

POINT OF CRITICAL FLOW BREAK AREA (FT²)

A. RECIRCULATION PUMP SUCTION LINE 2.598

B. REACTOR WATER CLEANUP LINE 0.088

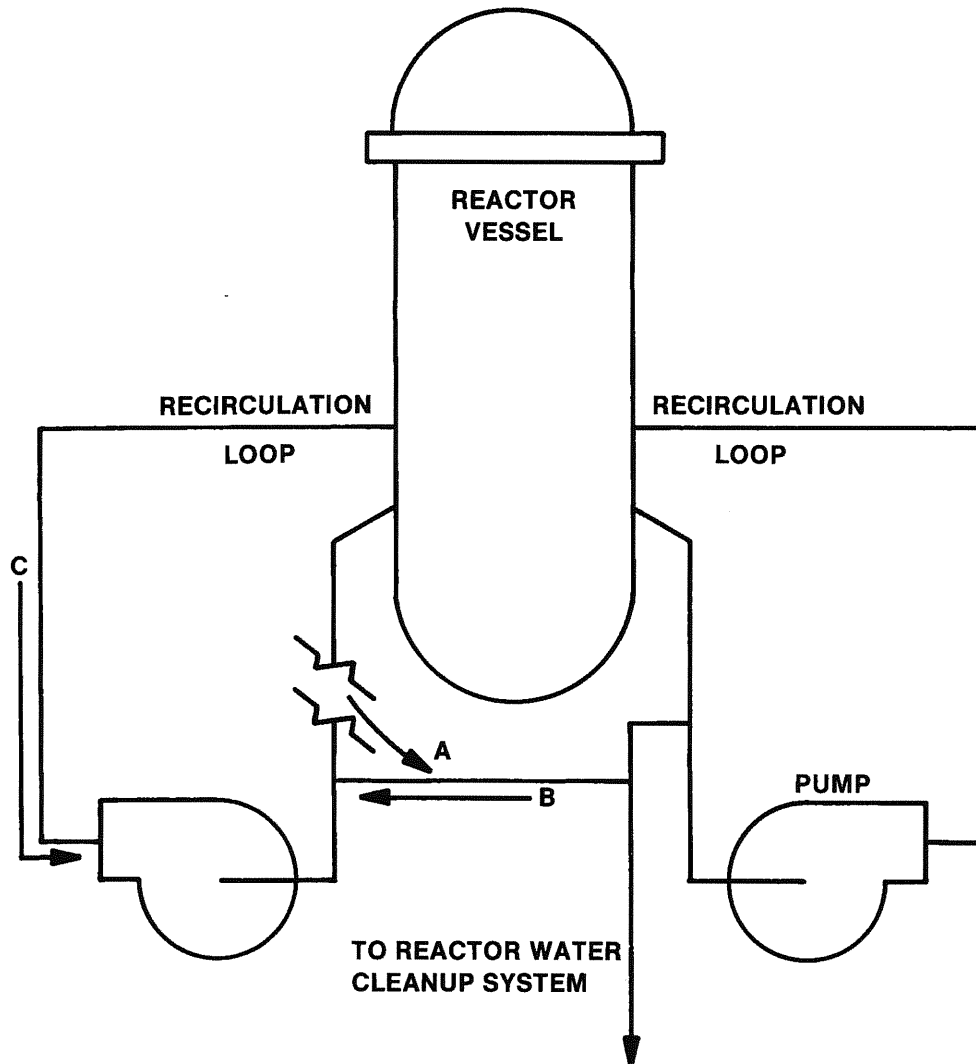
C. COMBINED AREA OF ALL 0.4609

JET PUMP NOZZLES

ASSOCIATED WITH THE

BROKEN LOOP 50*

TOTAL EFFECTIVE BREAK AREA = 3.147

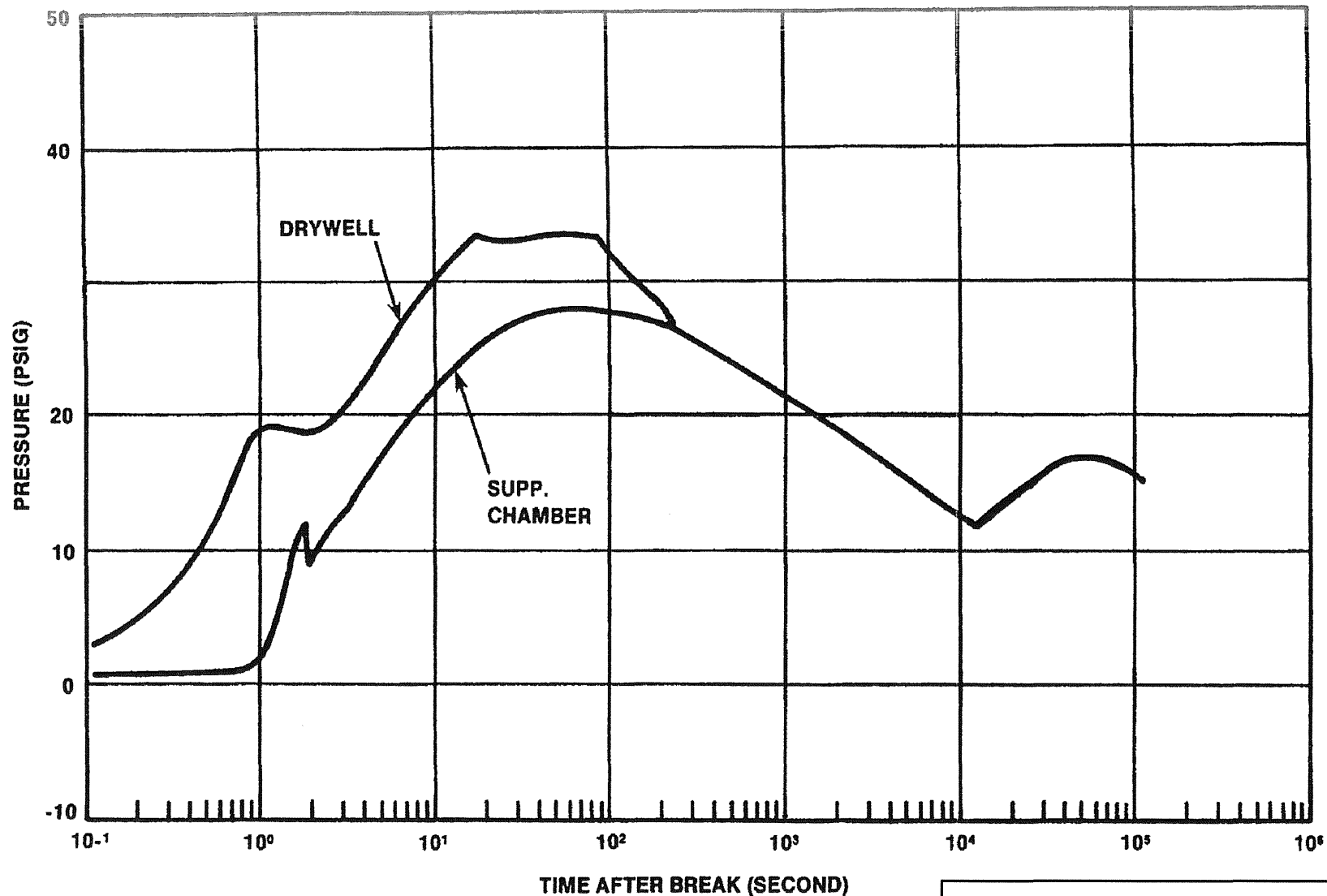


NOTE: * 5 NOZZLES PER JET PUMP

FIGURE 6.2-1

RECIRCULATION PUMP SUCTION
LINE BREAK SCHEMATIC

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

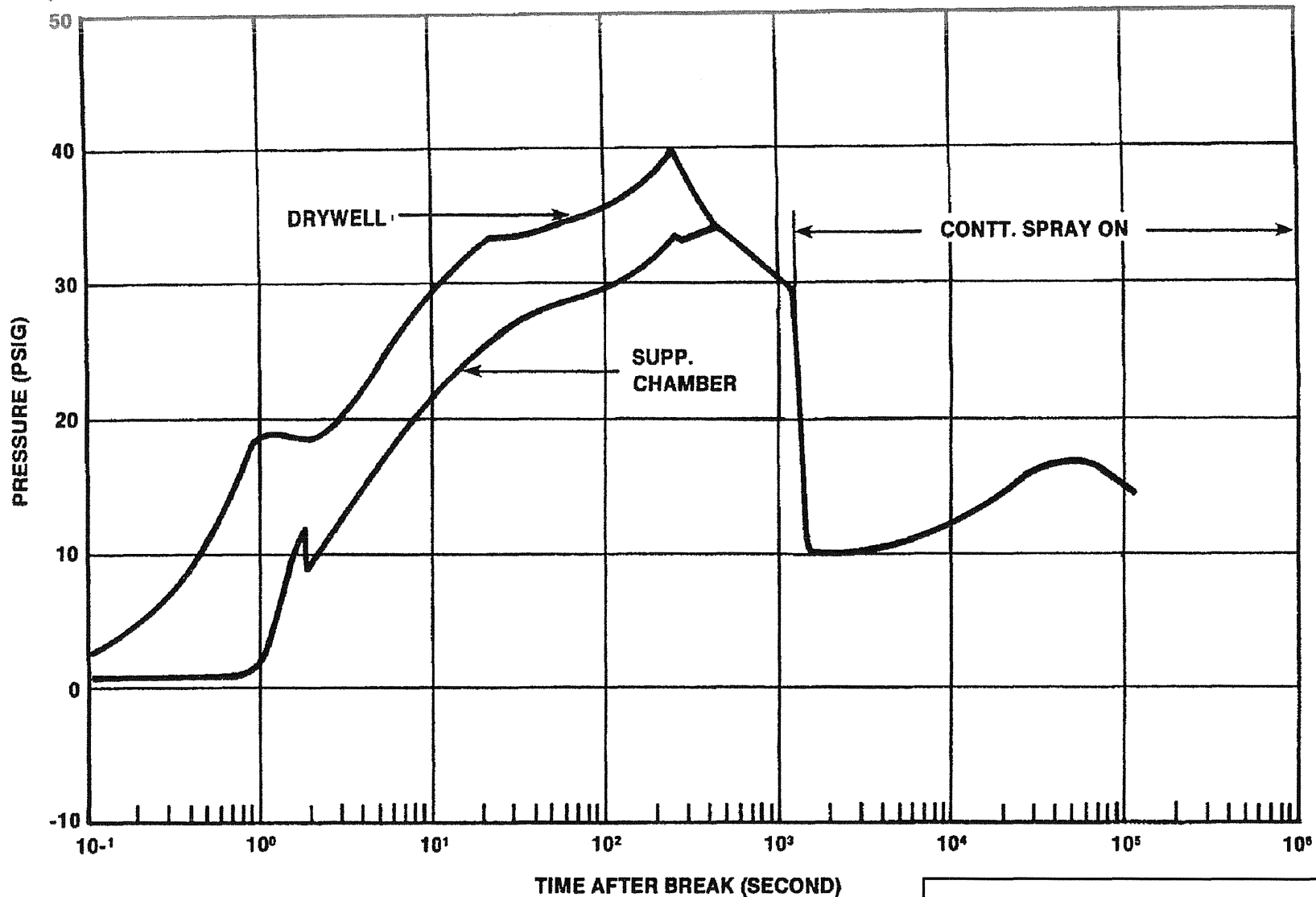


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS. THE OLTP RESULTS REMAIN VALID FOR EPU CONDITIONS ON A RELATIVE BASIS.

FIGURE: 6.2-2

PRIMARY CONTAINMENT PRESSURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITHOUT FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

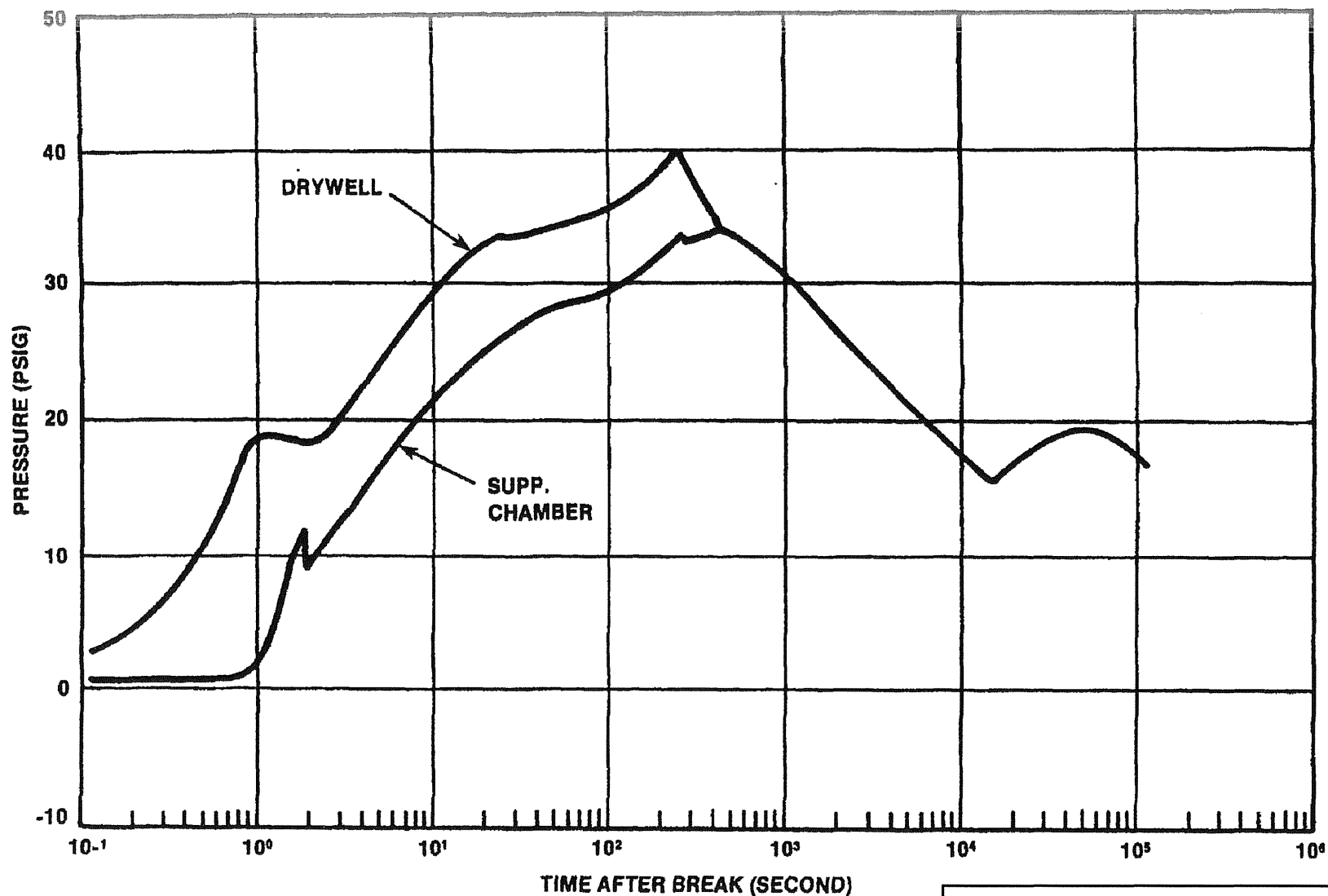


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS. THE OLTP RESULTS REMAIN VALID FOR EPU CONDITIONS ON A RELATIVE BASIS.

FIGURE: 6.2-3

PRIMARY CONTAINMENT PRESSURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER, CASE B

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

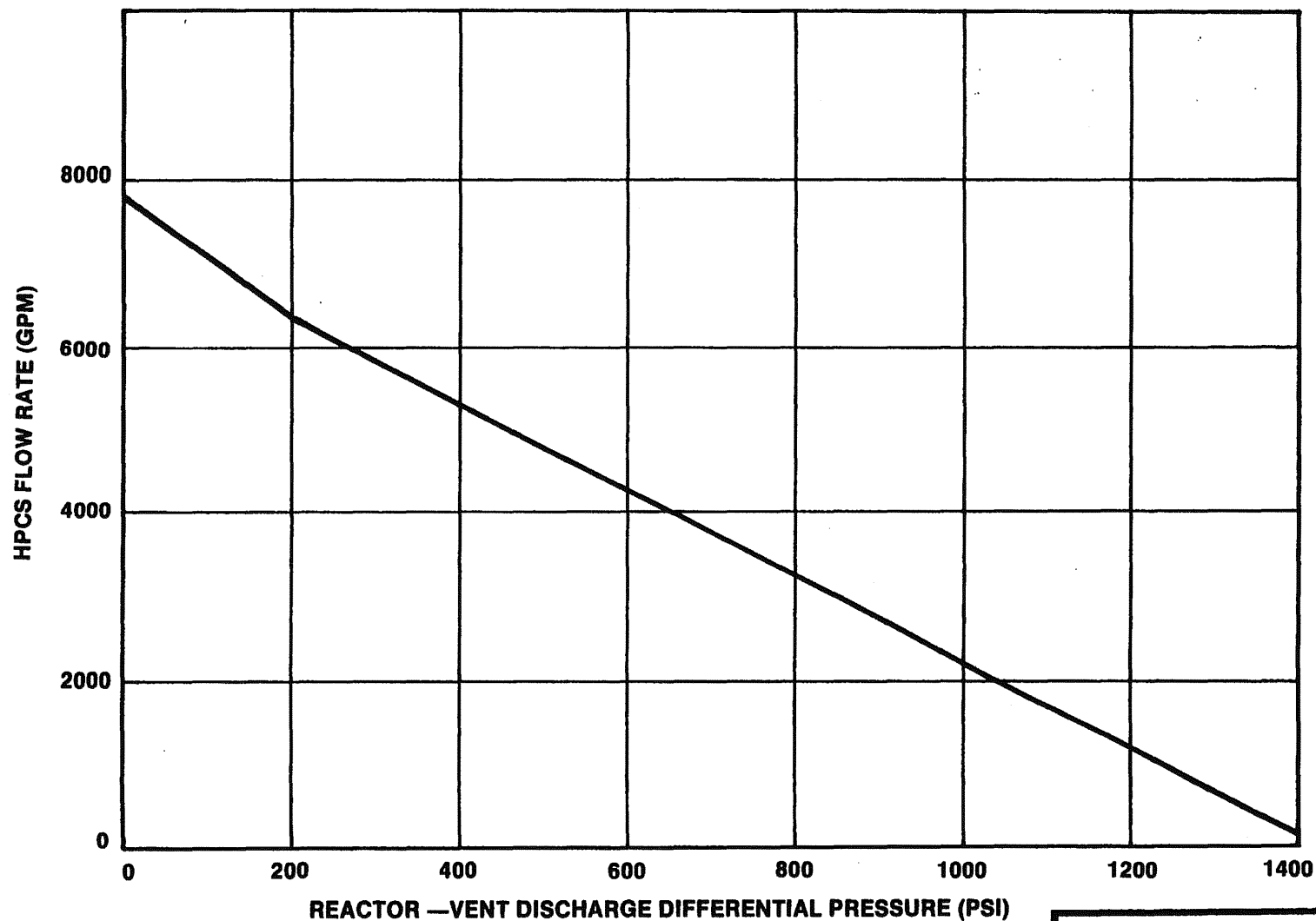


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS. THE OLTP RESULTS REMAIN VALID FOR EPU CONDITIONS ON A RELATIVE BASIS. LIMITING CASE REVISED FOR EPU, SEE FIGURE 6.2-4A AND 6.2-4B.

FIGURE: 6.2-4

PRIMARY CONTAINMENT PRESSURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



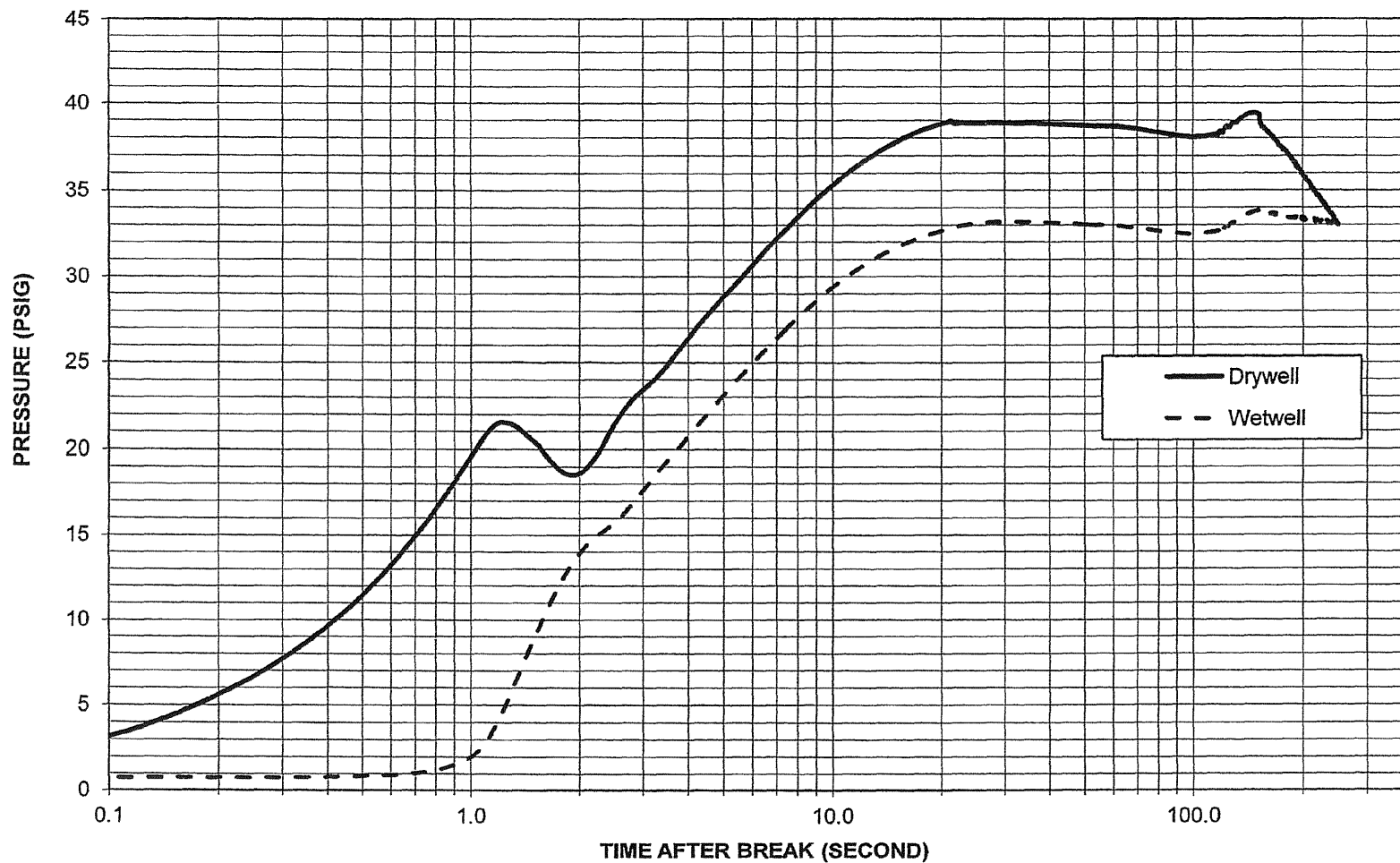
SOURCE: ES-121

**Note: This curve applicable to Pre-Power Uprate
containment response evaluation in Section 6.2.1.1.3.
For reconciled performance curve see
Figure 6.3-3A.**

FIGURE 6.2-48

HIGH PRESSURE CORE SPRAY
FLOW RATE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

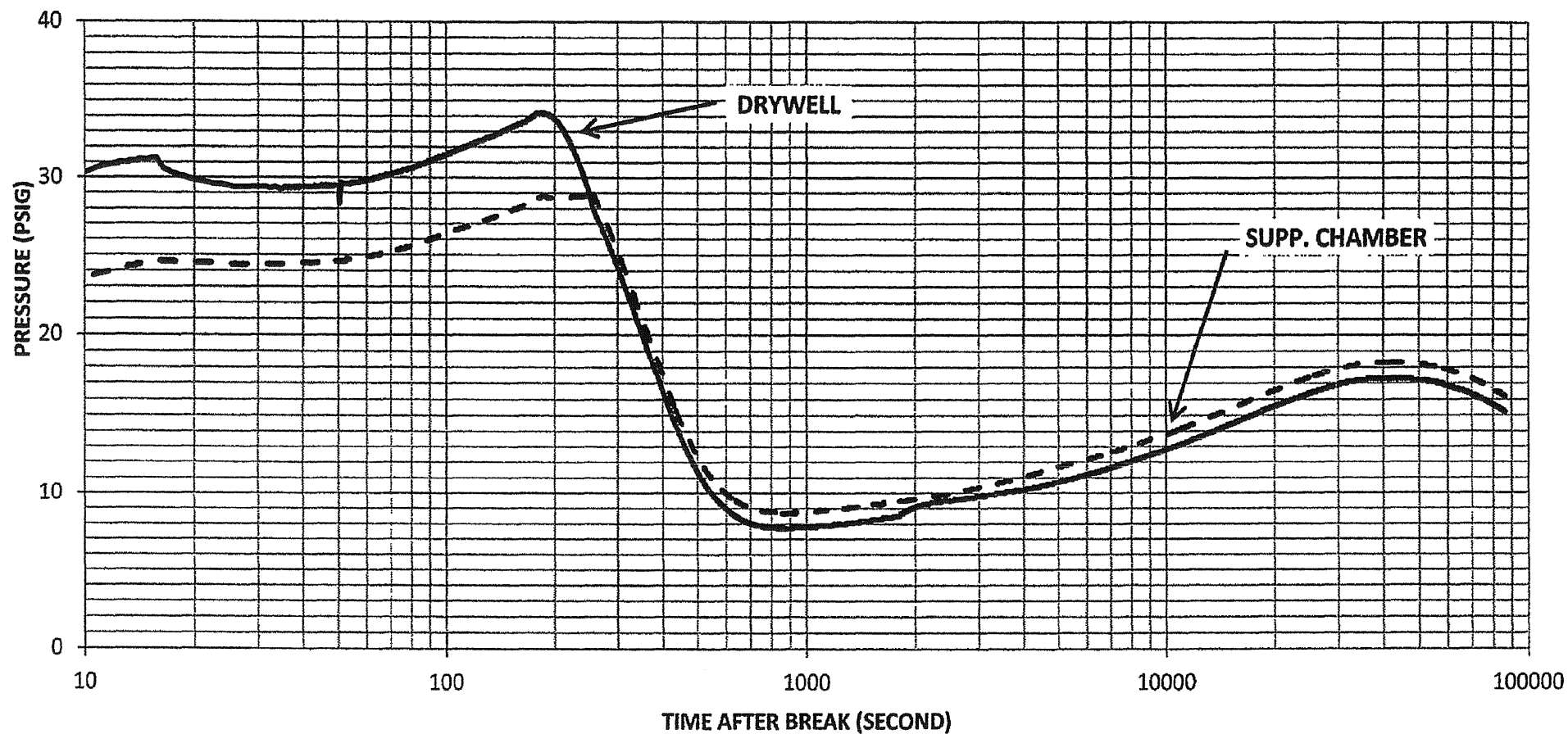


NOTE: EPU GOTHIC DBA SHORT TERM PRESSURE RESPONSE. (DRYWELL 105°F, DRYWELL RH 40% AND WETWELL 90°F)

FIGURE: 6.2-4A

EPU PRIMARY CONTAINMENT PRESSURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER,
CASE C - SHORT TERM RESPONSE

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

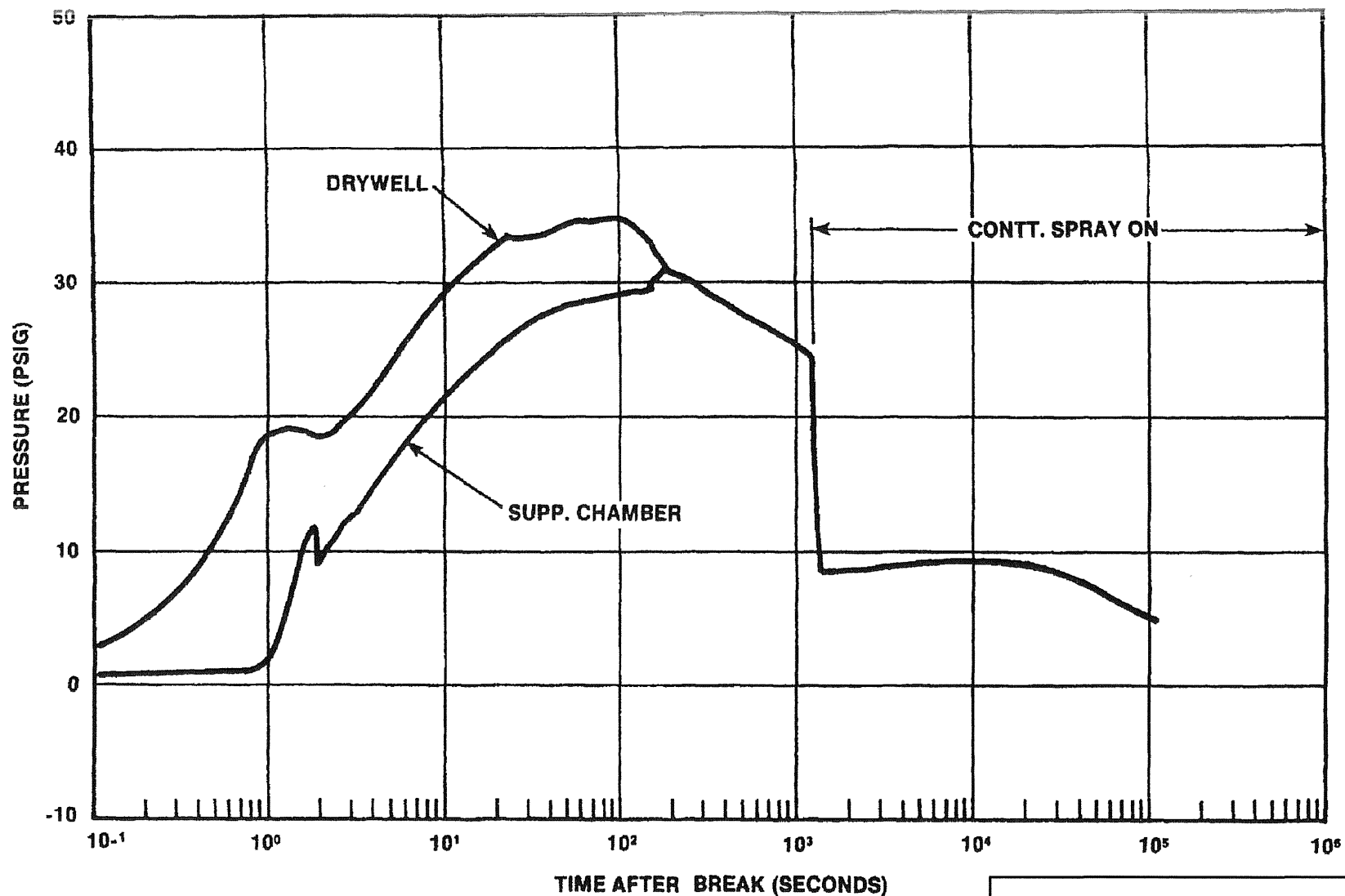


NOTE: EPU SHEX DBA LONGTERM RESPONSE.

FIGURE: 6.2-4B

EPU PRIMARY CONTAINMENT PRESSURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER,
CASE C - LONG TERM RESPONSE

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

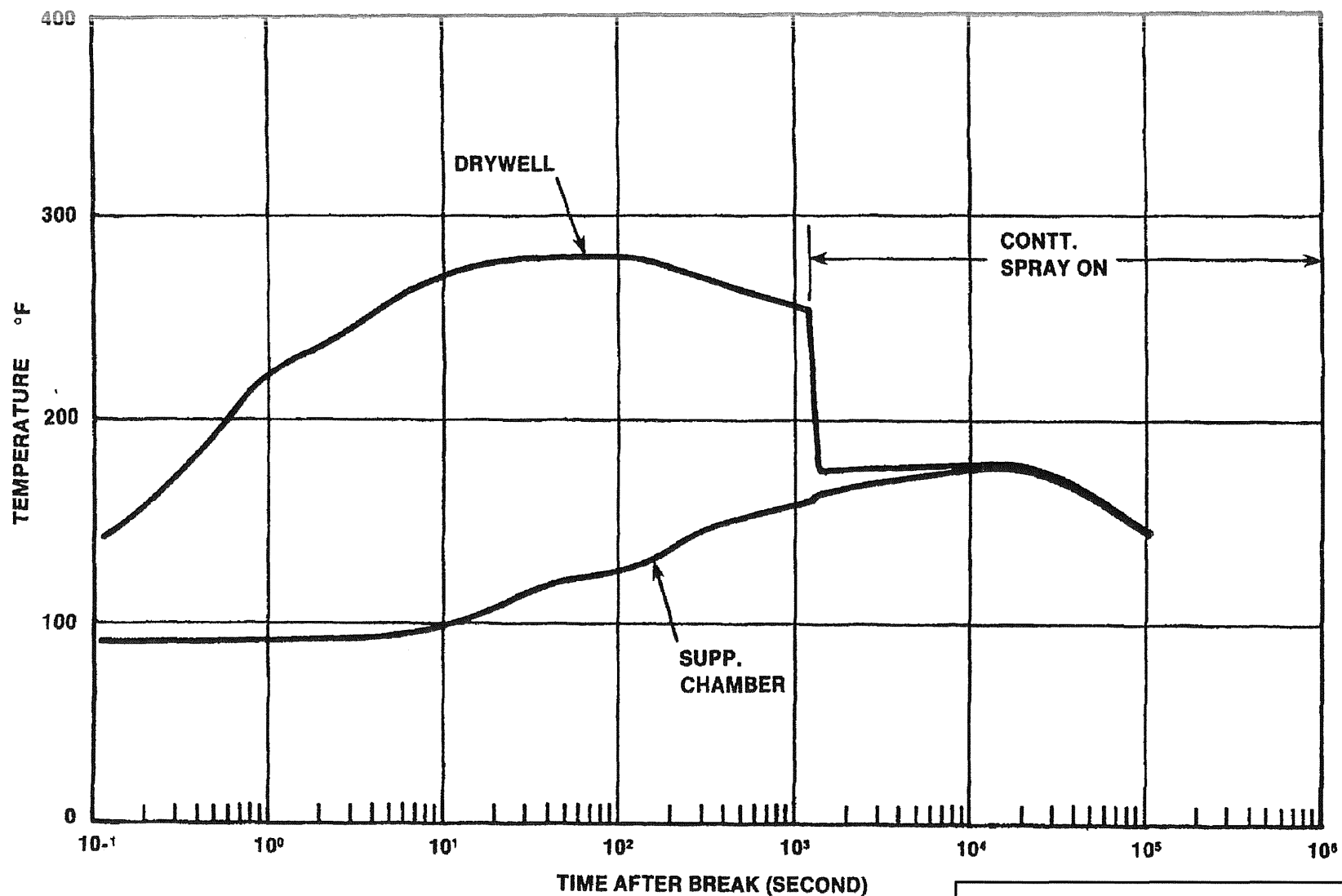


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS. THE OLTP RESULTS REMAIN VALID FOR EPU CONDITIONS ON A RELATIVE BASIS.

FIGURE: 6.2-5

PRIMARY CONTAINMENT PRESSURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER, CASE A

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

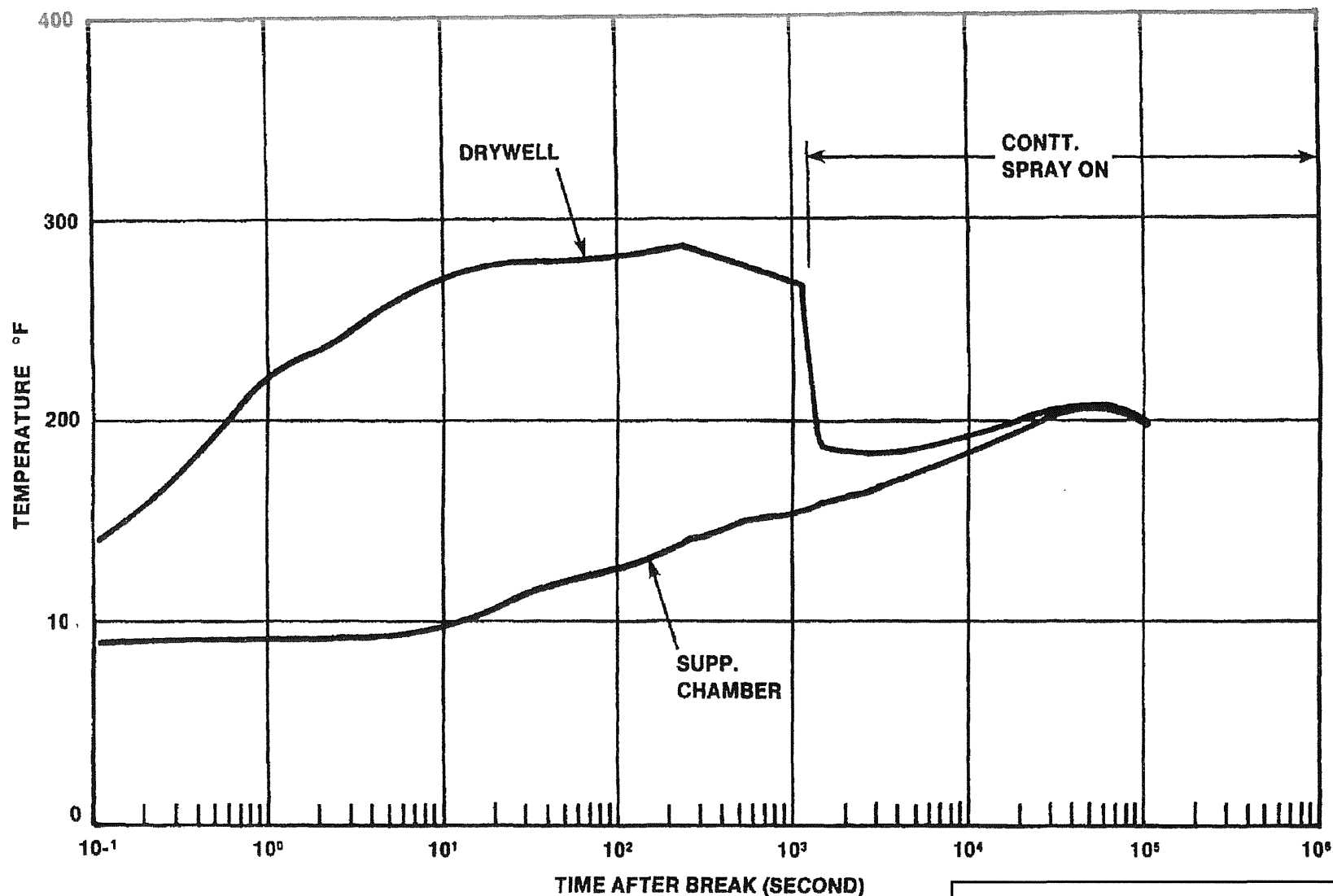


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS. THE OLTP RESULTS REMAIN VALID FOR EPU CONDITIONS ON A RELATIVE BASIS.

FIGURE: 6.2-6

PRIMARY CONTAINMENT TEMPERATURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER, CASE A

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

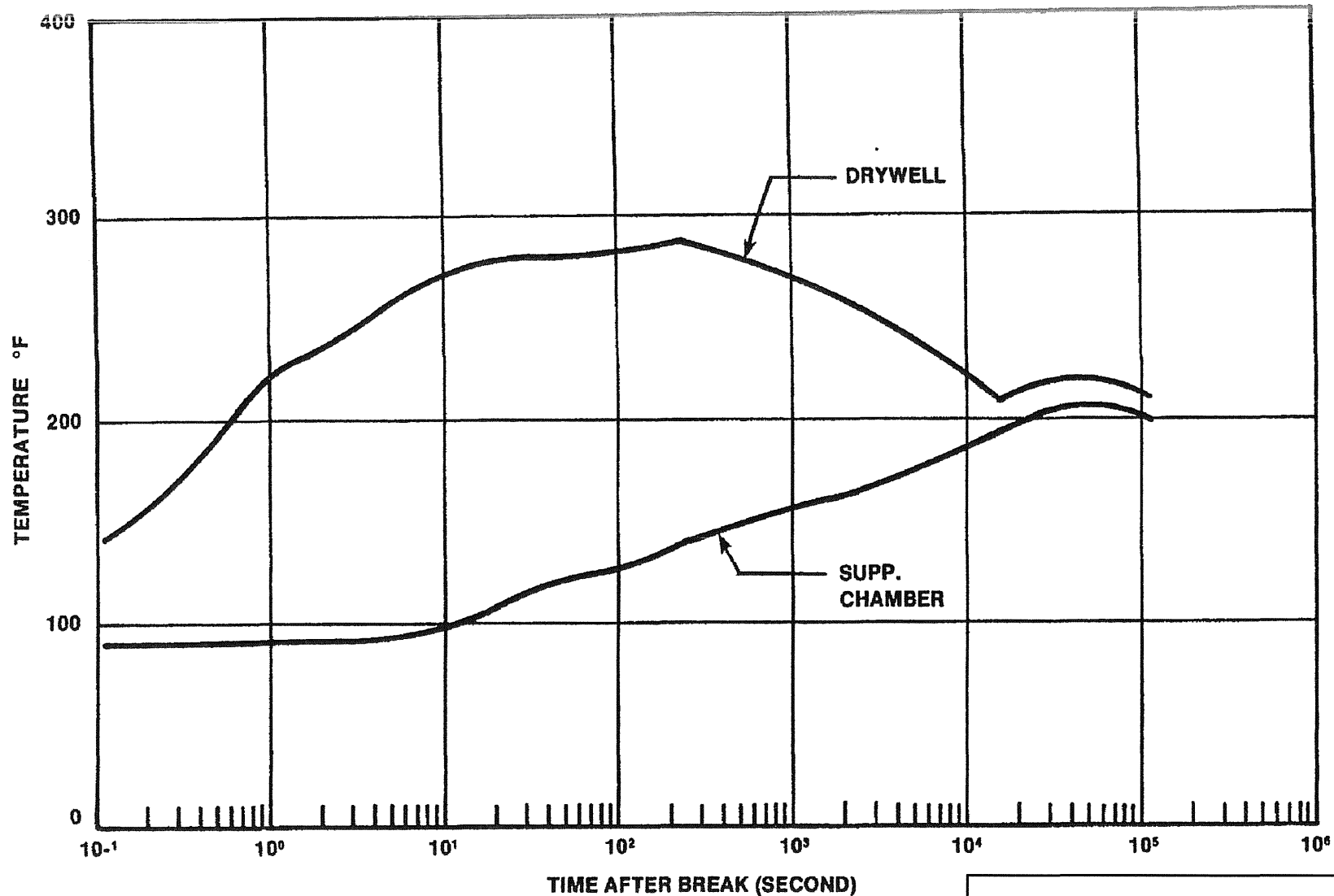


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS. THE OLTP RESULTS REMAIN VALID FOR EPU CONDITIONS ON A RELATIVE BASIS.

