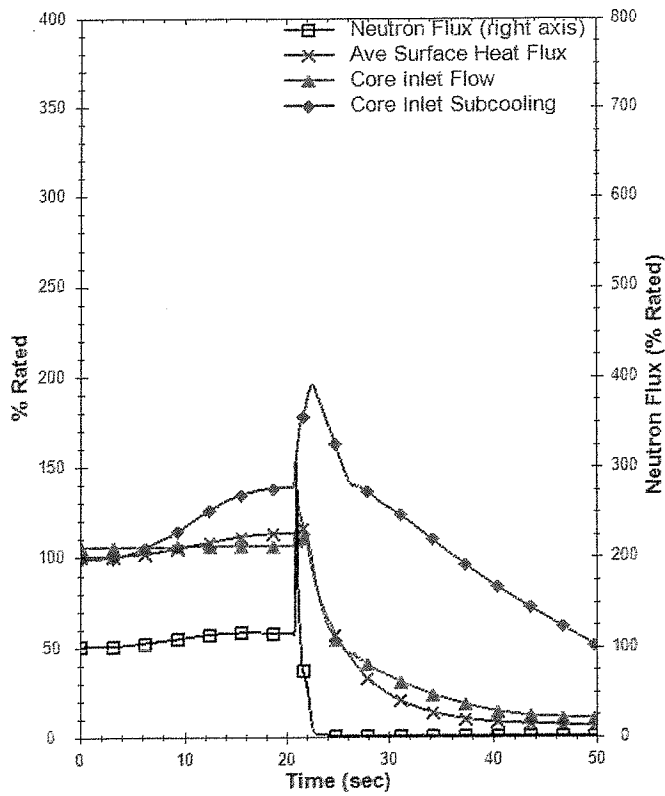
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 MOC1 to MOC2 : ICF-HBB
 Figure XIV-5-28h 01/21/19



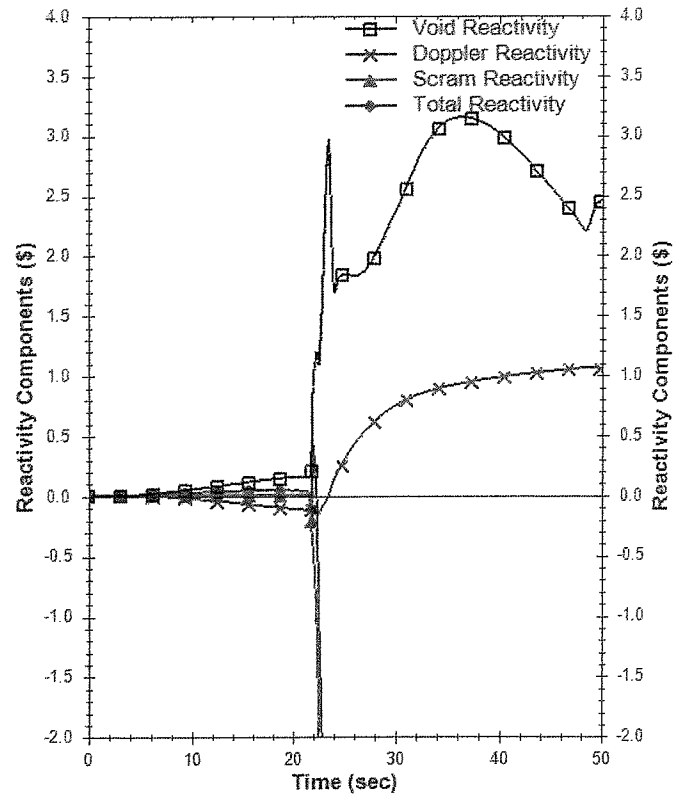
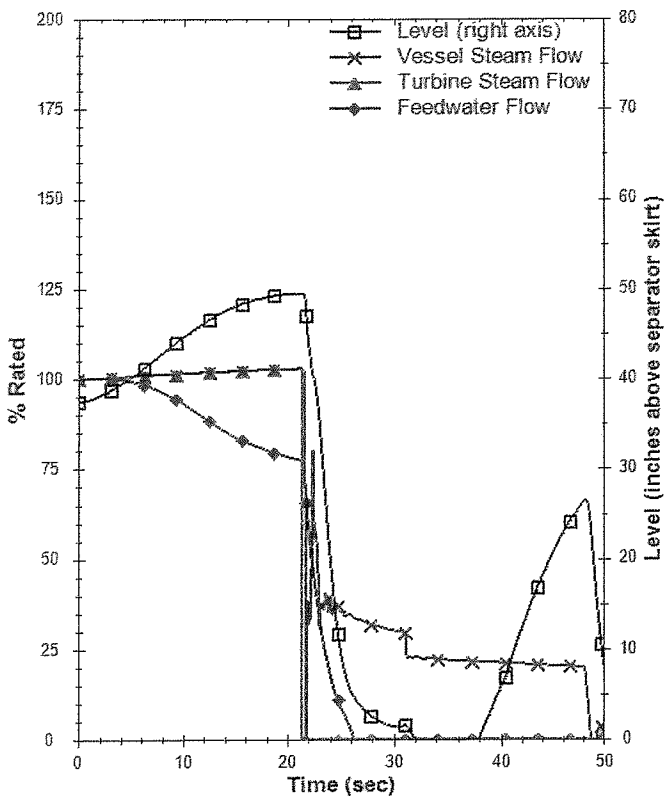
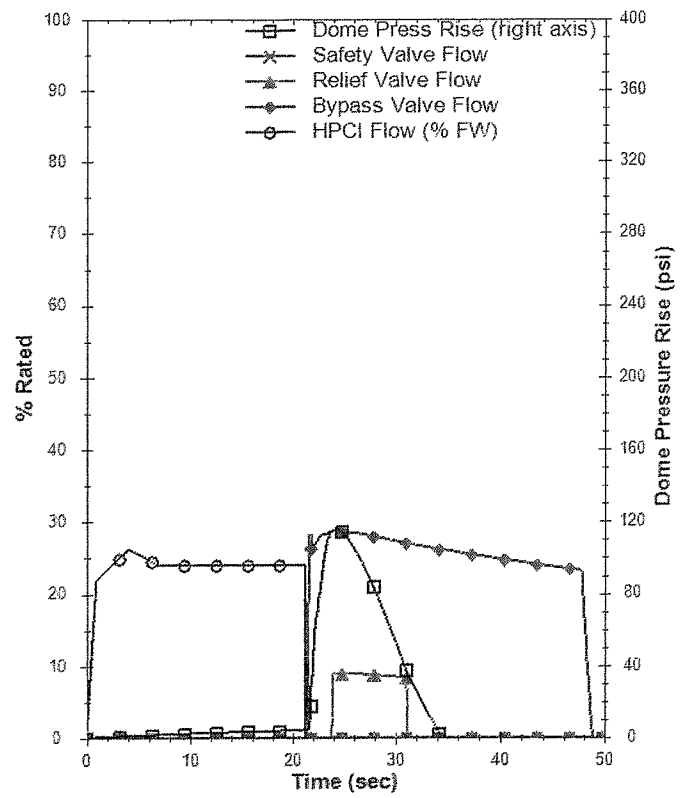
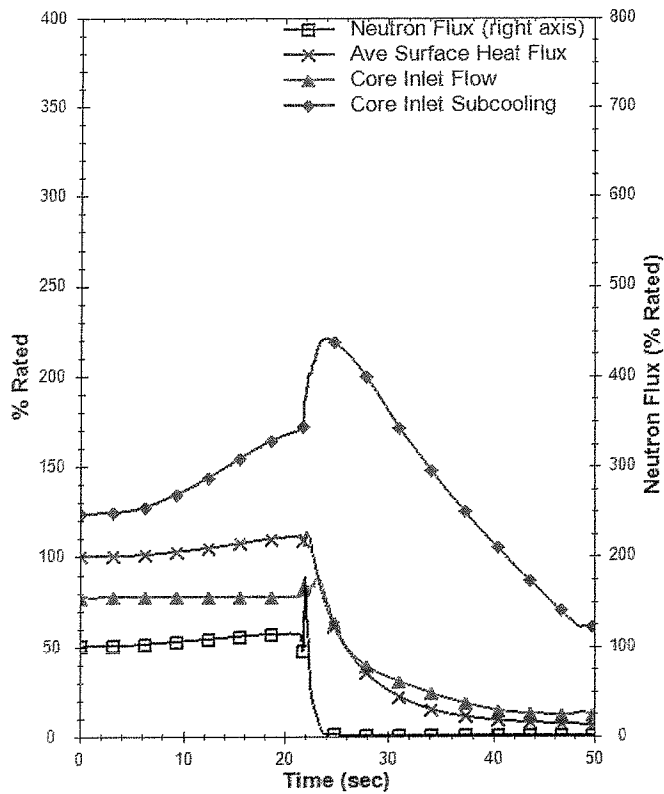
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 MOC2 to EOC: ICF-HBB
 Figure XIV-5-28i 01/21/19



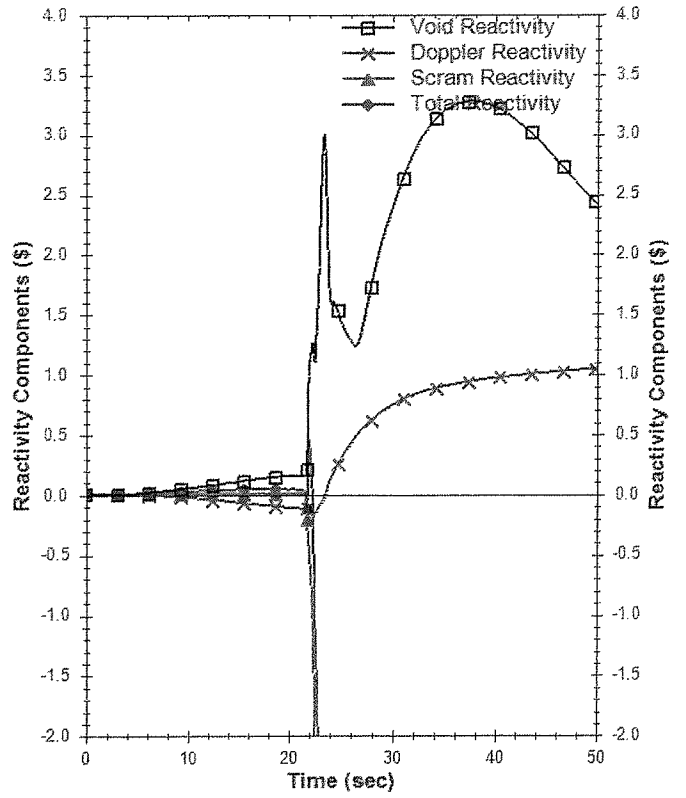
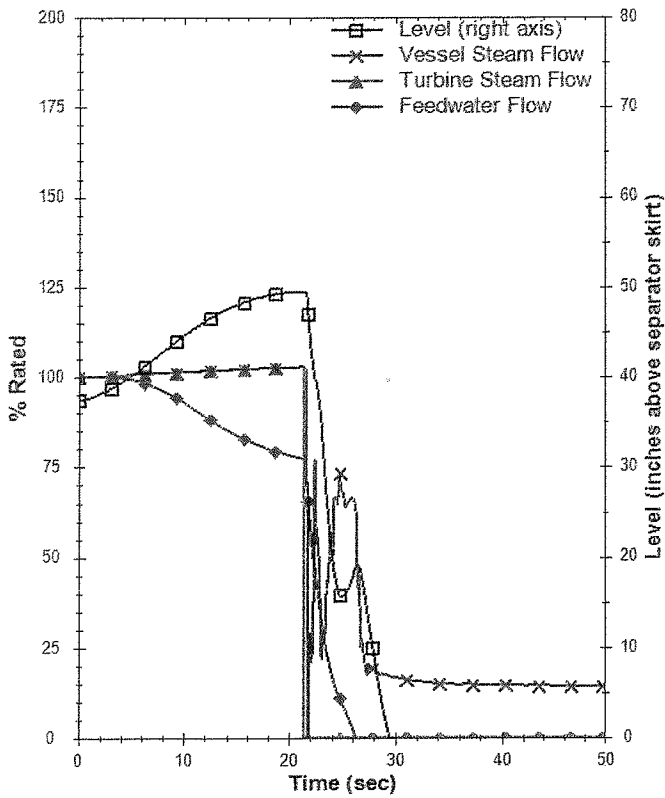
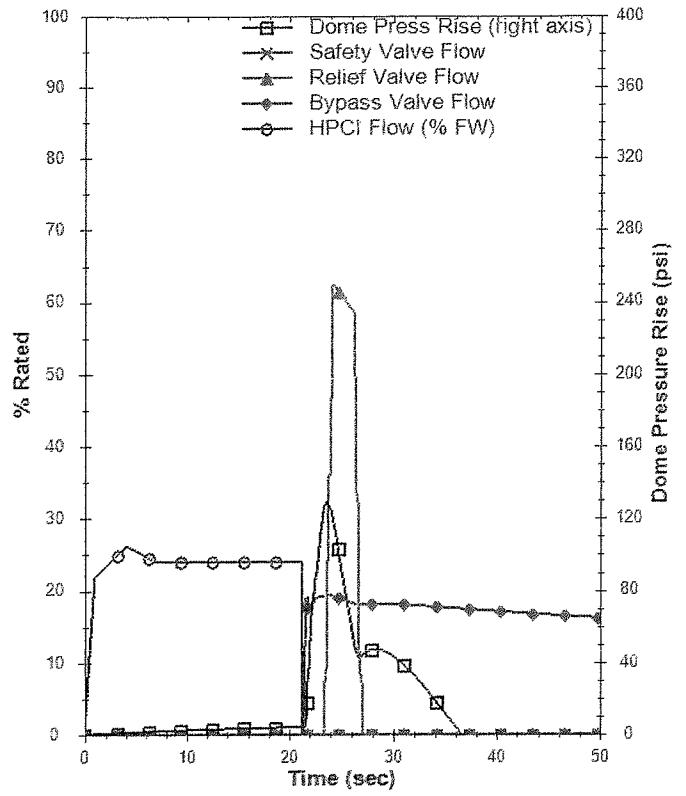
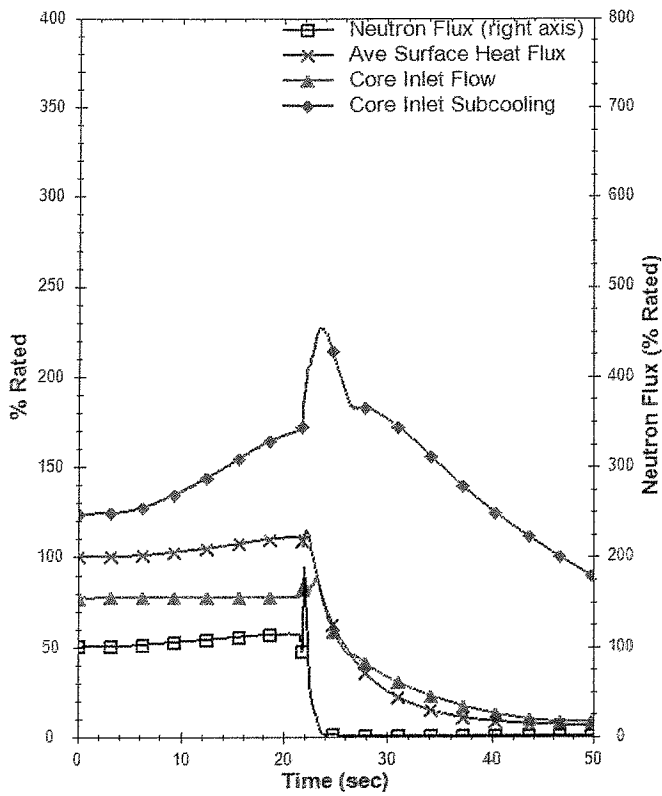
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 MOC1 to EOC: ICF-HBB - 1 TBVOOS
 Figure XIV-5-28j 01/21/19