FIGURE: 6.2-7

PRIMARY CONTAINMENT TEMPERATURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER, CASE B

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

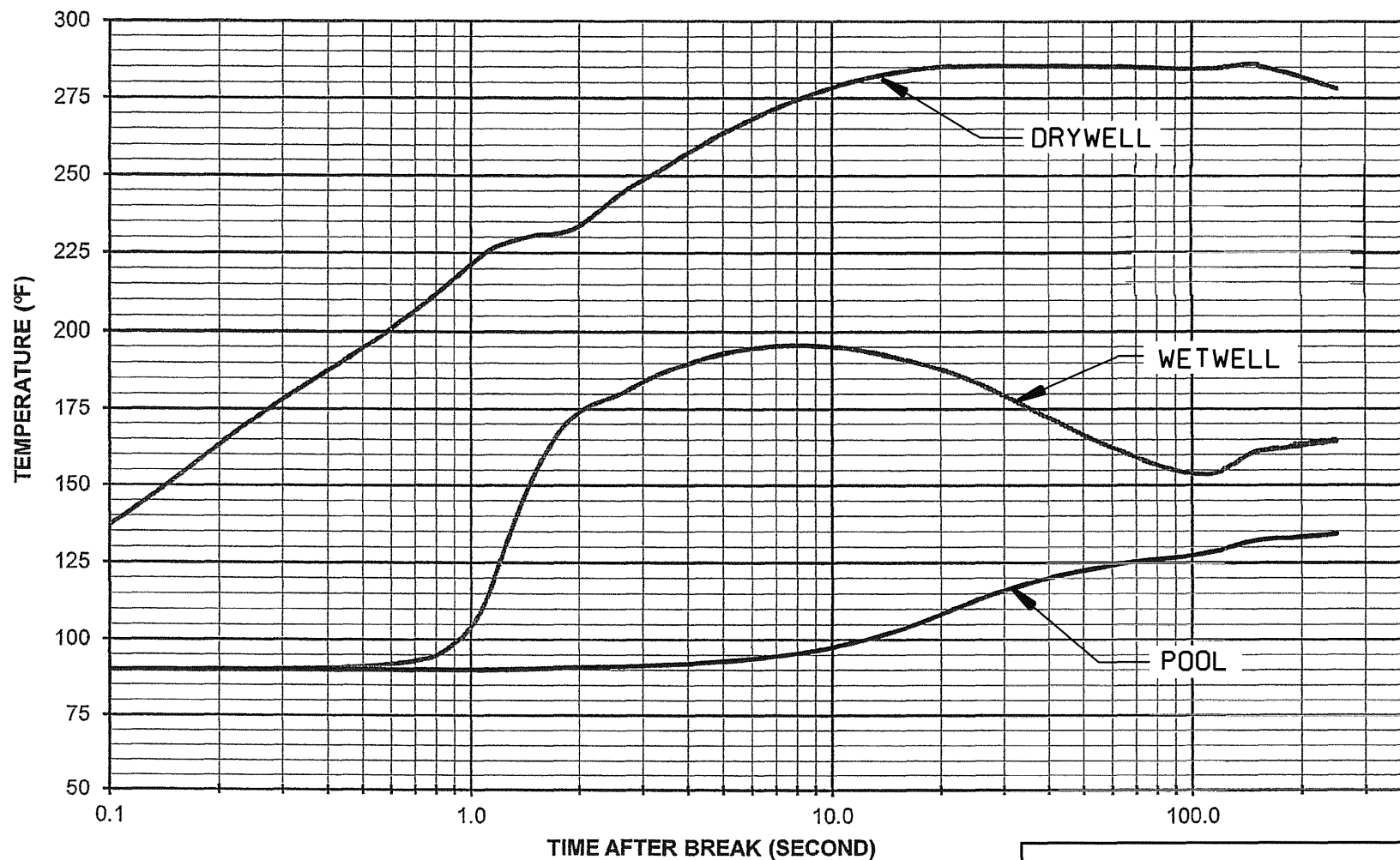


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS. THE OLTP RESULTS REMAIN VALID FOR EPU CONDITIONS ON A RELATIVE BASIS. LIMITING CASE REVISED, SEE FIGURE 6.2-8A AND FIGURE 6.2-8B.

FIGURE: 6.2-8

PRIMARY CONTAINMENT TEMPERATURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

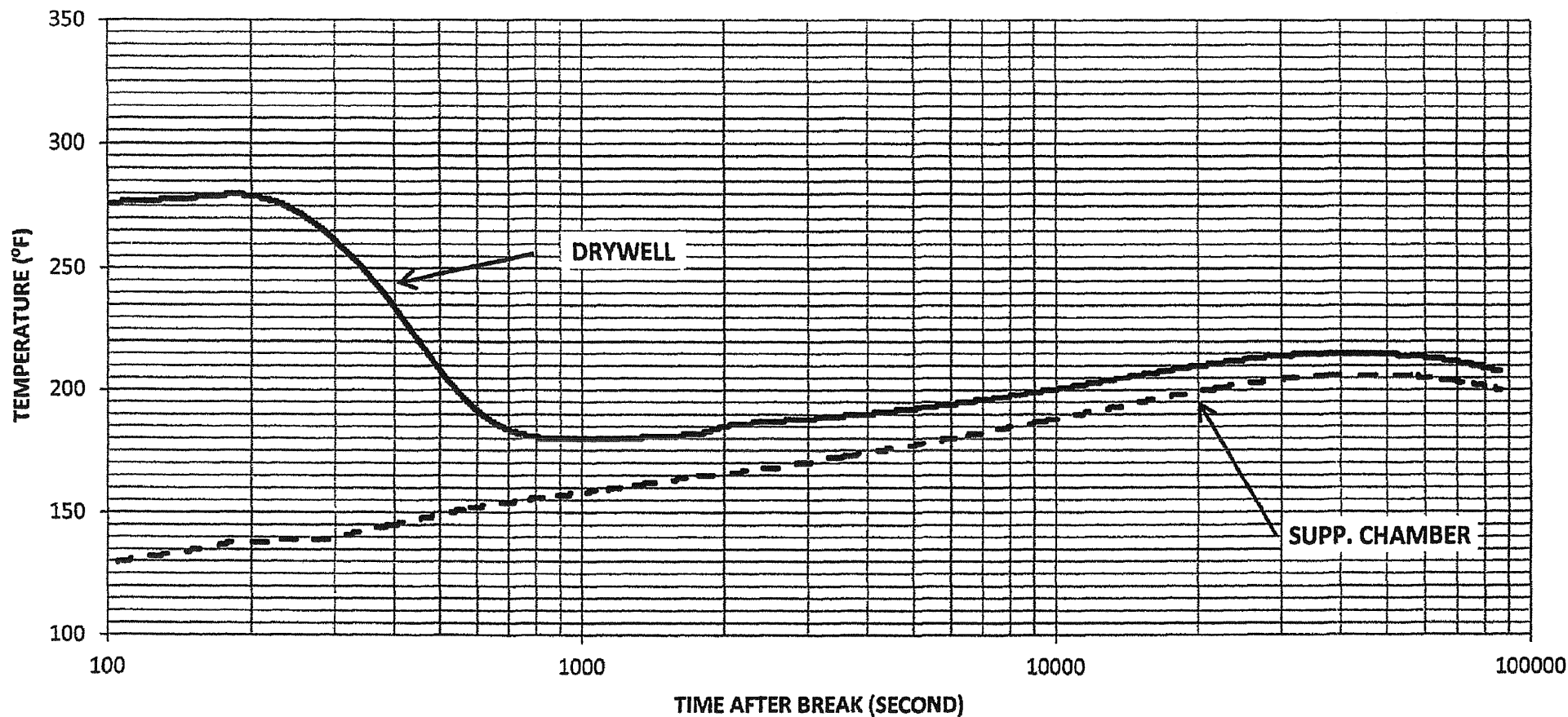


NOTE: EPU GOTHIC DBA SHORT TERM TEMPERATURE RESPONSE. DRYWELL 105°F, DRYWELL RH 40% AND WETWELL 90°F.

FIGURE: 6.2-8A

EPU PRIMARY CONTAINMENT TEMPERATURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER,
CASE C - SHORT TERM RESPONSE

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

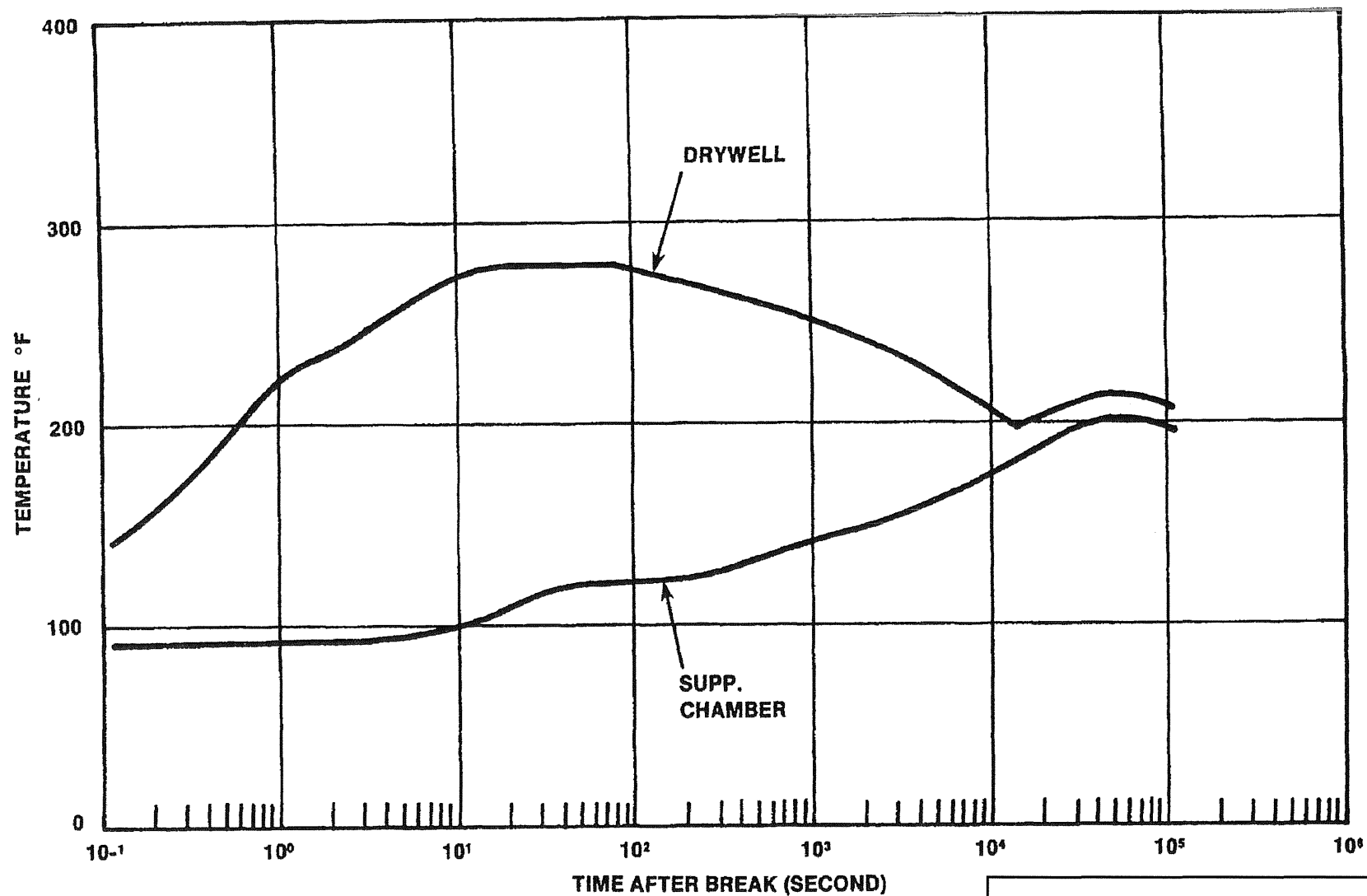


NOTE: EPU SHEX DBA LONG TERM TEMPERATURE RESPONSE.

FIGURE: 6.2-8B

EPU PRIMARY CONTAINMENT TEMPERATURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER,
CASE C - LONG TERM RESPONSE

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

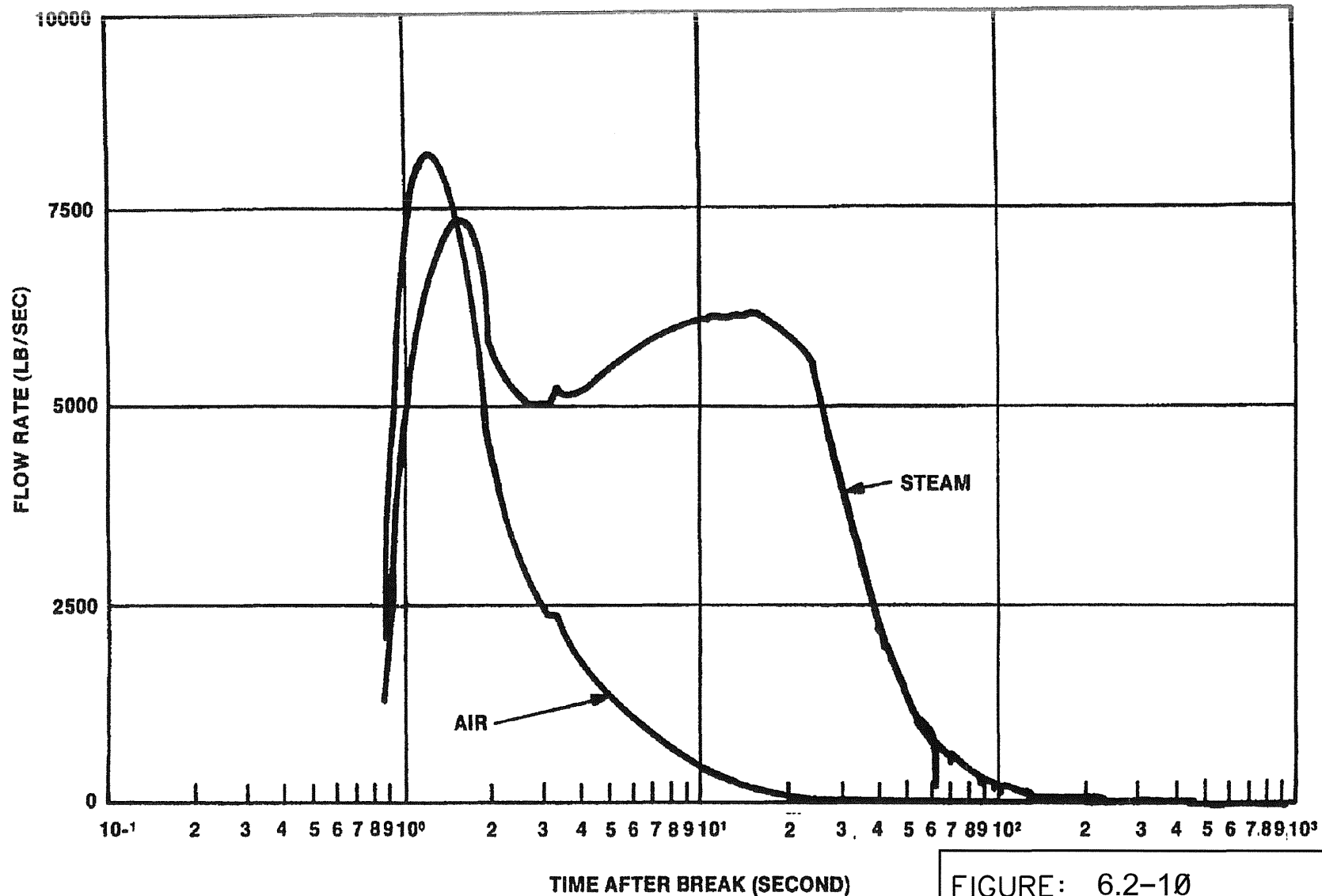


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS. THE OLTP RESULTS REMAIN VALID FOR EPU CONDITIONS ON A RELATIVE BASIS.

FIGURE: 6.2-9

PRIMARY CONTAINMENT TEMPERATURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITHOUT FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

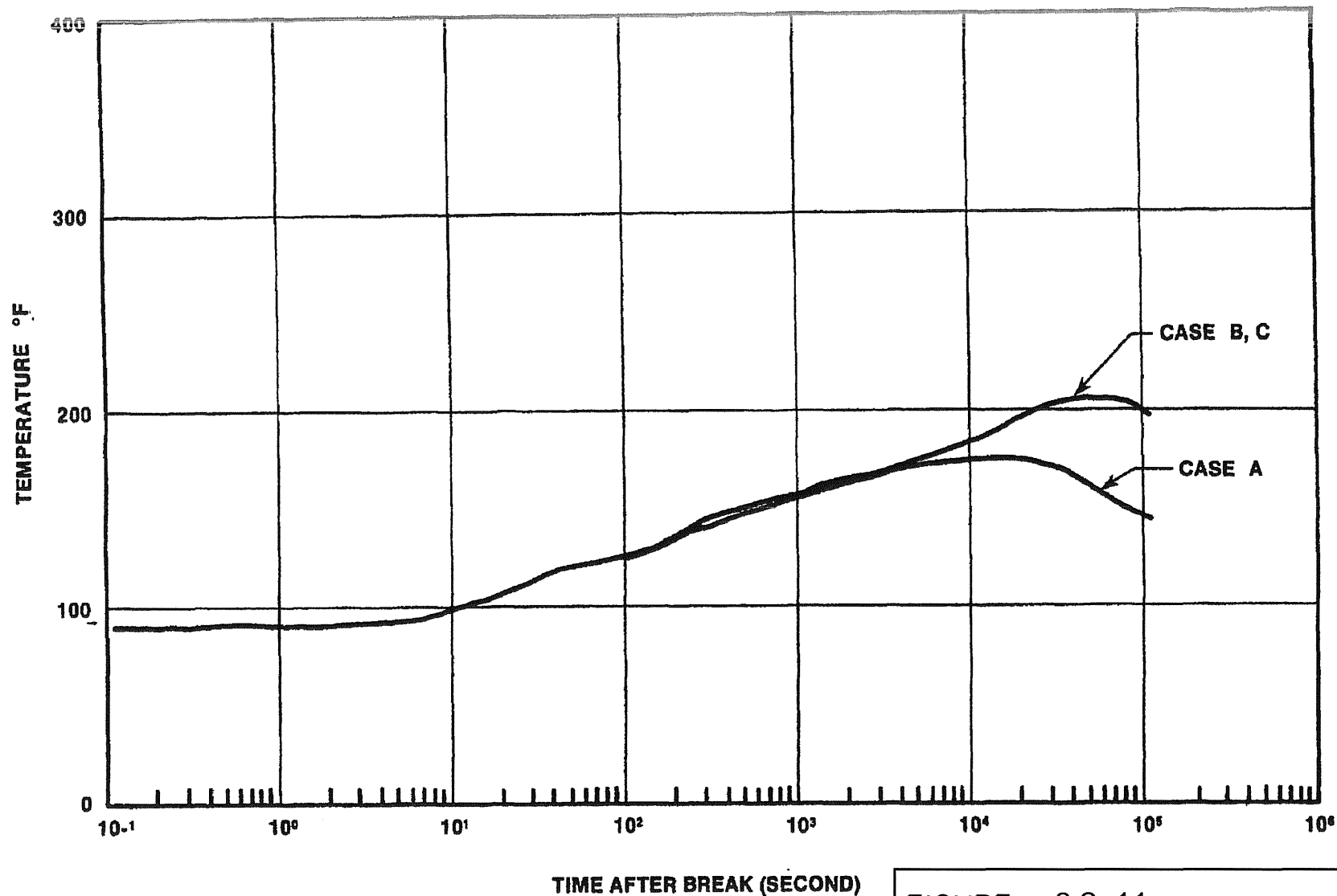


NOTE: DERIVED BASED ON OLTP AND IS VERIFIED
TO BE APPLICABLE TO EPU CONDITIONS.

FIGURE: 6.2-10

VENT SYSTEM MASS FLOW
RECIRCULATION PUMP SUCTION LINE
BREAK WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

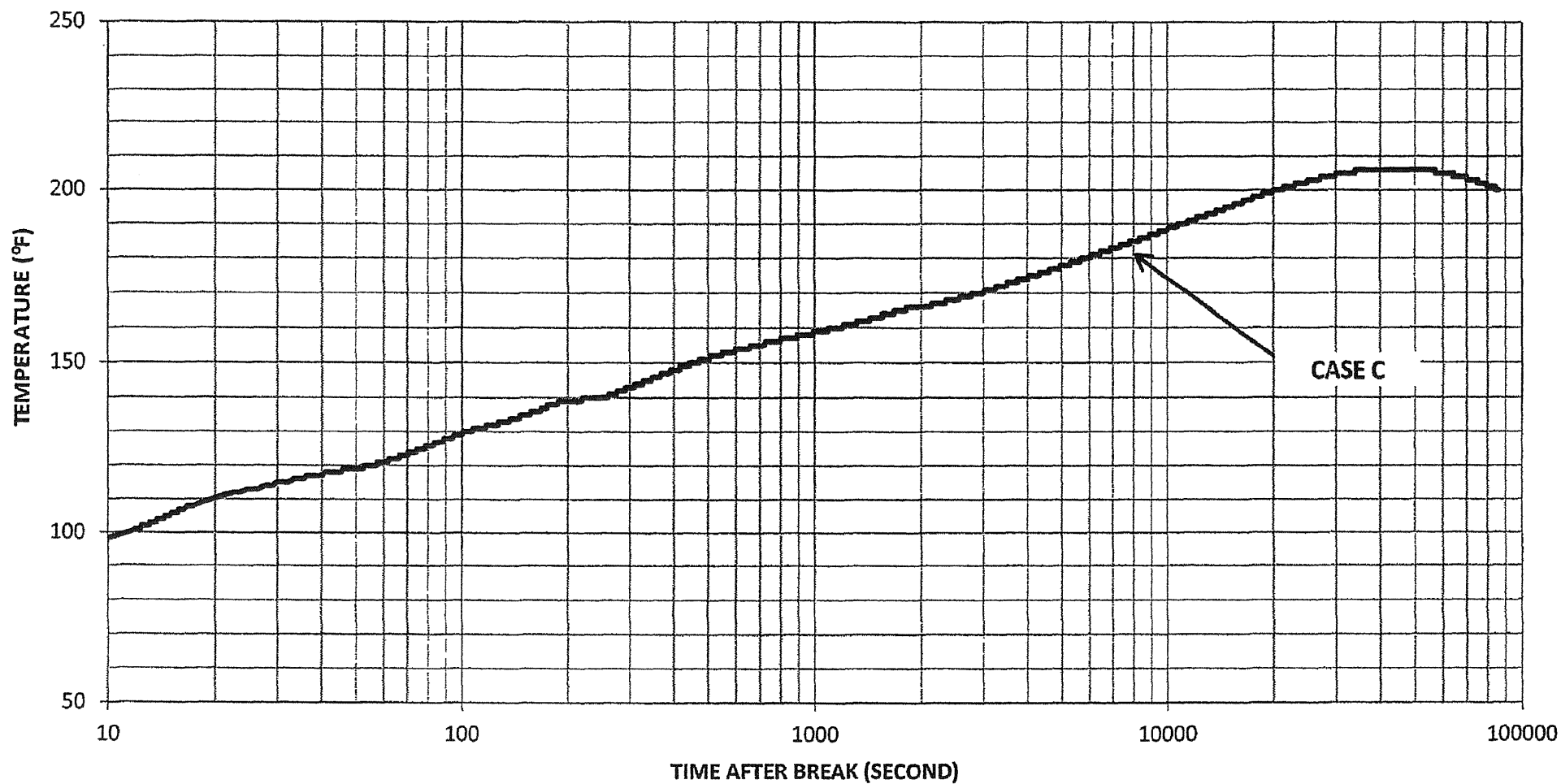


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS. THE OLTP RESULTS REMAIN VALID FOR EPU CONDITIONS ON A RELATIVE BASIS. LIMITING CASE REVISED FOR EPU, SEE FIGURE 6.2-11A.

FIGURE: 6.2-11

SUPPRESSION POOL TEMPERATURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

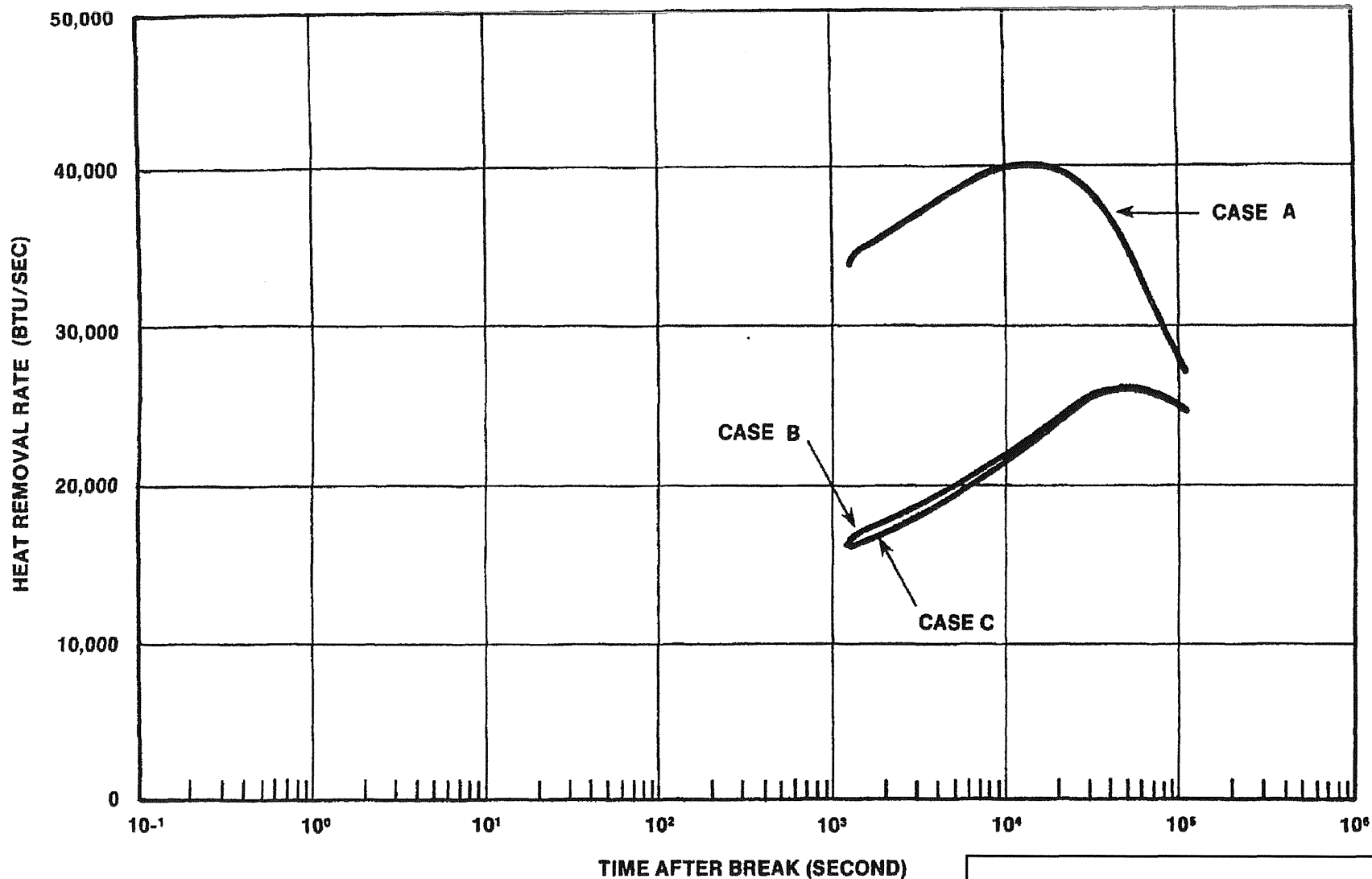


NOTE: EPU SHEX DBA LONG TERM TEMPERATURE RESPONSE.

FIGURE: 6.2-11A

EPU SUPPRESSION POOL TEMPERATURE
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

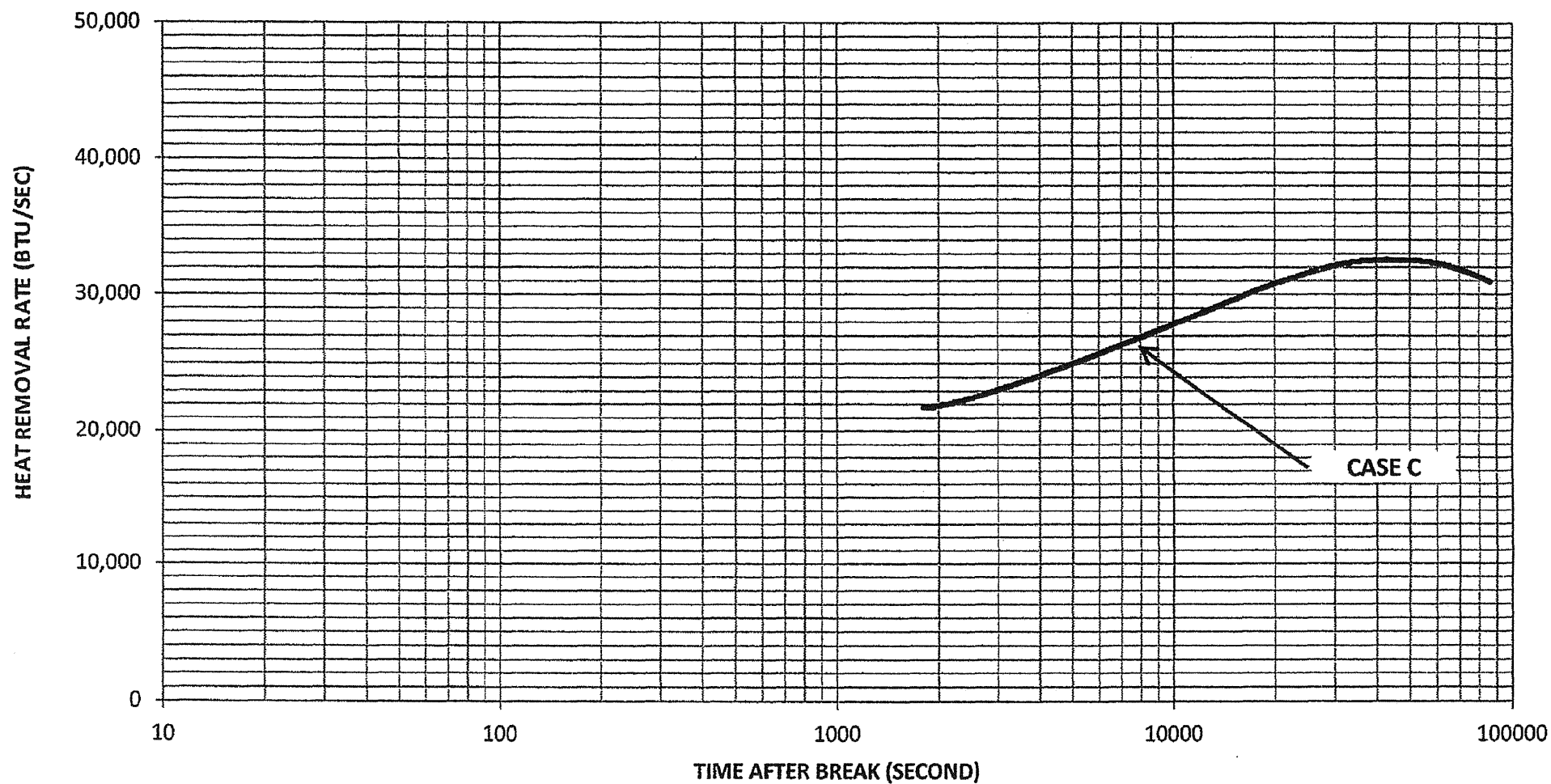


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS. THE OLTP RESULTS REMAIN VALID FOR EPU CONDITIONS ON A RELATIVE BASIS. LIMITING CASE REVISED FOR EPU, SEE FIGURE 6.2-12A.

FIGURE: 6.2-12

RHR HEAT EXCHANGER HEAT REMOVAL
RECIRCULATION PUMP SUCTION LINE
BREAK WITH FEEDWATER

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

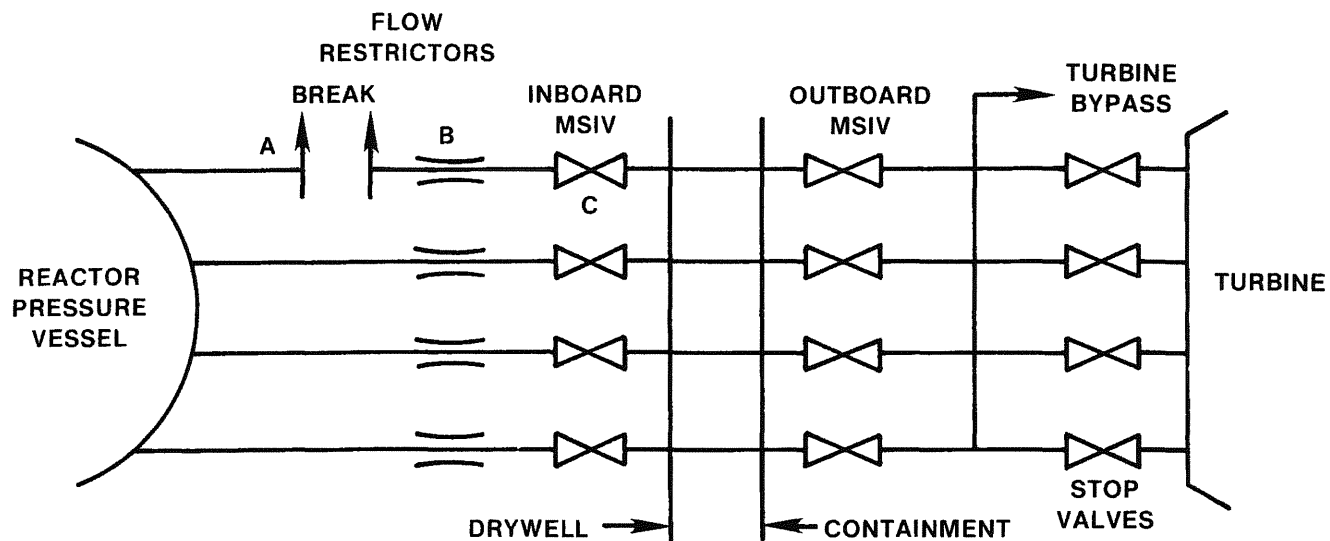


NOTE: EPU SHEX DBA LONG TERM HEAT REMOVAL.

FIGURE: 6.2-12A

EPU RHR HEAT EXCHANGER REMOVAL
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



POINT OF CRITICAL FLOW	AREA (FT ²)
A. STEAM LINE NOZZLE	3.05
B. STEAM LINE RESTRICTOR	0.913
C. MAIN STEAM ISOLATION VALVE	0.913-0.0

FIGURE 6.2-13

MAIN STEAM LINE BREAK SCHEMATIC

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

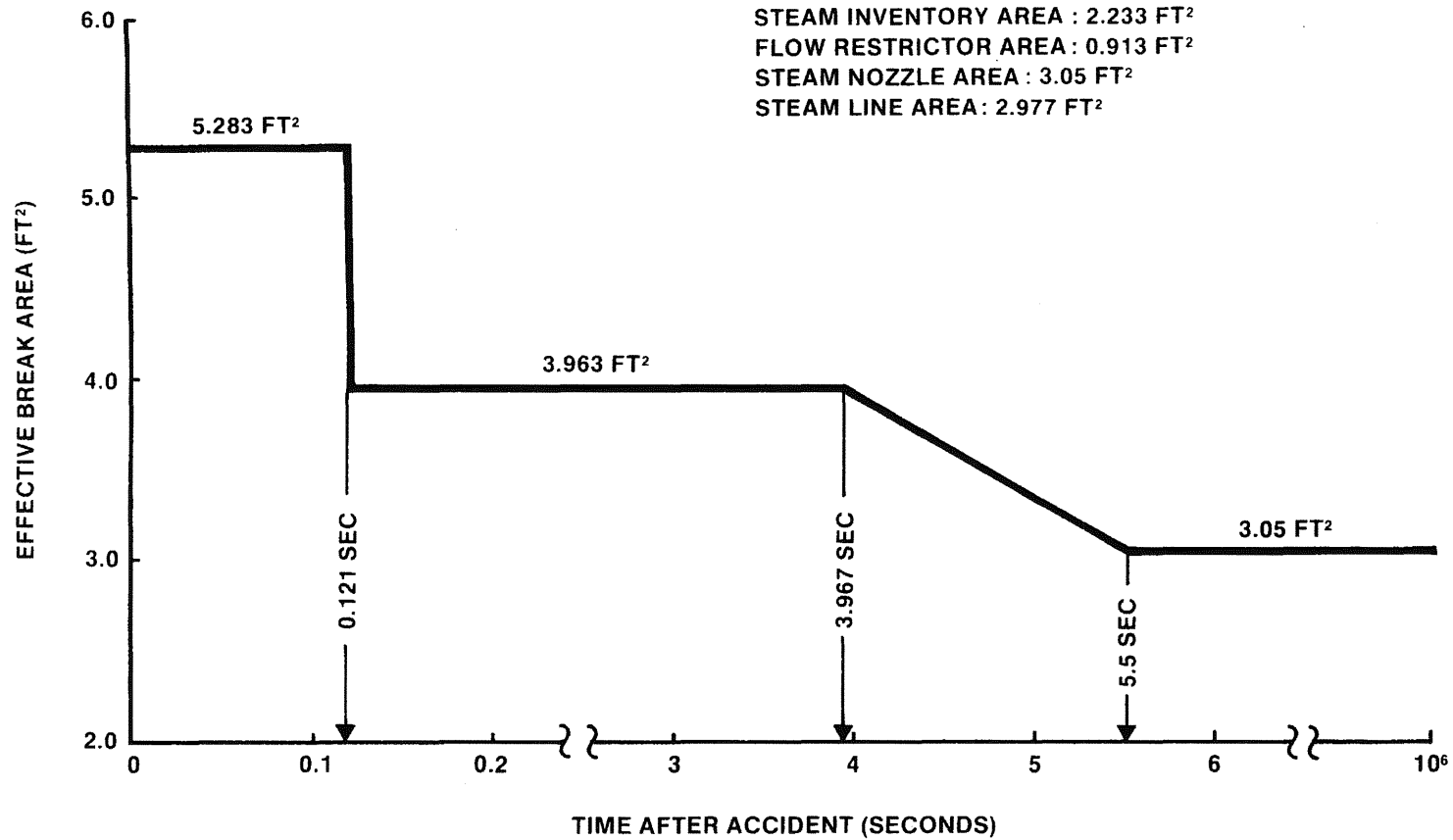
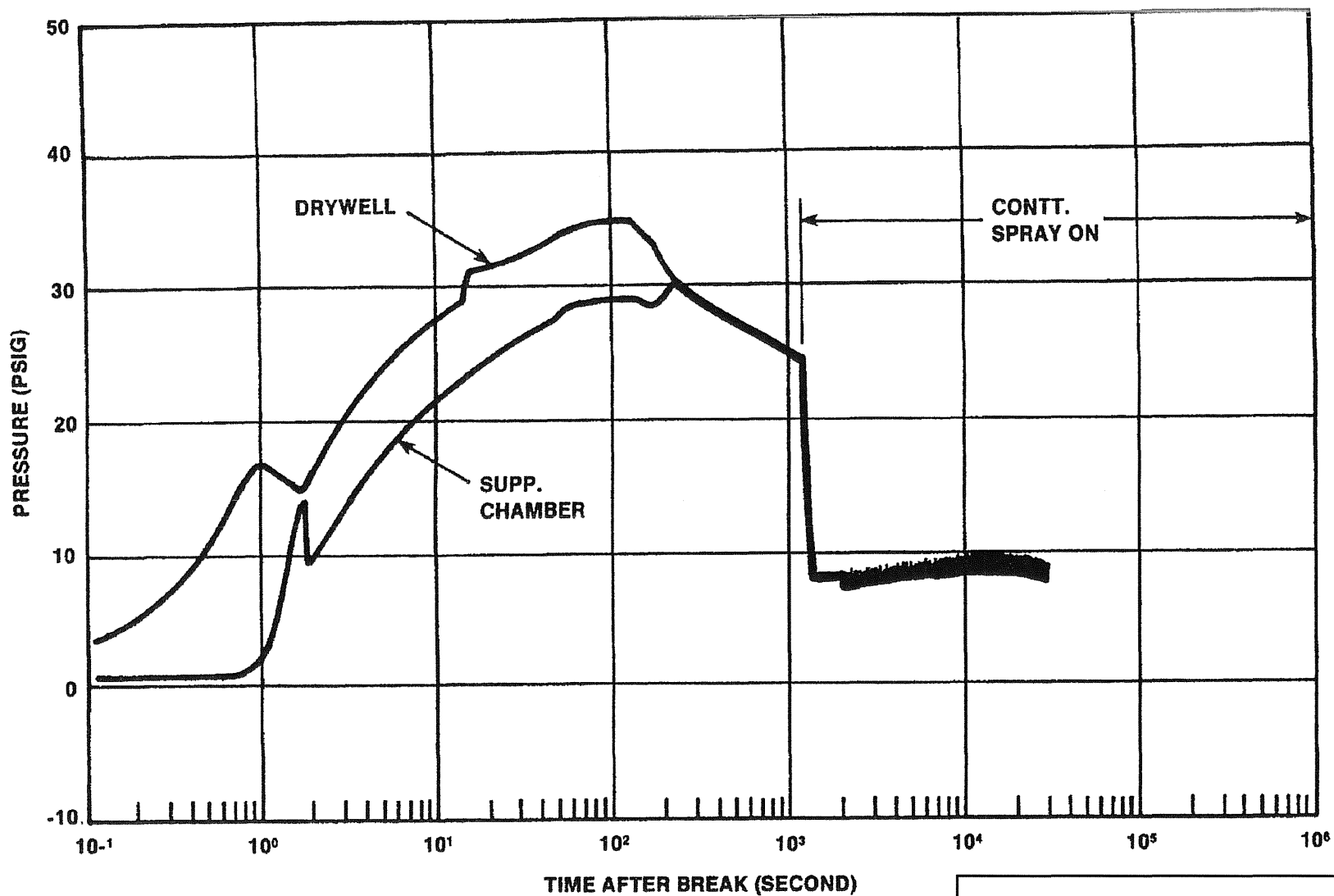


FIGURE 6.2-14

MAIN STEAM LINE
 BREAK AREA VS TIME

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

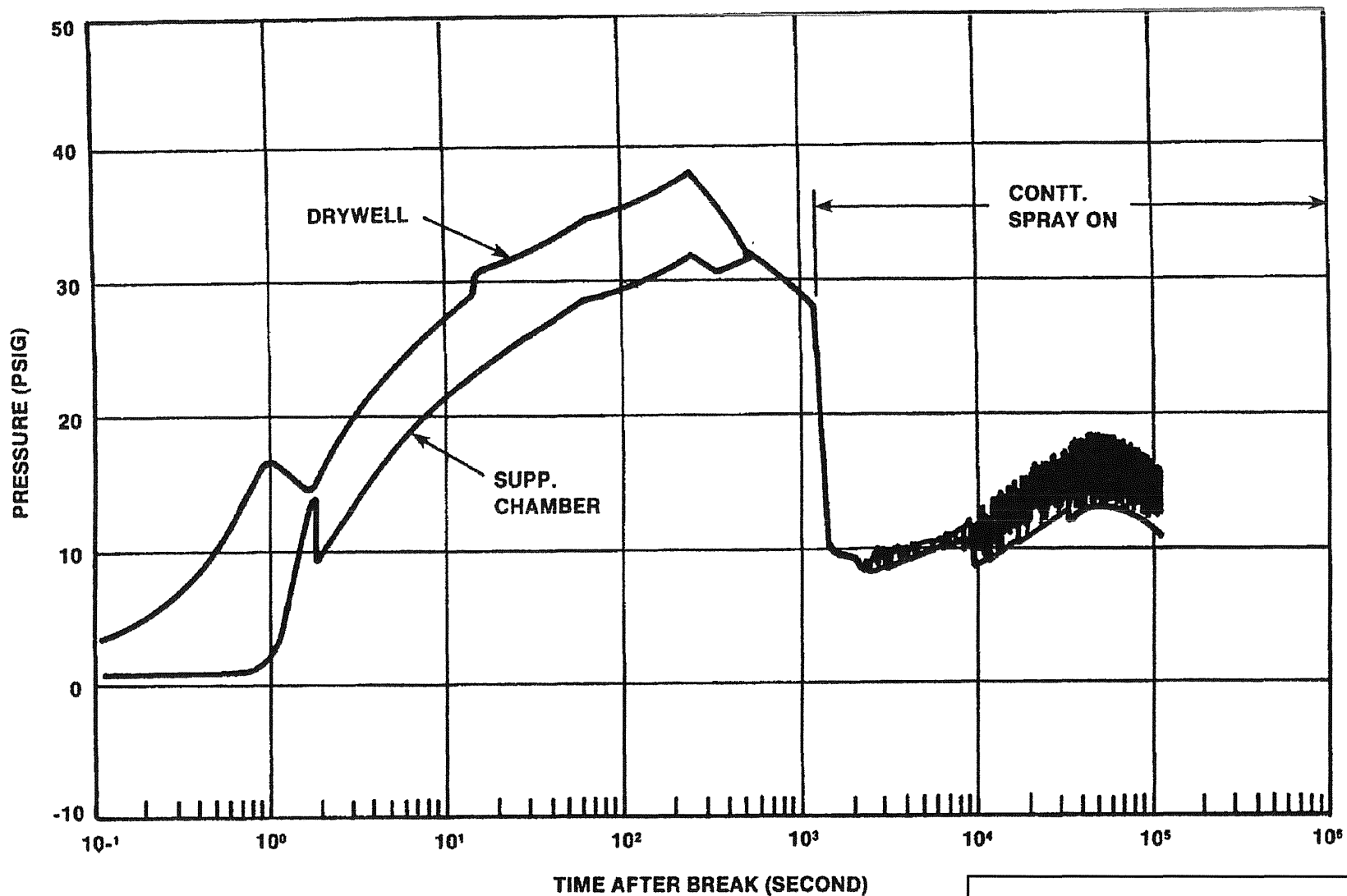


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS AND REMAINS APPLICABLE TO EPU CONDITIONS BASED ON REFERENCE 12, 18, AND 19.

FIGURE: 6.2-15

PRIMARY CONTAINMENT PRESSURE
MAIN STEAM LINE BREAK
WITH FEEDWATER, CASE A

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

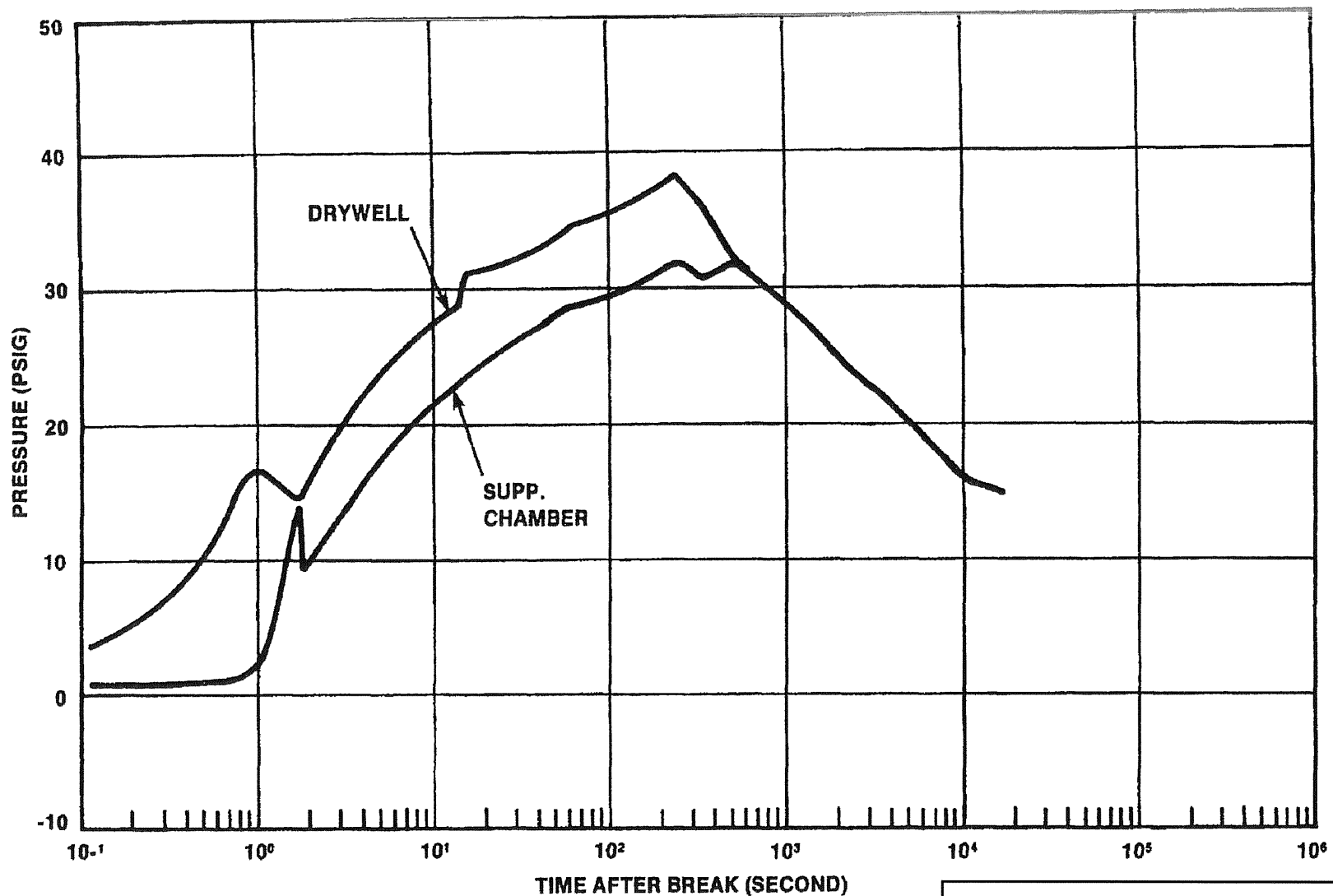


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS AND REMAINS APPLICABLE TO EPU CONDITIONS BASED ON REFERENCE 12, 18, AND 19.

FIGURE: 6.2-16

PRIMARY CONTAINMENT PRESSURE
MAIN STEAM LINE BREAK
WITH FEEDWATER, CASE B

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

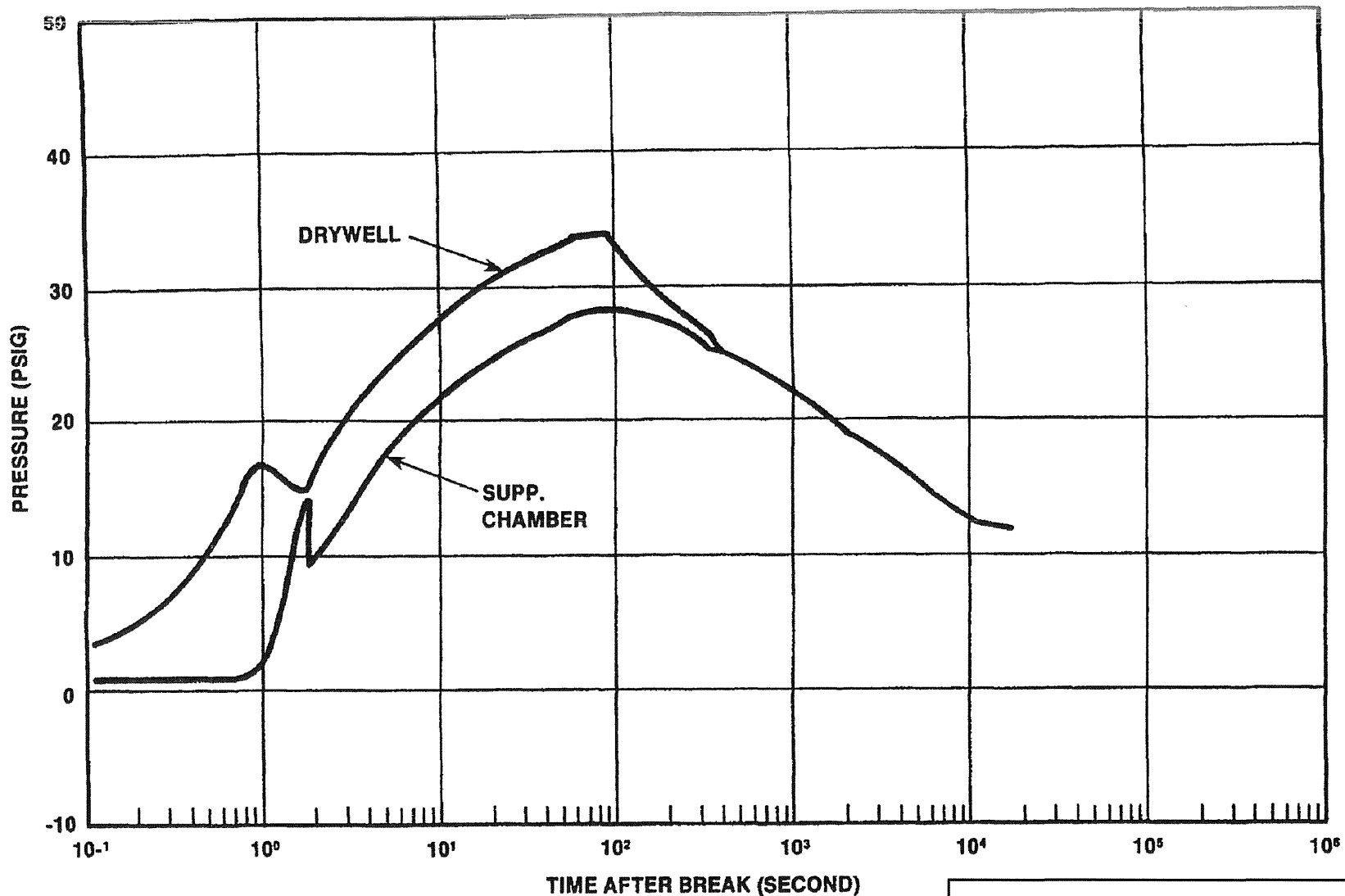


NOTE: THIS FIGURE IS DERIVED BASED
ON OLTP CONDITIONS AND REMAINS
APPLICABLE TO EPU CONDITIONS BASED
ON REFERENCE 12, 18, AND 19.

FIGURE: 6.2-17

PRIMARY CONTAINMENT PRESSURE
MAIN STEAM LINE BREAK
WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

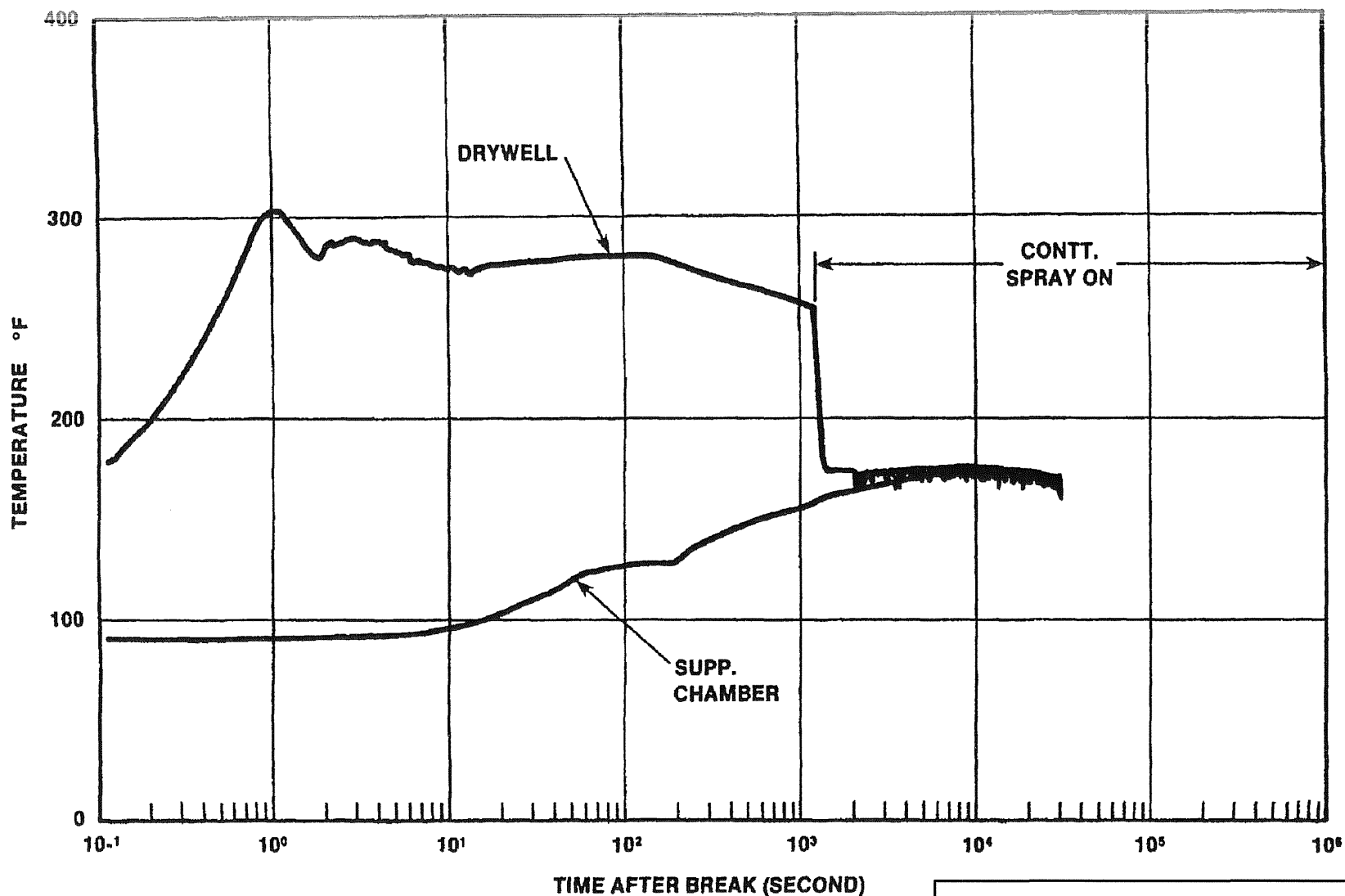


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS AND REMAINS APPLICABLE TO EPU CONDITIONS BASED ON REFERENCE 12, 18, AND 19.

FIGURE: 6.2-18

PRIMARY CONTAINMENT PRESSURE
MAIN STEAM LINE BREAK
WITHOUT FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

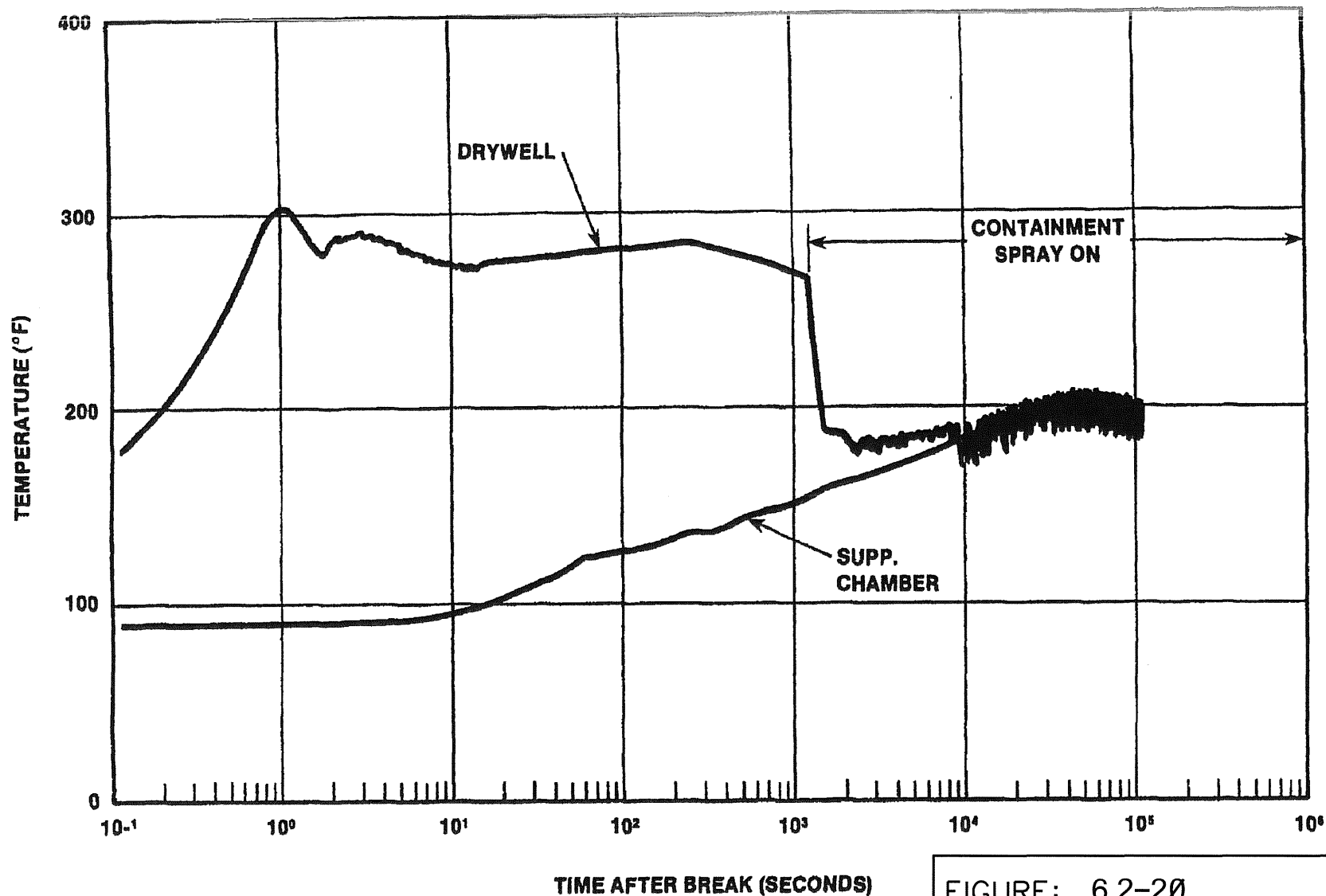


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS AND REMAINS APPLICABLE TO EPU CONDITIONS BASED ON REFERENCE 12, 18, AND 19.

FIGURE: 6.2-19

PRIMARY CONTAINMENT TEMPERATURE
MAIN STEAM LINE BREAK
WITH FEEDWATER, CASE A

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

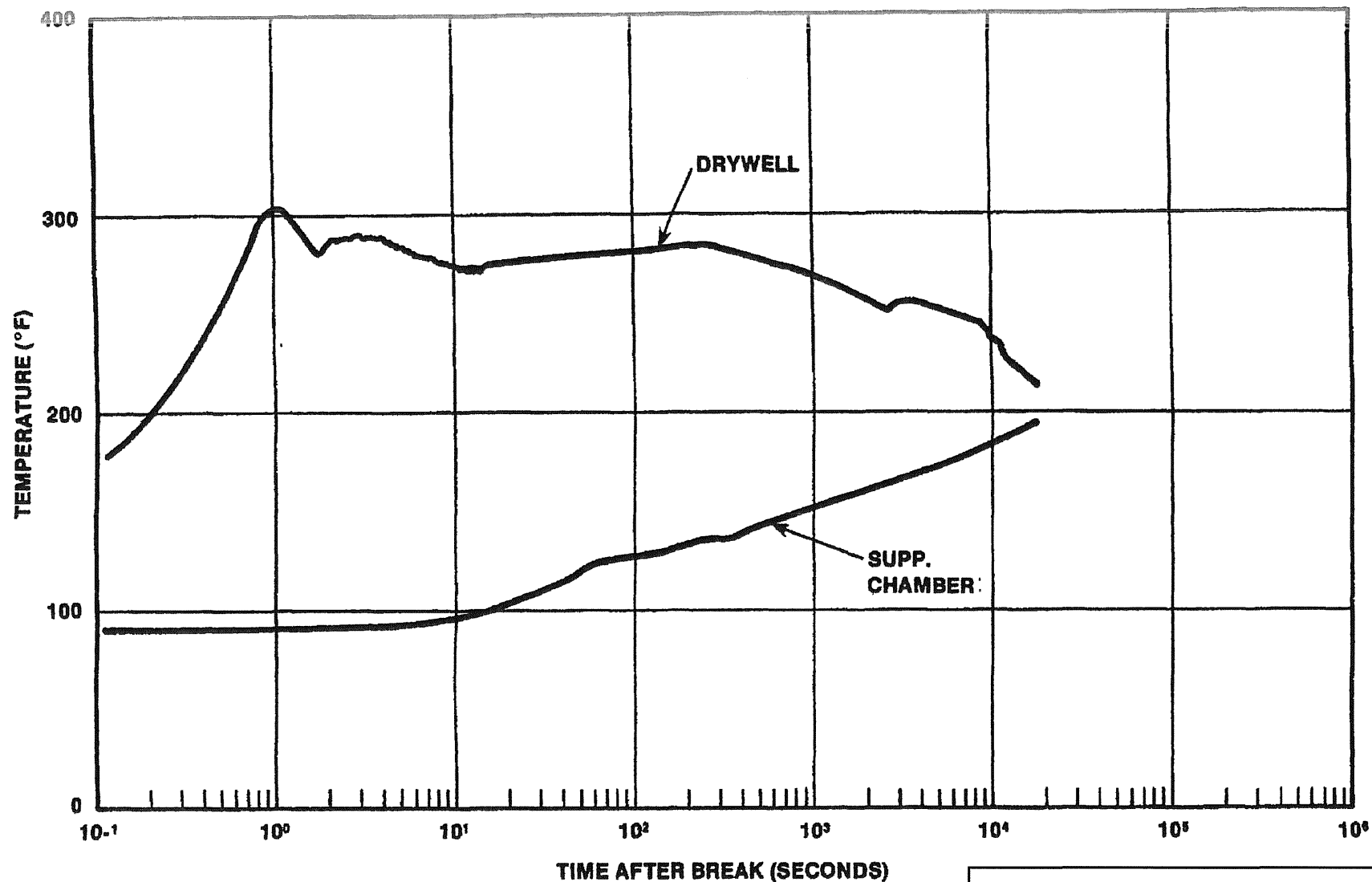


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS AND REMAINS APPLICABLE TO EPU CONDITIONS BASED ON REFERENCE 12, 18, AND 19.

FIGURE: 6.2-20

PRIMARY CONTAINMENT TEMPERATURE
MAIN STEAM LINE BREAK
WITH FEEDWATER, CASE B

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

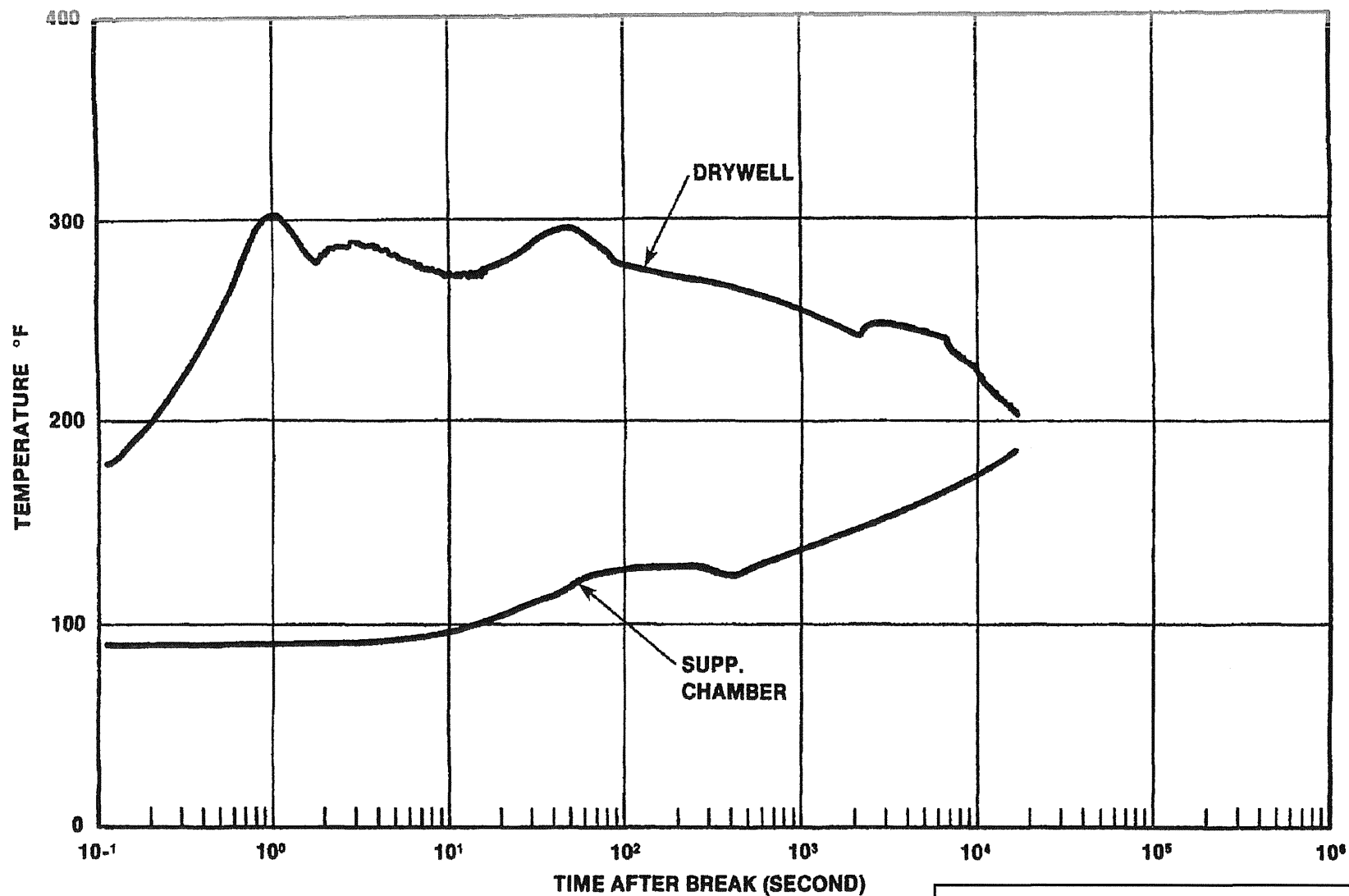


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS AND REMAINS APPLICABLE TO EPU CONDITIONS BASED ON REFERENCE 12, 18, AND 19.

FIGURE: 6.2-21

PRIMARY CONTAINMENT TEMPERATURE
MAIN STEAM LINE BREAK
WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

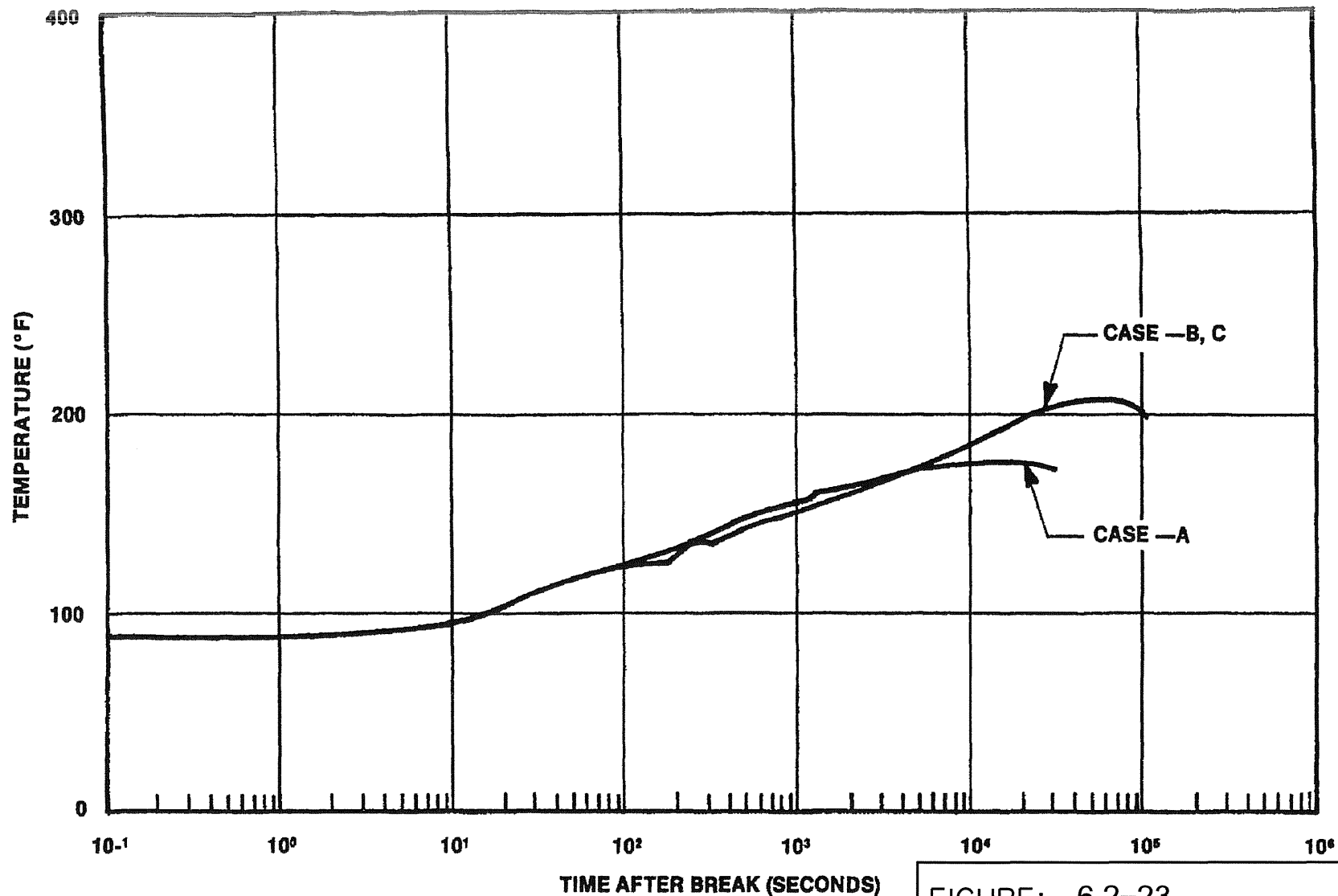


NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS AND REMAINS APPLICABLE TO EPU CONDITIONS BASED ON REFERENCE 12, 18, AND 19.

FIGURE: 6.2-22

PRIMARY CONTAINMENT TEMPERATURE
MAIN STEAM LINE BREAK
WITHOUT FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



NOTE: THIS FIGURE IS DERIVED BASED ON OLTP CONDITIONS AND REMAINS APPLICABLE TO EPU CONDITIONS BASED ON REFERENCE 12, 18, AND 19. TEMPERATURE COMPARISON BASED ON OLTP ASSUMED RHR HEAT EXCHANGER K-FACTOR=199 BTU/SEC PER °F. EPU ASSUMED K-FACTOR WILL CONTINUE TO REDUCE POOL TEMPERATURE BELOW ITS MAXIMUM LIMIT.

FIGURE: 6.2-23

SUPPRESSION POOL TEMPERATURE
MAIN STEAM LINE BREAK
WITH FEEDWATER

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED

FIGURE 6.2-24

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED

FIGURE 6.2-25

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED

FIGURE 6.2-26

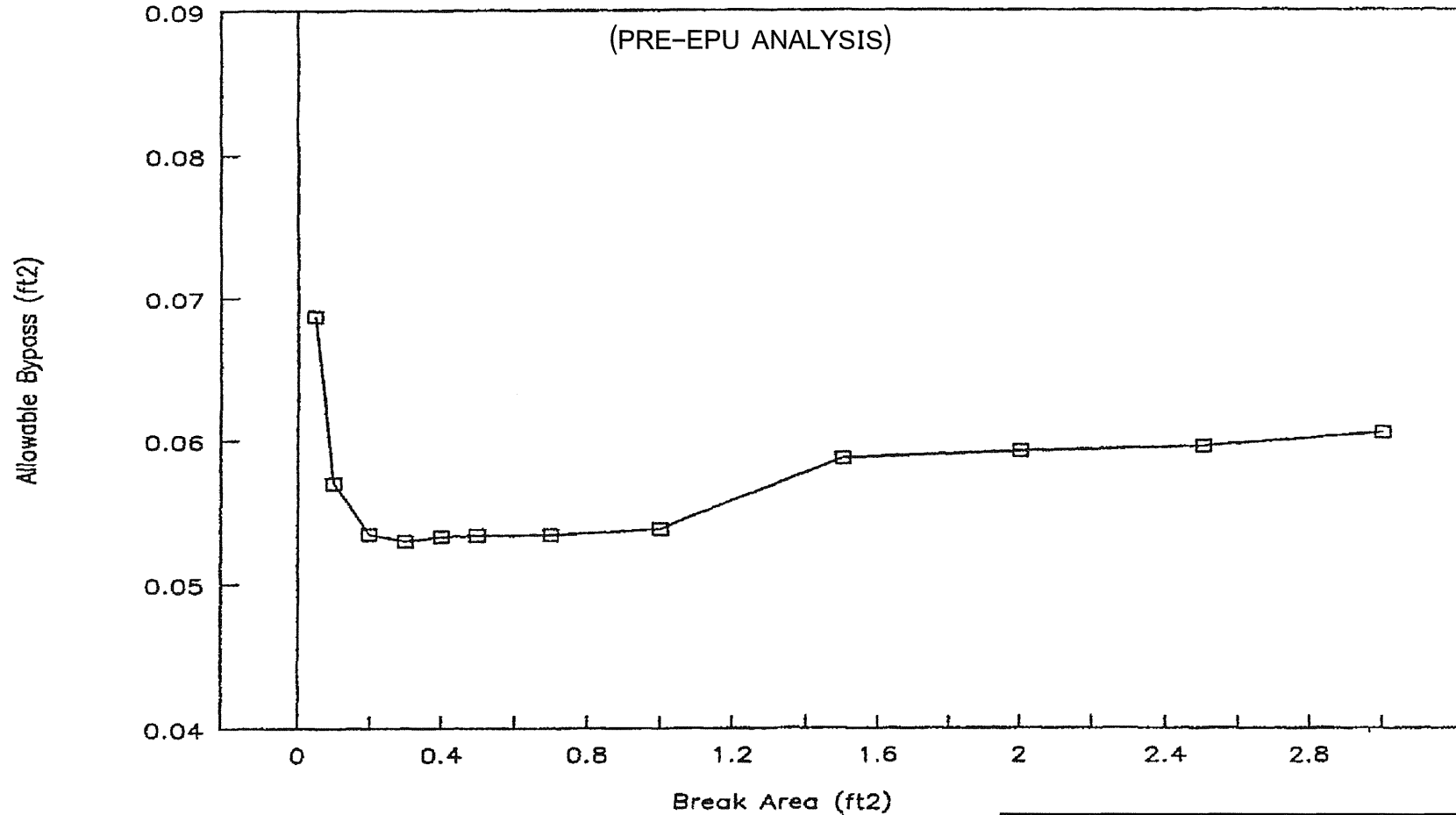
NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED

FIGURE 6.2-27

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

**MAXIMUM ALLOWABLE BYPASS CAPACITY
vs.
STEAM LINE BREAK AREA**

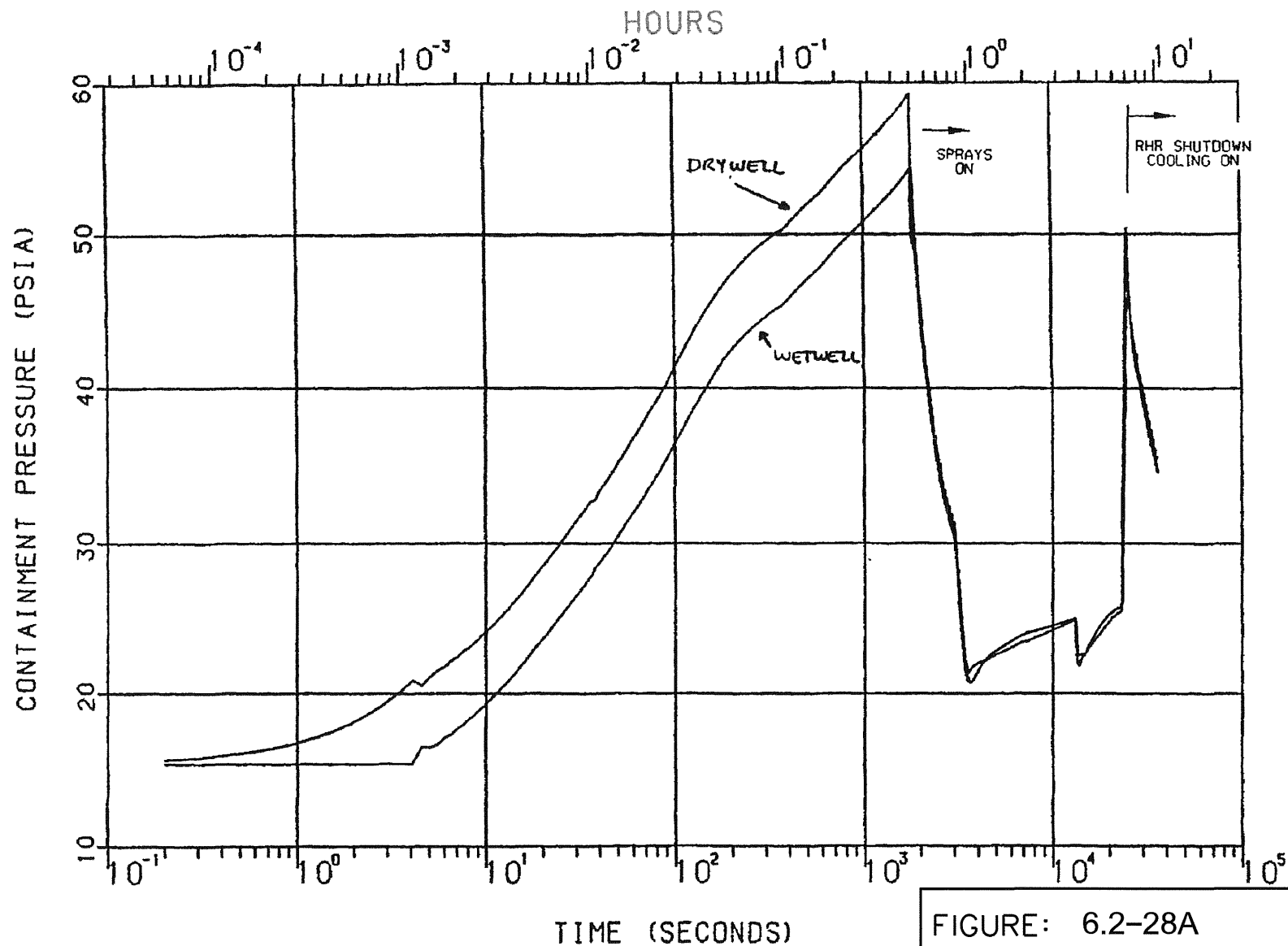


NOTE: THE ABOVE PLOT IS FOR THE PRE-EPU ANALYSIS,
WHICH ASSUMED SPRAY INITIATION AT 30 MINUTES.
FOR EPU, SPRAY INITIATION IS AT 20 MINUTES.