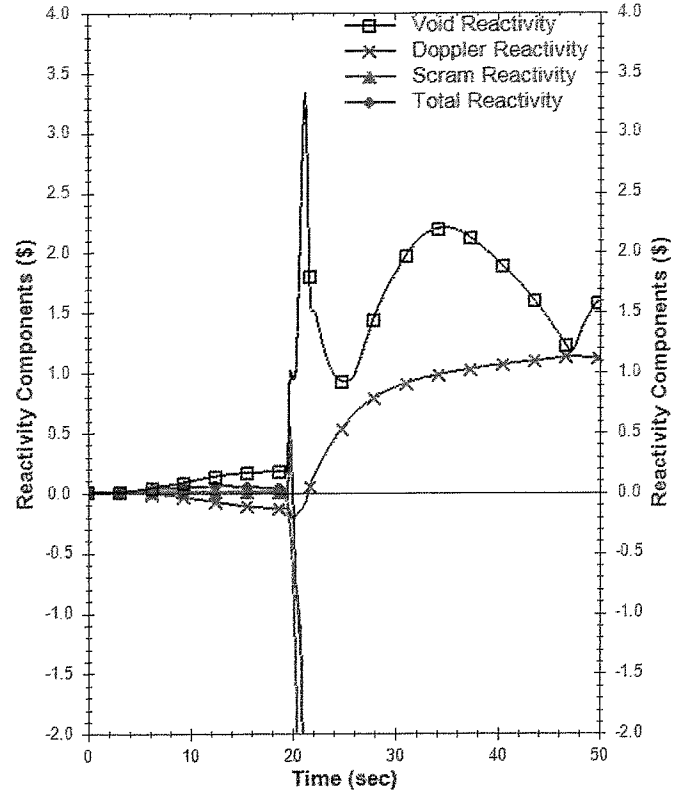
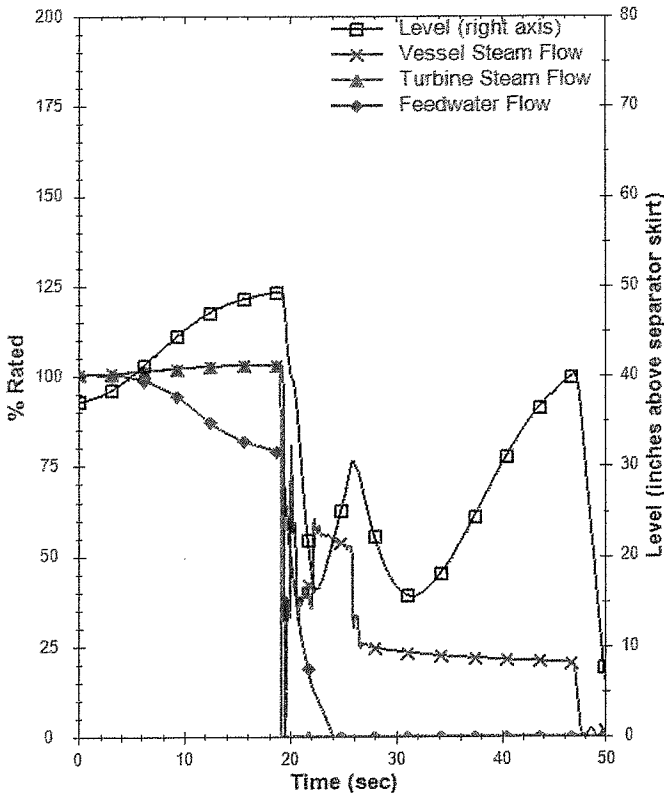
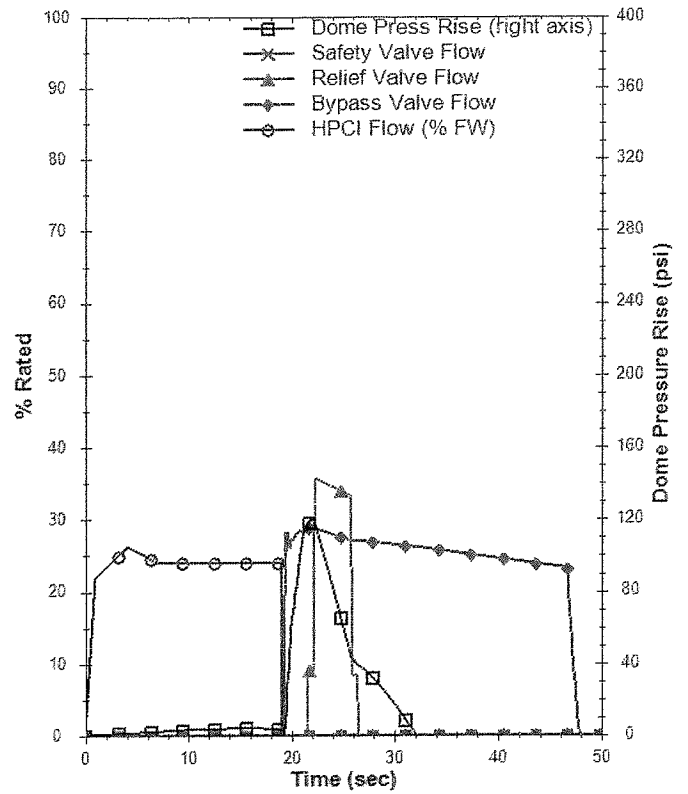
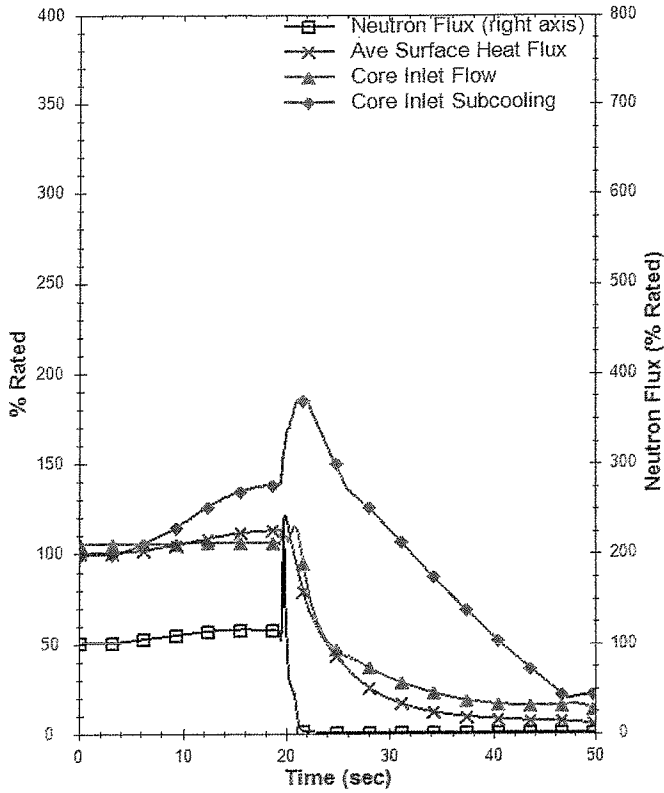
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 EOC : MELLA-UB
 Figure XIV-5-28k 01/21/19



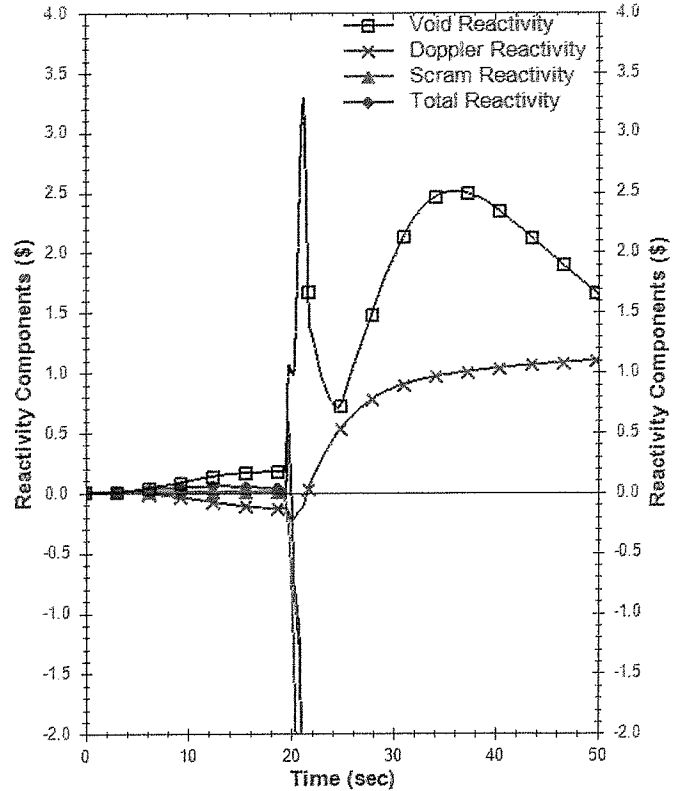
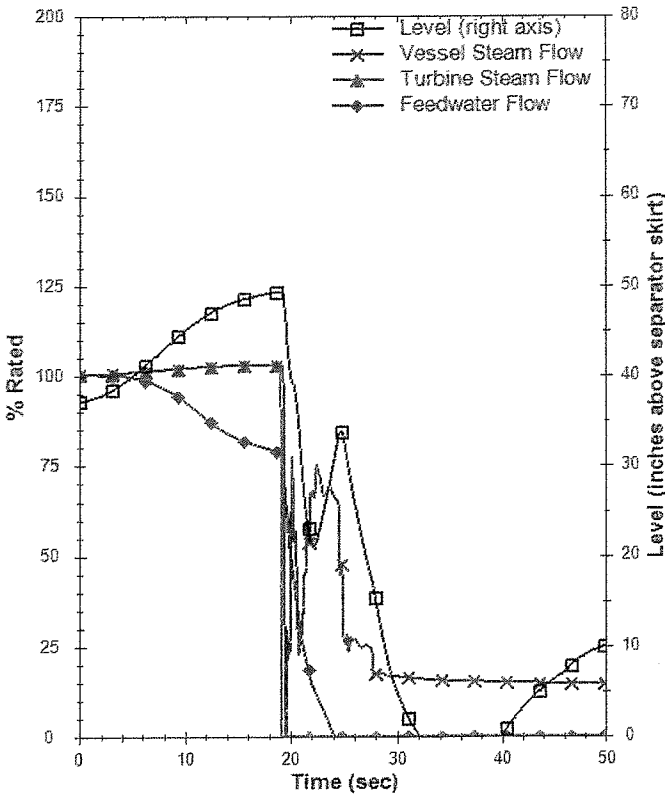
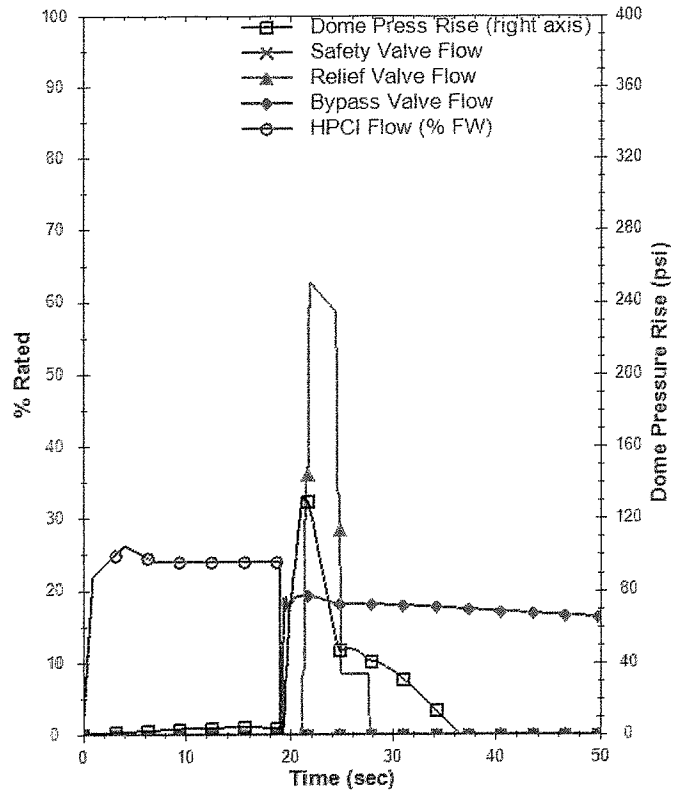
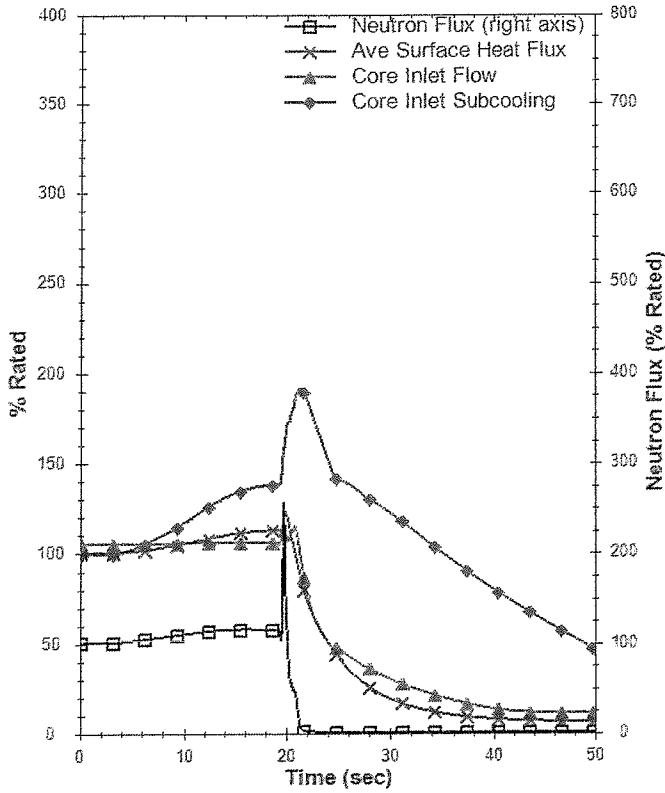
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 EOC : MELLA-UB - 1 TBVOOS
 Figure XIV-5-28I 01/21/19



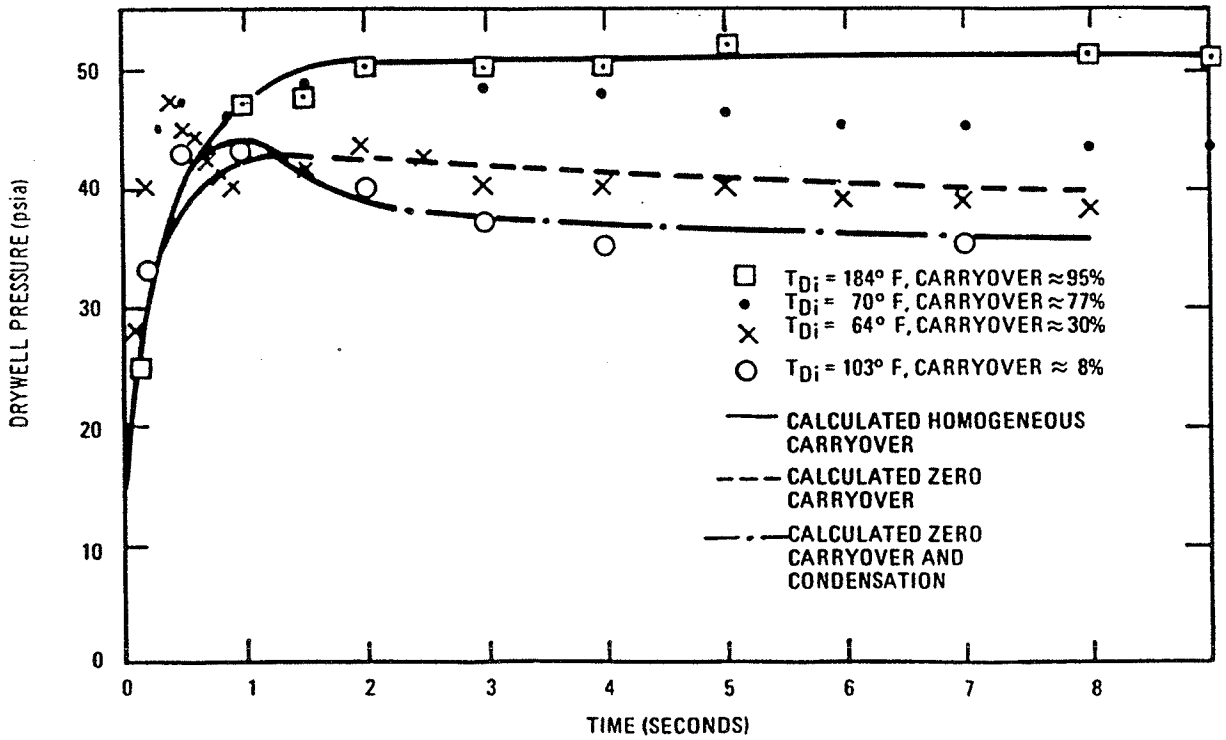
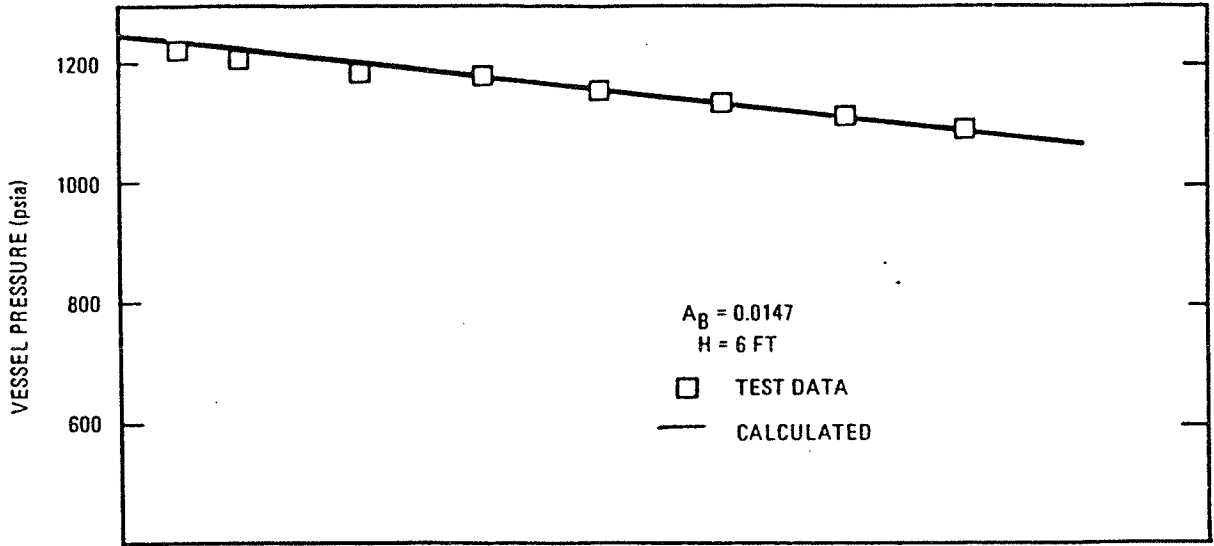
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 EOC : ICF-UB
 Figure XIV-5-28m 01/21/19



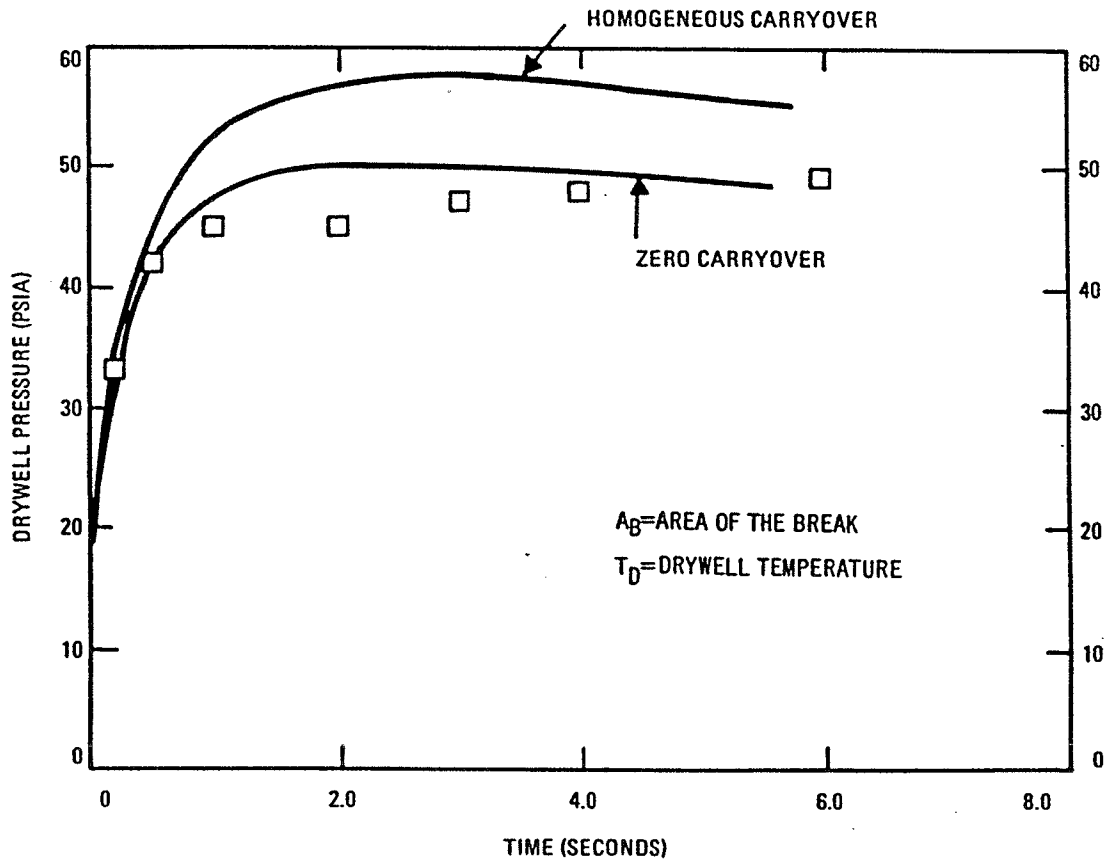
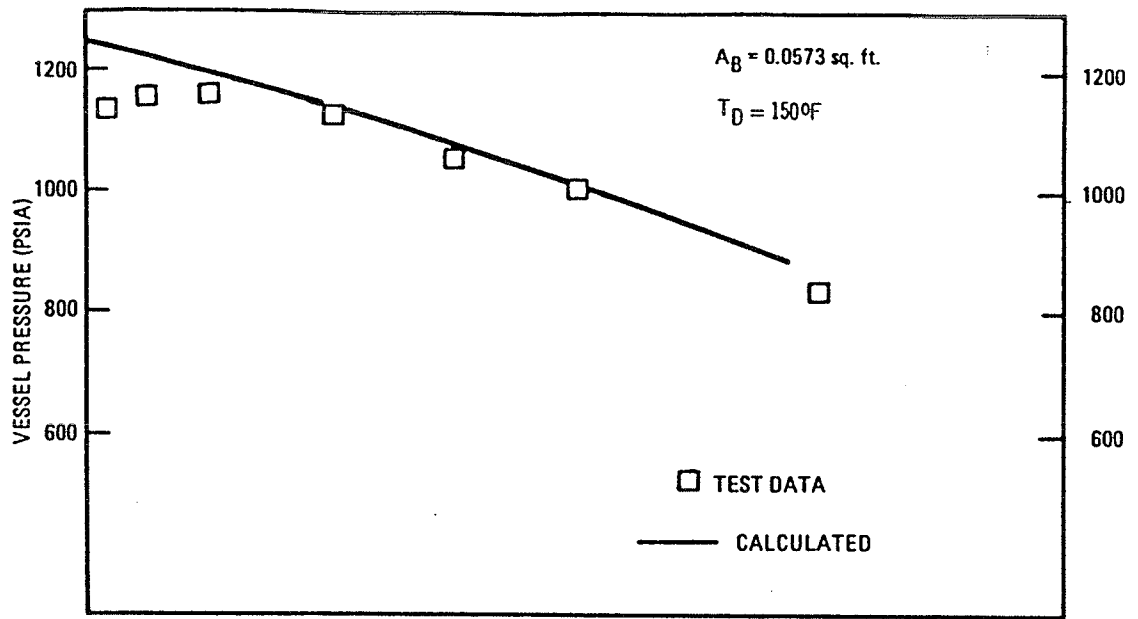
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Inadvertent HPCI/L8 Turbine Trip
 EOC : ICF-UB - 1 TBVOOS
 Figure XIV-5-28n 01/21/19



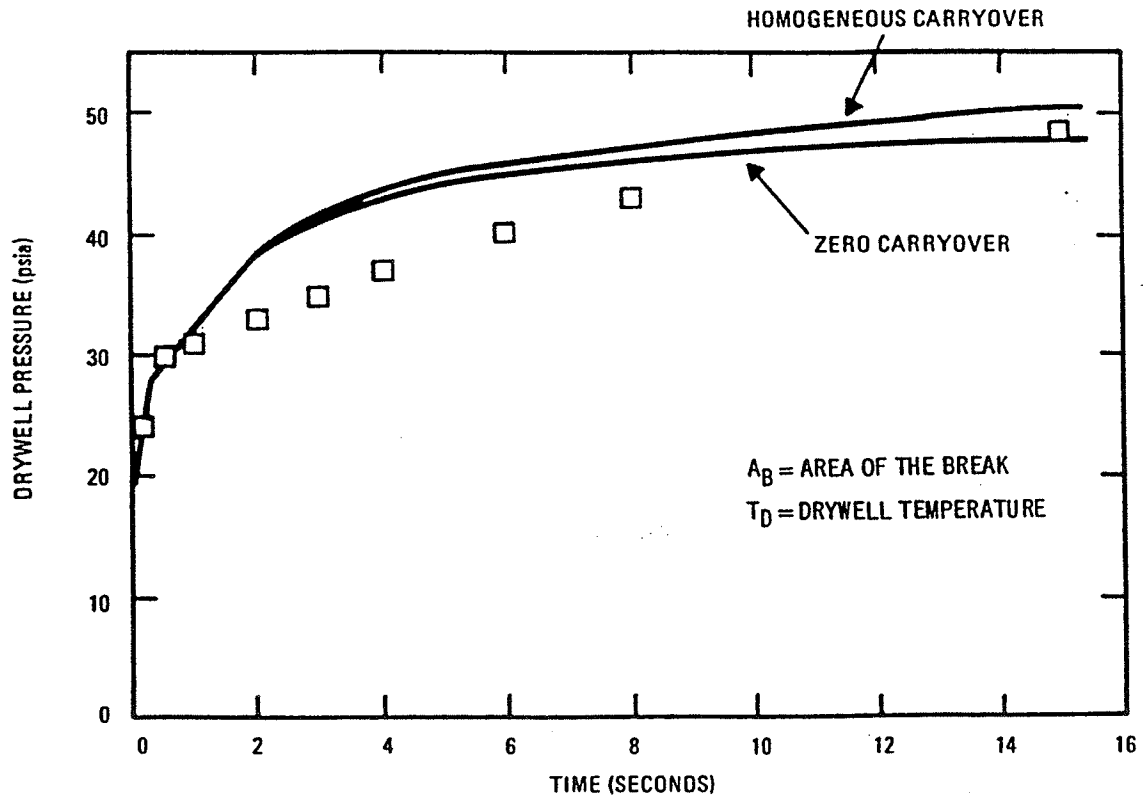
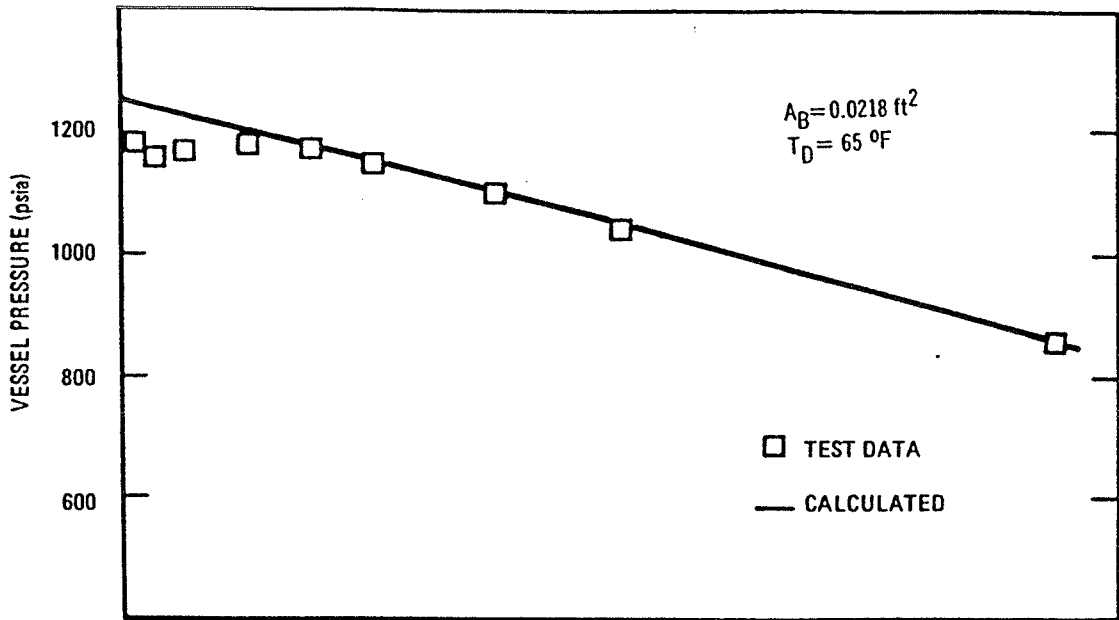
Nebraska Public Power District
 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)

*Loss of Coolant Accident
 Humboldt Primary Containment
 Pressure Response
 Figure XIV-6-1 03/27/00*