FIGURE: 6.2-28

MAXIMUM ALLOWABLE BYPASS
CAPACITY (A/\sqrt{k}) VERSUS
STEAM LINE BREAK AREA

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

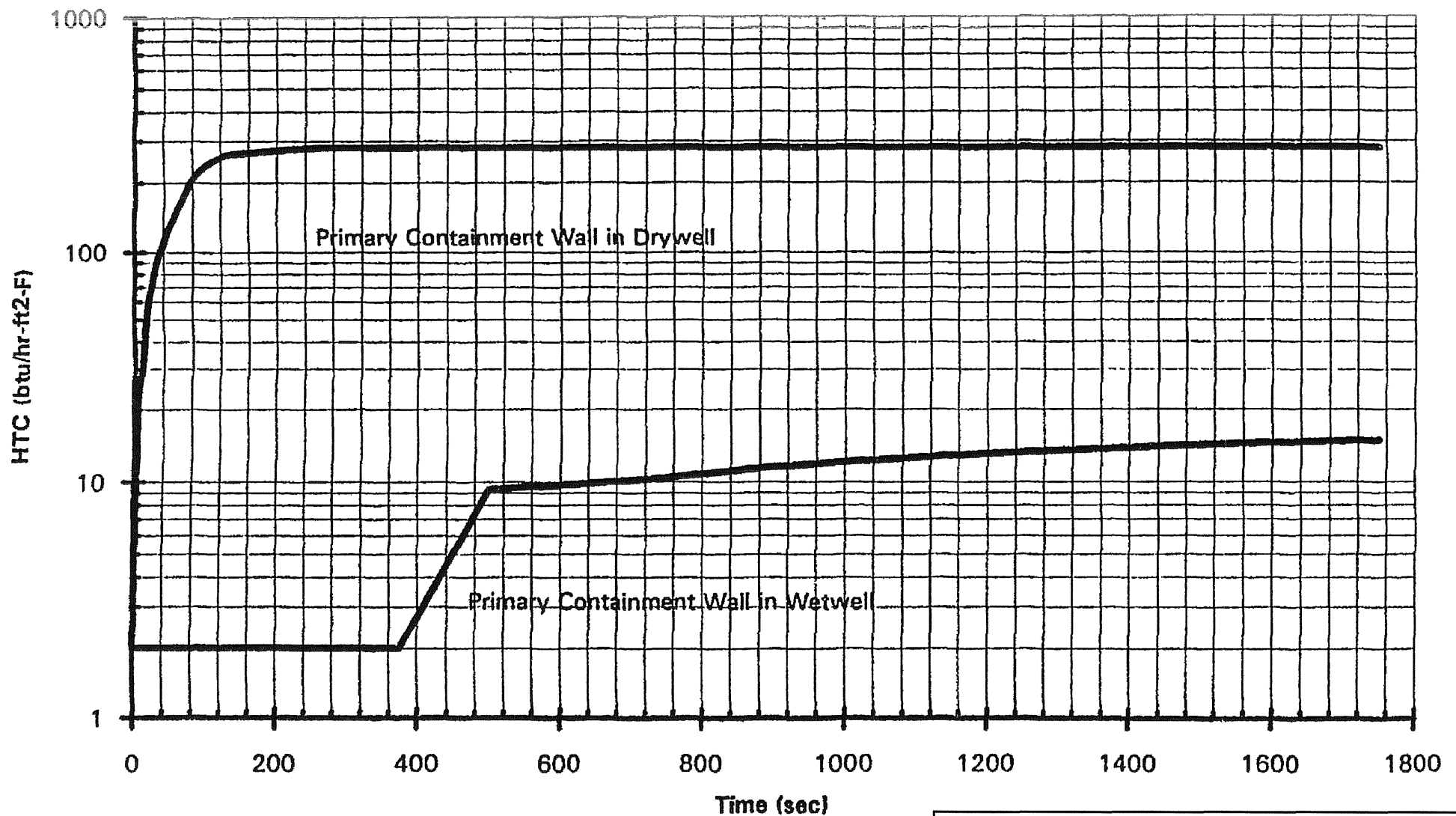


NOTE: THE ABOVE PLOT IS FOR THE PRE-EPU ANALYSIS, WHICH ASSUMED SPRAY INITIATION AT 30 MINUTES. FOR EPU, SPRAY INITIATION IS AT 20 MINUTES.

FIGURE: 6.2-28A

LONG TERM STEAM BYPASS ANALYSIS:
BREAK AREA = 0.3 FT^2 ;
BYPASS AREA = 0.05 FT^2 .

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



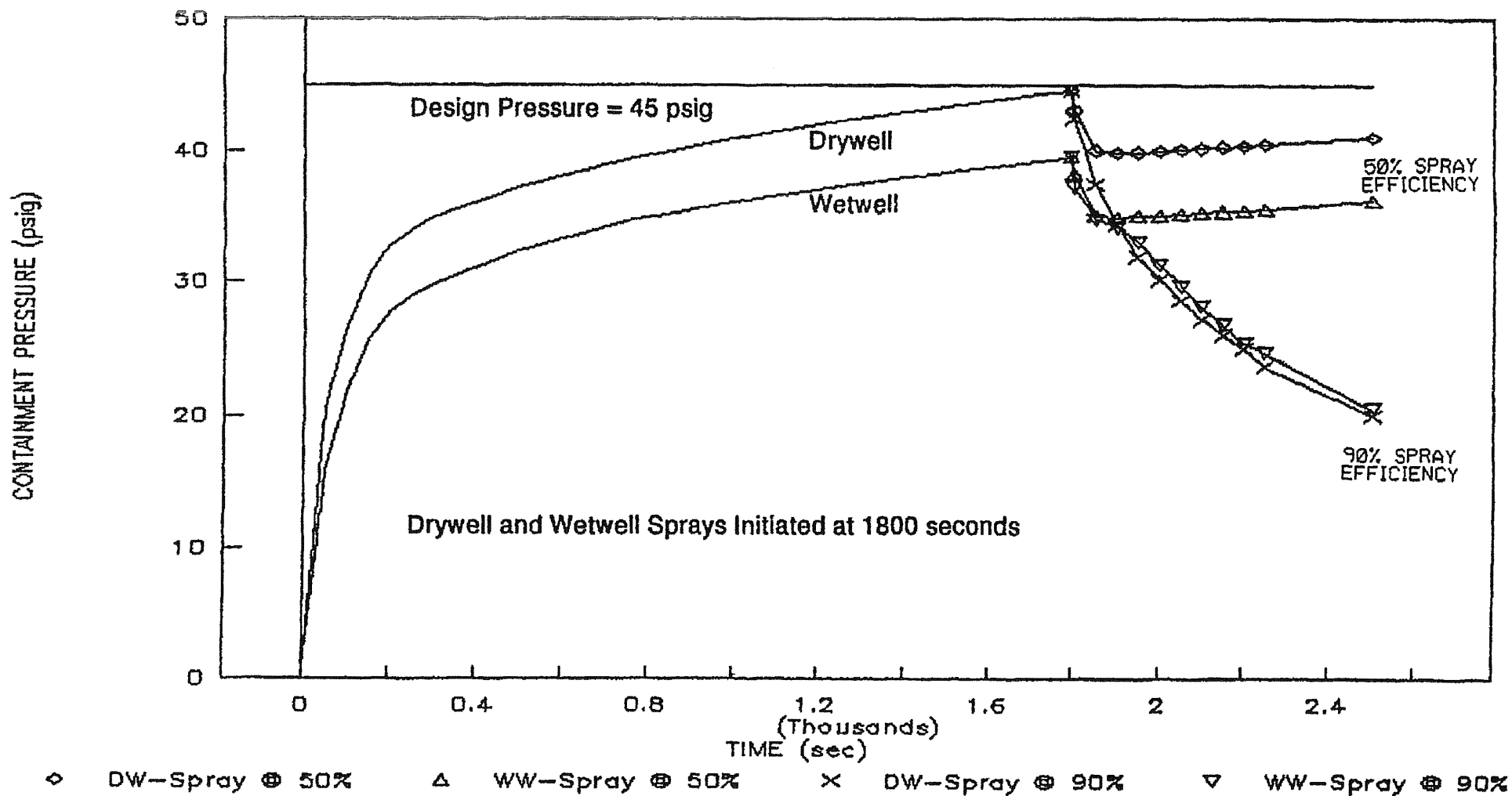
**HEAT SINK SURFACE
HEAT TRANSFER COEFFICIENT**
Break = 0.3 ft² Bypass = 0.05 ft²

NOTE: THIS IS A PRE-EPU ANALYSIS

FIGURE: 6.2-28B

HEAT SINK SURFACE HEAT
TRANSFER COEFFICIENCY FOR
LIMITING STEAM BYPASS CONDITION

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



CONTAINMENT PRESSURE SENSITIVITY TO SPRAY THERMAL EFFICIENCY

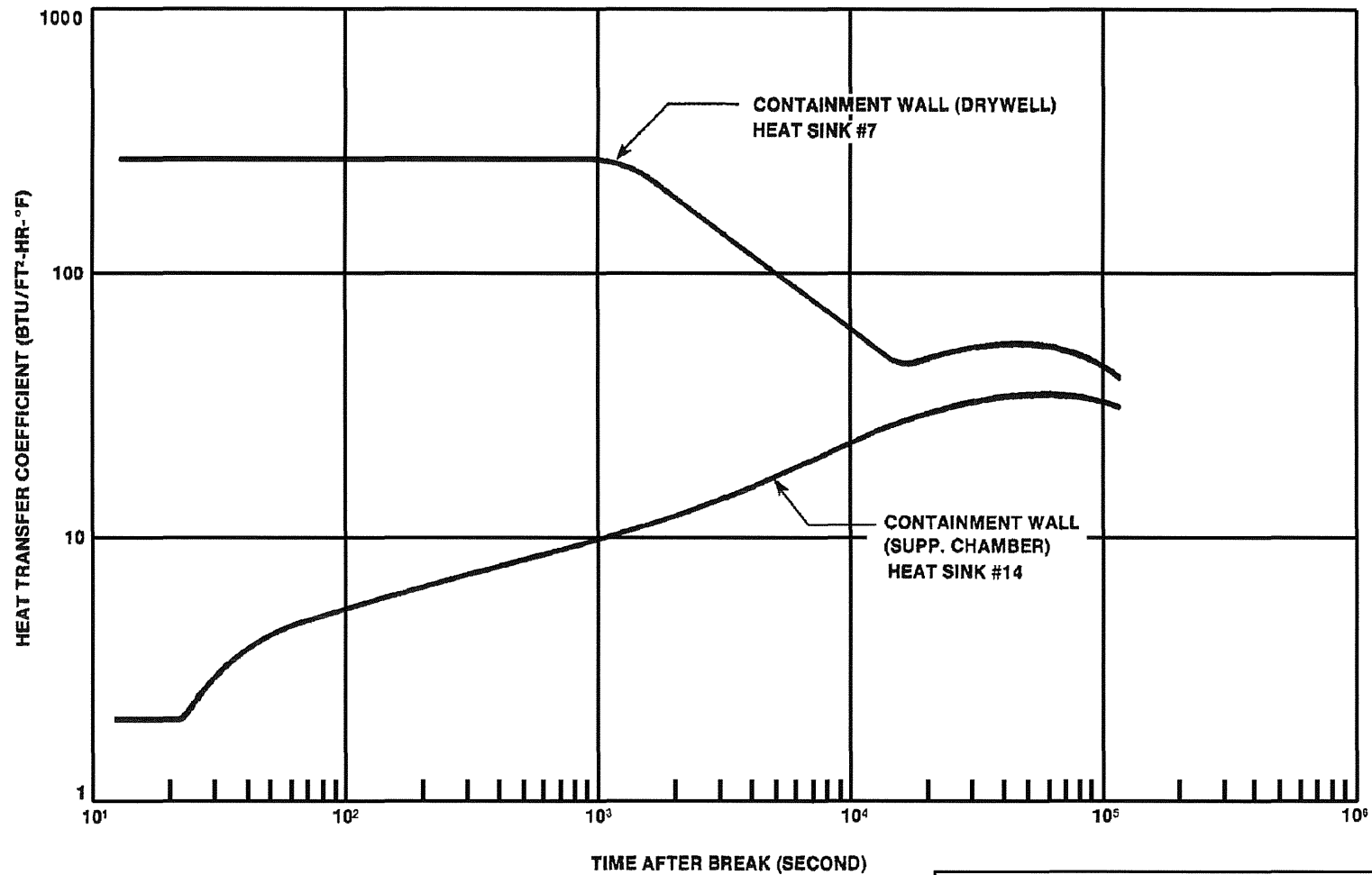
Break = 0.3 ft² Bypass = 0.05 ft²

NOTE: THE ABOVE PLOT IS FOR THE PRE-EPU ANALYSIS,
WHICH ASSUMED SPRAY INITIATION AT 30 MINUTES.
FOR EPU, SPRAY INITIATION IS AT 20 MINUTES.

FIGURE: 6.2-28C

CONTAINMENT PRESSURE SENSITIVITY
TO SPRAY THERMAL EFFICIENCY FOR
LIMITING STEAM BYPASS CONDITION

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



NOTE: THIS FIGURE IS DERIVED BASED
ON OLTP CONDITIONS. FOR EPU,
REFER TO REFERENCES 7 AND 16.

FIGURE: 6.2-29

HEAT TRANSFER COEFFICIENT
RECIRCULATION PUMP SUCTION LINE
BREAK WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

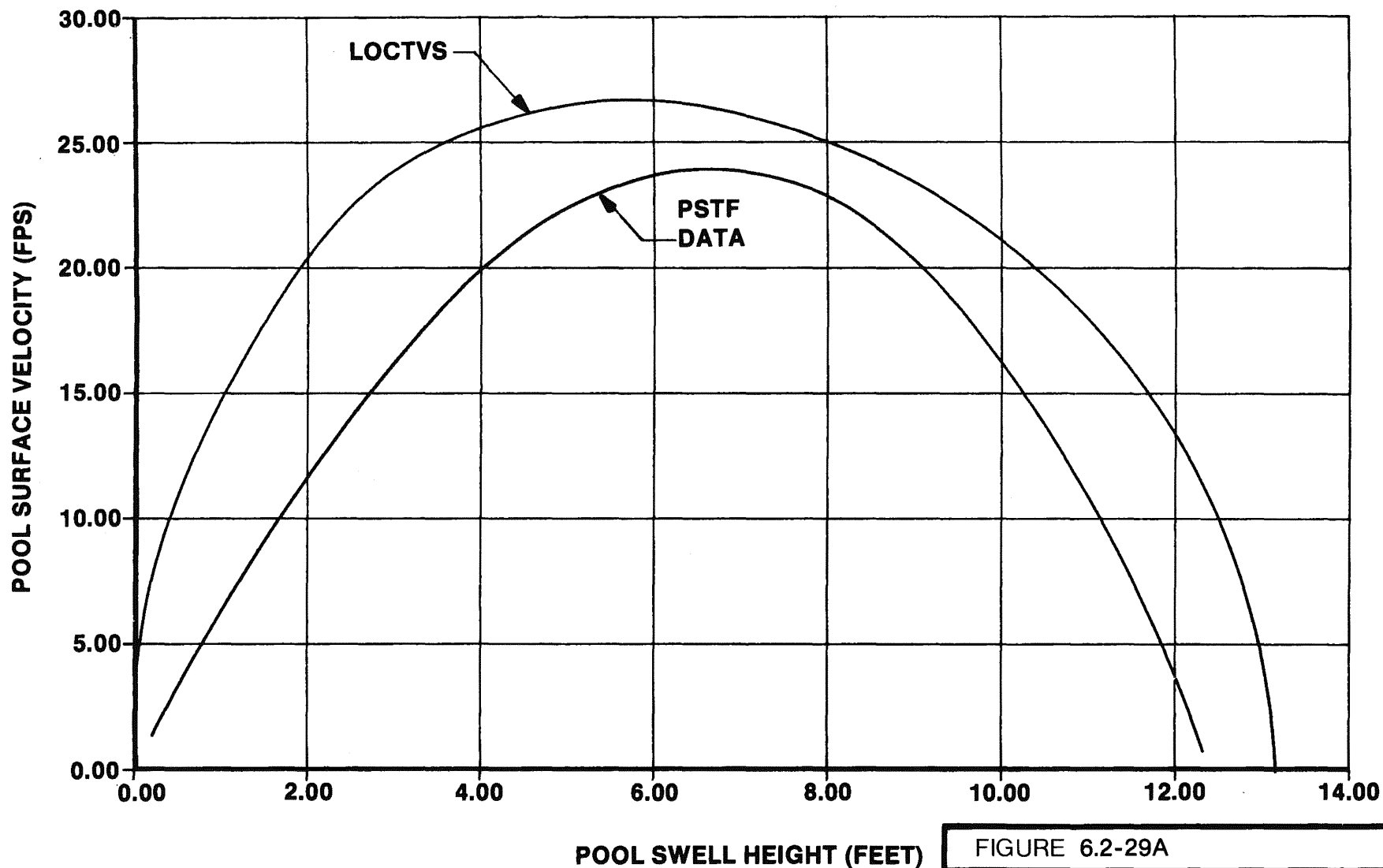


FIGURE 6.2-29A

LOCTVS COMPARISON TO PSTF RESULTS
POOL SURFACE VELOCITY VS SWELL HEIGHT
LIQUID BLOWDOWN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

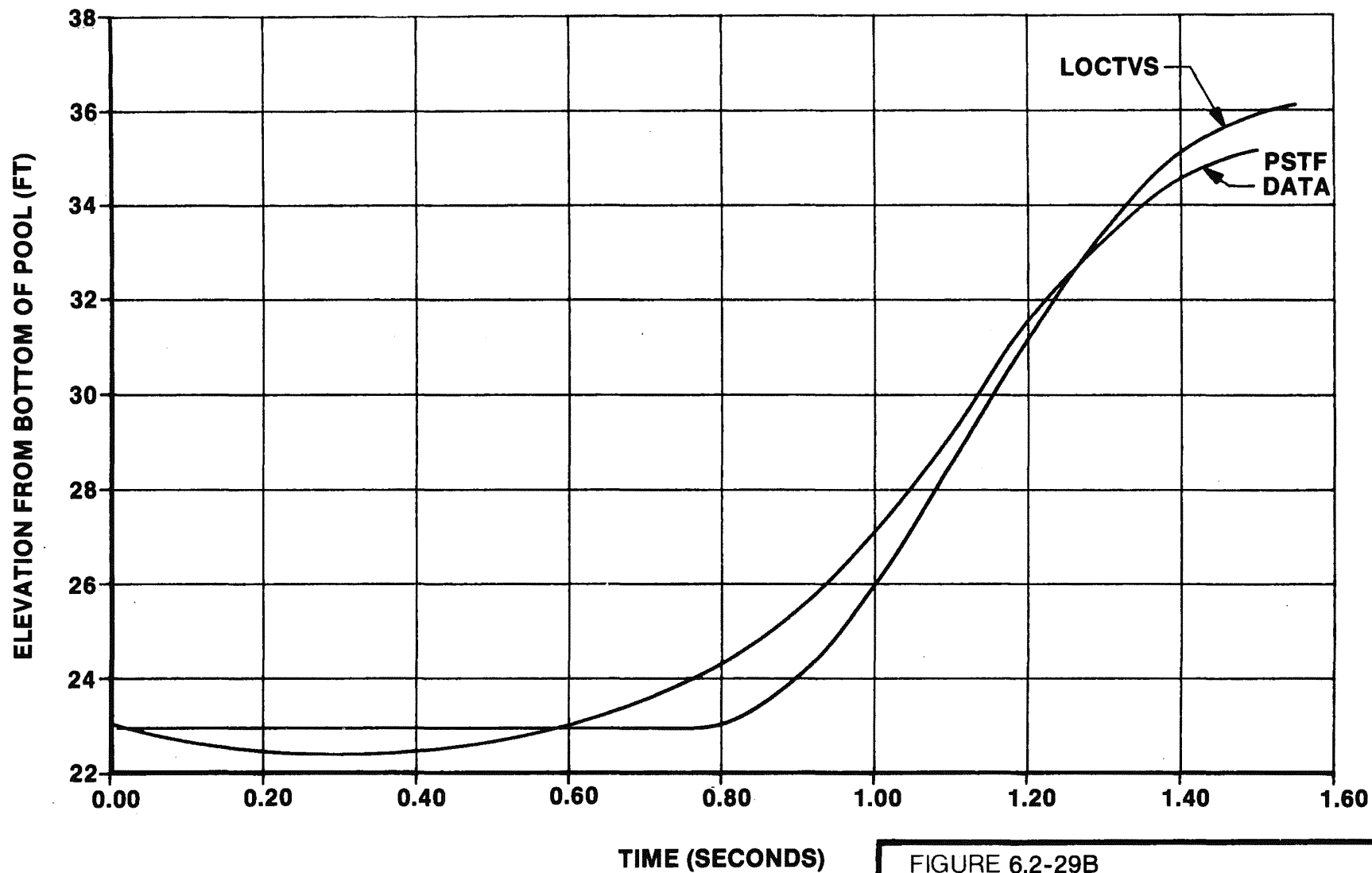


FIGURE 6.2-29B

LOCTVS COMPARISON TO PSTF RESULTS
POOL SURFACE ELEVATION VS TIME
LIQUID BLOWDOWN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

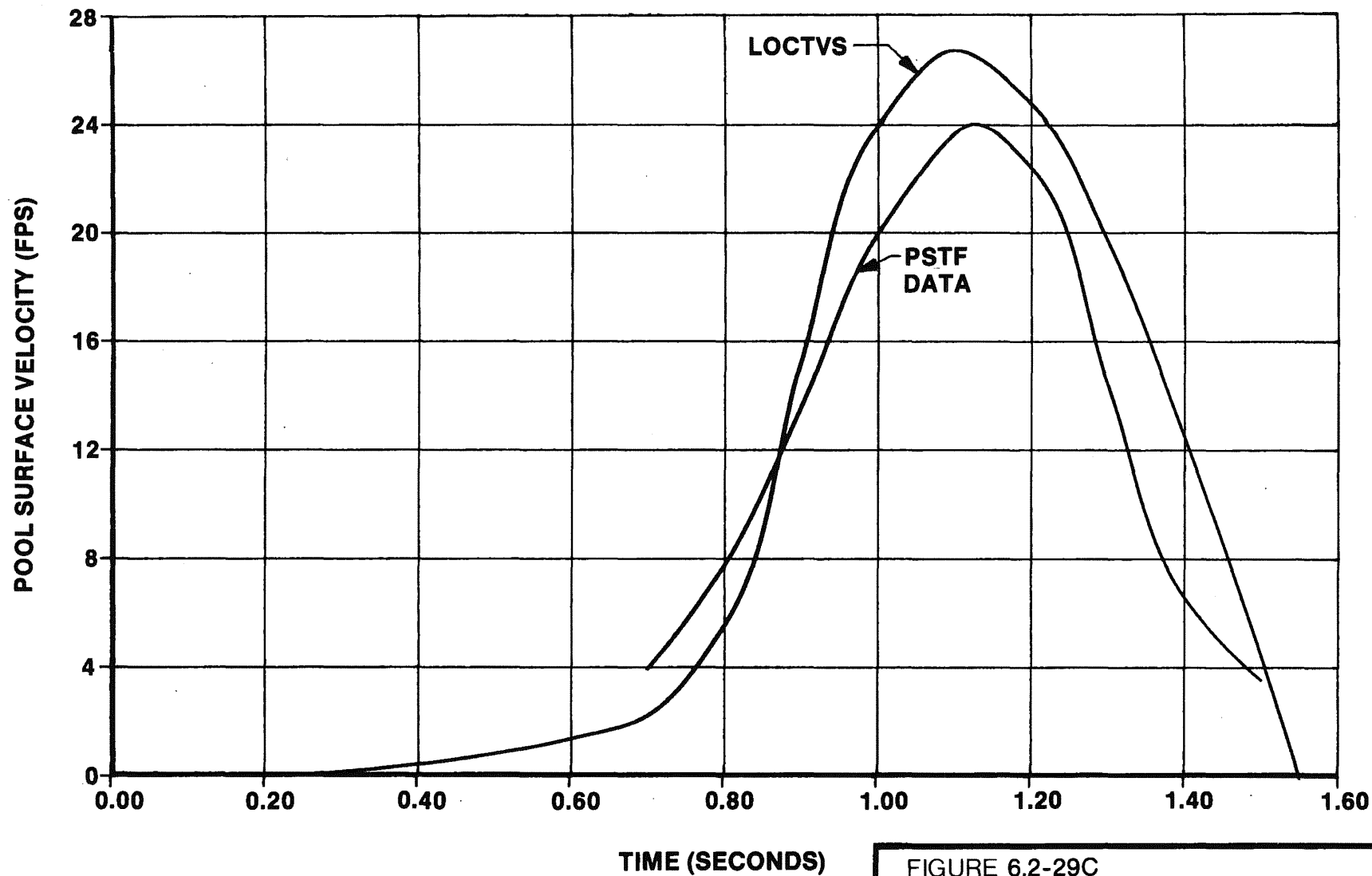


FIGURE 6.2-29C

LOCTVS COMPARISON TO PSTF RESULTS
POOL SURFACE VELOCITY VS TIME
LIQUID BLOWDOWN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

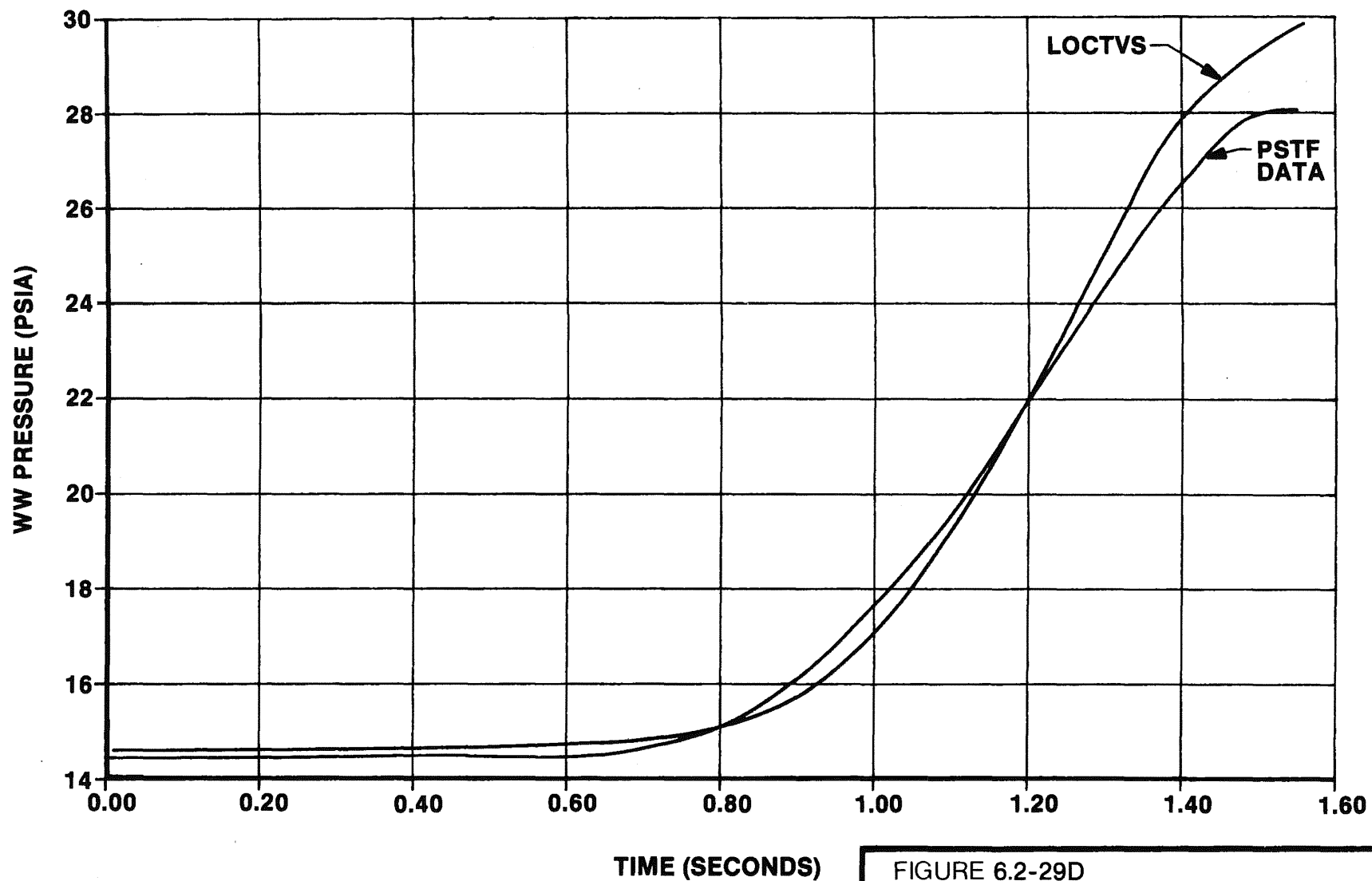


FIGURE 6.2-29D

LOCTVS COMPARISON TO PSTF RESULTS
WW AIR SPACE PRESSURE VS TIME
LIQUID BLOWDOWN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

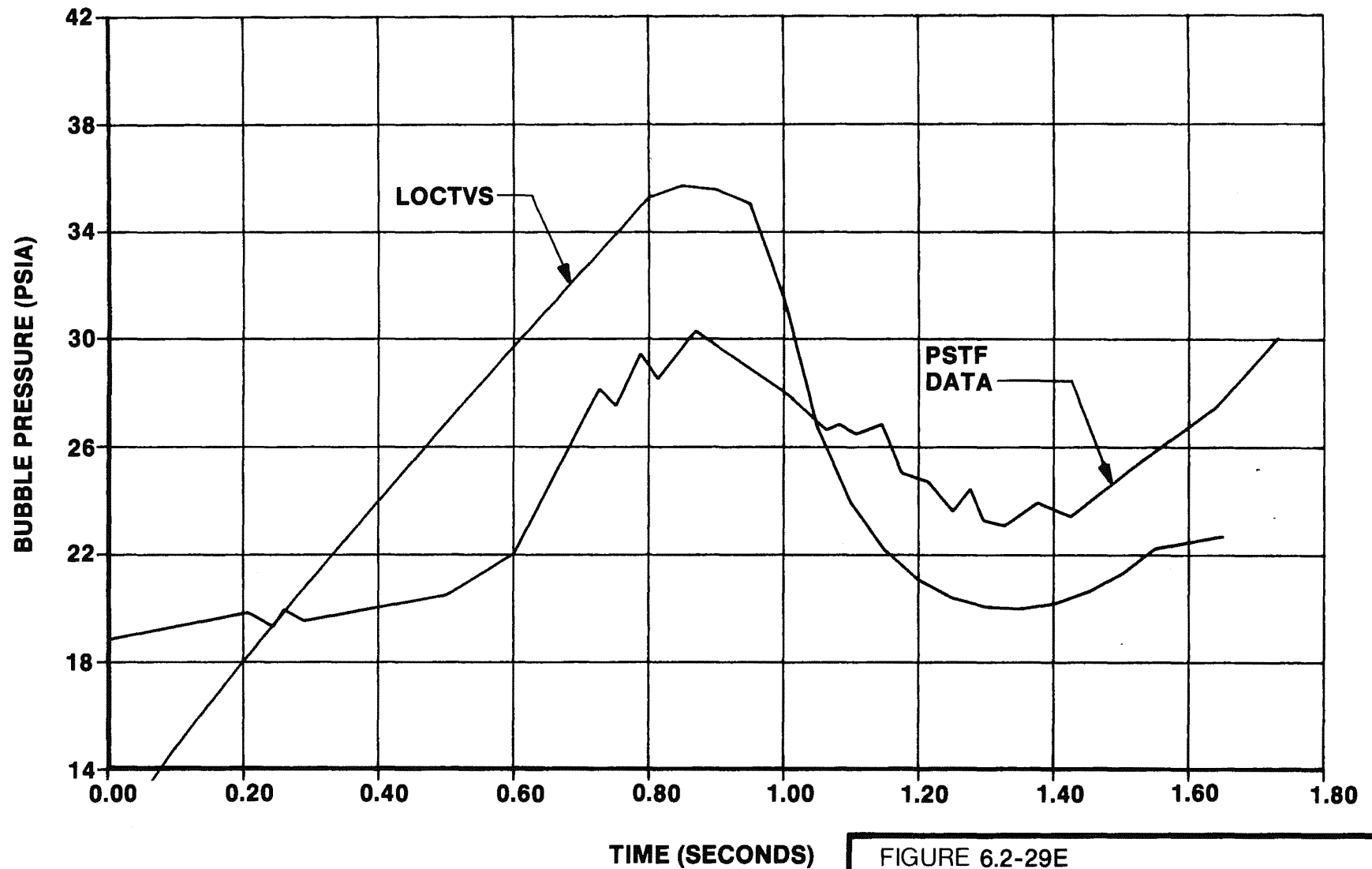


FIGURE 6.2-29E

LOCTVS COMPARISON TO PSTF RESULTS
BUBBLE PRESSURE VS TIME
LIQUID BLOWDOWN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

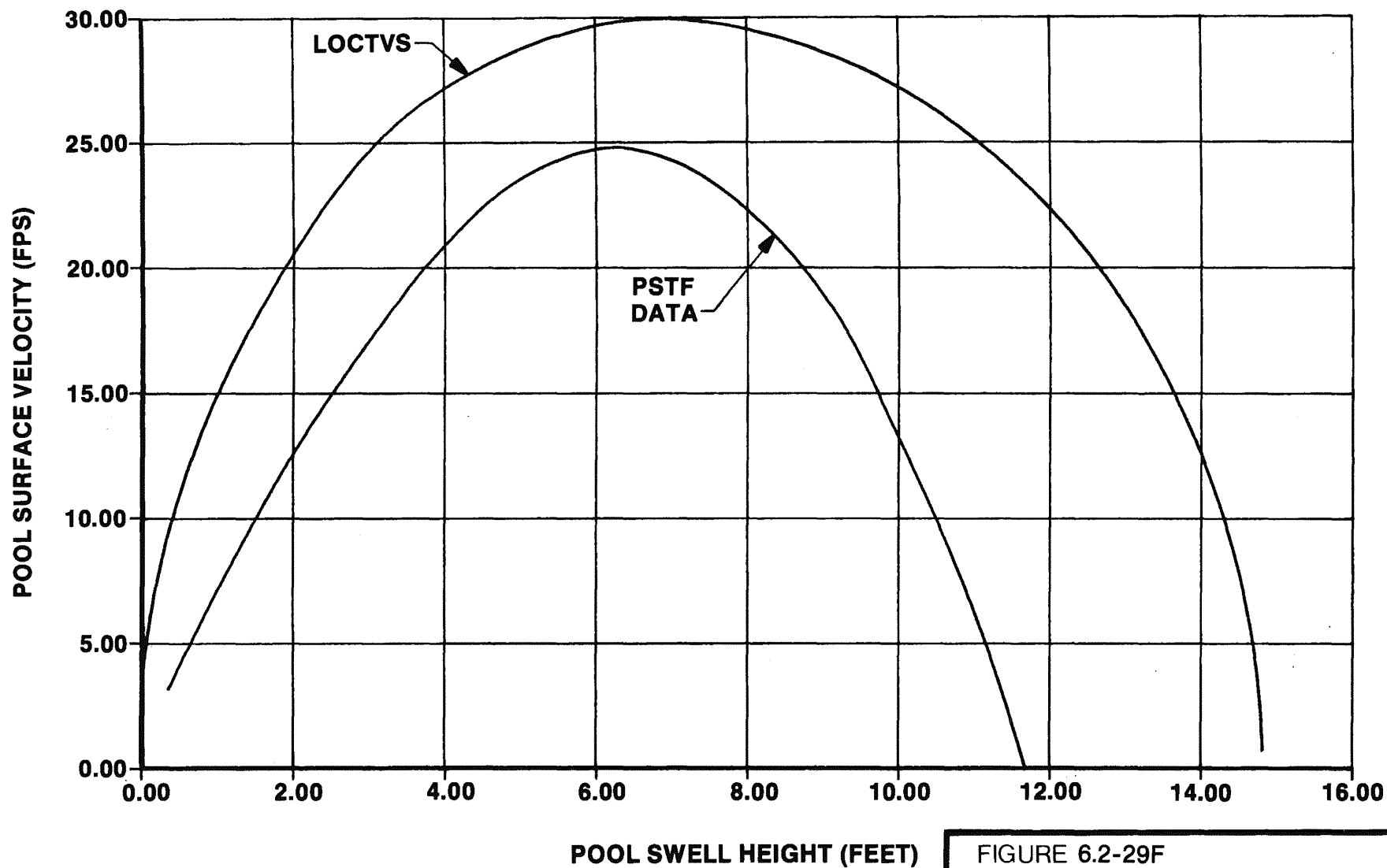


FIGURE 6.2-29F

LOCTVS COMPARISON TO PSTF RESULTS
POOL SURFACE VELOCITY VS SWELL HEIGHT
STEAM BLOWDOWN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

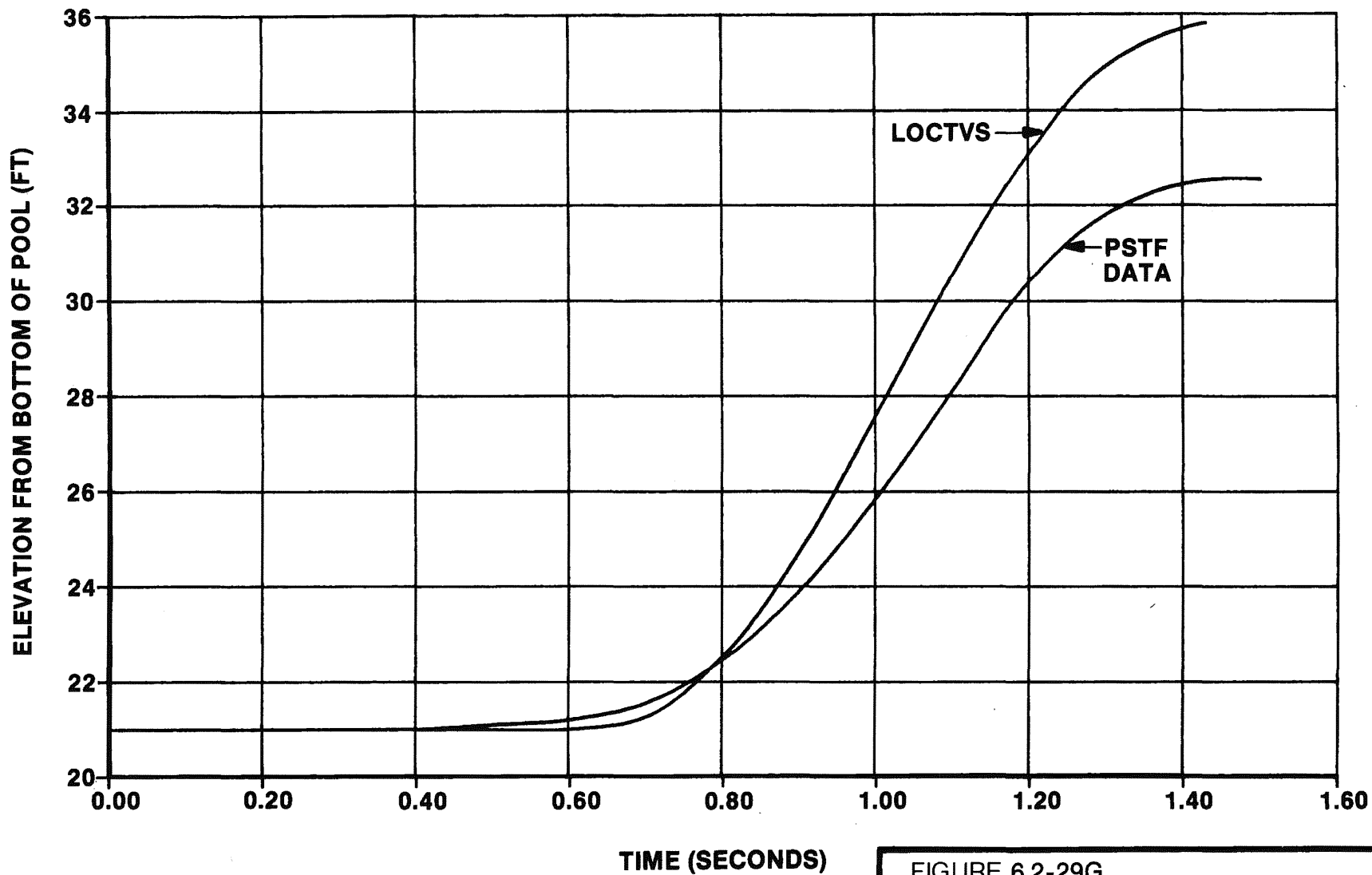


FIGURE 6.2-29G

LOCTVS COMPARISON TO PSTF RESULTS
POOL SURFACE ELEVATION VS TIME
STEAM BLOWDOWN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