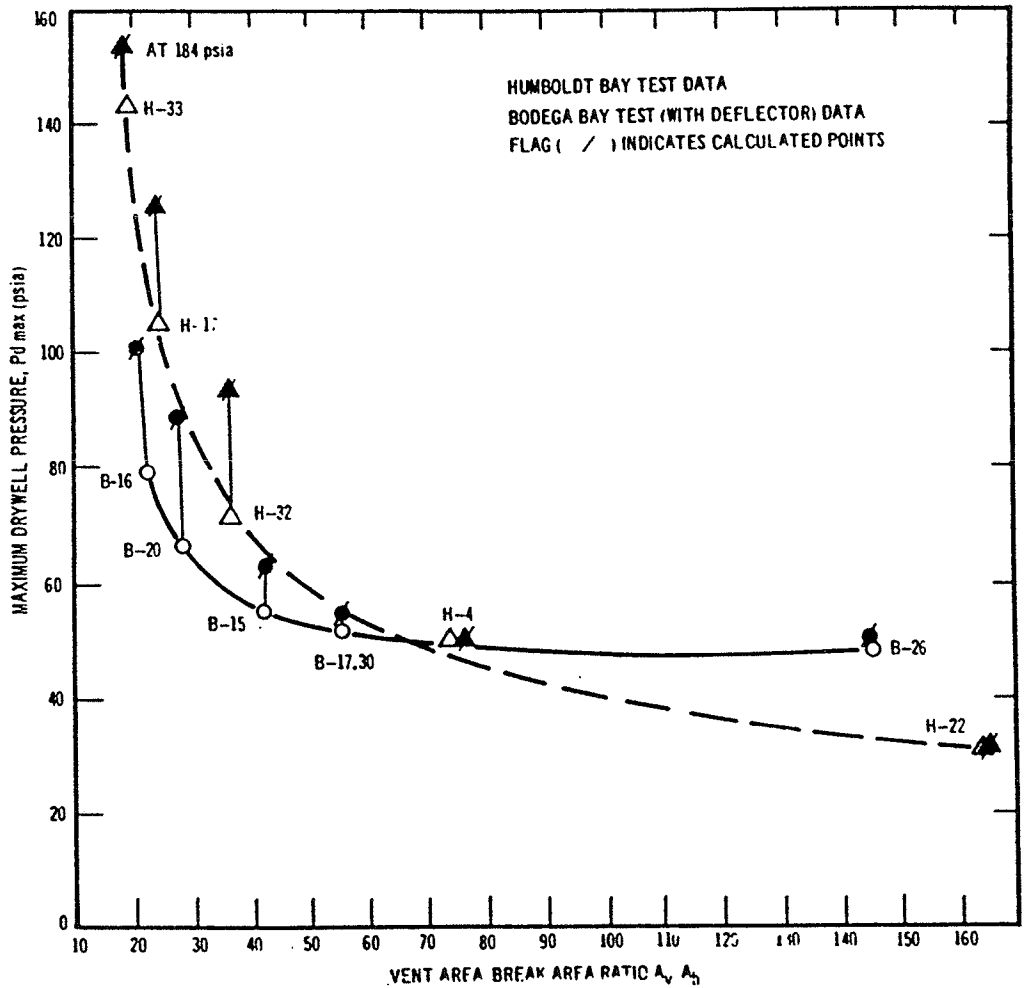
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Loss of Coolant Accident
Bodega Bay Primary Containment
Pressure Response
Figure XIV-6-2 03/27/00



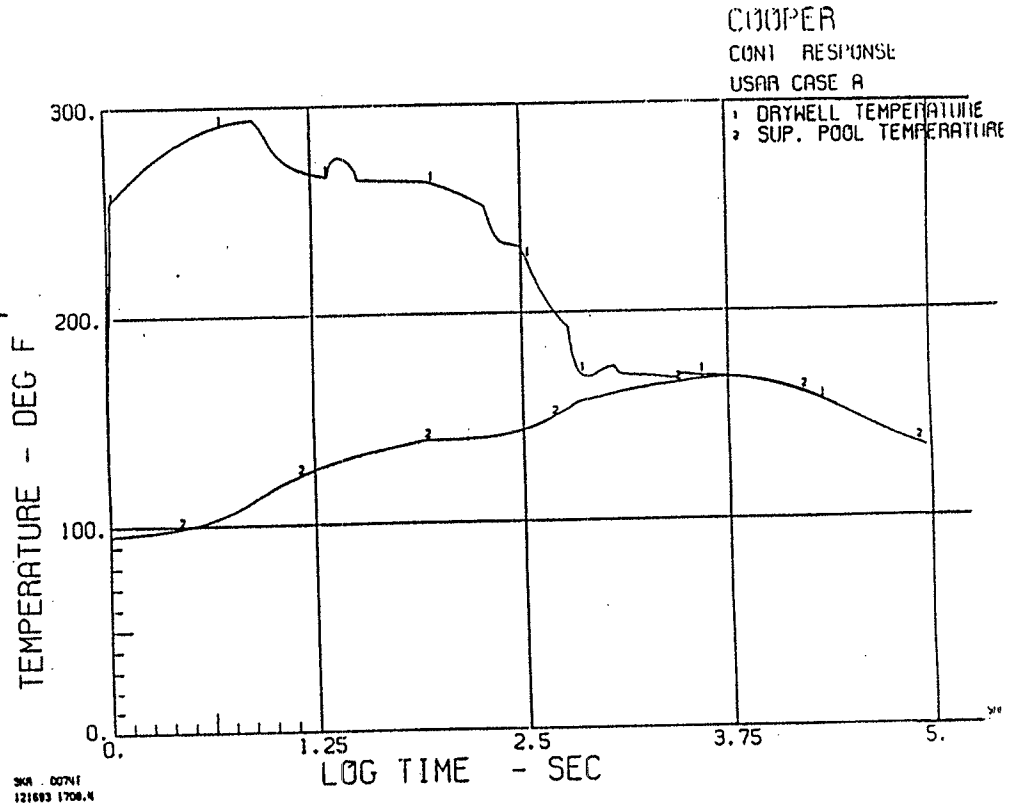
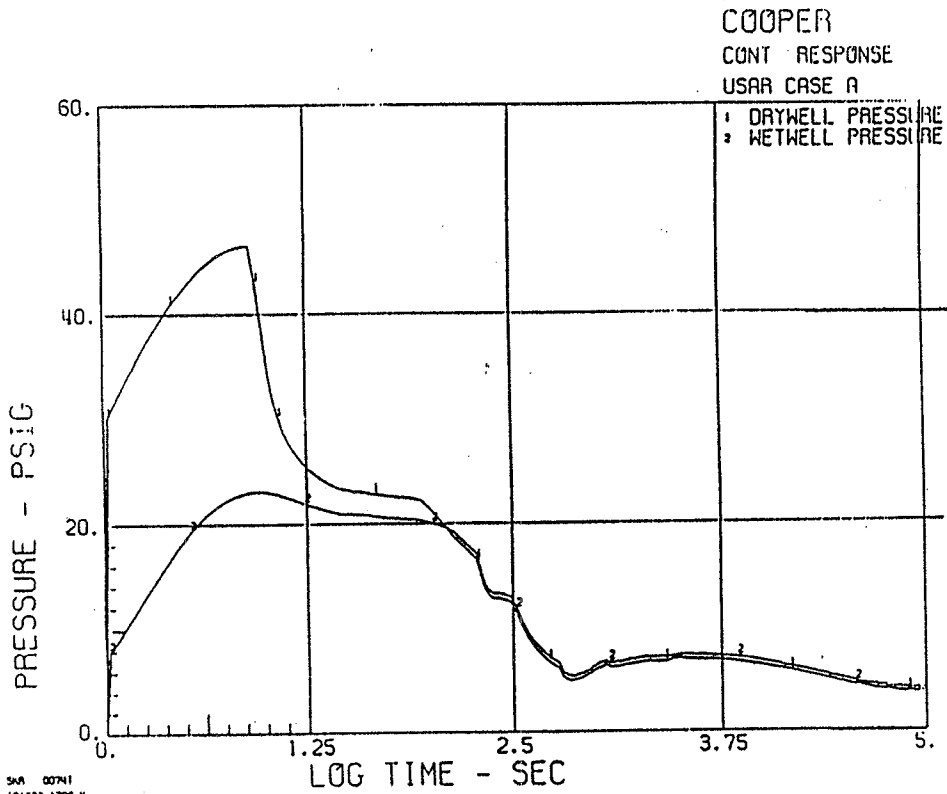
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Loss of Coolant Accident
Bodega Bay Primary Containment
Pressure Response
Figure XIV-6-3 03/27/00



Nebraska Public Power District
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 UPDATED SAFETY ANALYSIS REPORT (USAR)

*Loss of Coolant Accident
 Comparison of Calculated and Measured
 Peak Drywell Pressure for Bodega Bay
 and Humboldt Tests
 Figure XIV-6-4 03/27/00*



Case A Operation of both RHRS cooling loops - 4 RHRS pumps, 4 RHR Service Water Booster pumps, 3 Service Water pumps, and 2 RHRS heat exchangers - with containment spray.

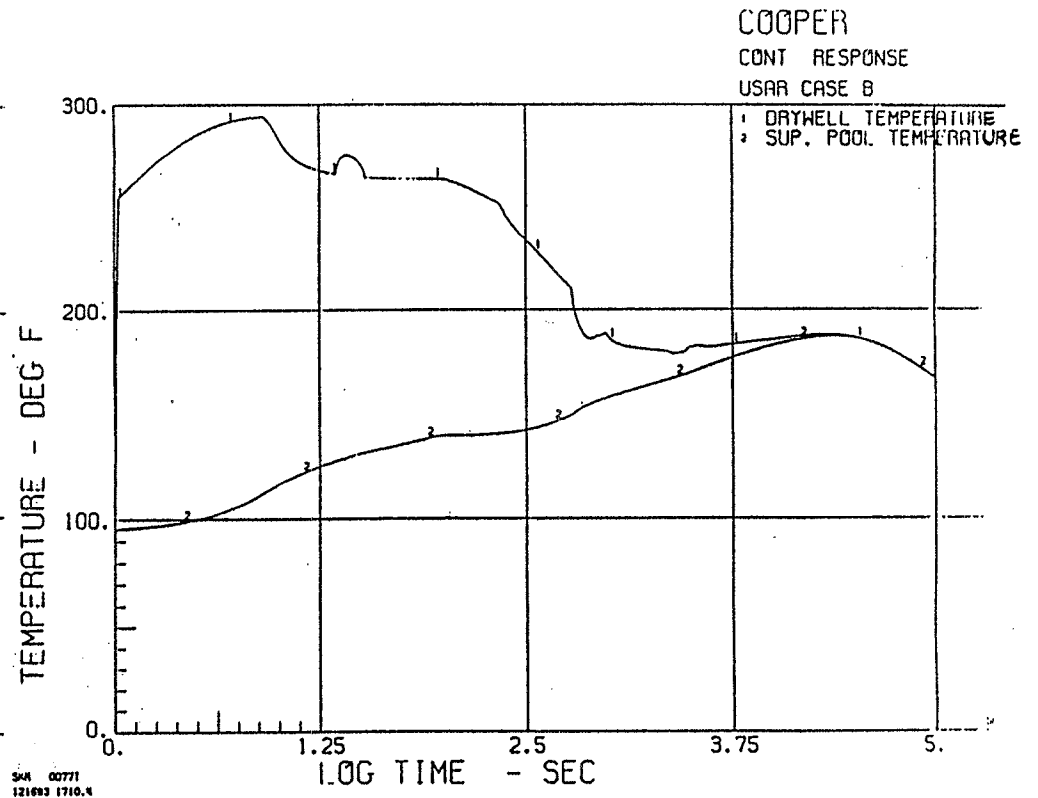
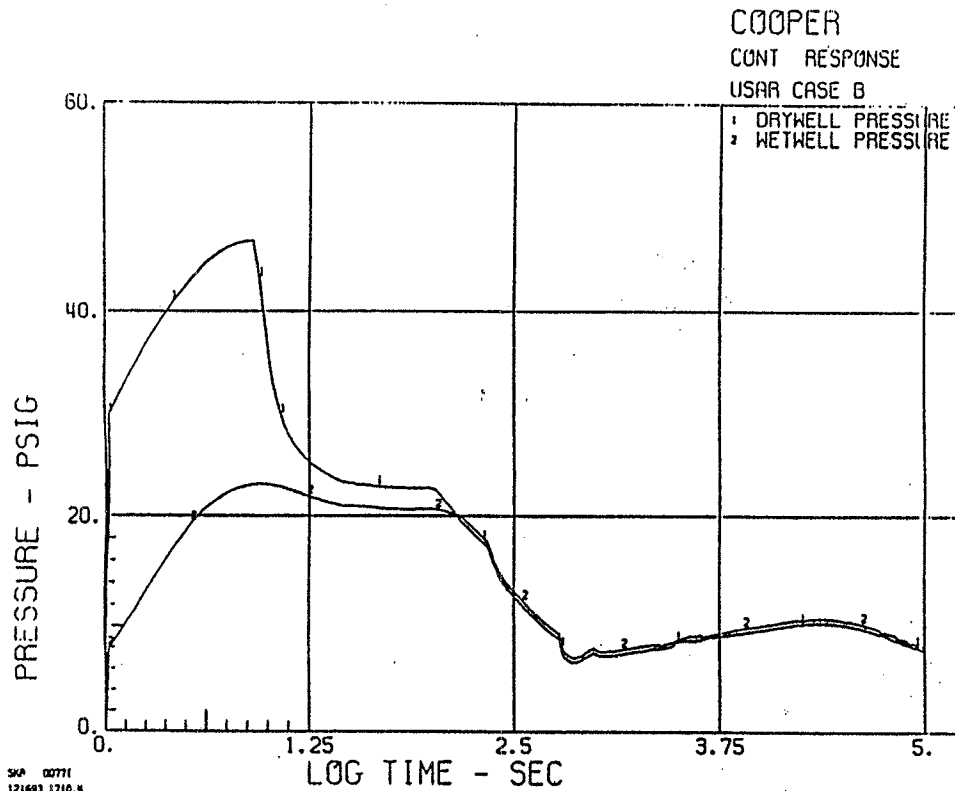
NOTE: The short term response curves (i.e., prior to 600 seconds) have been shown on this figure for information only. Refer to Section 6.3.7.1 and Figures XIV-6-18 and XIV-6-19 for the short term analysis.

This case has not been reanalyzed.

**Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)**

Loss of Coolant Accident
Primary Containment Pressure
and Temperature Response
Case A

Figure XIV-6-5 03/14/02



Case B Operation of one RHRS cooling loop with 2 RHRS pumps, 2 RHR Service Water Booster pumps, 2 Service Water pumps, and 1 RHRS heat exchangers - with containment spray.

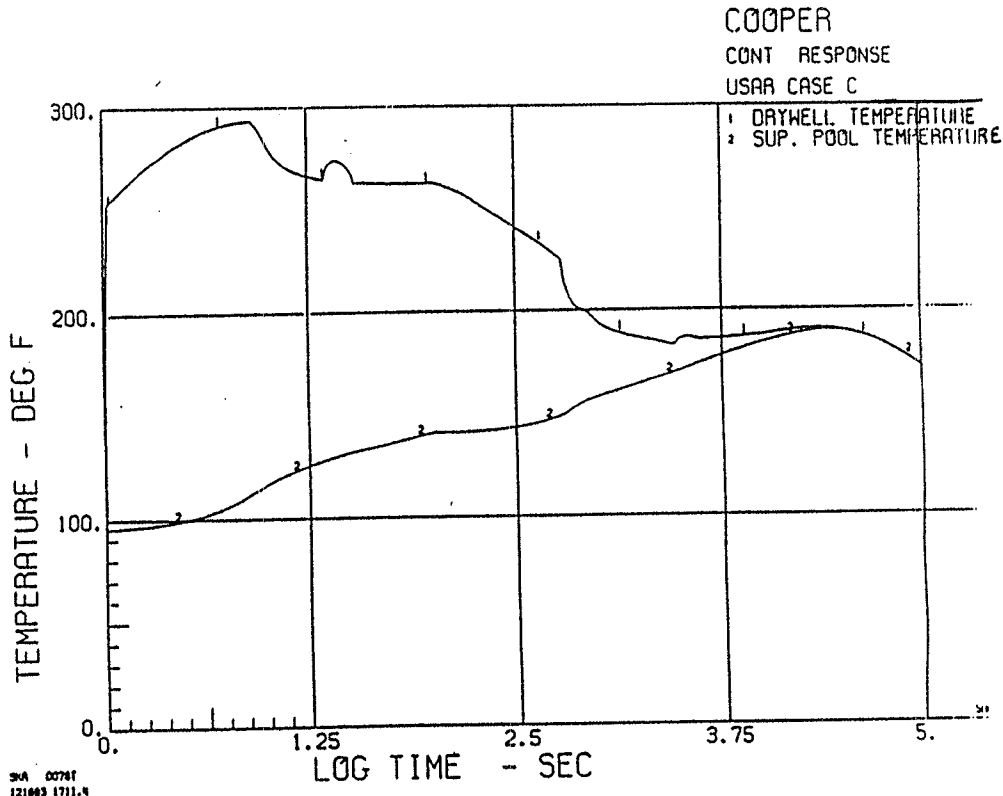
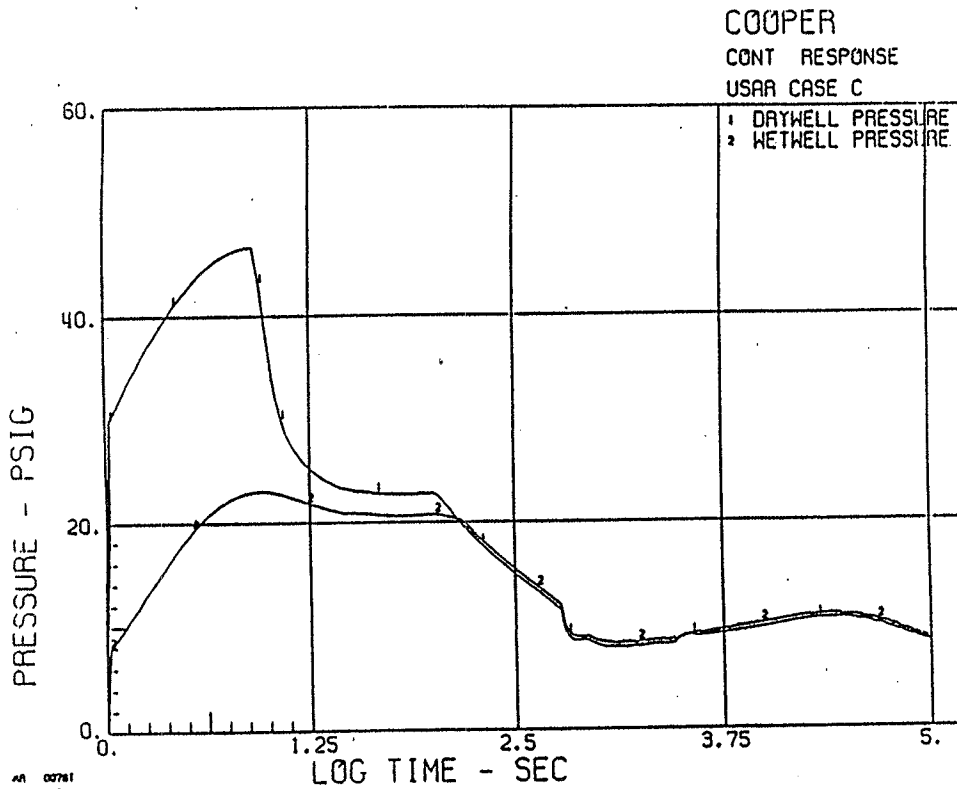
NOTE: The short term response curves (i.e., prior to 600 seconds) have been shown on this figure for information only. Refer to Section 6.3.7.1 and Figures XIV-6-18 and XIV-6-19 for the short term analysis.

This case has not been reanalyzed.

**Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)**

Loss of Coolant Accident
Primary Containment Pressure
and Temperature Response
Case B

Figure XIV-6-6 03/14/02



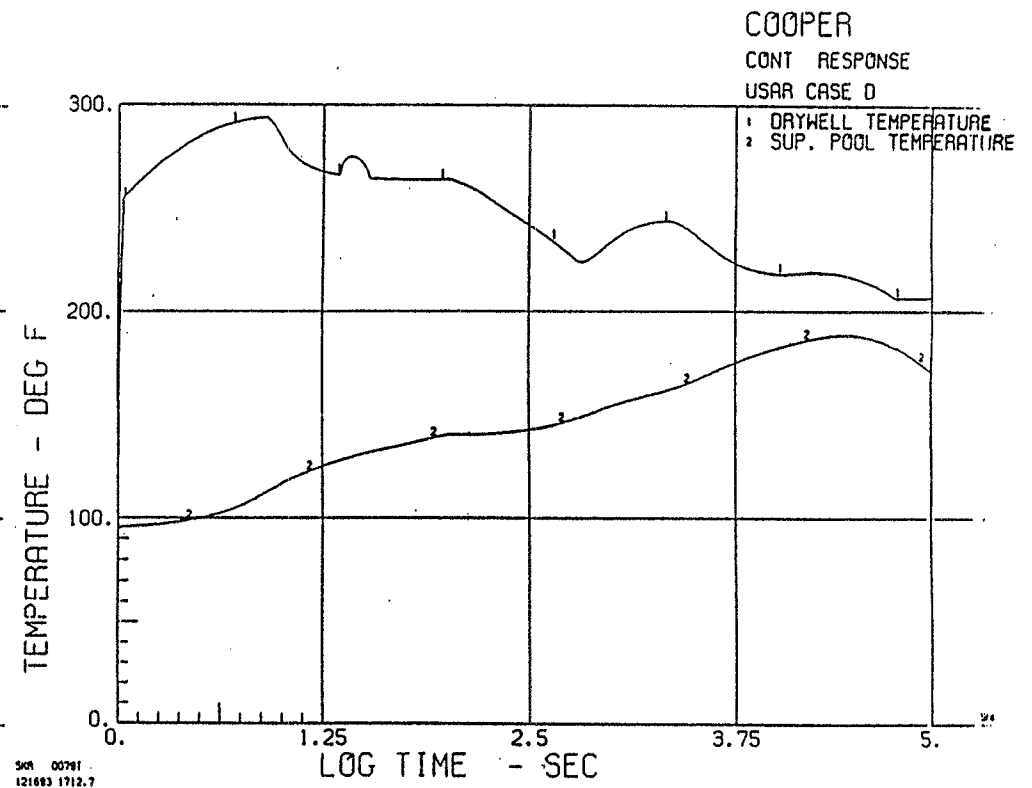
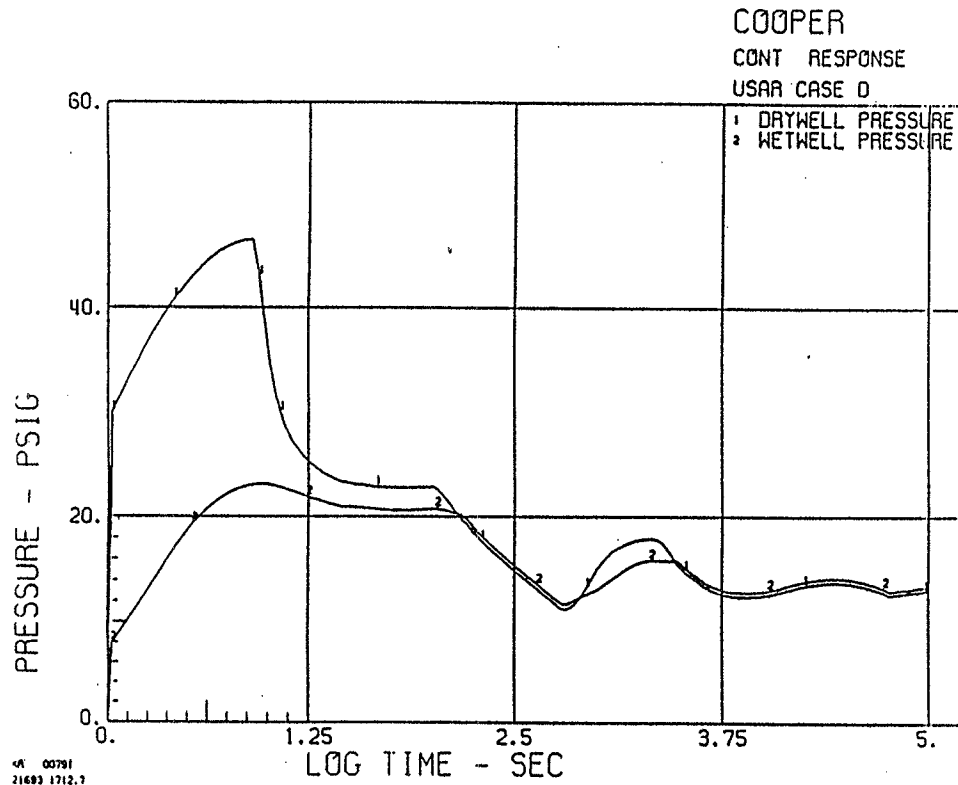
Case C Operation of one RHRS cooling loop with 1 RHRS pump, 2 RHR Service Water Booster pumps, 2 Service Water pumps, and 1 RHRS heat exchangers - with containment spray.

NOTE: The short term response curves (i.e., prior to 600 seconds) have been shown on this figure for information only. Refer to Section 6.3.7.1 and Figures XIV-6-18 and XIV-6-19 for the short term analysis.

This case has not been reanalyzed.

**Nebraska Public Power District
COOPER NUCLEAR STATION
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Loss of Coolant Accident
Primary Containment Pressure
and Temperature Response
Case C
Figure XIV-6-7 03/14/02



Case D Operation of one RHRS cooling loop with 1 RHRS pump, 2 RHR Service Water Booster pumps, 2 Service Water pumps, and 1 RHRS heat exchangers - no containment spray.

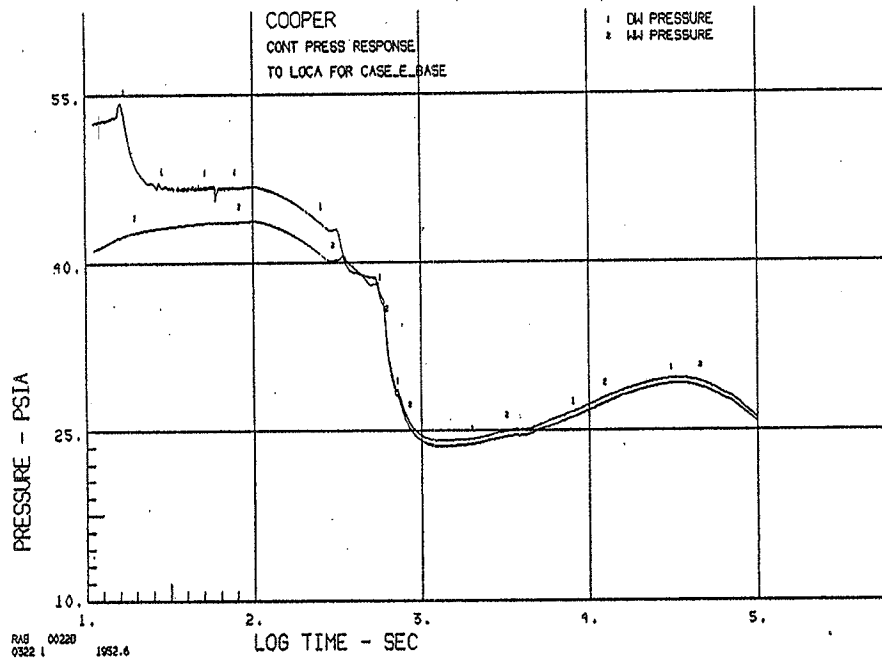
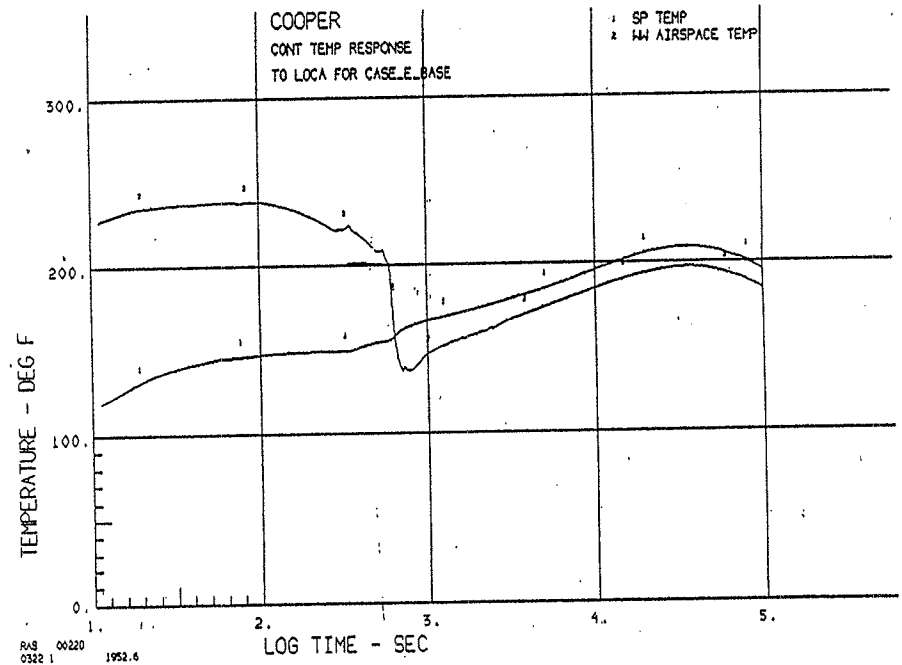
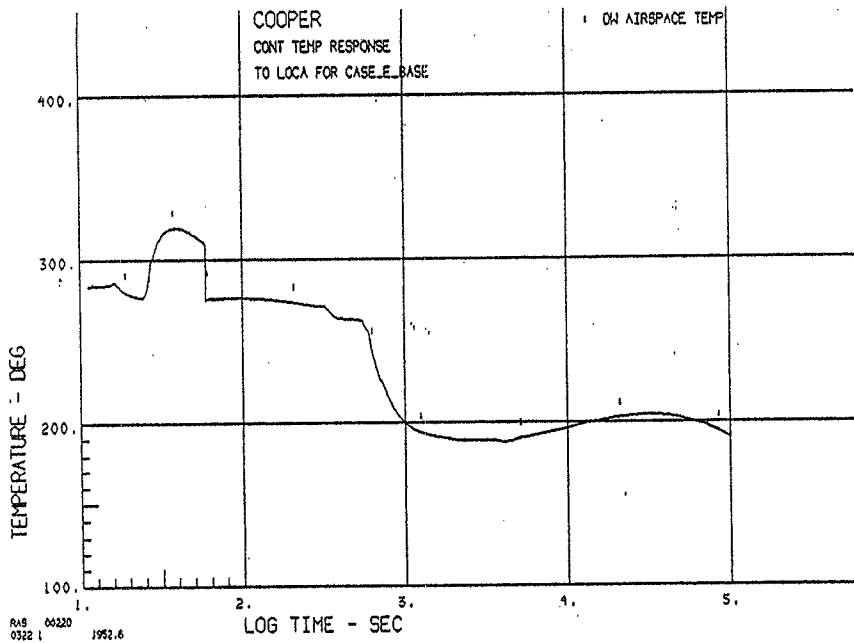
NOTE: The short term response curves (i.e., prior to 600 seconds) have been shown on this figure for information only. Refer to Section 6.3.7.1 and Figures XIV-6-18 and XIV-6-19 for the short term analysis.