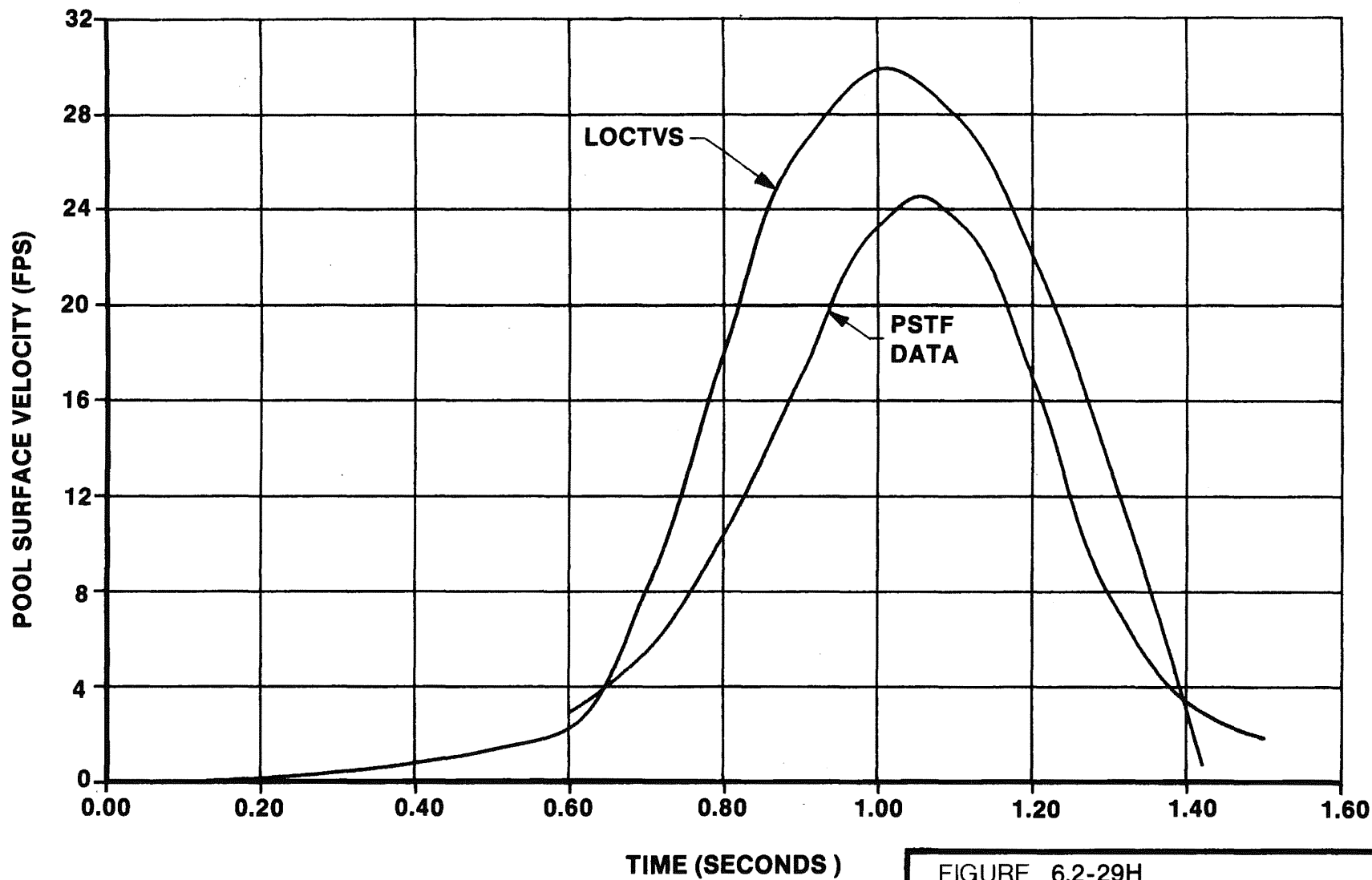


FIGURE 6.2-29H

LOCTVS COMPARISON TO PSTF RESULTS
POOL SURFACE VELOCITY VS TIME
STEAM BLOWDOWN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

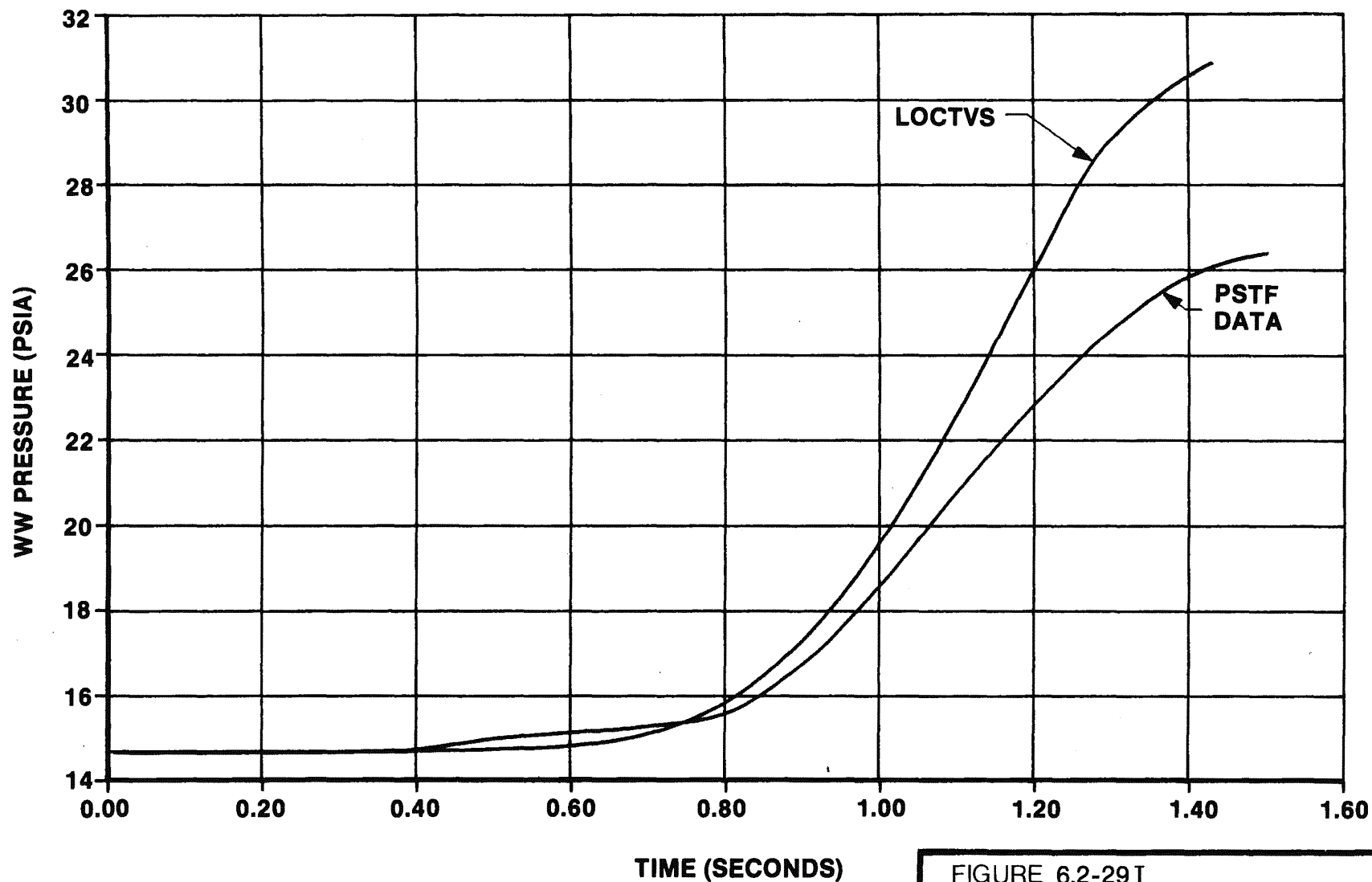


FIGURE 6.2-29I

LOCTVS COMPARISON TO PSTF RESULTS
WW AIR SPACE PRESSURE VS TIME
STEAM BLOWDOWN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

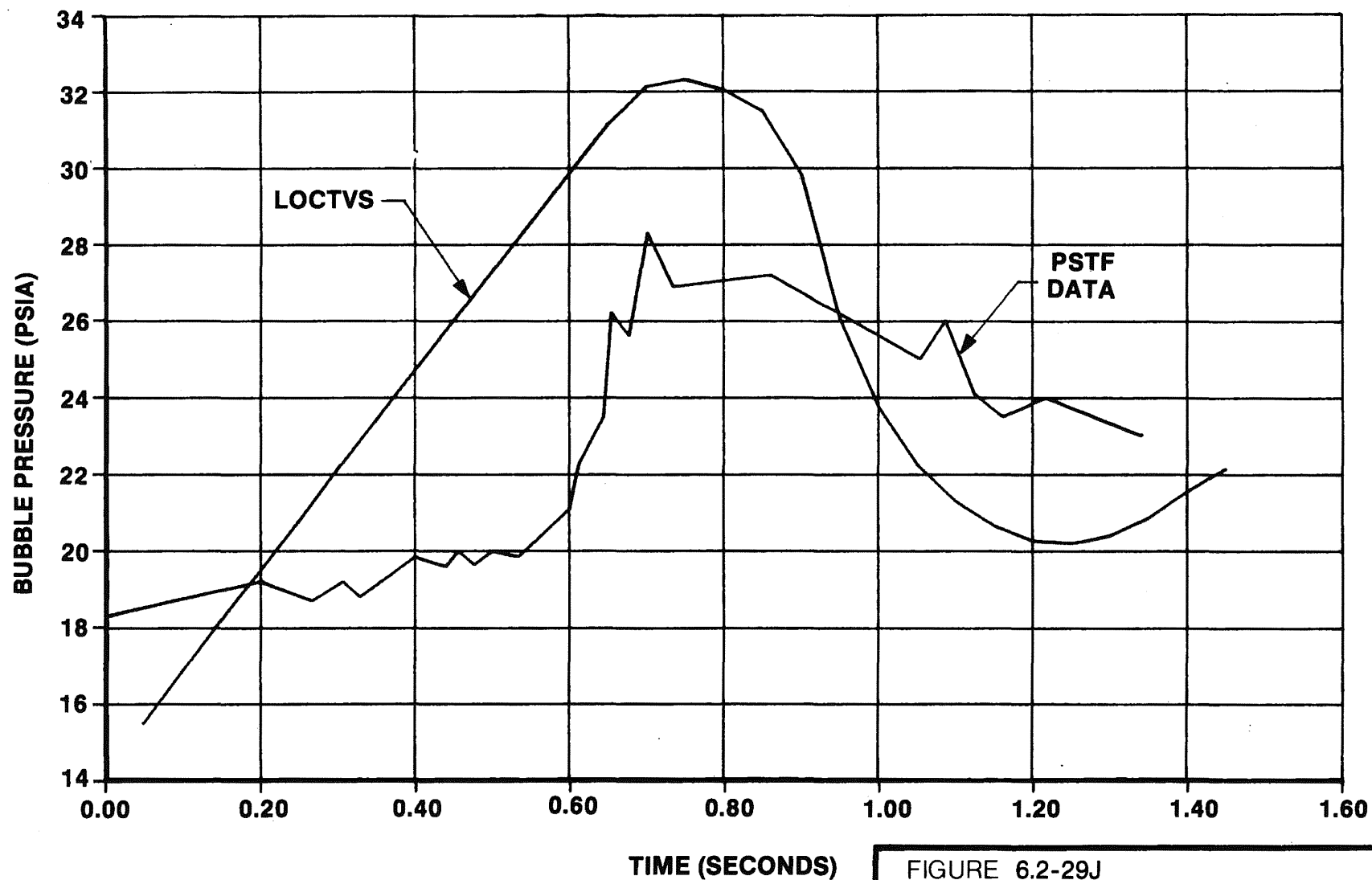


FIGURE 6.2-29J

LOCTVS COMPARISON TO PSTF RESULTS
BUBBLE PRESSURE VS TIME
STEAM BLOWDOWN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

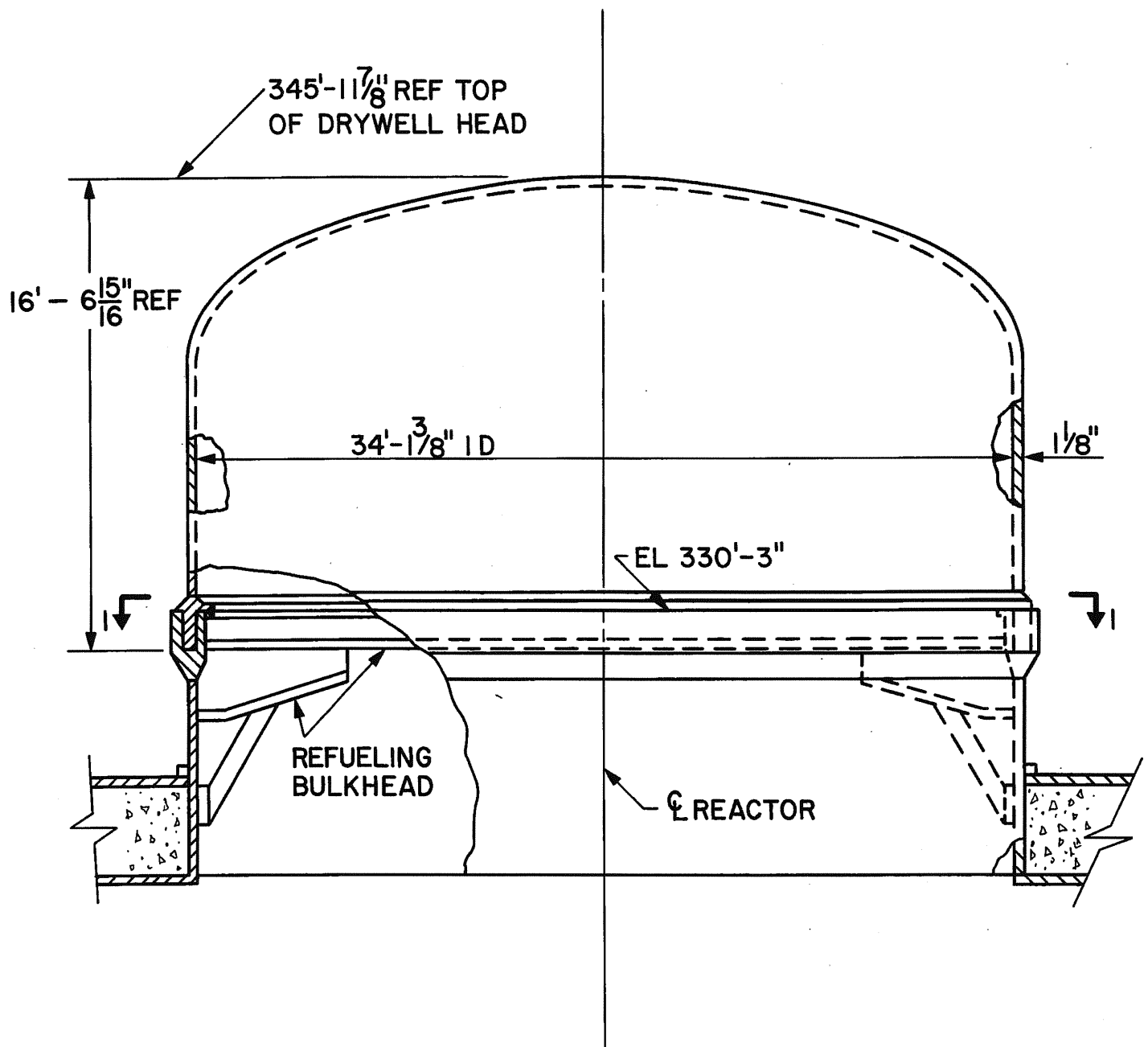
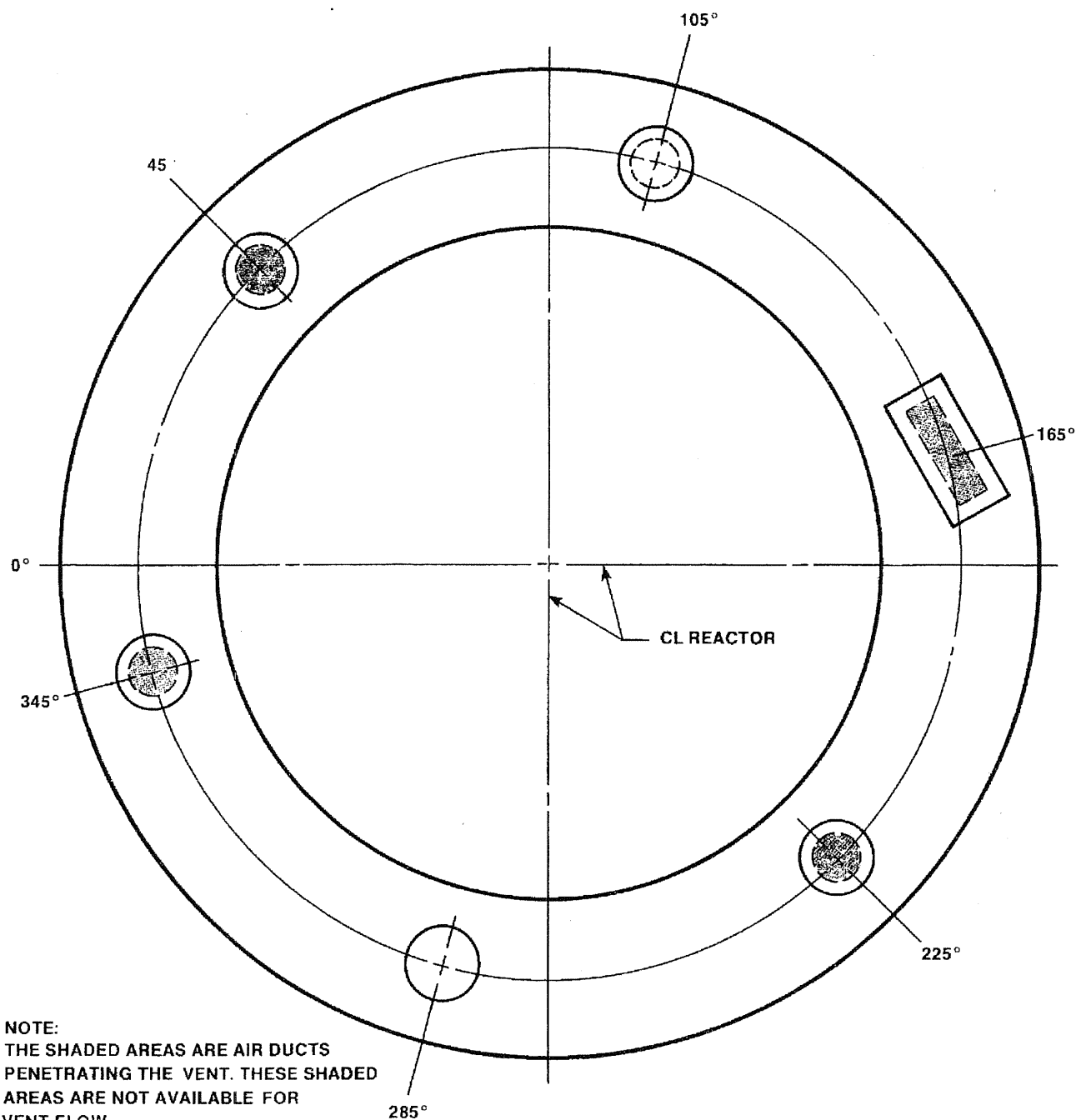


FIGURE 6.2-30

DRYWELL
HEAD-REFUELING
BULKHEAD SKETCH

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



SECTION 1-1

THIS DRAWING WAS PRODUCED ELECTRONICALLY.
DO NOT MAKE ANY CHANGES MANUALLY.

SOURCE: EV-001T-7

FIGURE 6.2-30A

REFUELING BULKHEAD VENT AREA

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.

UPDATED SAFETY ANALYSIS REPORT

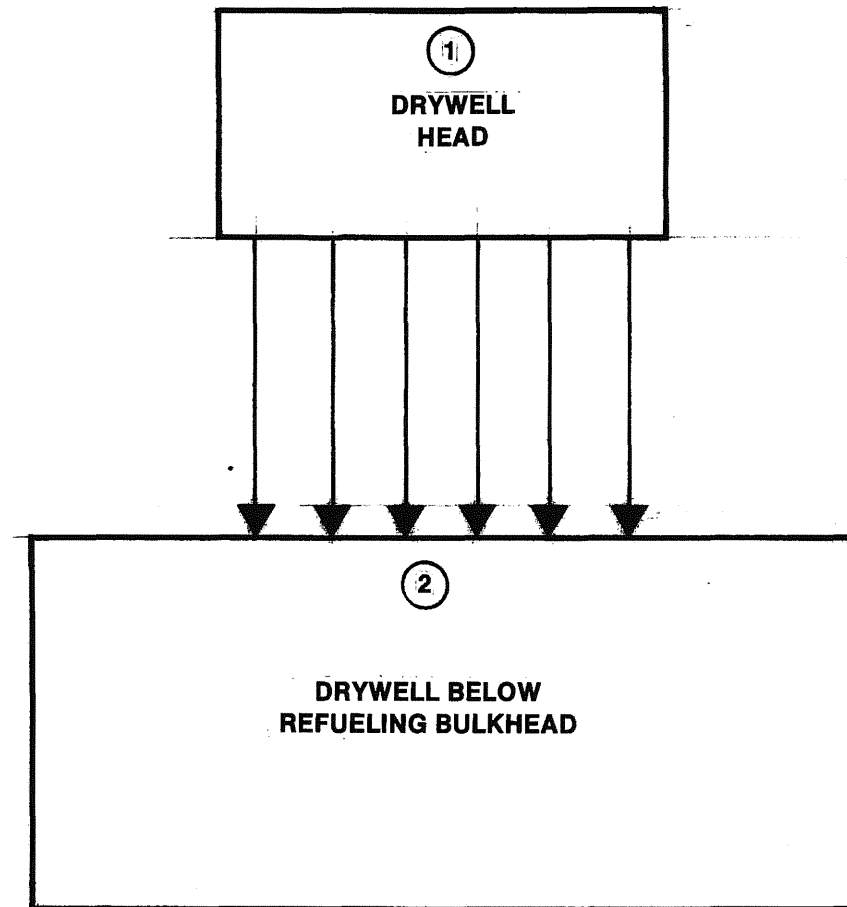


FIGURE 6.2-31

NODALIZATION DIAGRAM
RCIC HEAD SPRAY LINE BREAK
DRYWELL HEAD-DRYWELL SUBCOMPARTMENT'S

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

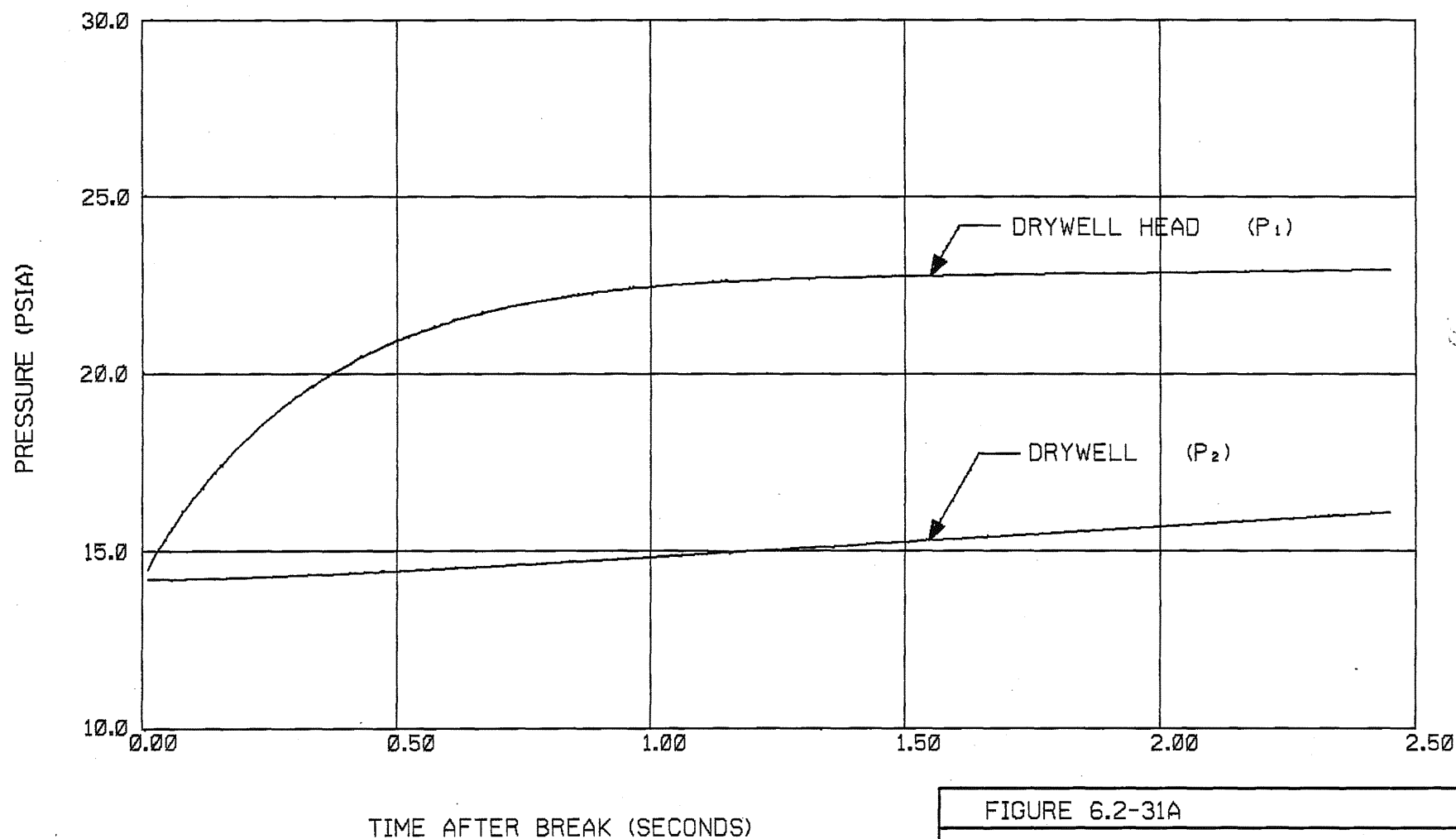
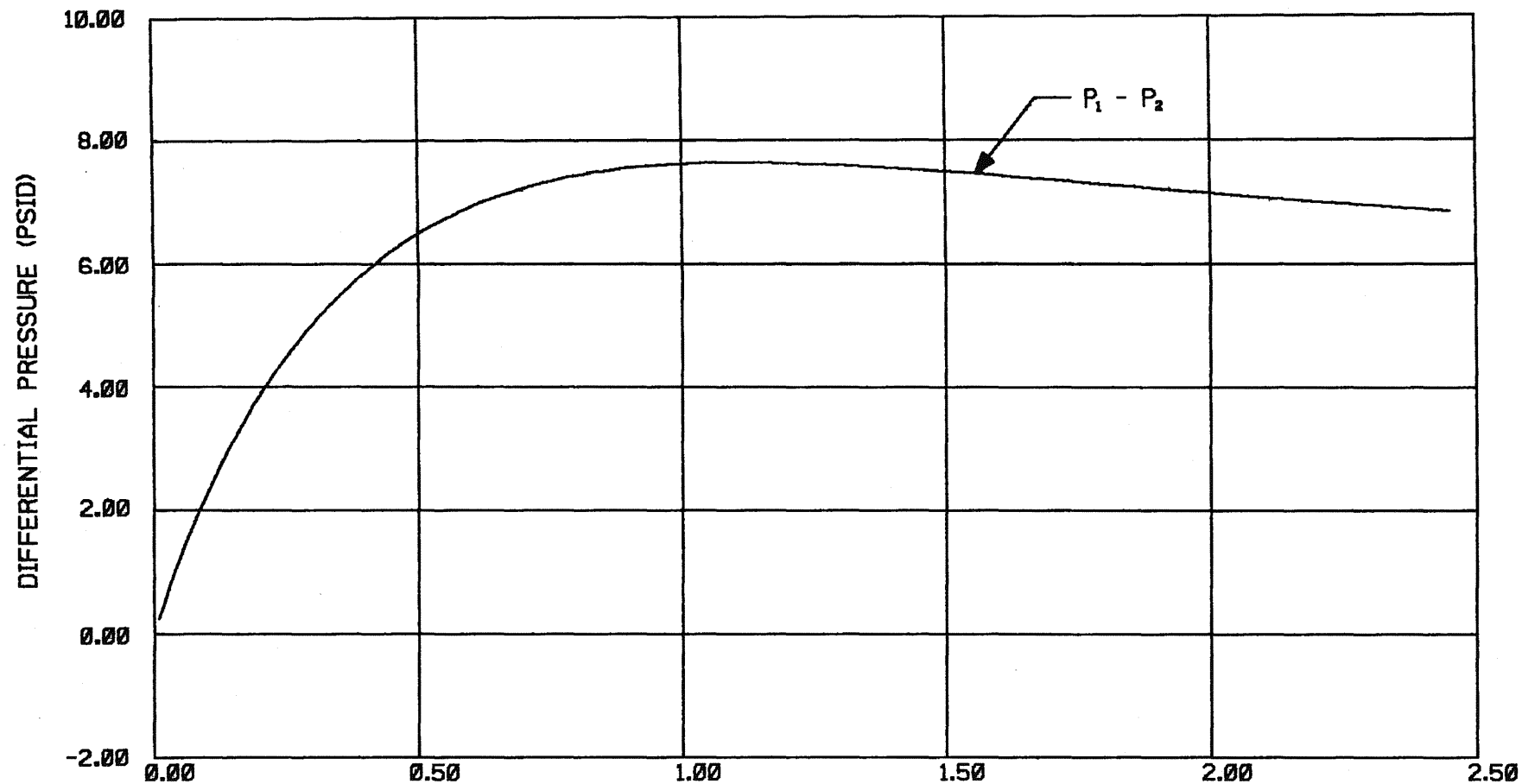


FIGURE 6.2-31A

NODAL PRESSURES: RCIC HEAD SPRAY
LINE BREAK, DRYWELL HEAD
- DRYWELL SUBCOMPARTMENTS.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT



TIME AFTER BREAK (SECONDS)

FIGURE 6.2-31B

NODAL PRESSURE DIFFERENTIALS:
RCIC HEAD SPRAY LINE BREAK. DRYWELL
- DRYWELL HEAD SUBCOMPARTMENTS.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT

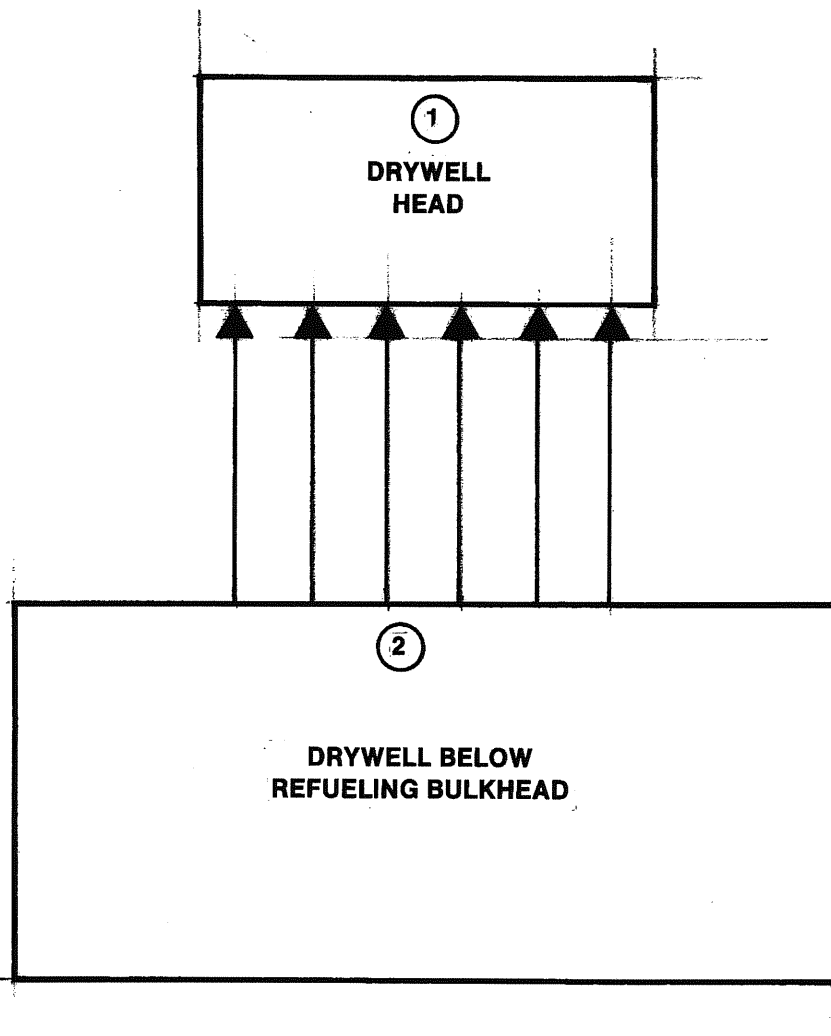


FIGURE 6.2-32

NODALIZATION DIAGRAM
RECIRCULATION SUCTION LINE BREAK
DRYWELL HEAD-DRYWELL SUBCOMPARTMENTS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

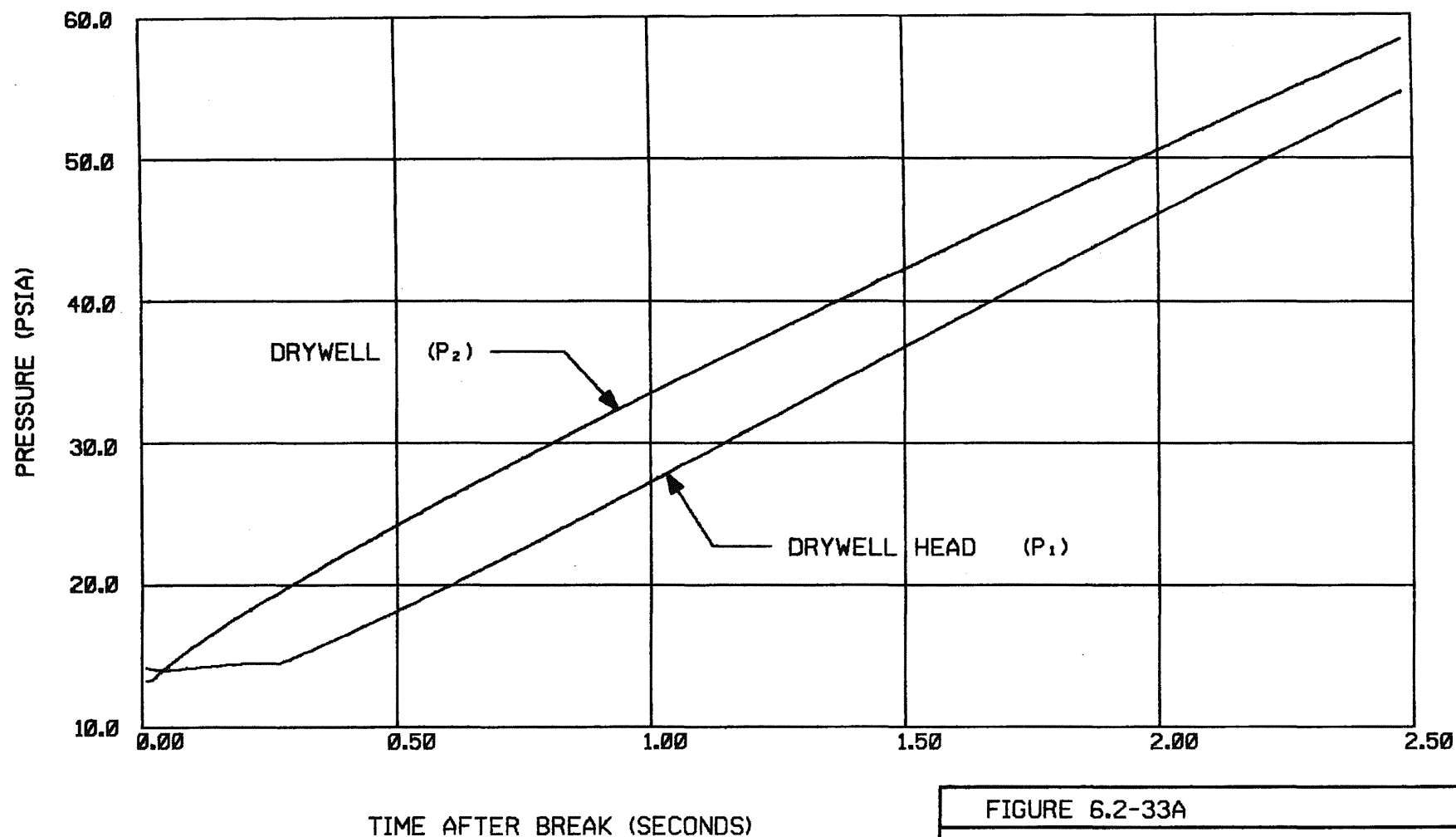


FIGURE 6.2-33A

NODAL PRESSURES: RECIRCULATION
SUCTION LINE BREAK. DRYWELL
HEAD - DRYWELL SUBCOMPARTMENTS.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT

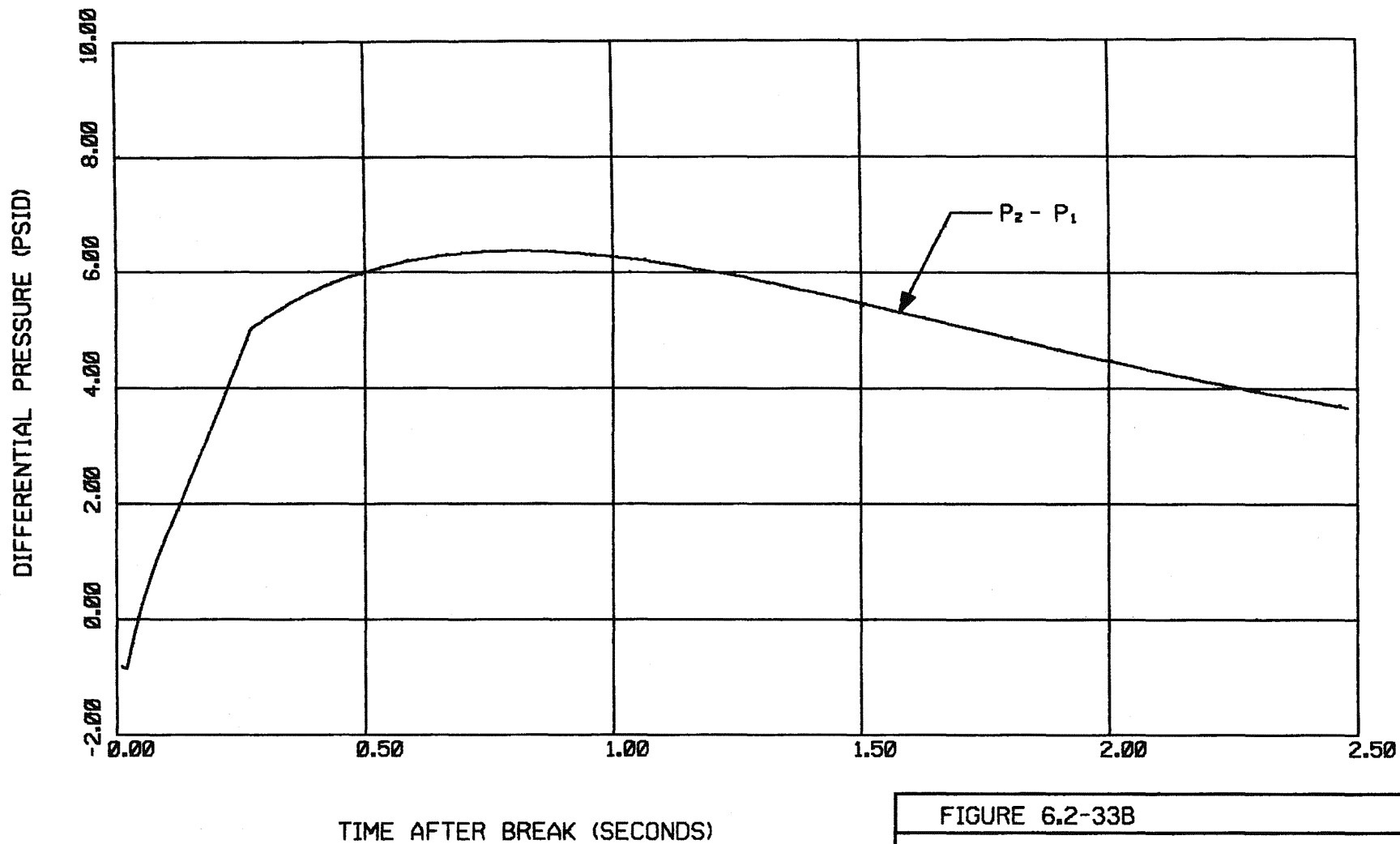
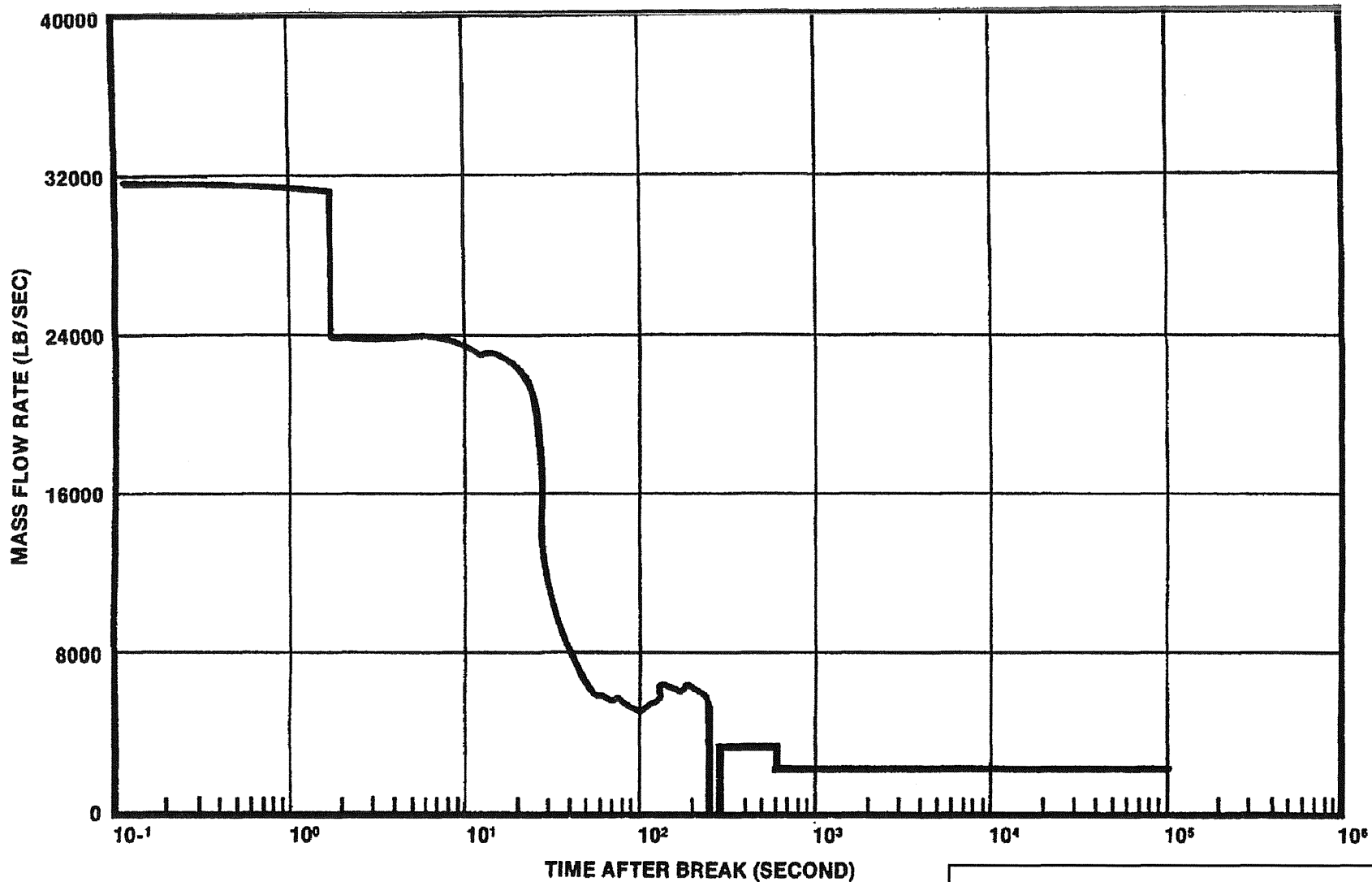


FIGURE 6.2-33B

NODAL PRESSURE DIFFERENTIALS:
RECIRCULATION SUCTION LINE BREAK.
DRYWELL - DRYWELL HEAD SUBCOMPARTMENTS.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT

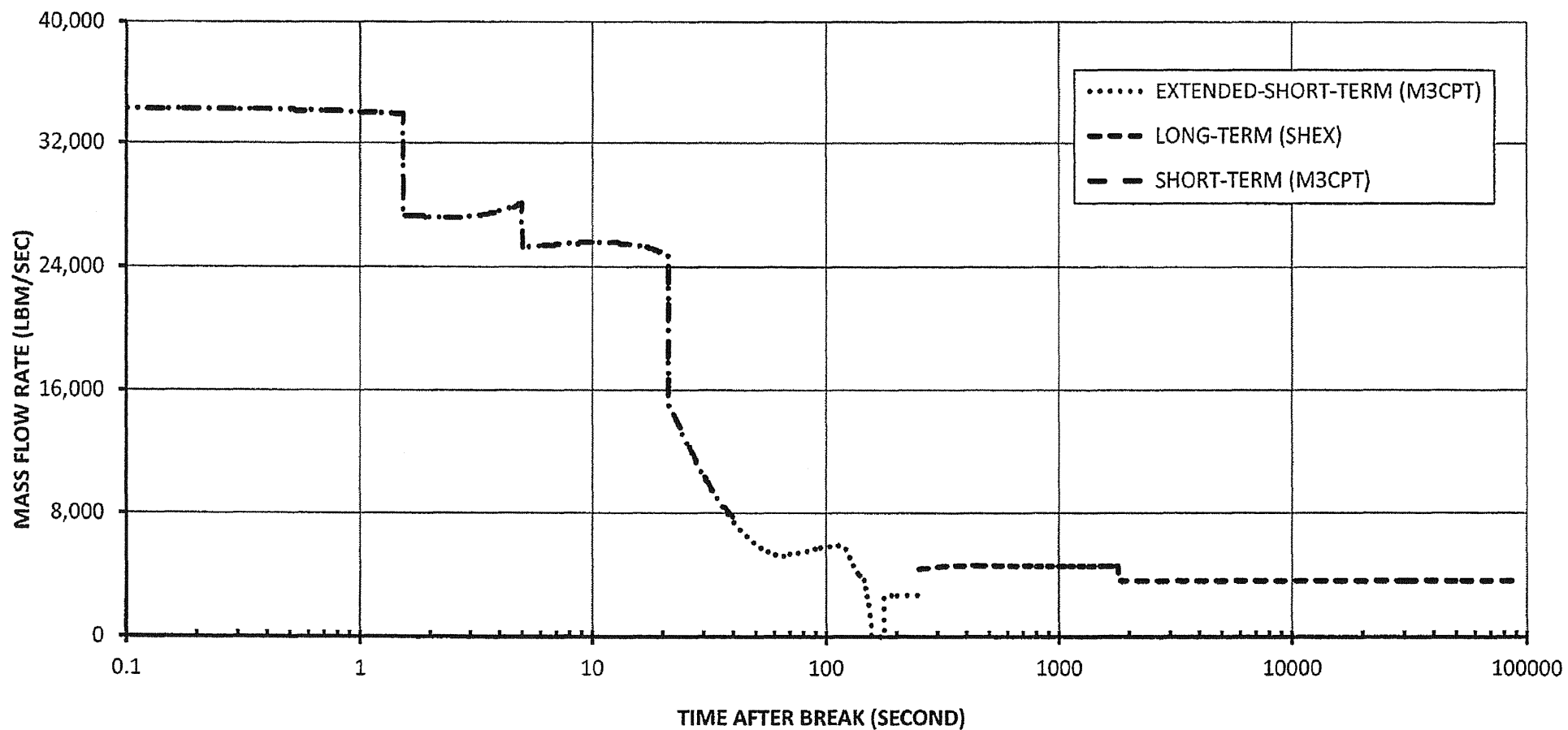


NOTE: THE MASS RELEASE IS FOR THE OLTP CONDITIONS.
EPU LIMITING CASE MASS RELEASE PROVIDED
IN FIGURE 6.2-34A.

FIGURE: 6.2-34

REACTOR VESSEL BLOWDOWN
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

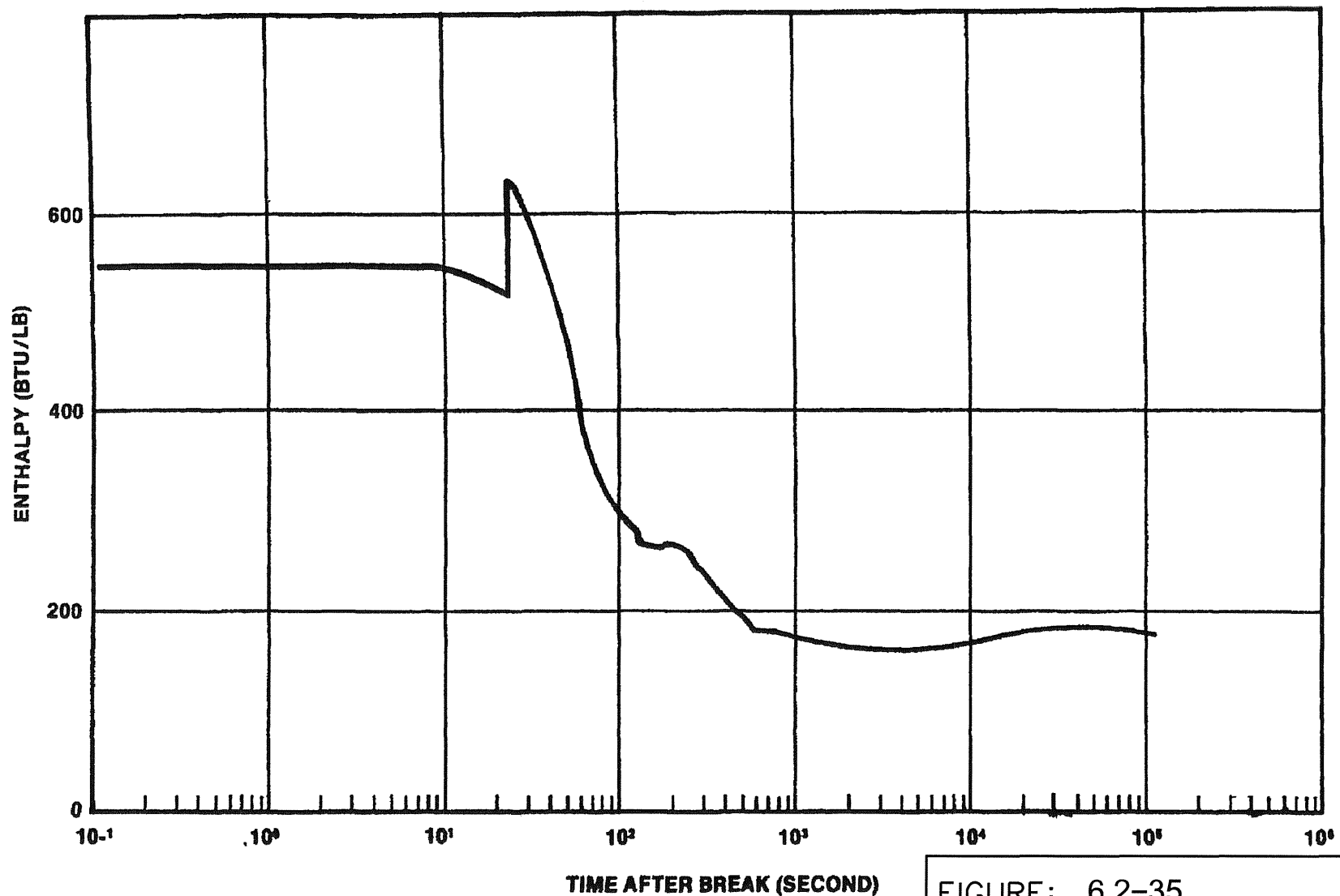


NOTE: EPU DBA-LOCA BLOWDOWN DATA.

FIGURE: 6.2-34A

EPU REACTOR VESSEL BLOWDOWN
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

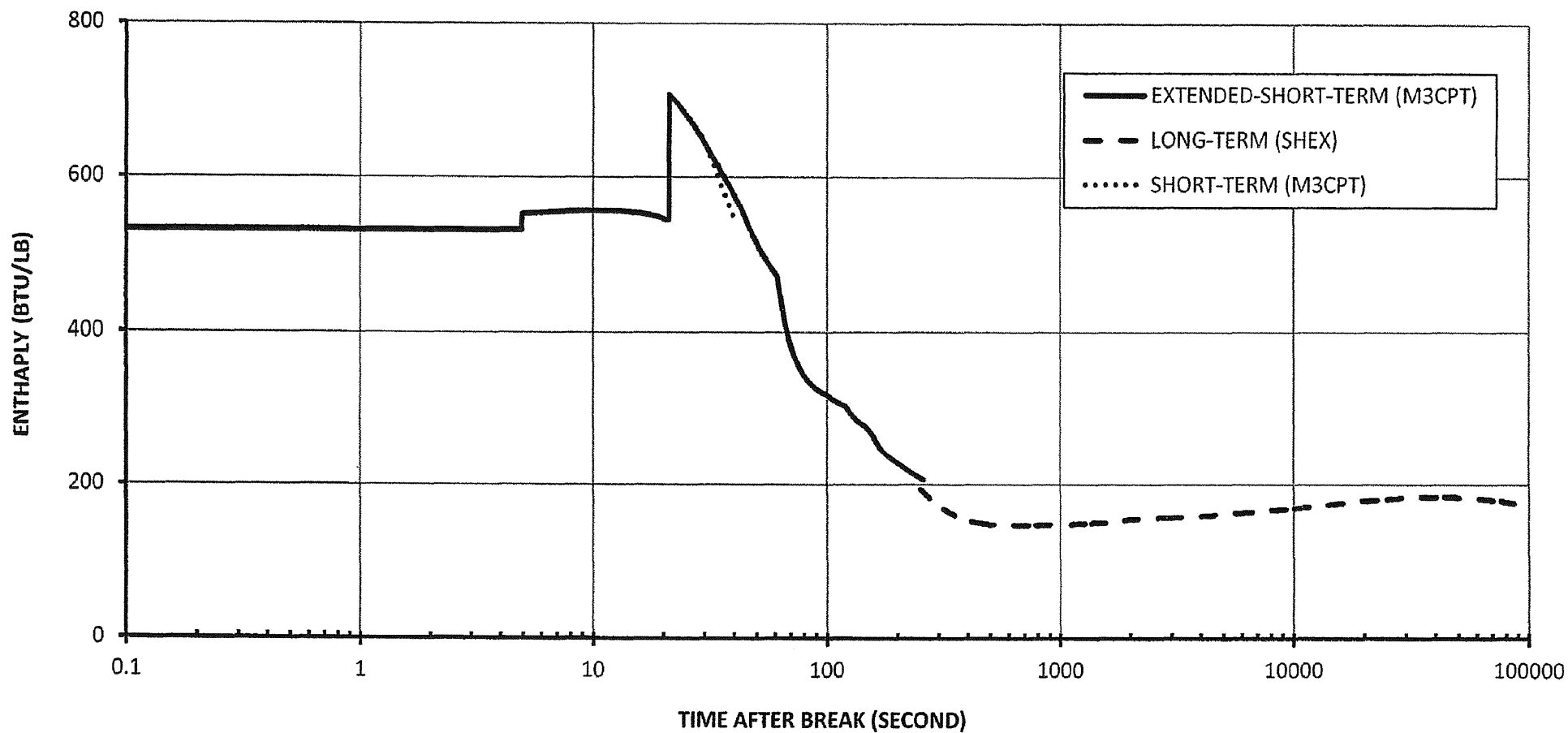


NOTE: THE ENERGY RELEASE IS FOR THE OLTP CONDITIONS.
EPU LIMITING CASE ENERGY RELEASE PROVIDED IN
FIGURE 6.2-35A.

FIGURE: 6.2-35

REACTOR VESSEL BLOWDOWN ENTHALPY
RECIRCULATION PUMP SUCTION
LINE BREAK WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

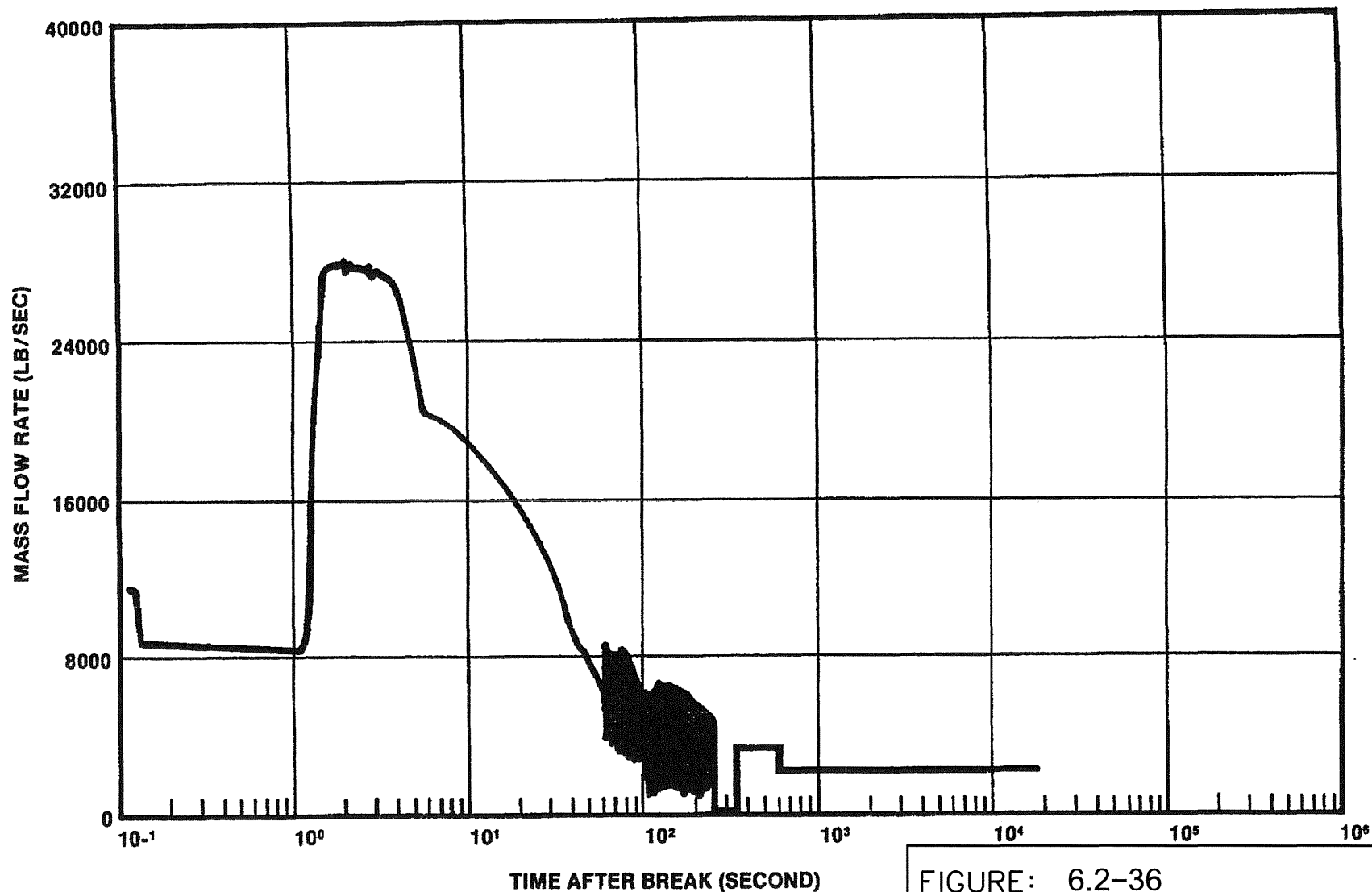


NOTE: EPU DBA-LOCA BLOWDOWN DATA.

FIGURE: 6.2-35A

EPU REACTOR VESSEL BLOWDOWN
ENTHALPY RECIRCULATION PUMP
SUCTION LINE BREAK WITH
FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

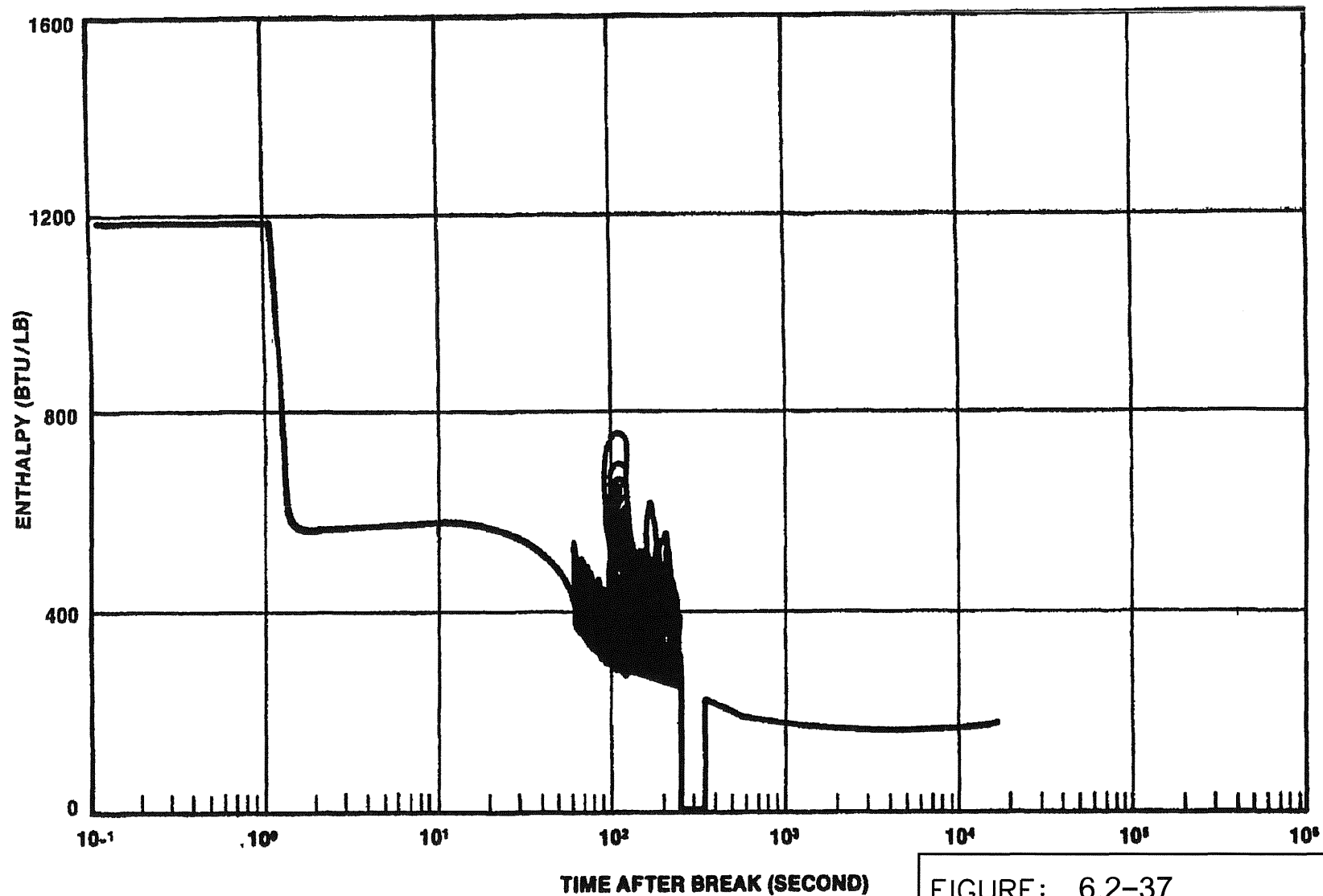


NOTE: THE MASS RELEASE IS FOR THE OLTP CONDITIONS AND IS VERIFIED APPLICABLE TO EPU CONDITIONS PER REFERENCES 12, 18 AND 19.

FIGURE: 6.2-36

REACTOR VESSEL BLOWDOWN
MAIN STEAM LINE BREAK WITH
FEEDWATER CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

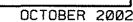


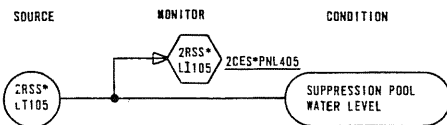
NOTE: THE ENERGY RELEASE IS FOR THE OLTP CONDITIONS AND IS VERIFIED APPLICABLE TO EPU CONDITIONS PER REFERENCE 12, 18 AND 19.

FIGURE: 6.2-37

REACTOR VESSEL BLOWDOWN ENTHALPY
MAIN STEAM BREAK
WITH FEEDWATER, CASE C

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

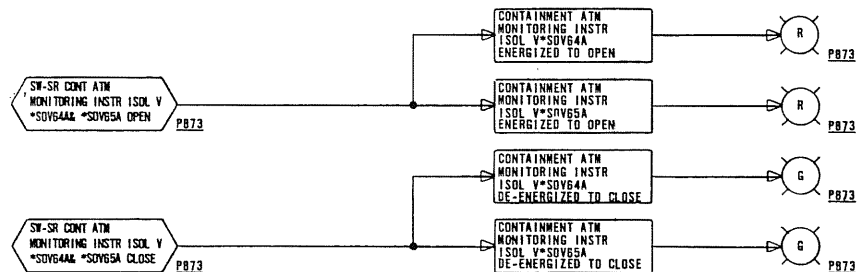




CONTROL ACTION

RESULTANT

MONITOR



NOTES:

1. ALL EQUIPMENT AND INSTRUMENT NUMBERS TO BE PREFIXED WITH "2CWS-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR INSTRUMENTS AND EQUIPMENT WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEMS.
2. LOGIC FOR DIV I CONTAINMENT ATMOSPHERE MONITORING INSTRUMENT ISOLATION VALVES *SOV64A AND *SOV65A ARE SHOWN. LOGIC FOR DIV II CONTAINMENT ATMOSPHERE MONITORING INSTRUMENT ISOLATION VALVES *SOV64B AND *SOV65B IS SIMILAR.
3. ASSOCIATED EQUIPMENT MARK NUMBERS: (AND RELATED CONTROL ROOM PANEL NO.)

DIV I (P873)

*SOV64A

*SOV65A

DIV II (P875)

*SOV64B

*SOV65B

NOTE:

FOR LATEST SET POINT INFORMATION
SEE SET POINT DATA SHEET

SOURCE: 121 77-LSK-33-2B REV.12

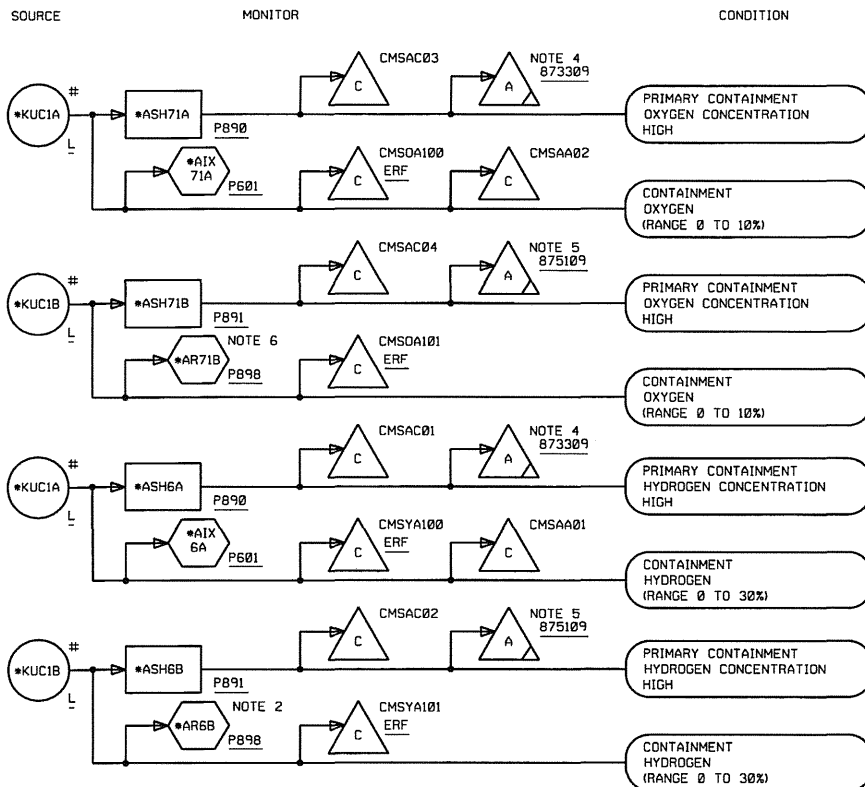
FIGURE 6.2-38

CONTAINMENT ATMOSPHERE
MONITORING SYSTEM
LOGIC DIAGRAM SHEET 2 OF 12

NIAGARA MOHAWK POWER CORP.
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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APRIL 1989



NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2CMS-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK(*) WILL REPLACE THE DASH(-) IN THE PREFIX FOR INSTRUMENT AND EQUIPMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURES SYSTEM.
2. THREE PEN RECORDER SHARED WITH *PR2B & *PR1B SHOWN ON LSK-33-2D & 33-2E.
3. #-SUPPLIED BY MEGGITT SAFETY SYSTEM INC.
4. COMMON ANNUNCIATOR FOR DIV I PRIMARY CONTAINMENT OXYGEN/HYDROGEN CONCENTRATION HIGH.
5. COMMON ANNUNCIATOR FOR DIV II PRIMARY CONTAINMENT OXYGEN/HYDROGEN CONCENTRATION HIGH.
6. THREE PEN RECORDER WITH TWO SPARES.

SOURCE: LSK-33-2C REV. 16

FIGURE 6.2-38

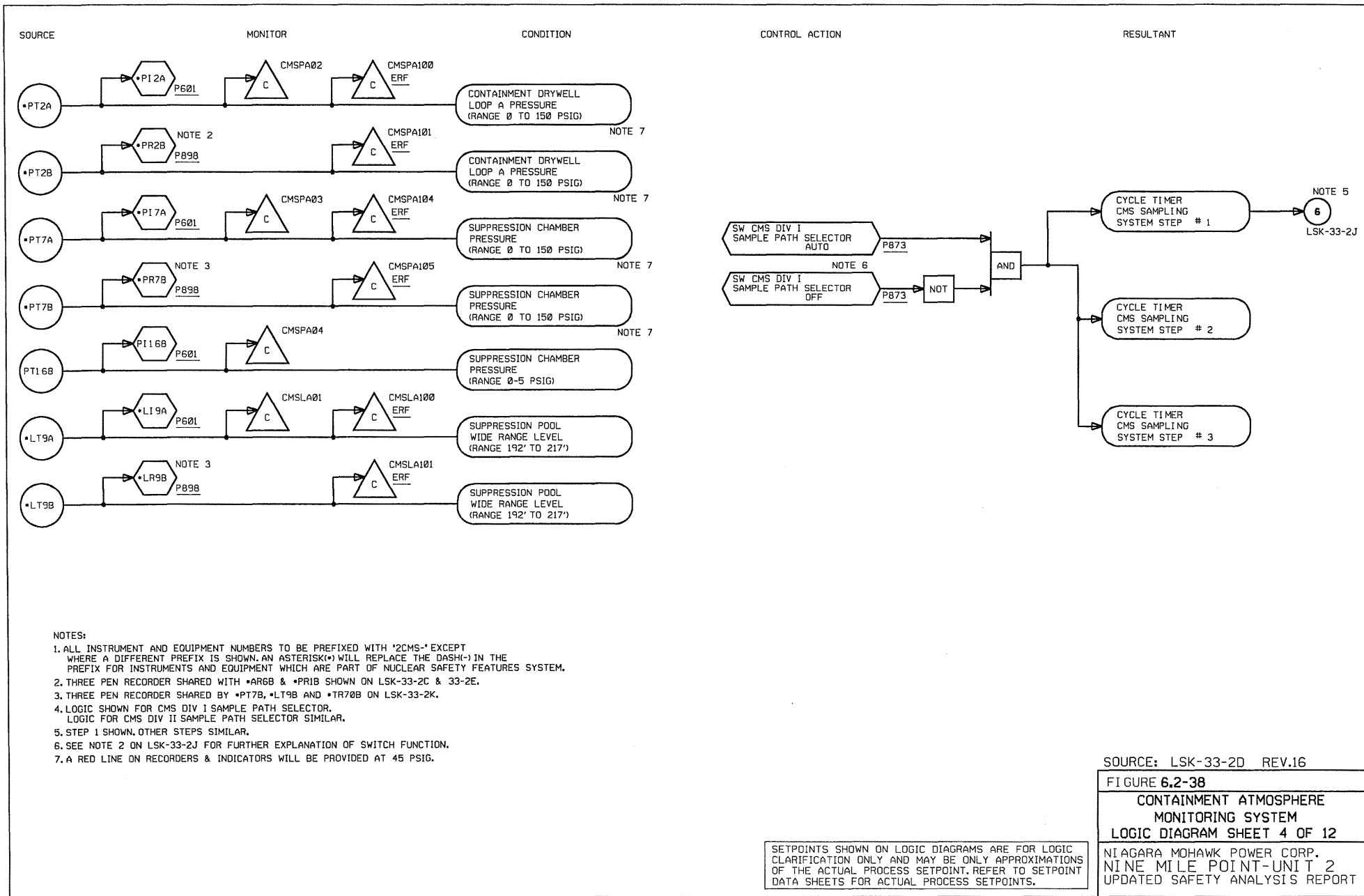
CONTAINMENT ATMOSPHERE
MONITORING SYSTEM
LOGIC DIAGRAM SHEET 3 OF 12

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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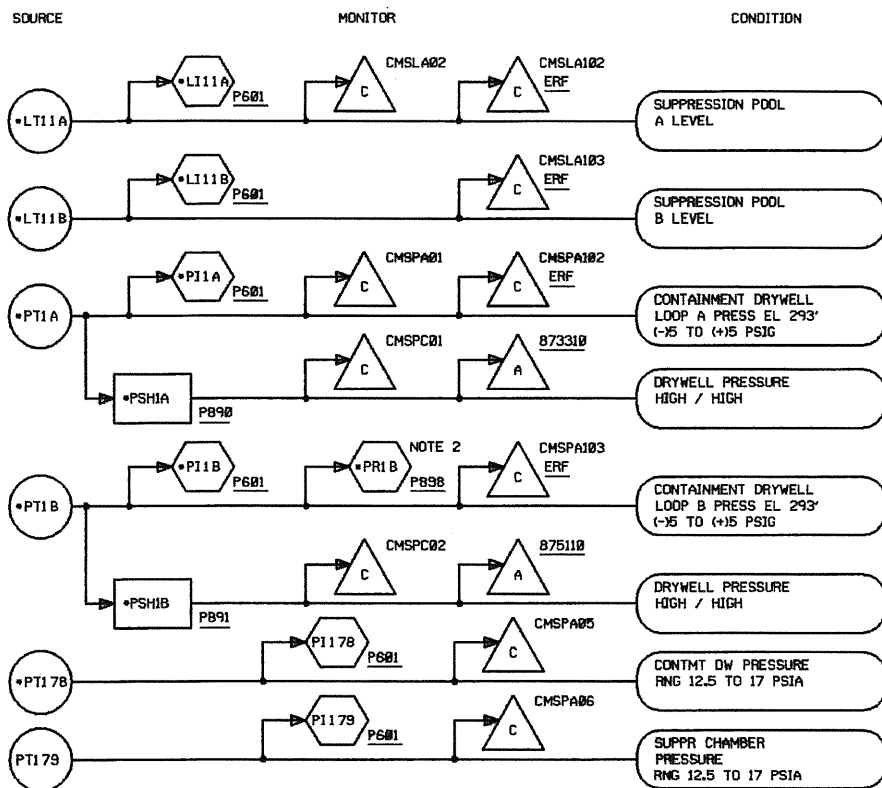
SOURCE: LSK-33-2D REV.16

FIGURE 6.2-38

CONTAINMENT ATMOSPHERE
MONITORING SYSTEM
LOGIC DIAGRAM SHEET 4 OF 12

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2CMS-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR INSTRUMENTS AND EQUIPMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURES SYSTEM.
2. THREE PEN RECORDER SHARED WITH •AR68 & •PR28 SHOWN ON LSK-33-2C & 33-2D.
3. ALL EQUIPMENT LOCATED ON DIV I PANEL P873 AND DIV II PANEL P875 UNLESS OTHERWISE SPECIFIED.

SOURCE: LSK-33-2E REV.15

FIGURE 6.2-38

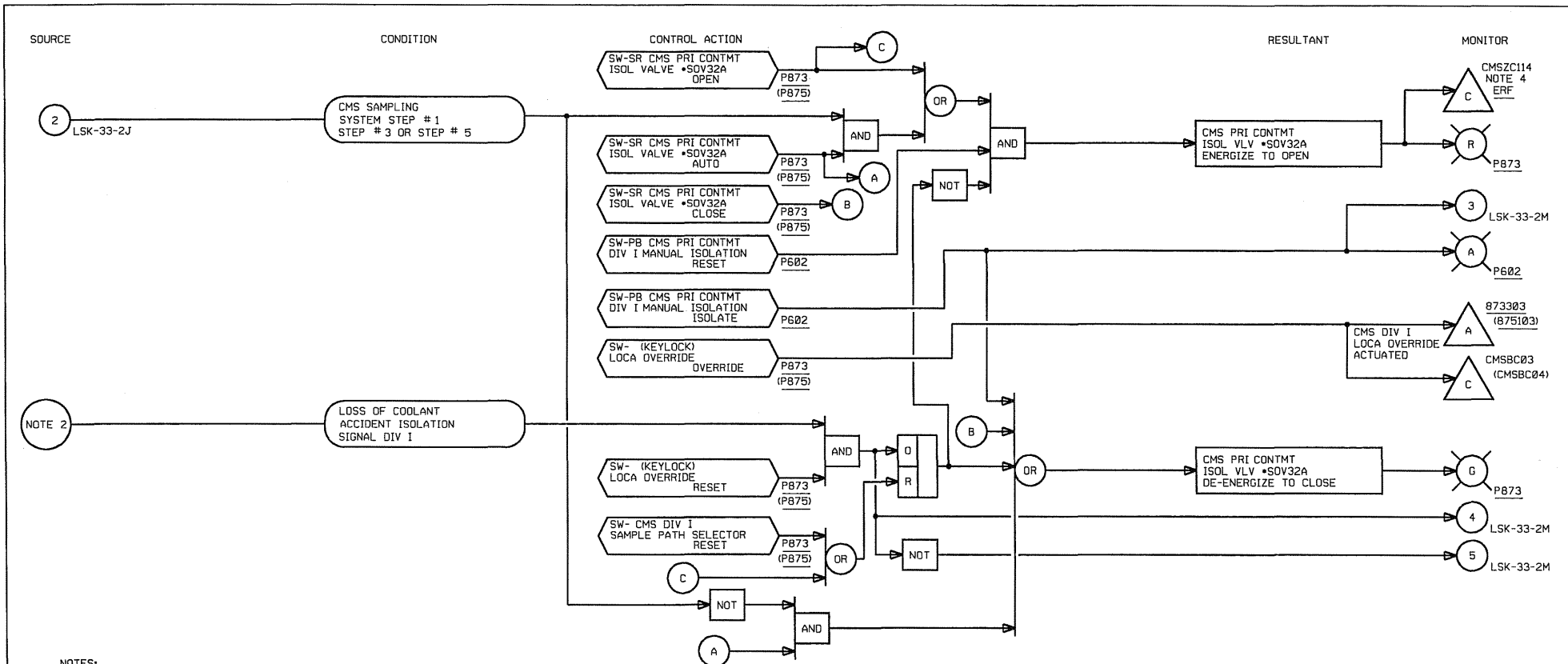
CONTAINMENT ATMOSPHERE
MONITORING SYSTEM
LOGIC DIAGRAM SHEET 5 OF 12

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2CMS-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR INSTRUMENTS AND EQUIPMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURES SYSTEM.
2. SEE LSK-27-19 FOR LOSS OF COOLANT ACCIDENT ISOLATION SIGNAL LOGIC DEVELOPMENT.
3. LOGIC FOR CMS DRYWELL ISOLATION VALVE *SOV32A IS SHOWN. LOGIC FOR *SOV32B, *SOV35A AND *SOV35B IS SIMILAR.
4. ASSOCIATED EQUIPMENT NUMBERS:

ERF		ERF		OPERATING STEPS
DIV I	CMPTR PT	DIV II	CMPTR PT	
*SOV32A	CMSZC114	*SOV32B	CMSZC115	1,2 OR 3
*SOV35A	CMSZC122	*SOV35B	CMSZC123	4

SOURCE: LSK-33-2H REV.15

FIGURE 6.2-38

CONTAINMENT ATMOSPHERE
MONITORING SYSTEM
LOGIC DIAGRAM SHEET 8 OF 12

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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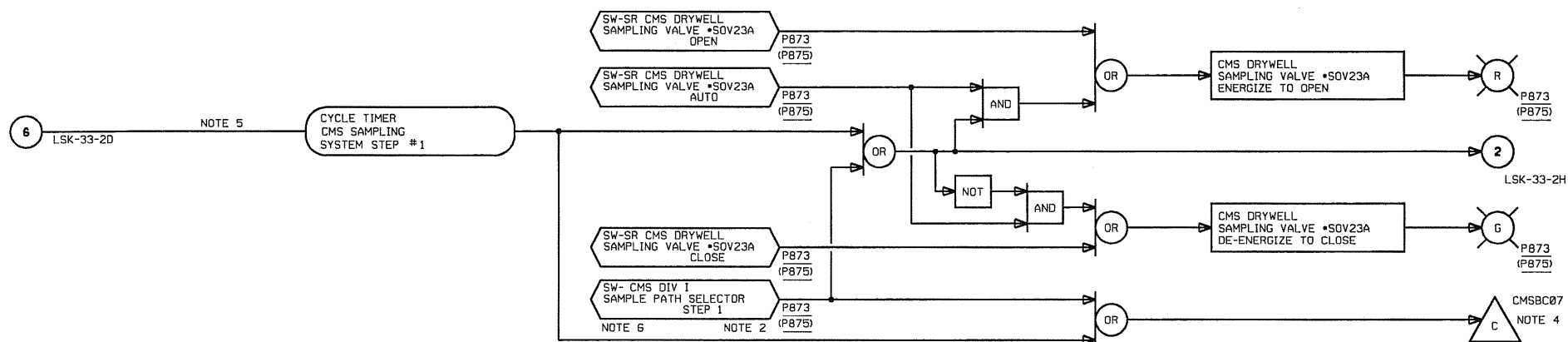
SOURCE

CONDITION

CONTROL ACTION

RESULTANT

MONITOR



NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2CMS-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK(*) WILL REPLACE THE DASH(-) IN THE PREFIX FOR INSTRUMENTS AND EQUIPMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURES SYSTEM.
2. SEVEN POSITION SELECTOR SWITCH. LOGIC FOR STEP 1 IS SHOWN. LOGIC FOR STEP 2 AND 3 IS SIMILAR. ADDITIONAL LOGICS FOR THIS SWITCH SHOWN ON LSK-33-2D & 33-2H.
3. LOGIC FOR CMS DRYWELL SAMPLING VALVE *SOV23A IS SHOWN. LOGIC FOR OTHER DRYWELL SAMPLING VALVES LISTED BELOW IS SIMILAR.
4. COMPUTER POINT FOR DIV I STEP ONE IS SHOWN. SEE ASSOCIATED EQUIPMENT LIST FOR CORRESPONDING STEPS AND COMPUTER POINTS.
5. ASSOCIATED EQUIPMENT NUMBERS:

STEP	SAMPLING VALVES		COMPUTER POINTS	
	DIV I	DIV II	DIV I	DIV II
1	*SOV23A	*SOV23B	CMSBC07	CMSBC12
2	*SOV23C	*SOV23D	CMSBC09	CMSBC14
3	*SOV23E	*SOV23F	CMSBC11	CMSBC16

6. STEP 4 IS NOT USED IN THE AUTOMATIC MODE. STEP 4 IS USED IN THE MANUAL SELECTION MODE, BUT ONLY OPERATES 2CMS*SOV35A, B.