This case has not been reanalyzed.

**Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)**

Loss of Coolant Accident
Primary Containment Pressure
and Temperature Response
Case D

Figure XIV-6-8 03/14/02



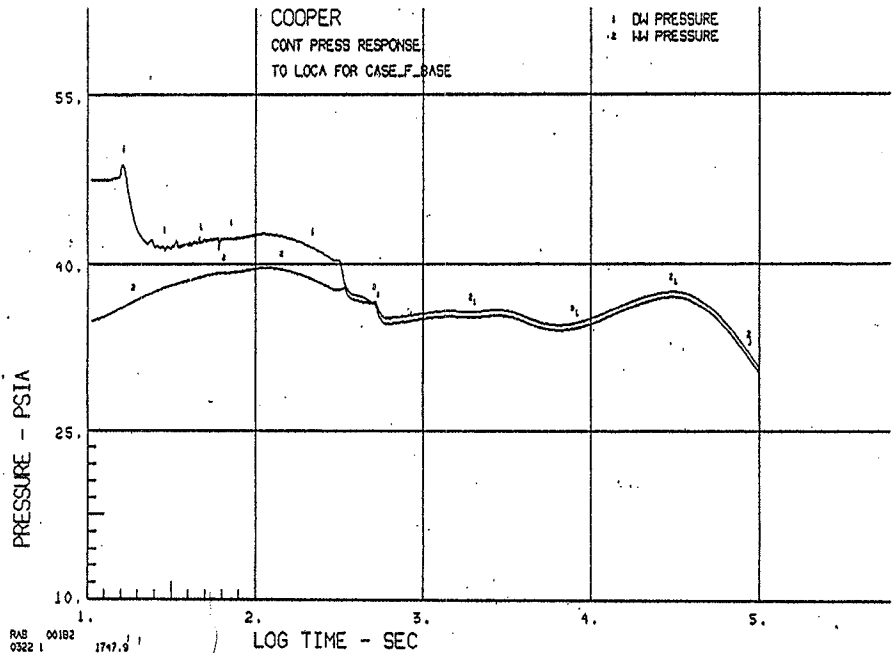
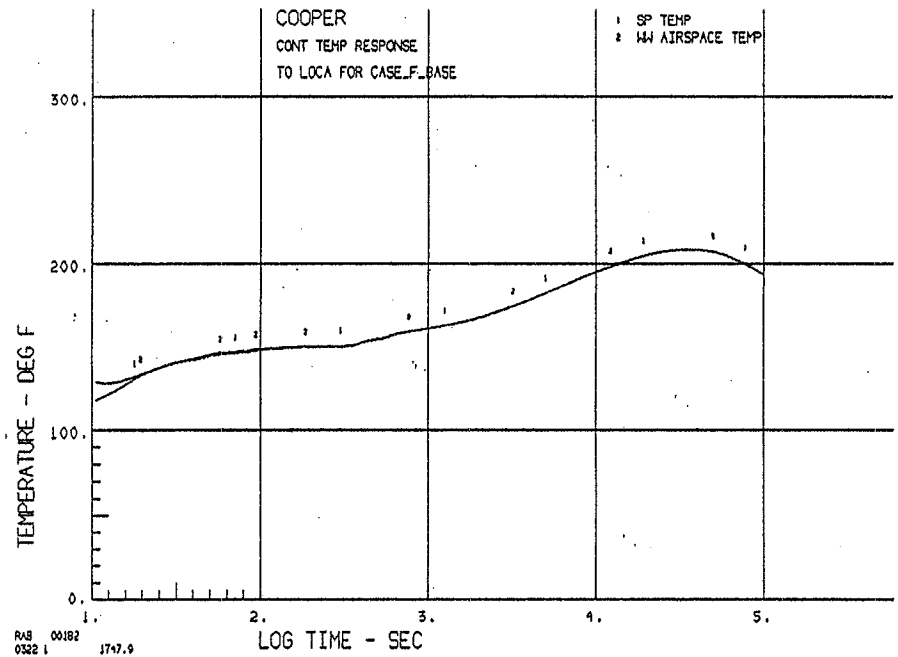
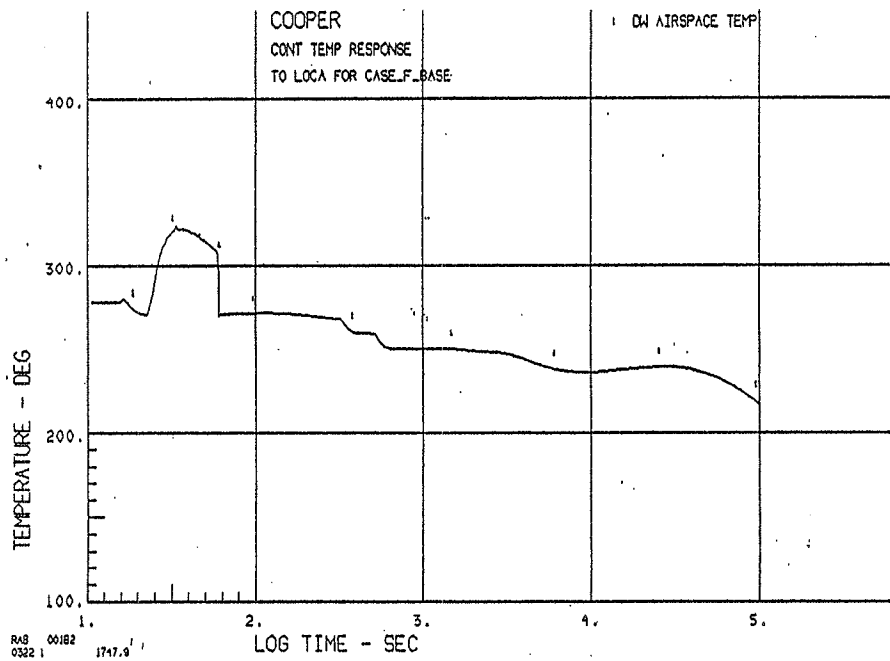
Case E Operation of one RHRS cooling loop with 1 RHRS pump, 1 RHR Service Water Booster pump, 1 Service Water Pump, and 1 RHRS heat exchanger - with containment spray.

NOTE: The short term response curves (i.e., prior to 600 seconds) have been shown on this figure for information only. Refer to Section 6.3.7.1 and Figures XIV-6-18 and XIV-6-19 for the short term analysis.

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Loss of Coolant Accident
Primary Containment Pressure
and Temperature Response
Case E

Figure XIV-6-9 03/14/02



Case F Operation of one RHRS cooling loop with 1 RHRS pump, 1 RHR Service Water Booster pump, 1 Service Water pump, and 1 RHRS heat exchanger - with suppression pool cooling.

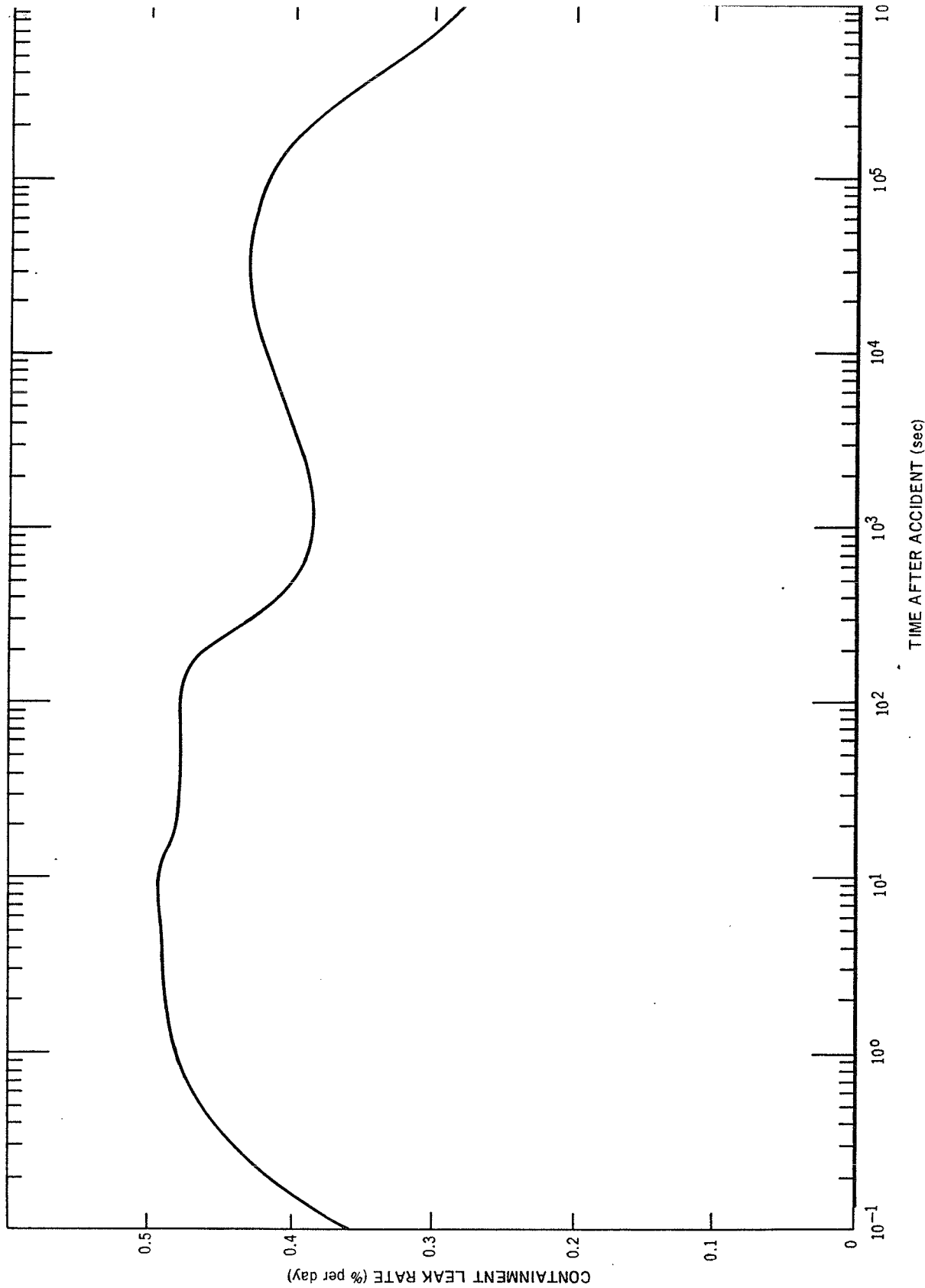
NOTE: The short term response curves (i.e., prior to 600 seconds) have been shown on this figure for information only. Refer to Section 6.3.7.1 and Figures XIV-6-18 and XIV-6-19 for the short term analysis.

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Loss of Coolant Accident
Primary Containment Pressure
and Temperature Response

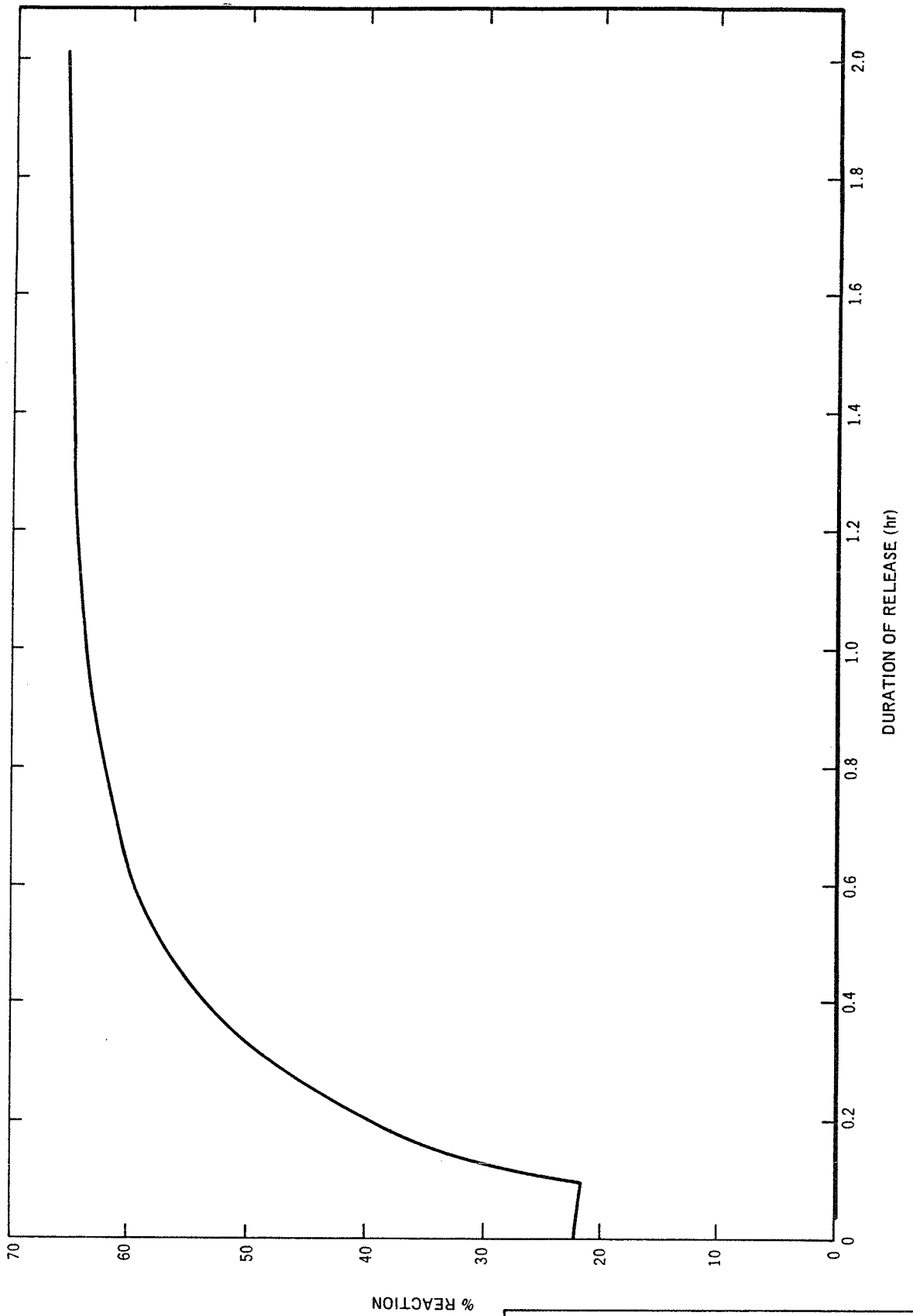
Case F

Figure XIV-6-9A 03/14/02



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 UPDATED SAFETY ANALYSIS REPORT (USAR)