SOURCE: LSK-33-2J REV.16

FIGURE 6.2-38

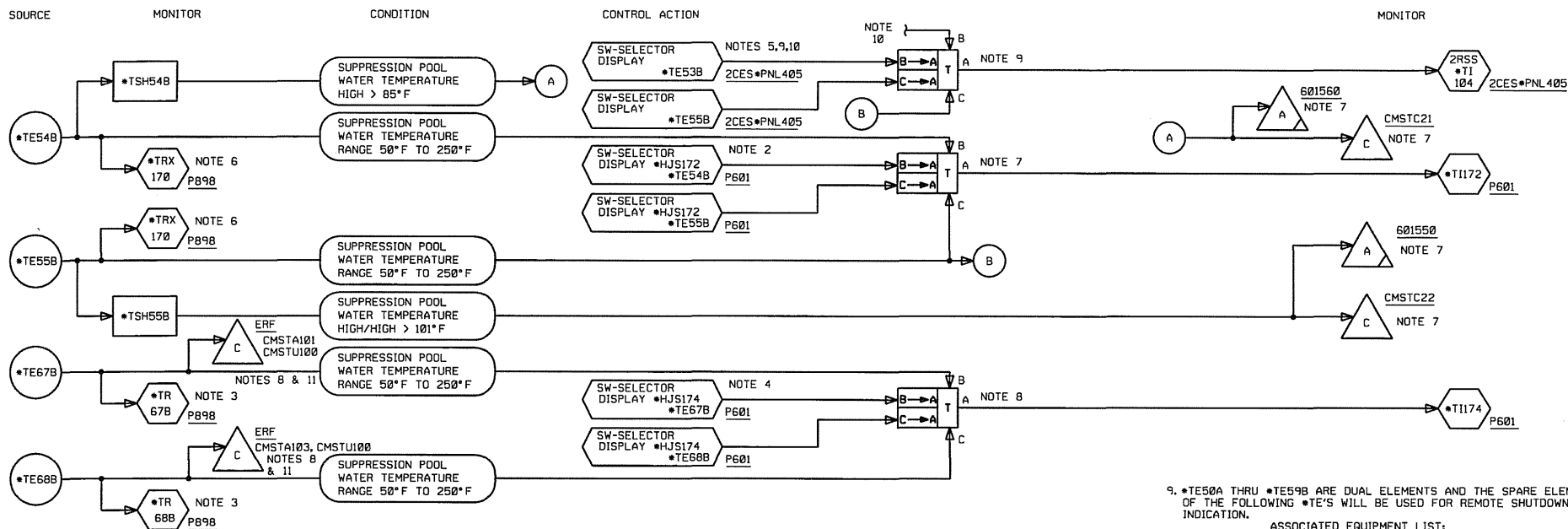
CONTAINMENT ATMOSPHERE
MONITORING SYSTEM
LOGIC DIAGRAM SHEET 9 OF 12

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.
NINE MILE POINT-UNIT 2
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9. *TE50A THRU *TE59B ARE DUAL ELEMENTS AND THE SPARE ELEMENTS OF THE FOLLOWING *TE'S WILL BE USED FOR REMOTE SHUTDOWN INDICATION.

ASSOCIATED EQUIPMENT LIST:

DIV.I	DIV.II	DIV.I	DIV.II
2RSS*TI103	2RSS*TI104	2RSS*TI103	2RSS*TI104
*TE50A	*TE51B-NOTE 12	*TE56A	*TE57B
*TE52A	*TE53B	*TE58A	*TE59B
*TE54A	*TE55B		

10. SEL SW SELECTS ONE OF FIVE TEMP ELEMENTS FOR COMMON DSPL ON 2RSS*TI104. LOGIC IS SHOWN FOR *TE53B AND *TE55B. LOGIC FOR *TE51B, *TE57B AND *TE59B IS SIMILAR.

11. CMSTUI00 IS THE CMPTR COMPOSED AVG SUPPRESSION POOL WATER TEMPERATURE.

12. THE (+) SIDE OF DUAL ELEMENT 2CMS*TE51B HAS FAILED. THE (-) SIDE OF DUAL ELEMENT 2CMS*TE51B IS USED FOR REMOTE SHUTDOWN INDICATION ONLY. THE (+) SIDE OF DUAL ELEMENT 2CMS*TE51D IS USED FOR CONTROL ROOM INDICATION AND ALARM. THE (-) SIDE OF DUAL ELEMENT 2CMS*TE51D IS SPARE.

NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2CMS-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.

2. SELECTOR SWITCH SELECTS ONE OF TEN TEMPERATURE ELEMENTS FOR COMMON DISPLAY ON *TI172. LOGIC FOR *TE54B AND *TE55B POSITIONS IS SHOWN. LOGIC FOR *TE50B, *TE51D, *TE52B, *TE53B AND *TE56B THROUGH *TE59B INCLUSIVE IS SIMILAR.

3. TEMPERATURE RECORDER APPLICABLE TO *TE67B, *TE68B, *TE69B AND *TE70B ONLY. *TR67B *TR68B AND *TR69B SHARE ONE 3 PEN RECORDER. *TR70B SHARES WITH *LR9B & *PR7B ON LOGIC FOR *TE67B IS SHOWN. LOGIC FOR BAL OF POST ACCIDENT MONITORING TEMPERATURE CHANNELS IS SIMILAR. SEE NOTE 8.

4. SELECTOR SWITCH SELECTS ONE OF FOUR TEMPERATURE ELEMENTS FOR COMMON DISPLAY ON *TI174. DIV.II IS SHOWN. LOGIC FOR *TE67B AND *TE68B ARE SHOWN. LOGIC FOR *TE69B AND *TE70B IS SIMILAR.

5. LOGIC FOR DIV.II INSTRUMENTS IS SHOWN. LOGIC FOR DIV.I IS SIMILAR.

6. TEMPERATURE RECORDERS APPLICABLE TO DIV.II TEMPERATURE ELEMENTS ONLY.

ASSOCIATED EQUIPMENT LIST:

*TRW170	*TRX170	*TRY170	*TRZ170
*TE50B	*TE53B	*TE56B	*TE59B
*TE51D (NOTE 12)	*TE54B	*TE57B	SPARE
*TE52B	*TE55B	*TE58B	SPARE

7. ASSOCIATED EQUIPMENT LIST (COMPUTER POINTS IN PARENTHESIS):

NORMAL OPERATION			
DIV.I	DIV.II	WINDOW NO.	INSTALLED SPARES
*TE50A (CMSTC07)	*TE50B (CMSTC17)	601560	*TE50C *TE50D
*TE51A (CMSTC08)	*TE51D (CMSTC18)	601550	*TE51C *TE51D-NOTE 12
*TE52A (CMSTC09)	*TE52B (CMSTC19)	601560	*TE52C *TE52D
*TE53A (CMSTC10)	*TE53B (CMSTC20)	601550	*TE53C *TE53D
*TE54A (CMSTC11)	*TE54B (CMSTC21)	601560	*TE54C *TE54D
*TE55A (CMSTC12)	*TE55B (CMSTC22)	601550	*TE55C *TE55D
*TE56A (CMSTC13)	*TE56B (CMSTC23)	601560	*TE56C *TE56D
*TE57A (CMSTC14)	*TE57B (CMSTC24)	601550	*TE57C *TE57D
*TE58A (CMSTC15)	*TE58B (CMSTC25)	601560	*TE58C *TE58D
*TE59A (CMSTC16)	*TE59B (CMSTC26)	601550	*TE59C *TE59D
*TI171	*TI172		
*HJS171	*HJS172		

8. POST ACCIDENT MONITORING:

ERF		ERF	
DIV.I	CMPTR PT	DIV.II	CMPTR PT
*TE67A	CMSTAI00	*TE67B	CMSTAI01
*TE68A	CMSTAI02	*TE68B	CMSTAI03
*TE69A	CMSTAI04	*TE69B	CMSTAI05
*TE70A	CMSTAI06	*TE70B	CMSTAI07
*TI175		*TI174	
*HJS175		*HJS174	

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-33-2K REV. 16

FIGURE 6.2-38

CONTAINMENT ATMOSPHERE
MONITORING SYSTEM
LOGIC DIAGRAM SHEET 10 OF 12

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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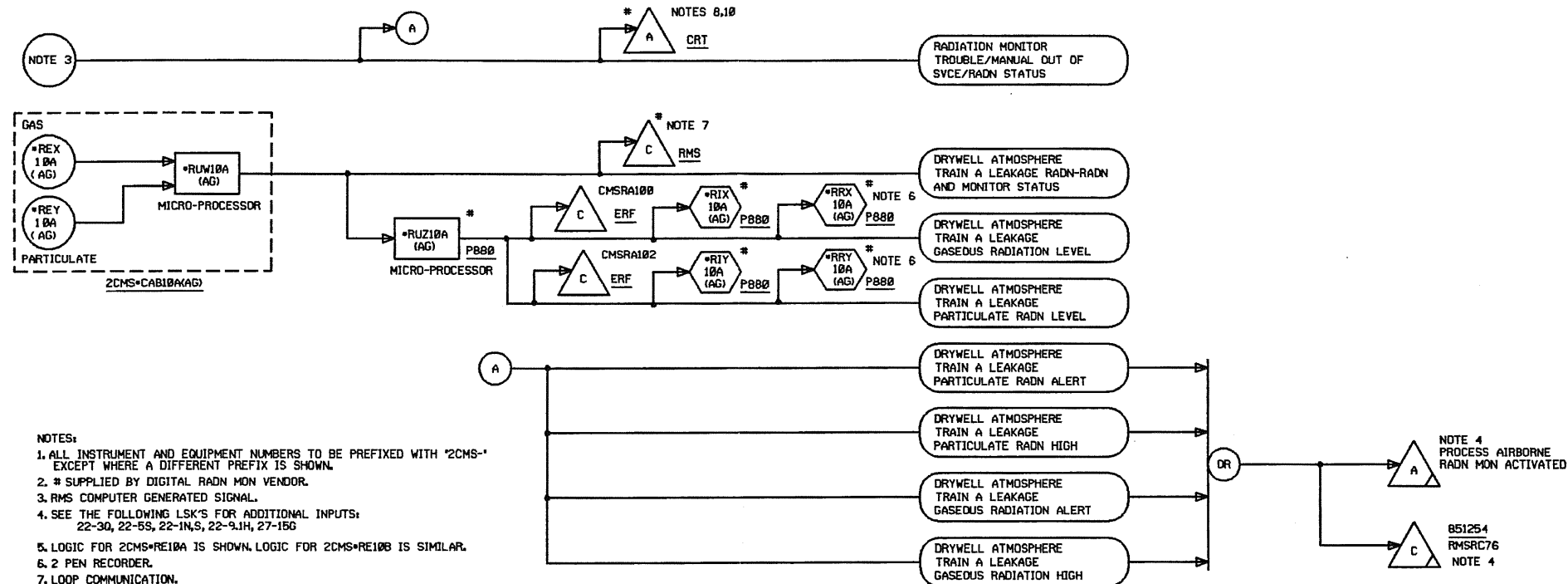
OCTOBER 2002

SOURCE

MONITOR

CONDITION

MONITOR



NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2CMS-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
- * SUPPLIED BY DIGITAL RADN MON VENDOR.
- RMS COMPUTER GENERATED SIGNAL.
- SEE THE FOLLOWING LSK'S FOR ADDITIONAL INPUTS:
22-30, 22-55, 22-IN, 22-9, 27-156
- LOGIC FOR 2CMS*RE10A IS SHOWN. LOGIC FOR 2CMS*RE10B IS SIMILAR.
- 2 PEN RECORDER.
- LOOP COMMUNICATION.
- RMS COMPUTER GENERATED SIGNAL LOCATED ON CONSOLES, COMMON FOR ALL RADIATION MONITORS.
- ASSOCIATED EQUIPMENT NUMBERS:

SERVICE	DETECTOR		FIELD	CONTROL ROOM	INDICATORS	RECORDERS	ERF COMPUTER
	GAS	PARTICULATE					
TRAIN A	REX10A	REY10A	RUW10A	RUZ10A	RIX10A	RRX10A	CMSRA100
TRAIN B	REX10B	REY10B	RUW10B	RUZ10B	RIX10B	RRX10B	CMSRA102

10. RADIATION MONITOR TROUBLE/MANUAL OUT OF SERVICE/RADN STATUS
CONSISTS OF THE FOLLOWING CONDITIONS:

I. TROUBLE

- DETECTOR FAILURE/SATURATION
- LOSS OF SIGNAL COMMUNICATION
- POWER FAILURE (HIGH & LOW VOLTAGE)
- CHECK SOURCE FAILURE
- BACKGROUND CHECK FAILURE
- PUMP FAILURE
- FILTER MECHANISM STEP FAILURE
- HIGH/LOW FLOW
- HEAT TRACE FAILURE

II. MANUAL OUT OF SERVICE

- TEST MODE
- CALIBRATE MODE
- MONITOR OFF

III. RADN STATUS

- HIGH RADN LEVEL
- ALERT RADN LEVEL
- HIGH RATE OF RADN INCREASE

11. 2CMS=CAB10B(BY) IS LOCATION FOR 2CMS*REX/REY/RUW10B(BY).

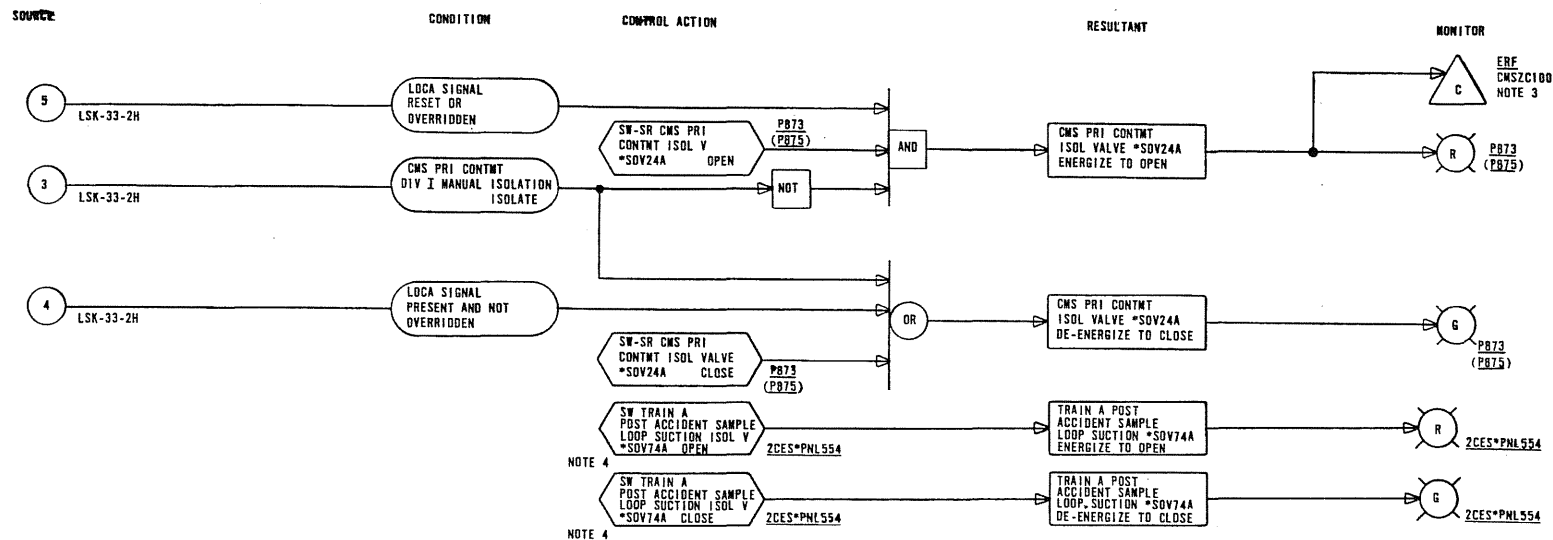
SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-33-2L REV.14

FIGURE 6.2-38

CONTAINMENT ATMOSPHERE
MONITORING SYSTEM
LOGIC DIAGRAM SHEET 11 OF 12

NIAGARA MOHAWK POWER CORP.
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



NOTES:

- ALL EQUIPMENT AND INSTRUMENT NUMBERS TO BE PREFIXED WITH "2CMS-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR INSTRUMENTS & EQUIPMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURES SYSTEMS.
- LOGIC FOR CMS PRIMARY CONTAINMENT ISOLATION VALVE *SOV24A IS SHOWN. LOGIC FOR PRIMARY CONTAINMENT ISOLATION VALVES LISTED BELOW IS SIMILAR.
- ASSOCIATED EQUIPMENT LIST:

DIV I	ERF	DIV II	ERF
*SOV24A	CMSZC100	*SOV24B	CMSZC101
*SOV24C	CMSZC102	*SOV24D	CMSZC103
*SOV26A	CMSZC106	*SOV26B	CMSZC109
*SOV26C	CMSZC110	*SOV26D	CMSZC111
*SOV33A	CMSZC112	*SOV33B	CMSZC113
*SOV34A	CMSZC120	*SOV34B	CMSZC121
*SOV60A	CMSZC104	*SOV61A	CMSZC105
*SOV60B	CMSZC118	*SOV61B	CMSZC107
*SOV62A	CMSZC116	*SOV63A	CMSZC117
*SOV62B	CMSZC108	*SOV63B	CMSZC119

NOTES CONTD:

- KEYLOCK SWITCH.
- LOGIC FOR POST ACCIDENT SAMPLE LOOP ISOLATION VALVE (CONTMT SIDE) *SOV74A IS SHOWN. LOGIC FOR THE FOLLOWING VALVES IS SIMILAR.
 - *SOV74B TRAIN B POST ACCIDENT SAMPLE LOOP SUCTION ISOLATION (CONTMT SIDE)
 - *SOV75A TRAIN A POST ACCIDENT SAMPLE LOOP RETURN ISOLATION (CONTMT SIDE)
 - *SOV75B TRAIN B POST ACCIDENT SAMPLE LOOP RETURN ISOLATION (CONTMT SIDE)
 - *SOV76A TRAIN A POST ACCIDENT SAMPLE LOOP SUCTION ISOLATION (SAMPLE SIDE)
 - *SOV76B TRAIN B POST ACCIDENT SAMPLE LOOP SUCTION ISOLATION (SAMPLE SIDE)
 - *SOV77A TRAIN A POST ACCIDENT SAMPLE LOOP RETURN ISOLATION (SAMPLE SIDE)
 - *SOV77B TRAIN B POST ACCIDENT SAMPLE LOOP RETURN ISOLATION (SAMPLE SIDE)

NOTE:

FOR LATEST SET POINT INFORMATION
SEE SET POINT DATA SHEET

SOURCE: 12177-LSK-33-2M REV.12

FIGURE 6.2-38

CONTAINMENT ATMOSPHERE
MONITORING SYSTEM
LOGIC DIAGRAM SHEET 12 OF 12

NIAGARA MOHAWK POWER CORP.
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

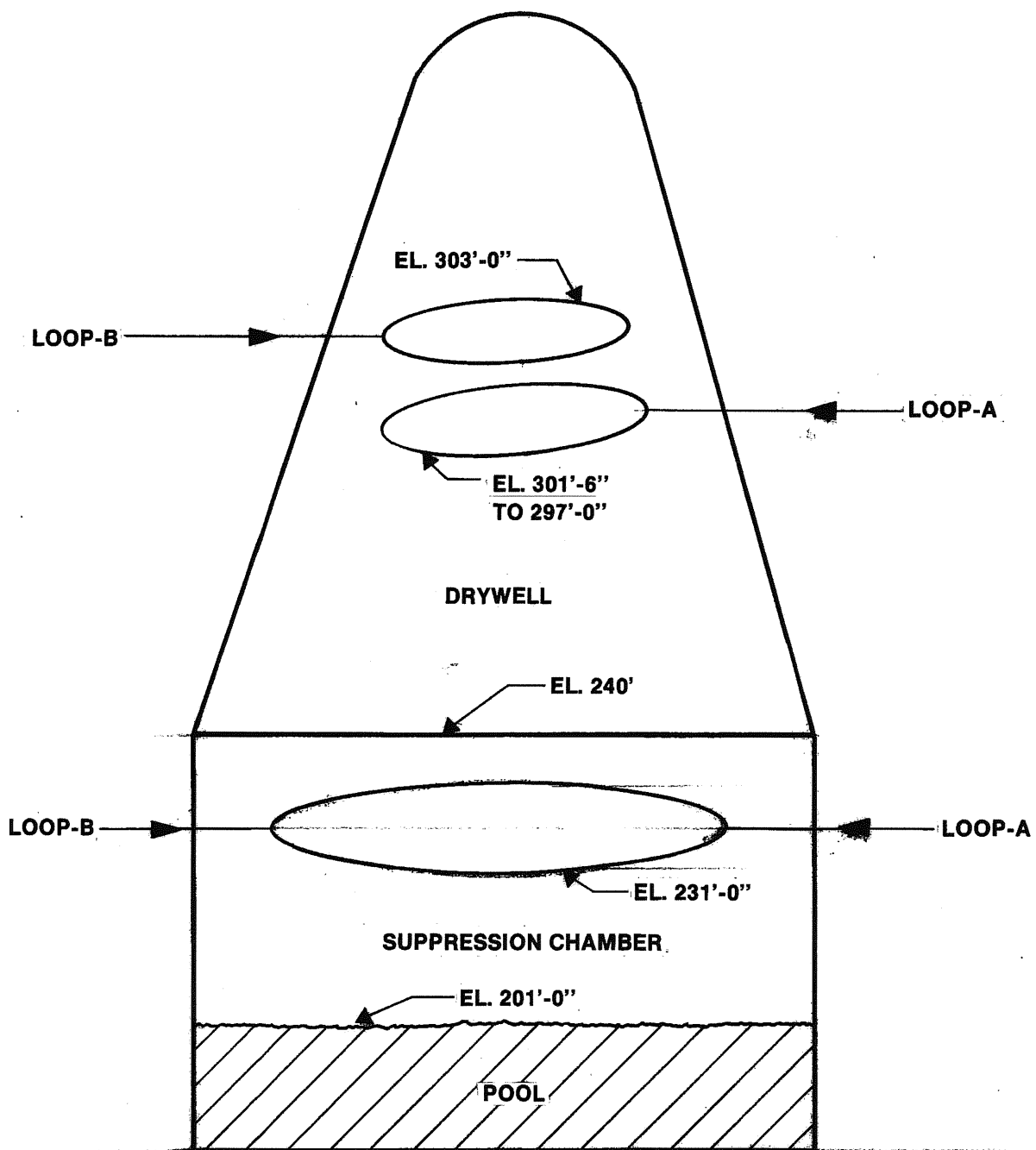
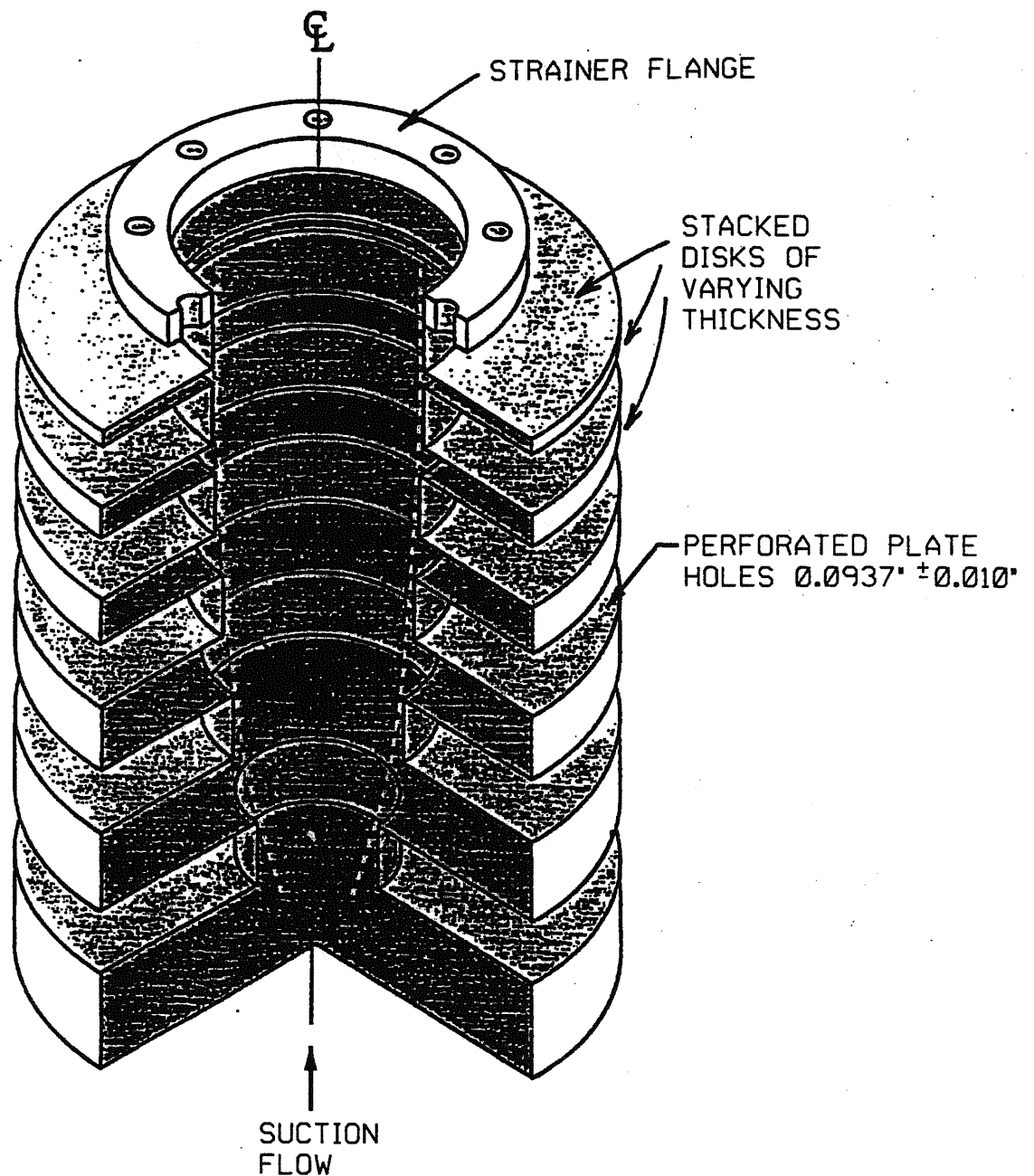