Primary Containment Leak Rate
 Figure XIV-6-10

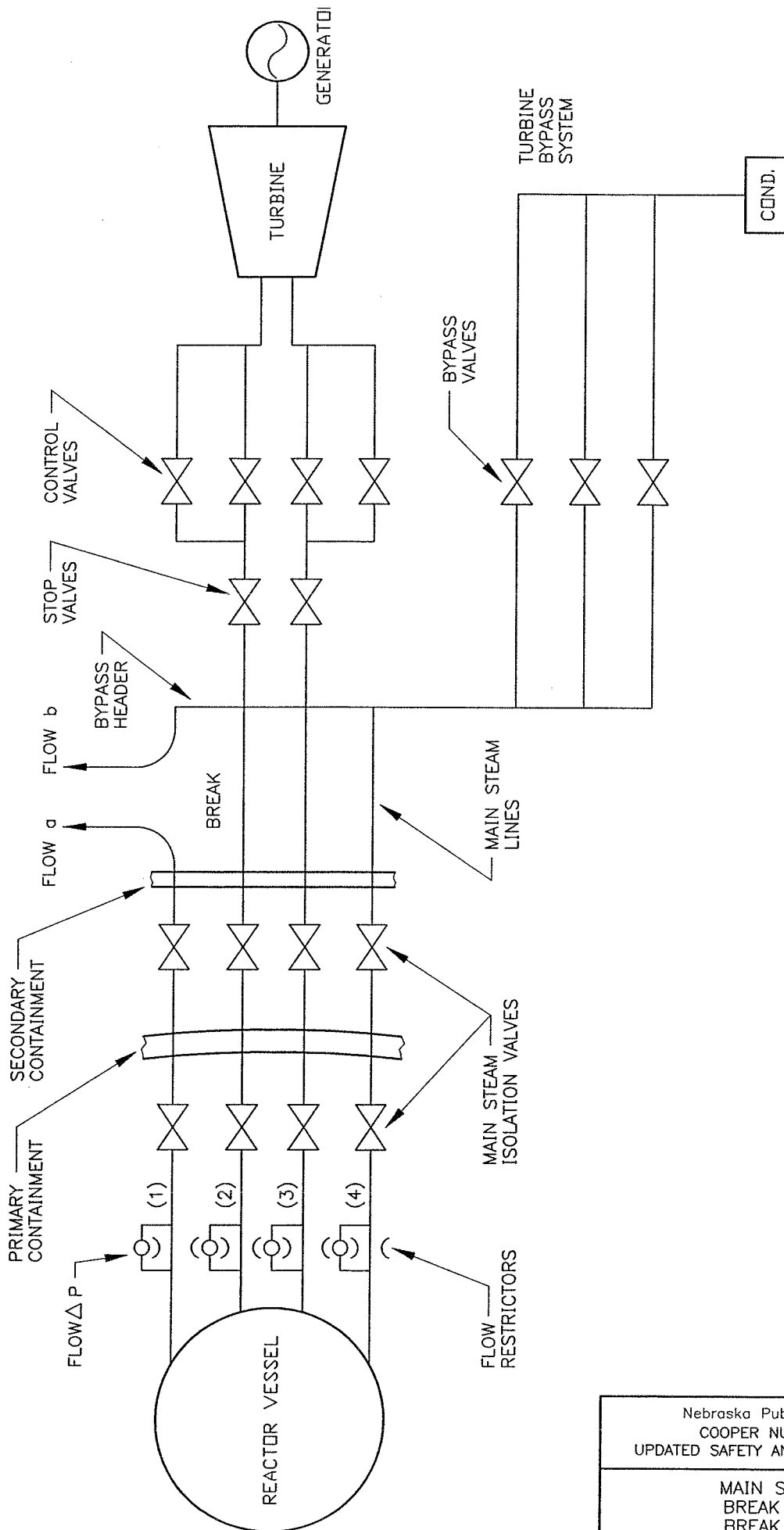


% REACTION

DURATION OF RELEASE (hr)

Nebraska Public Power District
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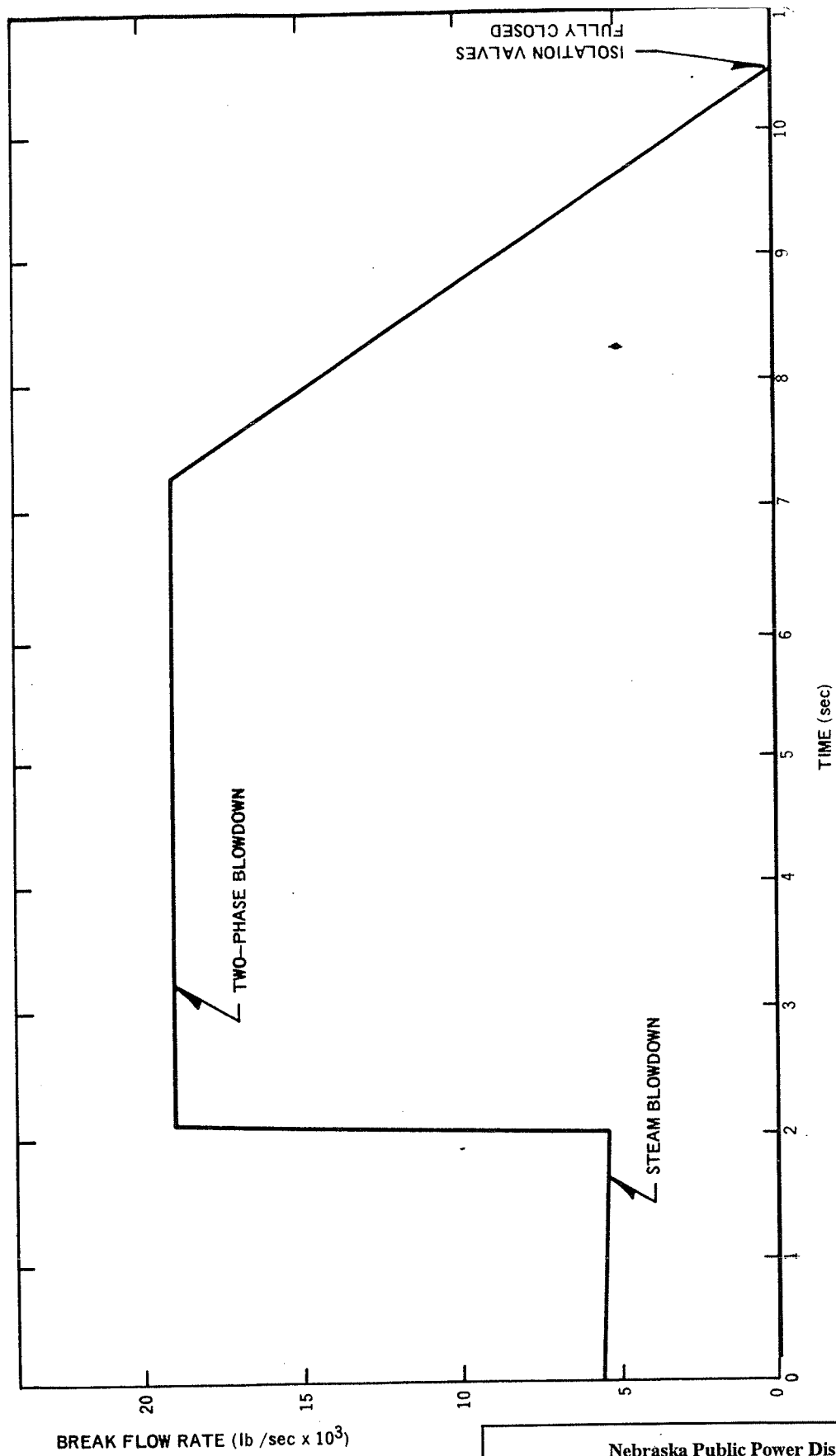
Primary Containment Capability
 Index for Metal Water Reaction
 Figure XIV-6-11



Nebraska Public Power District
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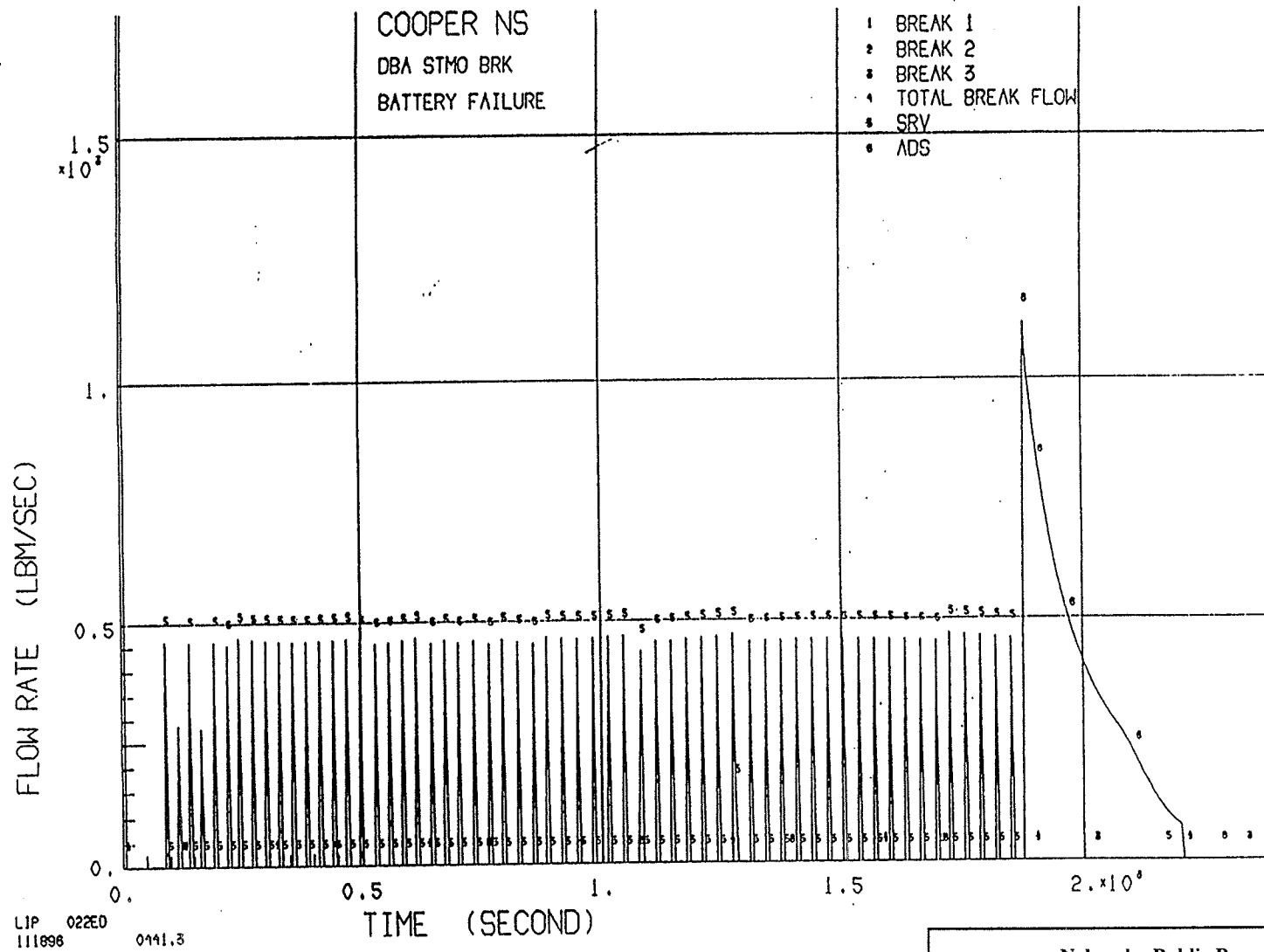
**MAIN STEAM LINE
 BREAK ACCIDENT
 BREAK LOCATION**

FIGURE XIV-6-12
 08/01/03



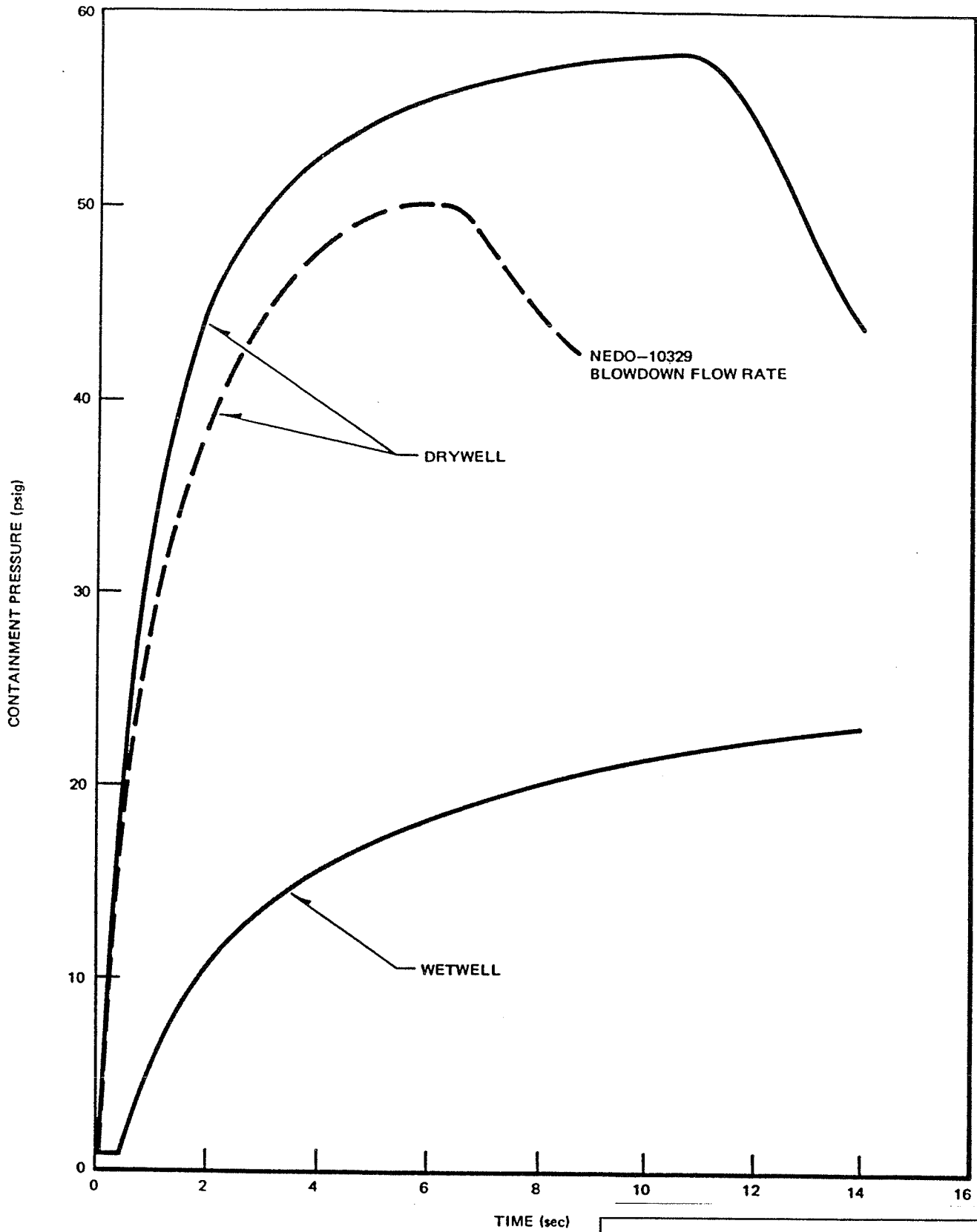
**Nebraska Public Power District
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Main Steam Line Break Accident
 Mass of Coolant Through Break
 (10 Second MSIV Closure)
 Figure XIV-6-13a 09/29/98



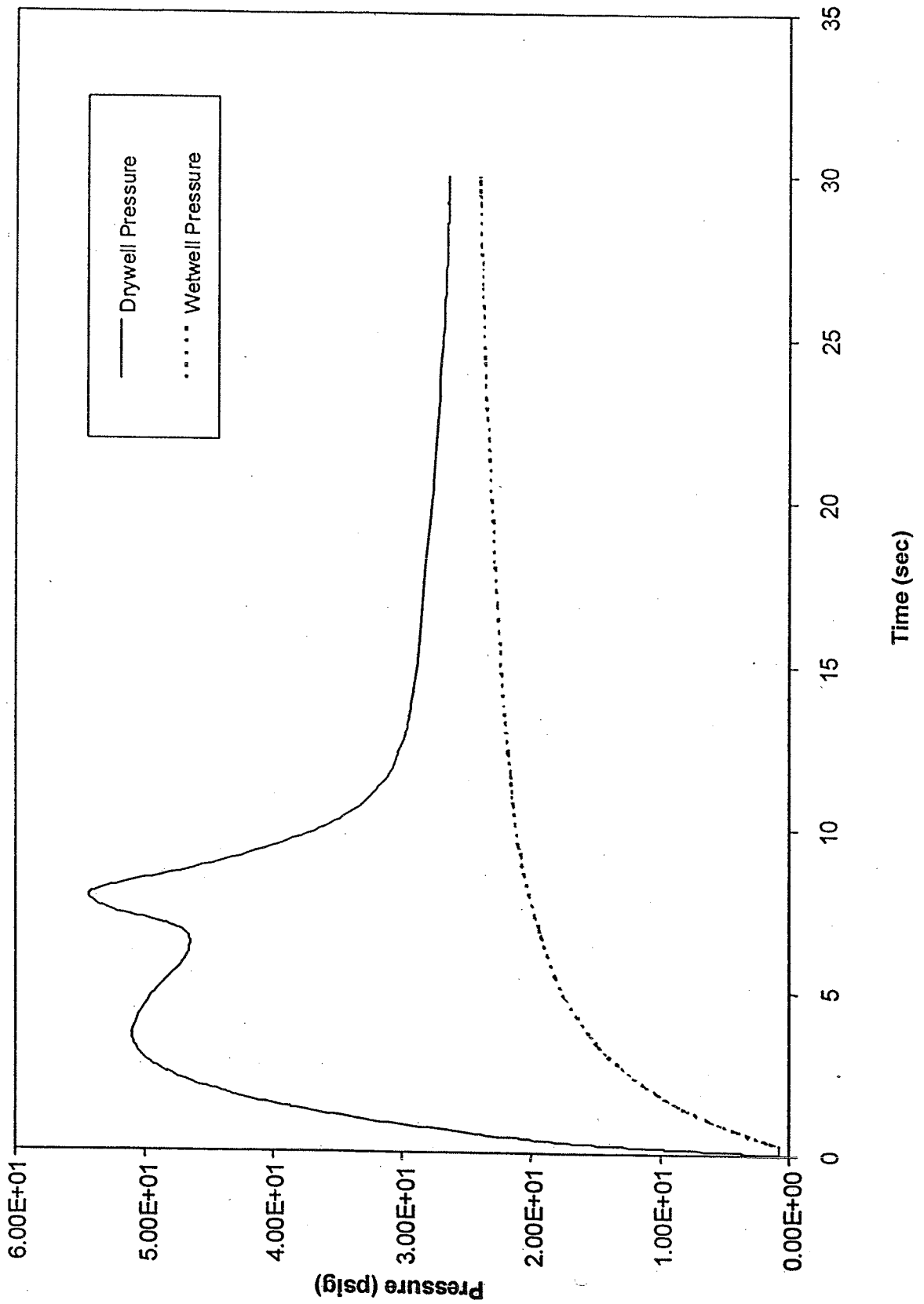
Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

Steamline (Outside Containment) -
DC Power Source Failure (Nominal)
Break and SRV Flow Rates
(5 Second MSIV Closure)
Figure XIV-6-13b 03/27/00



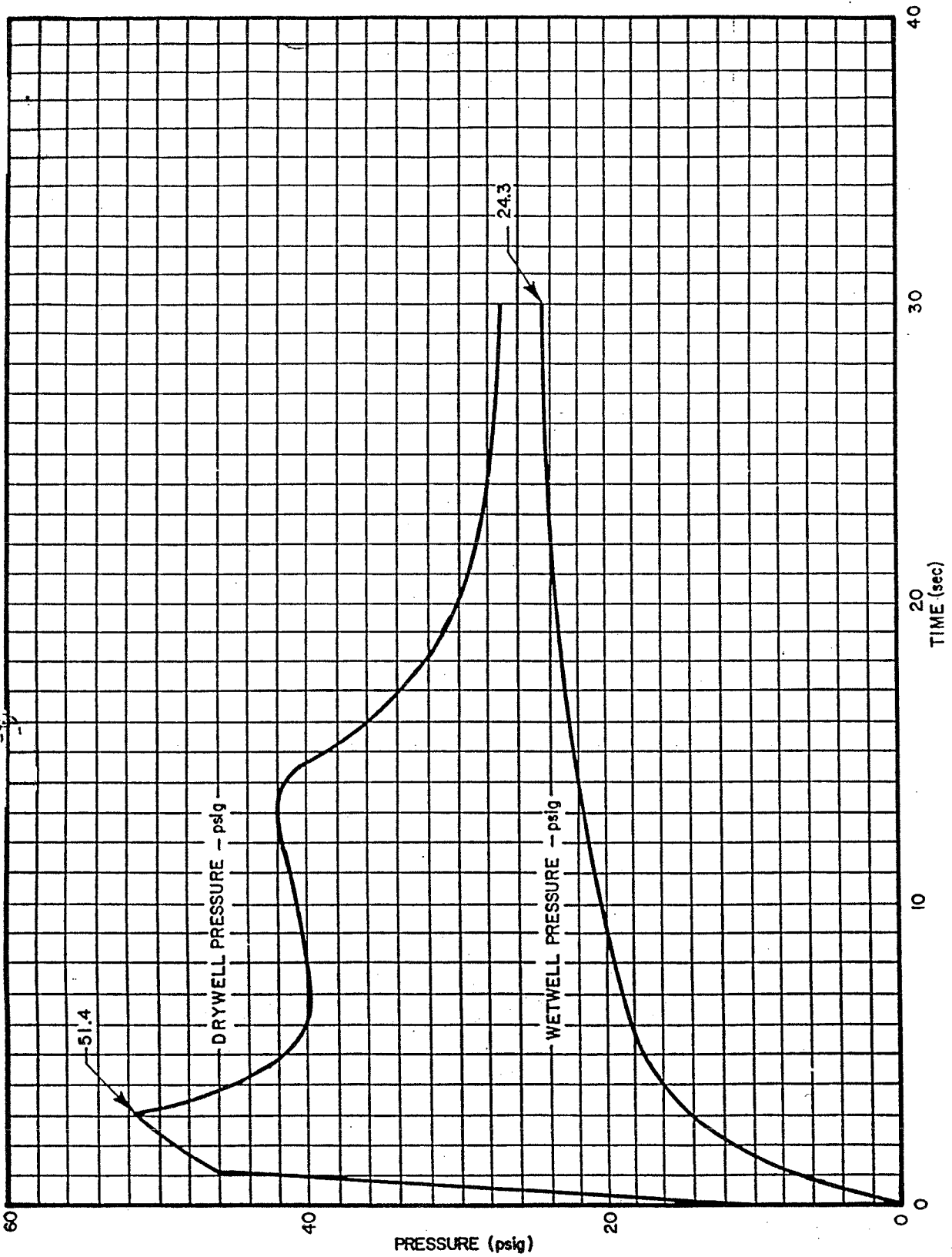
**Nebraska Public Power District
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UPDATED SAFETY ANALYSIS REPORT (USAR)**

*Containment Pressure
Figure XIV-6-16 03/27/00*



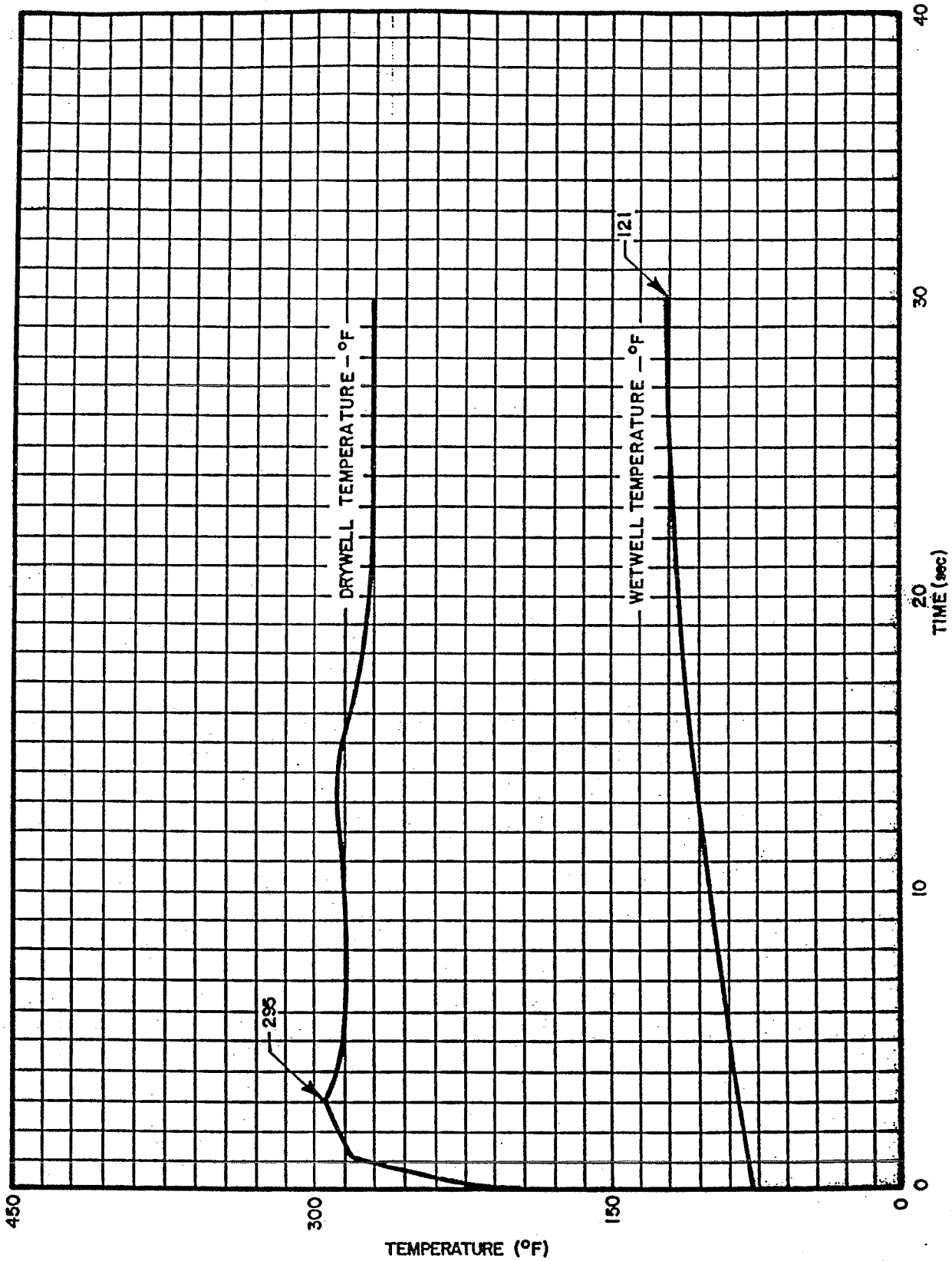
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 COOPER NUCLEAR STATION
 UPDATED SAFETY ANALYSIS REPORT (USAR)**

Containment Pressure Response
 Figure XIV-6-16a 09/19/00



Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

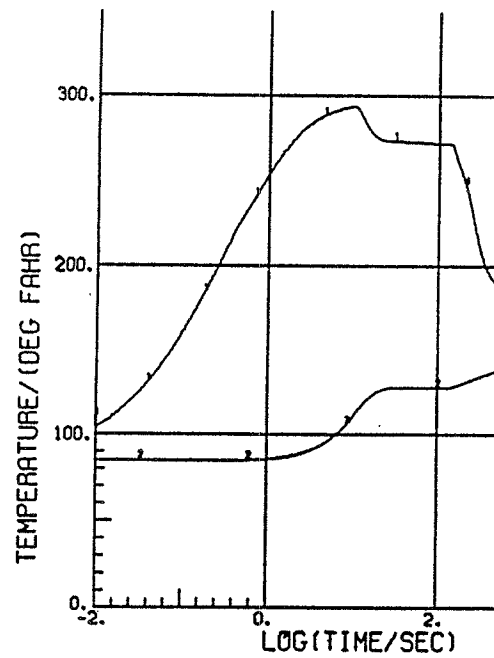
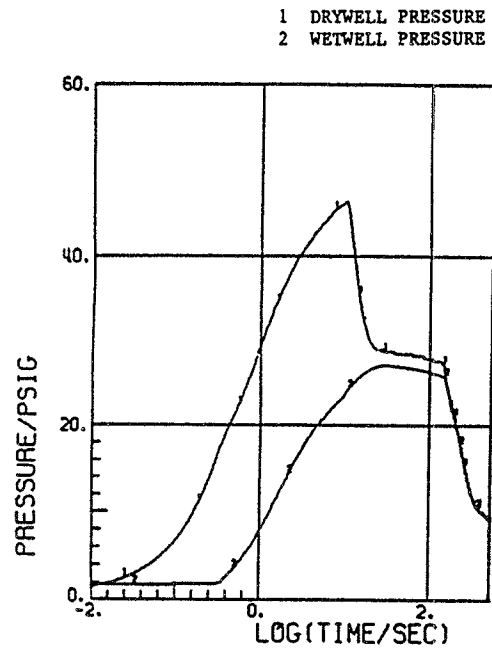
DBA Containment Pressure Response
 Mark I Containment Program
 Figure XIV-6-18 09/19/00



Nebraska Public Power District
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 UPDATED SAFETY ANALYSIS REPORT (USAR)

DBA Containment Temperature Response
 Mark I Containment Program
 Figure XIV-6-19 09/19/00

1 DRYWELL PRESSURE
2 WETWELL PRESSURE



Nebraska Public Power District
COOPER NUCLEAR STATION
UPDATED SAFETY ANALYSIS REPORT (USAR)

*Original Short-Term Primary Containment
Pressure and Temperature Response
Following a Loss of Coolant Accident
Figure XIV-6-20 03/27/00*