FIGURE 6.2-39

SCHEMATIC OF CONTAINMENT SPRAY

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



STACKED-DISK STRAINER WITH A QUARTER SEGMENT
REMOVED TO ILLUSTRATE THE INTERNAL DESIGN

FIGURE 6.2-39a

ECCS SUCTION STRAINER

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

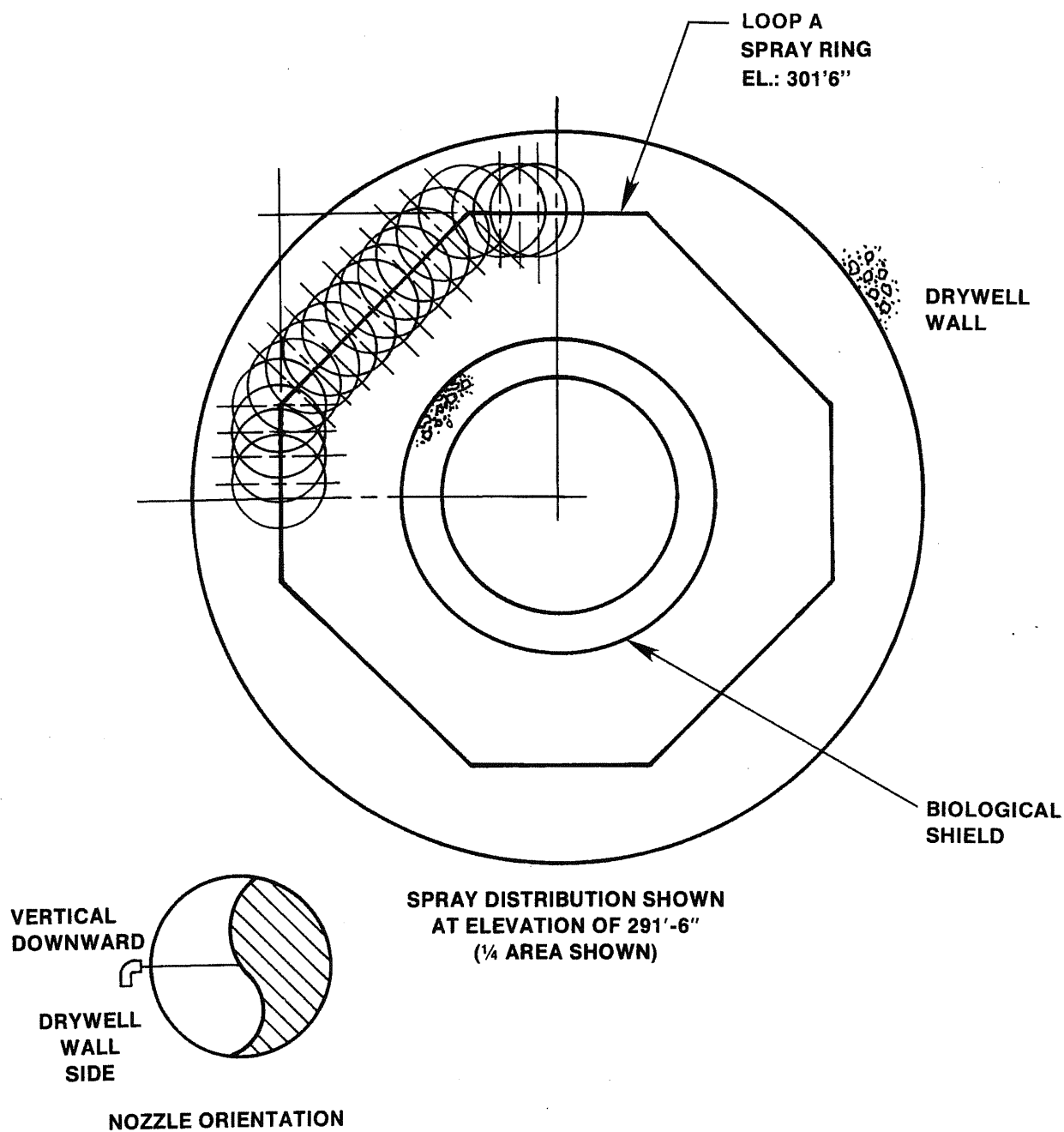


FIGURE 6.2-40

TYPICAL
LOOP A SPRAY COVERAGE
IN DRYWELL

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

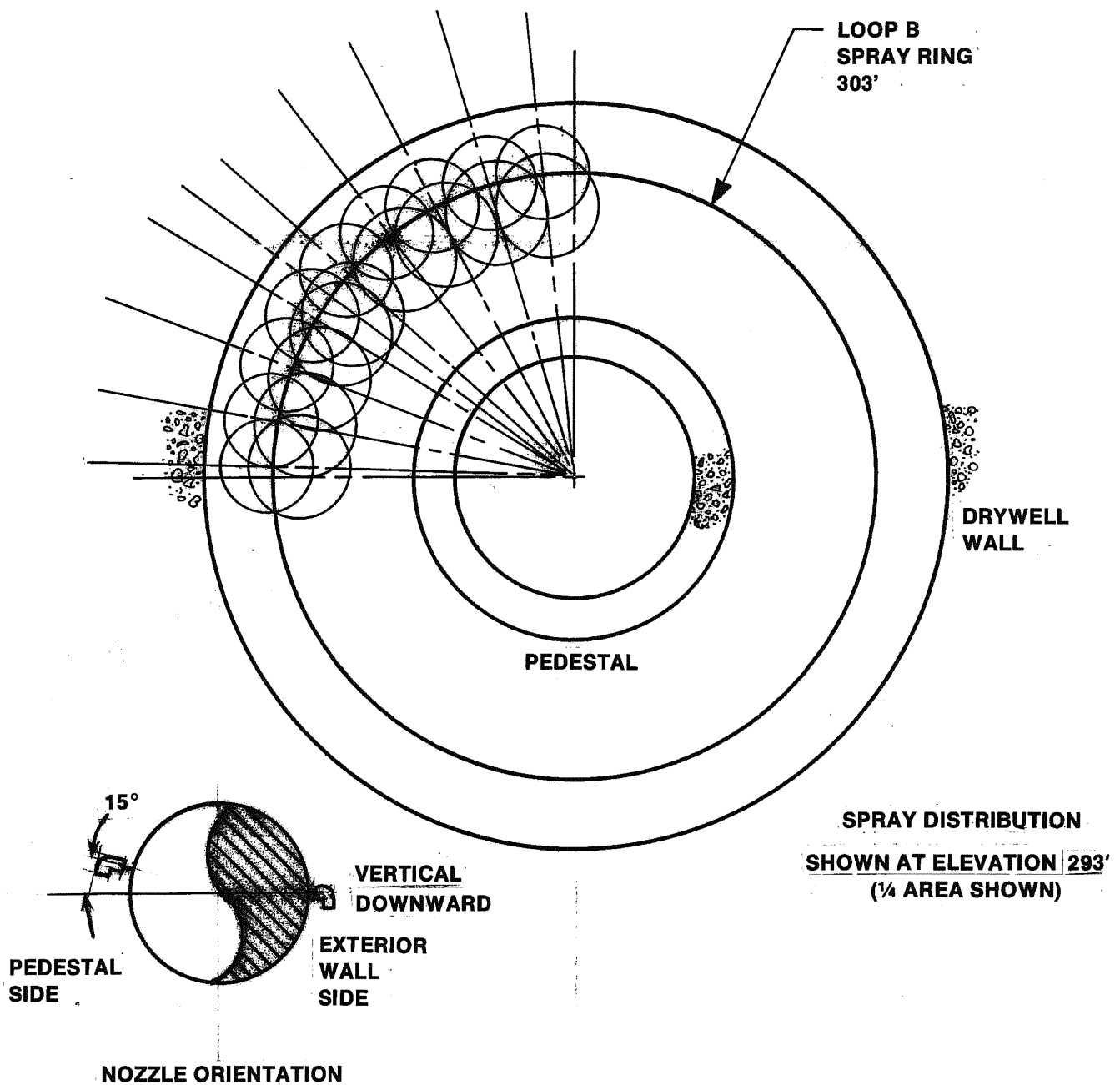


FIGURE 6.2-41

TYPICAL
LOOP B SPRAY COVERAGE
IN DRYWELL

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

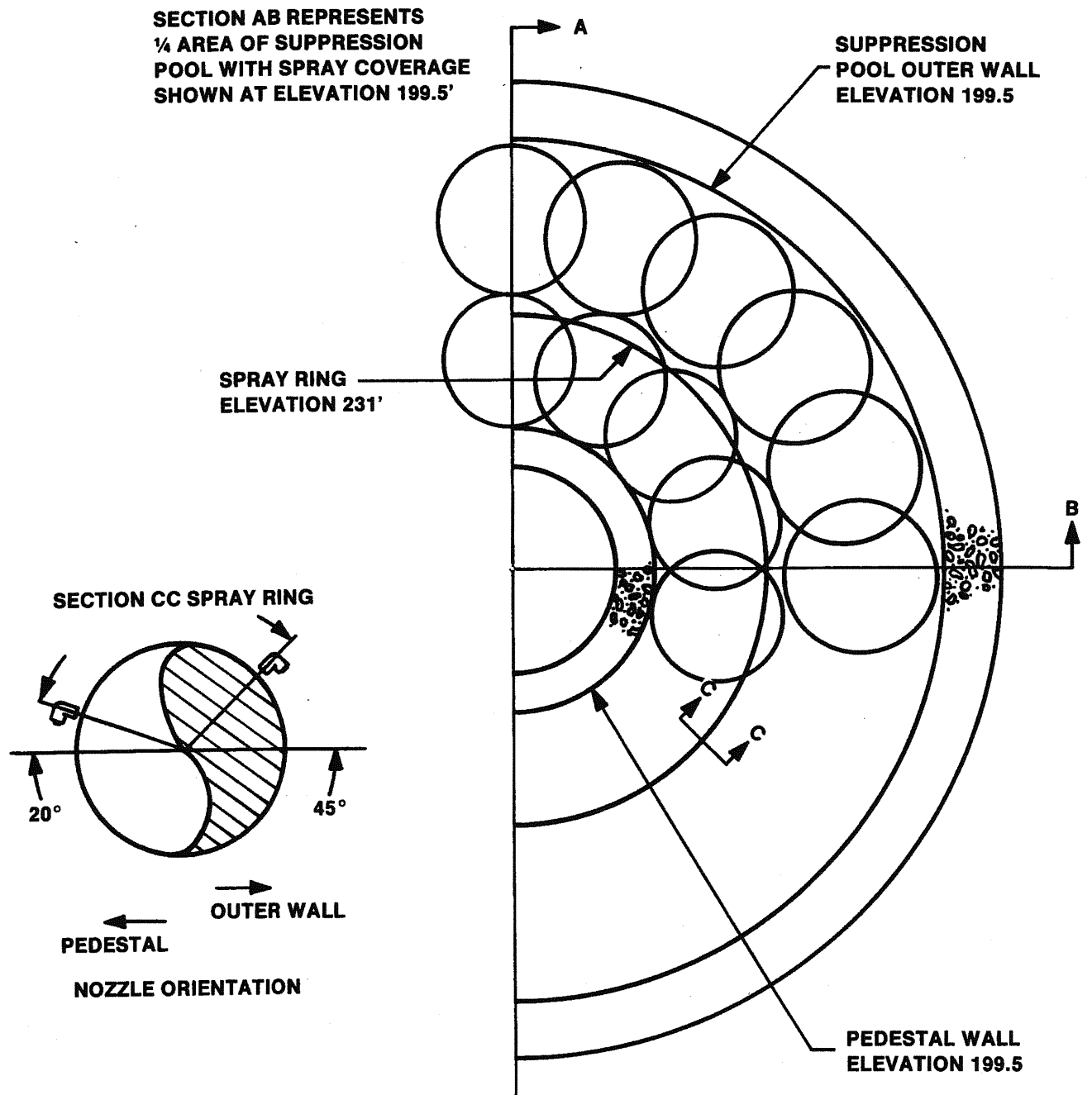


FIGURE 6.2-42

APPROXIMATE
SPRAY COVERAGE IN
SUPPRESSION CHAMBER

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

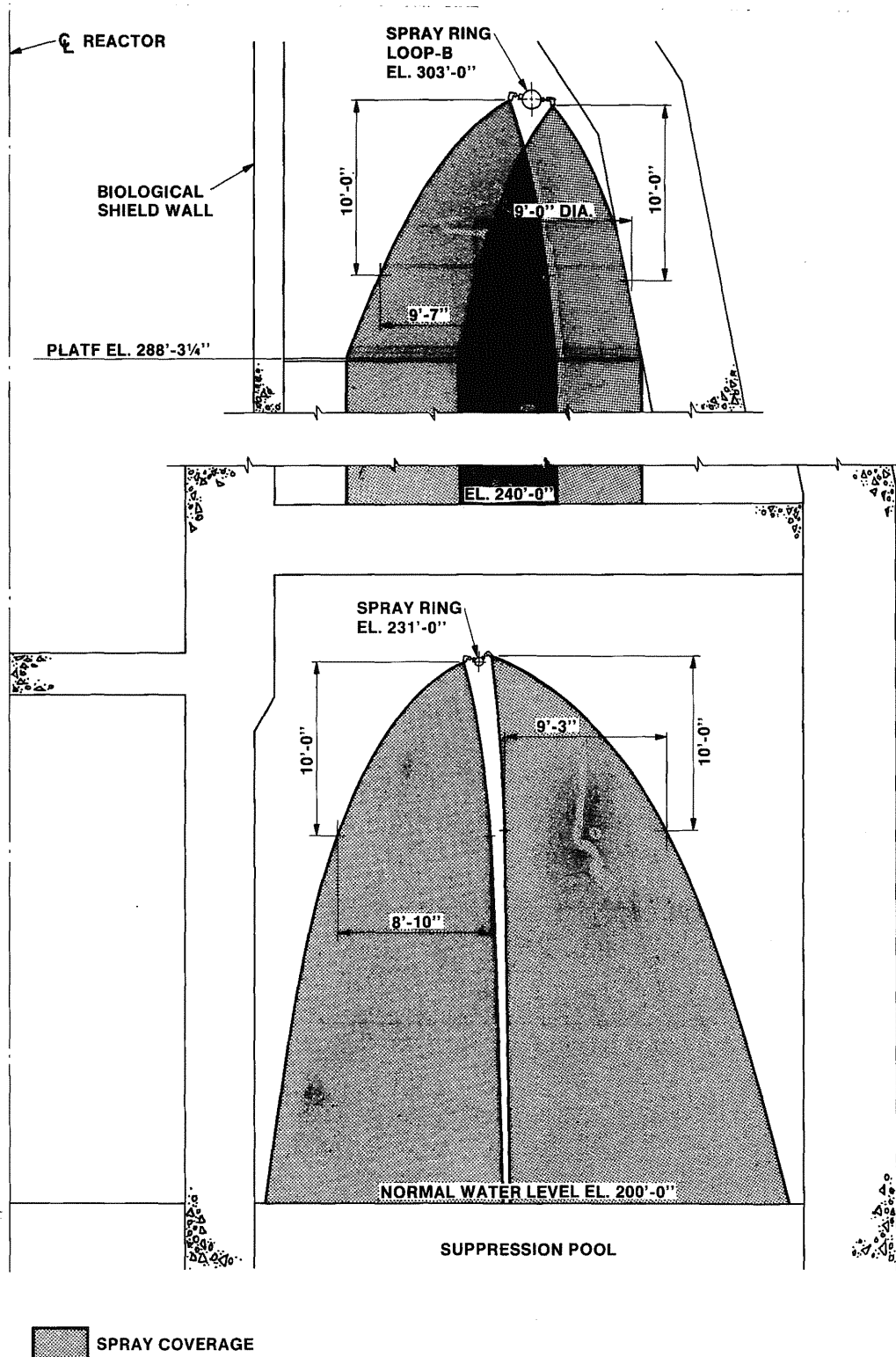


FIGURE 6.2-43

APPROXIMATE
 VOLUME COVERAGE BY
 CONTAINMENT SPRAYS

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

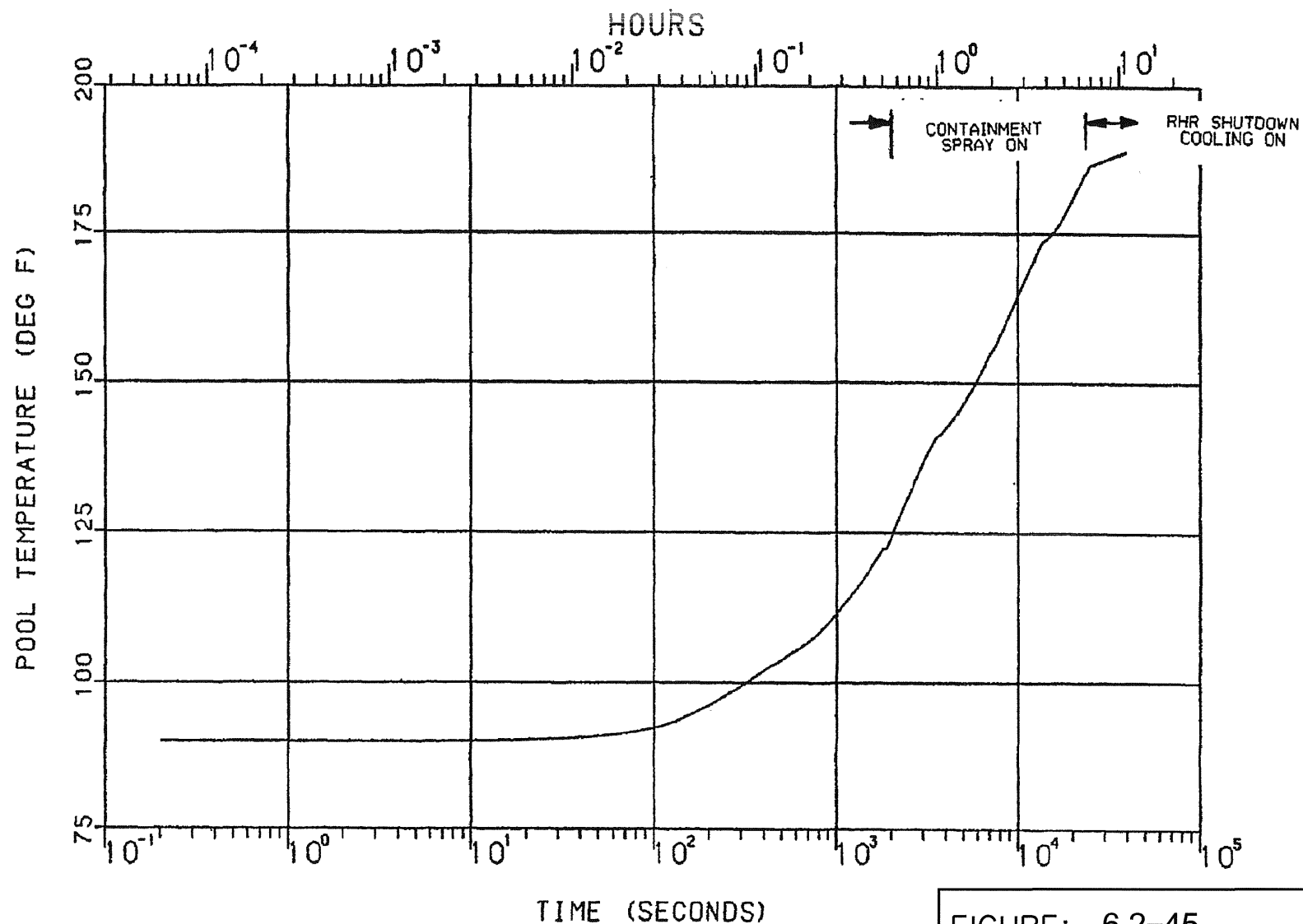
THIS FIGURE HAS BEEN DELETED

FIGURE 6.2-44

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 8

NOVEMBER 1995

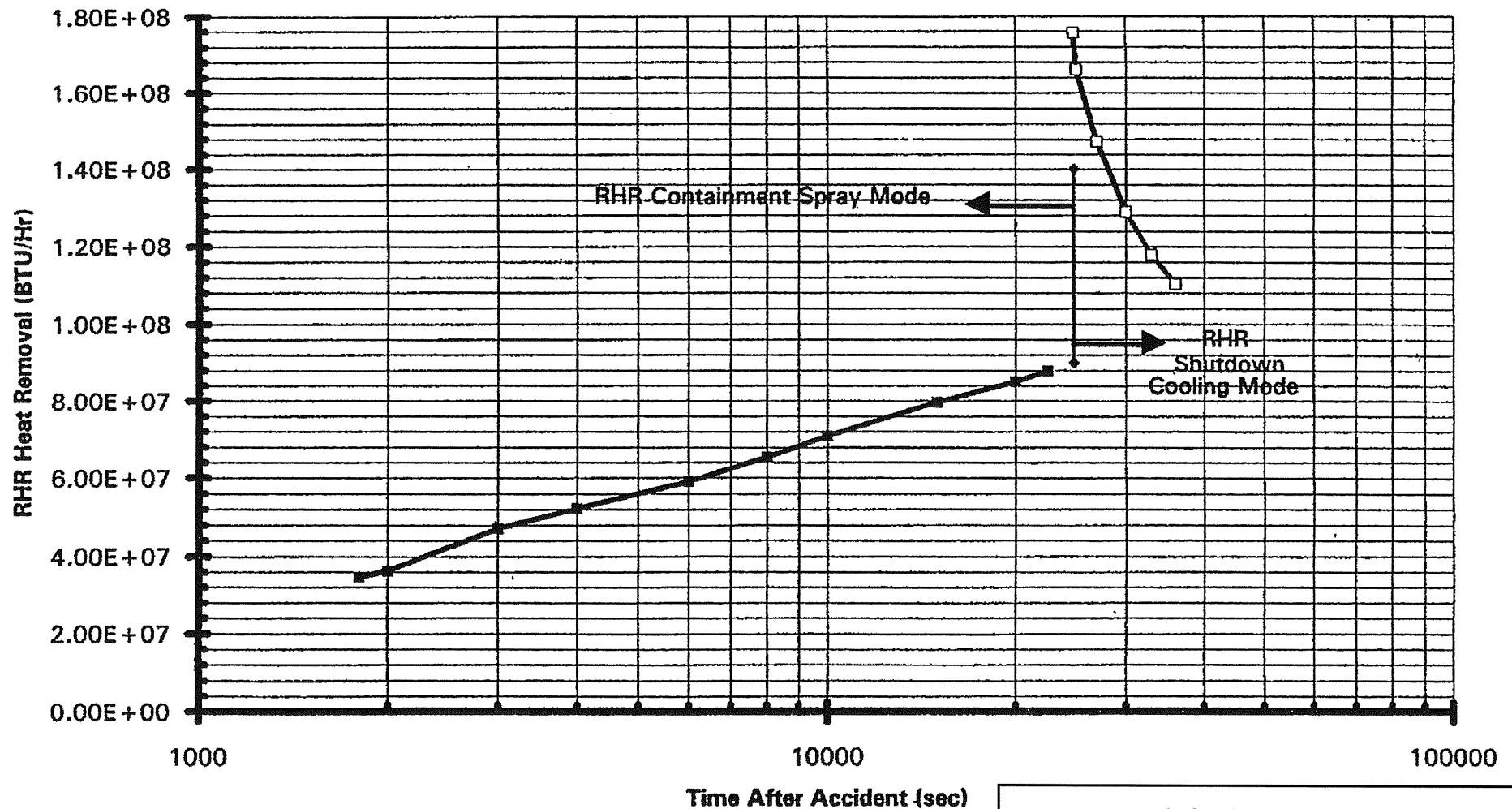


NOTE: THE ABOVE PLOT IS FOR THE PRE-EPU ANALYSIS, WHICH ASSUMED SPRAY INITIATION AT 30 MINUTES. FOR EPU, SPRAY INITIATION IS AT 20 MINUTES. THE POOL TEMPERATURE WILL REMAIN BELOW THE DESIGN LIMIT OF 212°F.

FIGURE: 6.2-45

LONG TERM STEAM BYPASS ANALYSIS:
 BREAK = 0.30 FT² BYPASS = 0.05 FT².
 NMP2 POWER UPRATE - 3536 MWT
 SUPPRESSION POOL TEMPERATURE VS TIME

NINE MILE POINT-UNIT 2
 UPDATED SAFETY ANALYSIS REPORT



NOTE: THE ABOVE PLOT IS FOR THE PRE-EPU ANALYSIS, WHICH ASSUMED SPRAY INITIATION AT 30 MINUTES. FOR EPU, SPRAY INITIATION IS AT 20 MINUTES.

FIGURE: 6.2-46

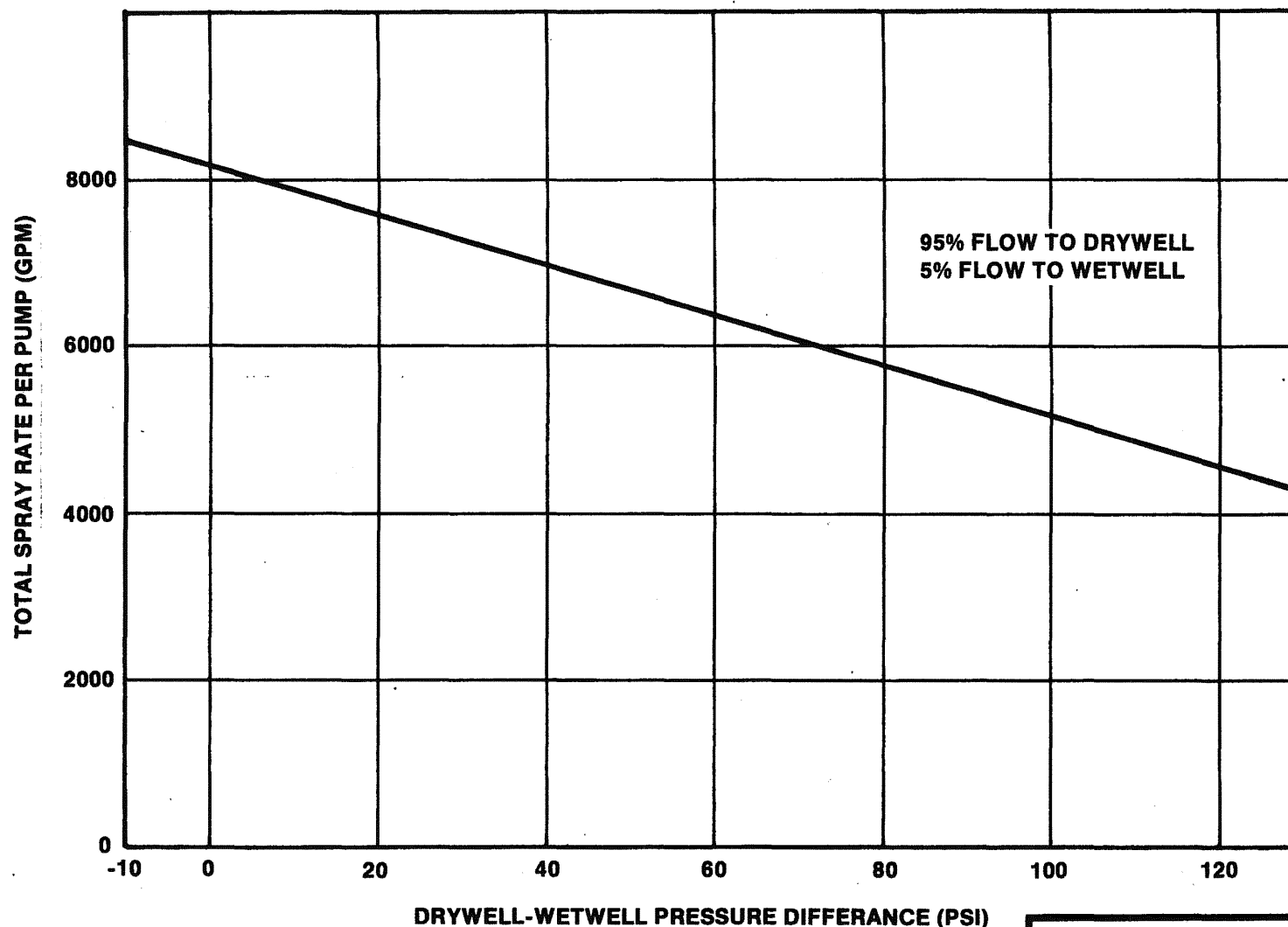
RHR HEAT EXCHANGER HEAT REMOVAL RATES
LONG TERM STEAM BYPASS ANALYSIS:
BREAK = 0.3 FT² BYPASS = 0.05 FT².

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED.

FIGURE: 6.2-46A

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



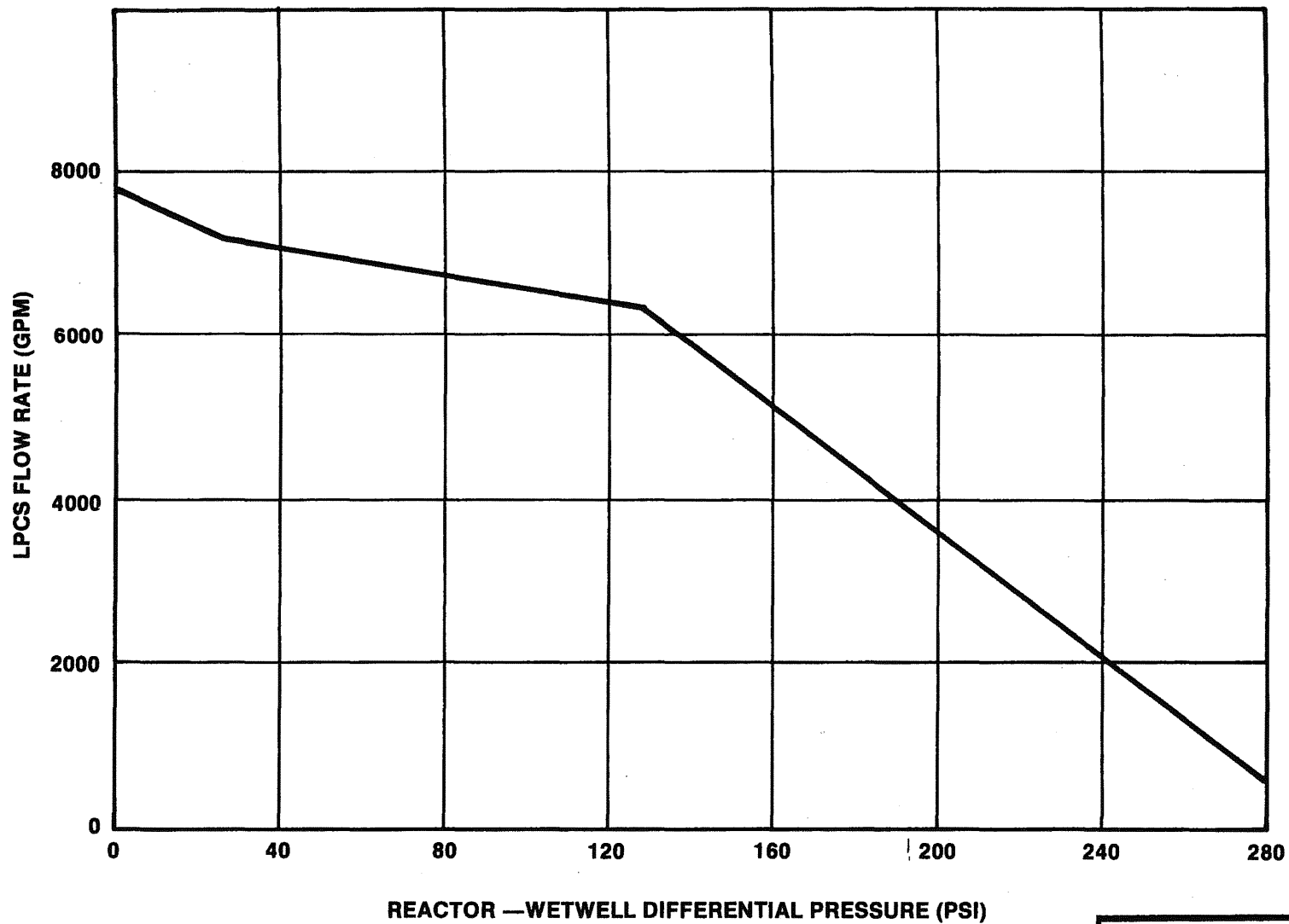
SOURCE: ES-121

Note: This curve applicable to Pre-Power Uprate containment response evaluation in Section 6.2.1.1.3. The Containment Spray flow rate used as input to the Power Uprate containment response evaluation has been reconciled using the Technical Specification performance curves for the RHR pumps.

FIGURE 6.2-47

CONTAINMENT SPRAY FLOW RATE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



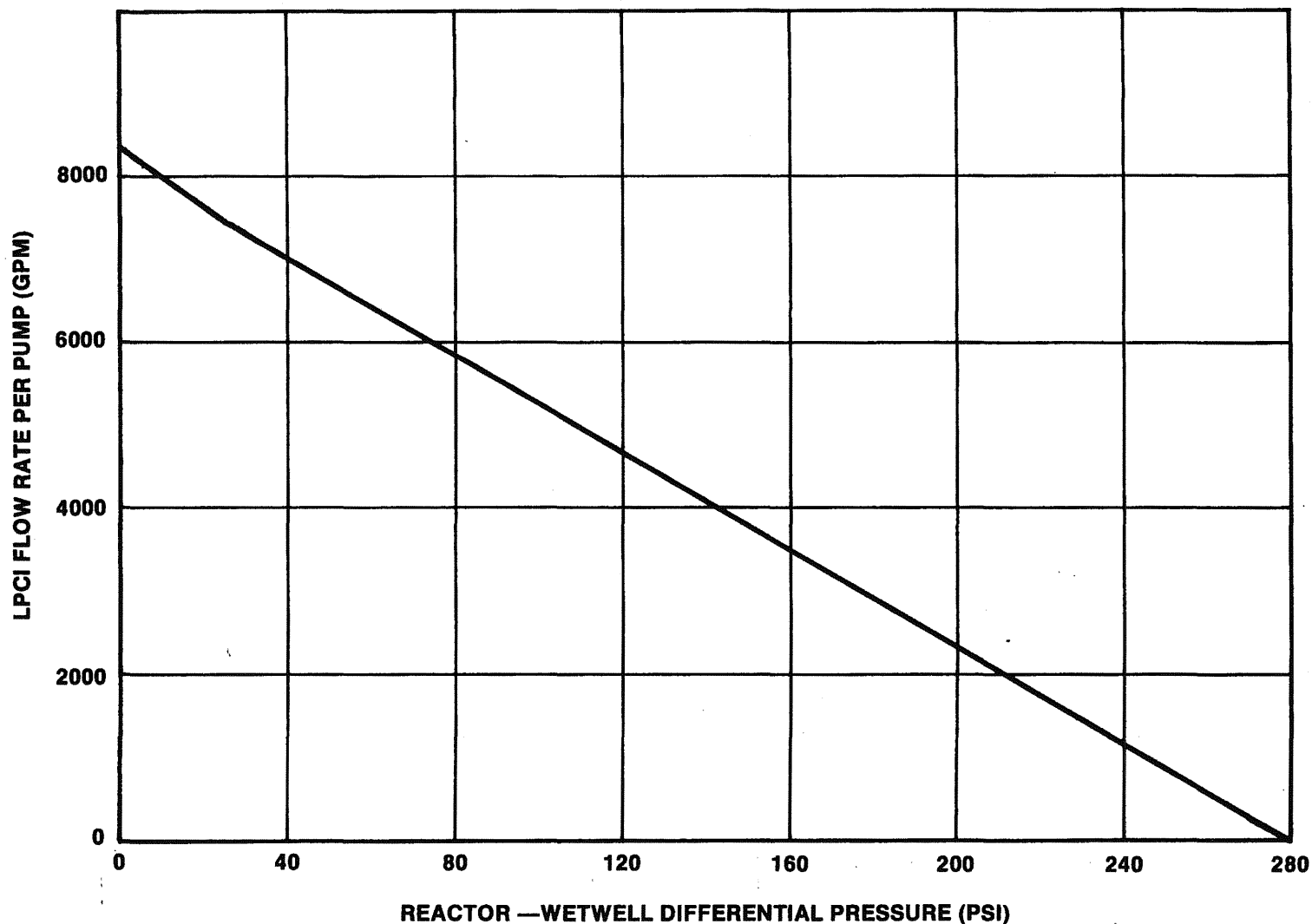
SOURCE: ES-121

Note: This curve applicable to Pre-Power Up rate containment response evaluation in Section 6.2.1.1.3. For reconciled performance curve see Figure 6.3-4A.

FIGURE 6.2-49

LOW PRESSURE CORE SPRAY
FLOW RATE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



SOURCE: ES-121

Note: This curve applicable to Pre-Power Uprate containment response evaluation in Section 6.2.1.1.3. For reconciled performance curve see Figure 6.3-5A.

FIGURE 6.2-50

LOW PRESSURE COOLANT
INJECTION FLOW RATE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

REFERENCE
CALCULATION
ES-052-5

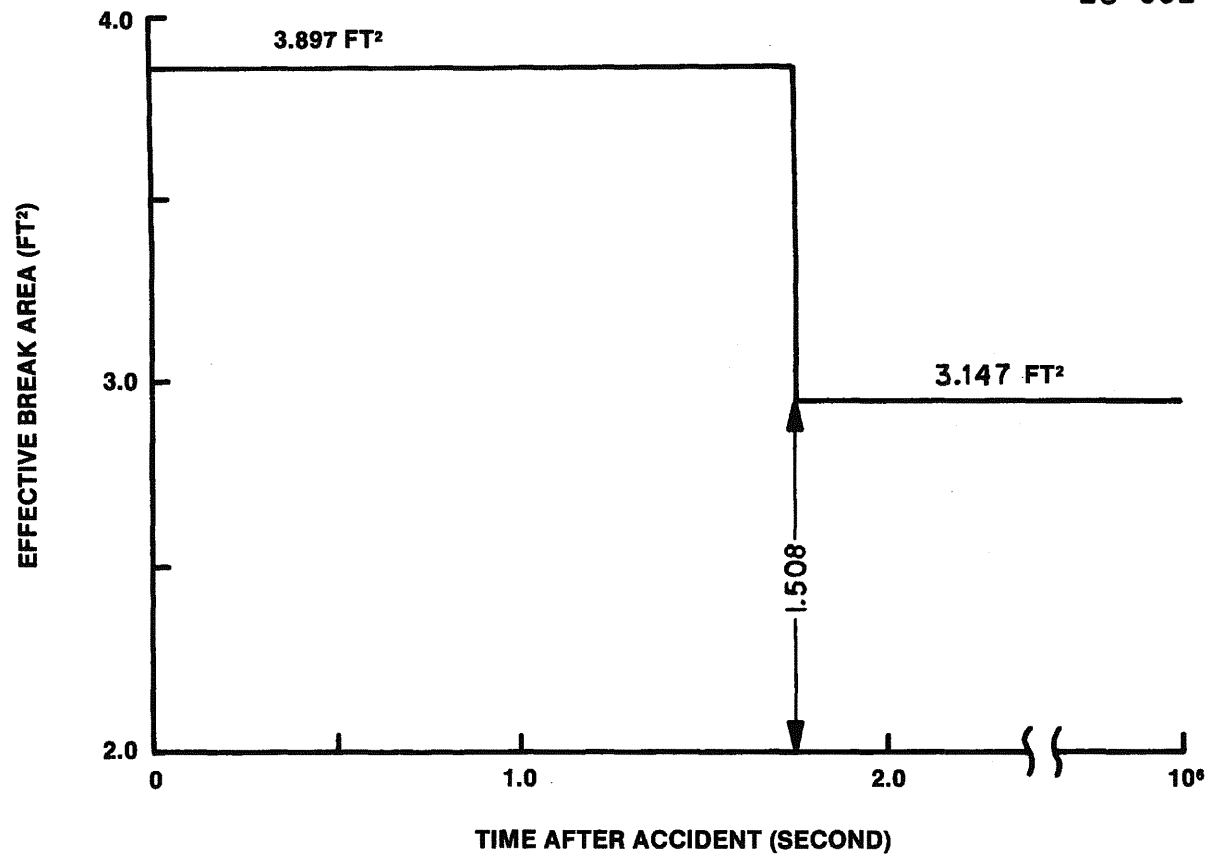
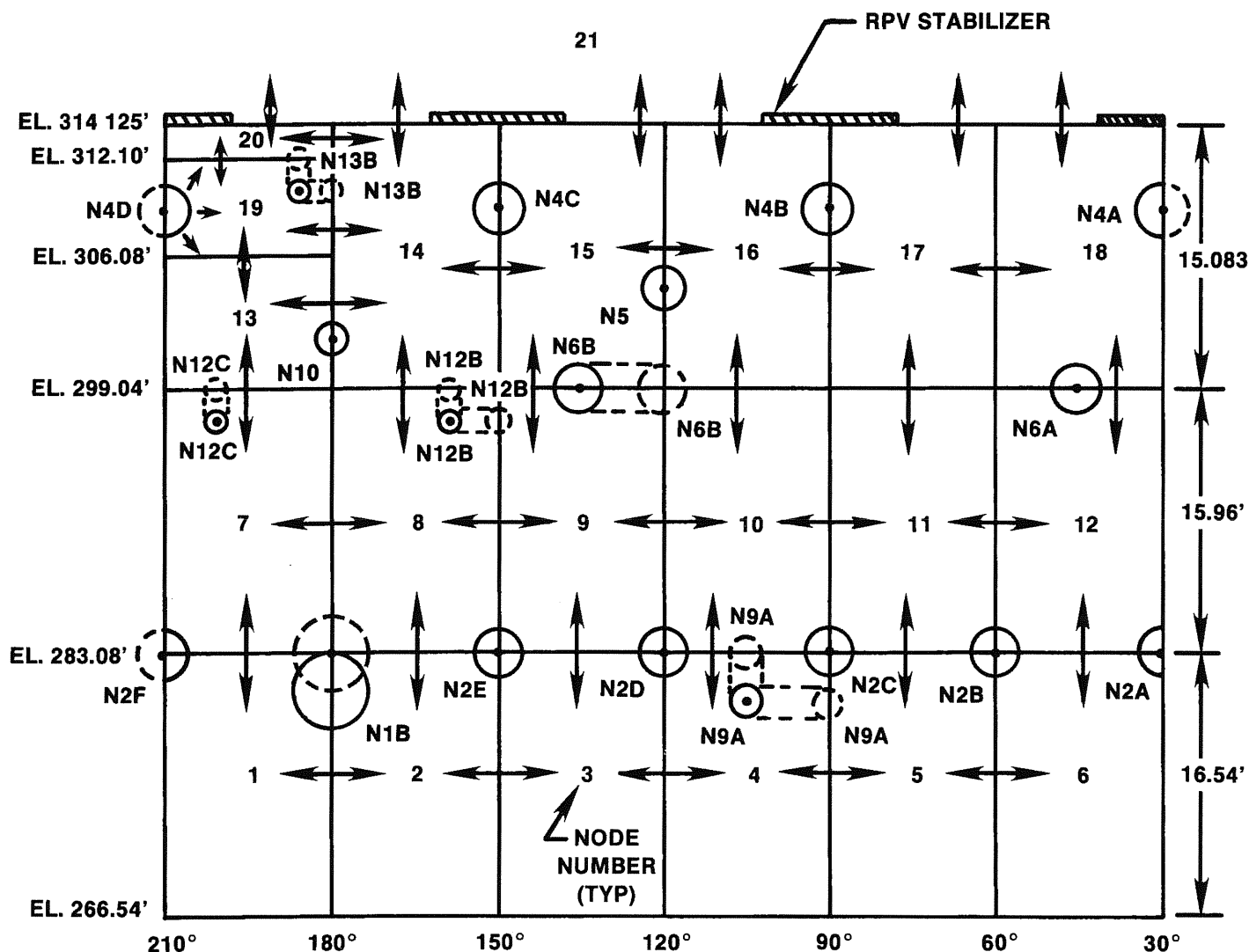


FIGURE 6.2-51

RECIRCULATION PUMP SUCTION
LINE BREAK AREA VS. TIME

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



PIPE DESIGNATION

N1A-B: RECIRCULATION SUCTION (24")
 N2A-F: RECIRCULATION INLET (12")
 N4A-D: FEEDWATER INLET (12")
 N5: LPCS (10")
 N6A-B: RHR/LPCI MODE (12")
 N9A: JET PUMP INSTRUMENTATION (4")
 N10: CRD HYDRAULIC SYSTEM RETURN (3")
 N12B-C: INSTRUMENTATION — WATER LEVEL (2")
 N13B: INSTRUMENTATION — WATER LEVEL (2")

NOTES:

1. INDICATES THE ASSUMED LOCATION OF THE PIPE NOZZLE.
2. THE FEEDWATER LINE BREAK IS ASSUMED TO OCCUR IN NODE 19

FIGURE 6.2-52

NODALIZATION DIAGRAM
 FEEDWATER LINE BREAK 21-NODE MODEL
 RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

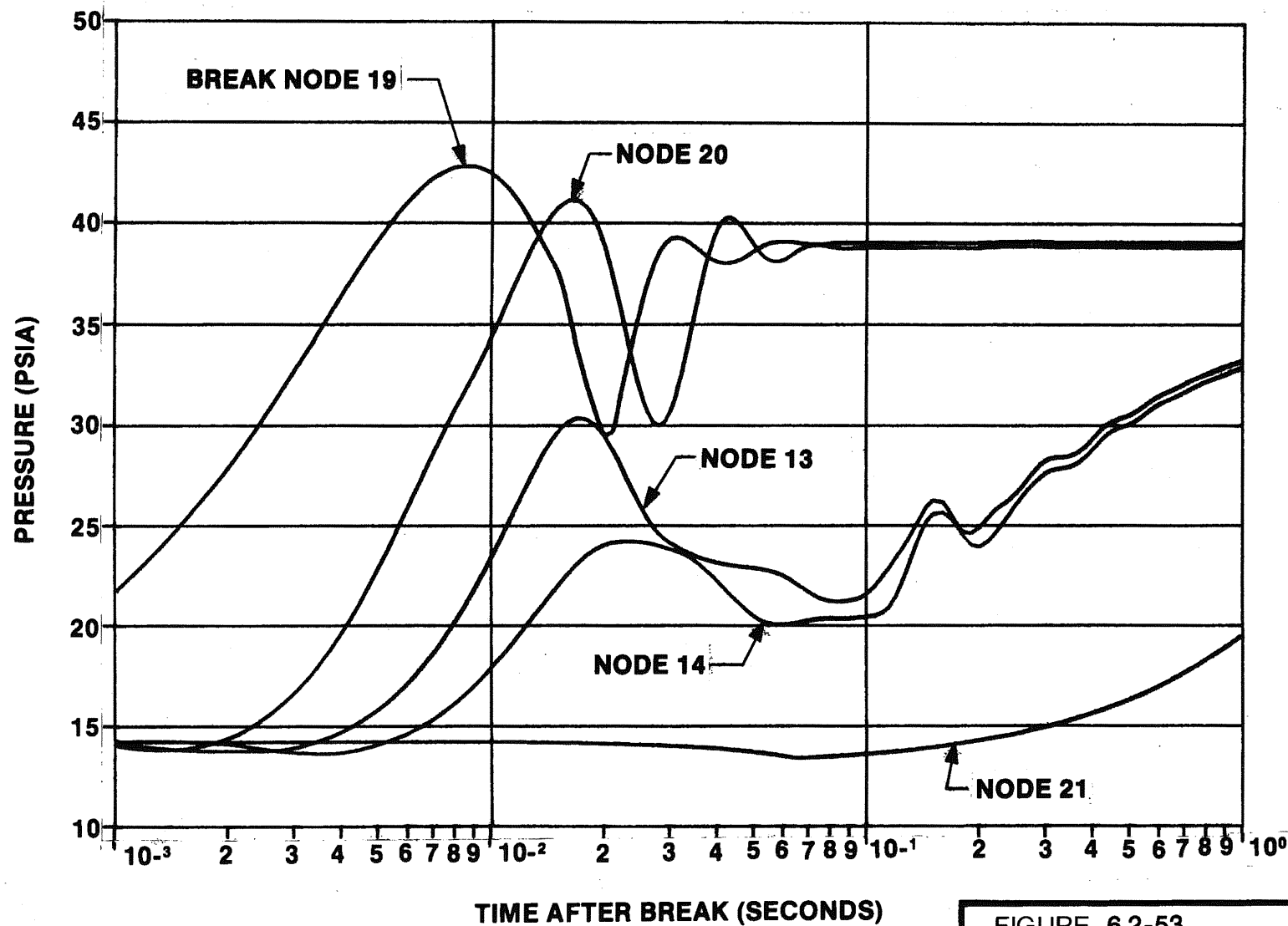


FIGURE 6.2-53

NODAL PRESSURES
FEEDWATER LINE BREAK 21-NODE MODEL
RPV-BSW ANNULUS
SHEET 1 OF 6

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

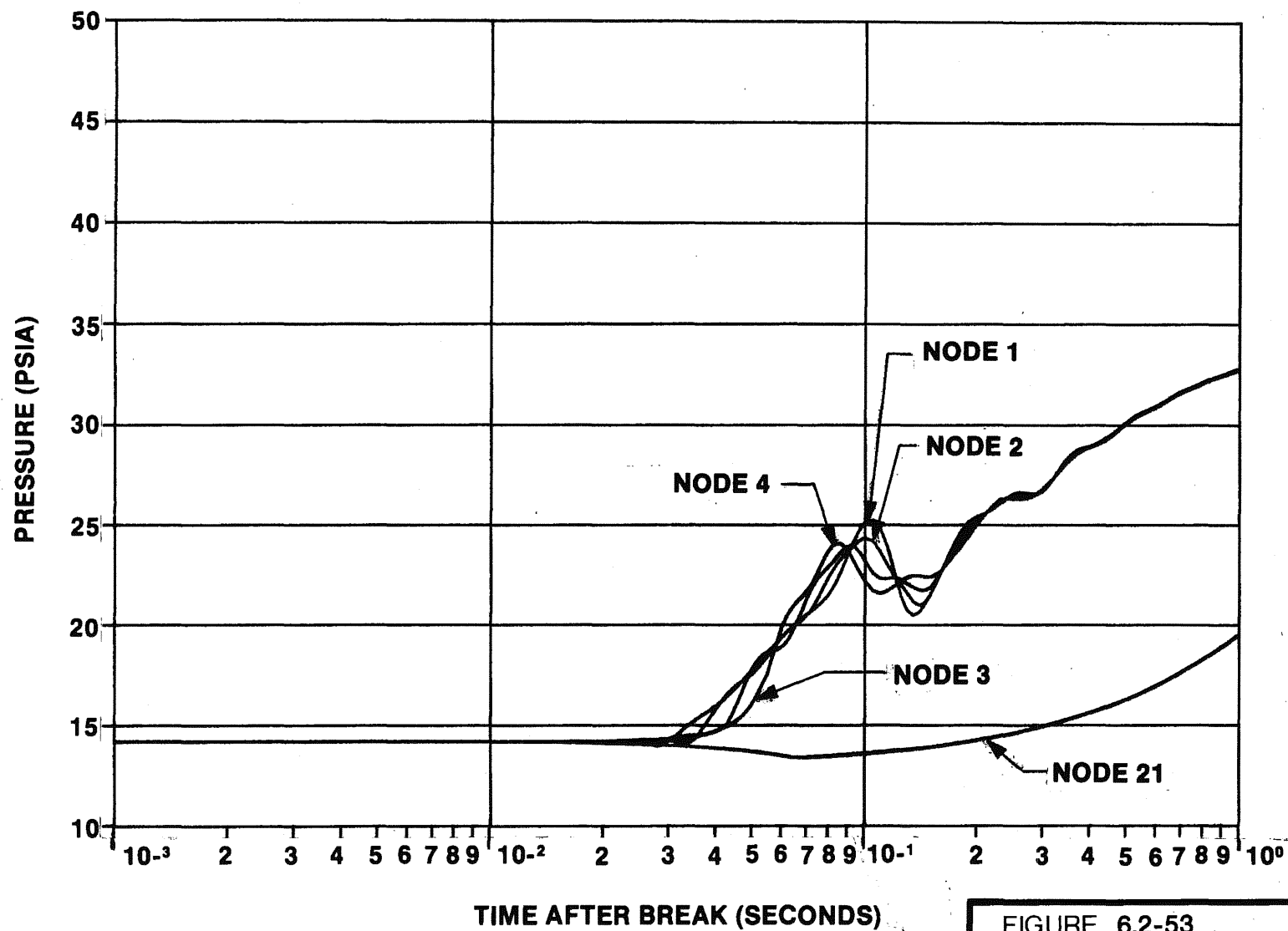


FIGURE 6.2-53

NODAL PRESSURES
FEEDWATER LINE BREAK 21-NODE MODEL
RPV-BSW ANNULUS
SHEET 2 OF 6

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

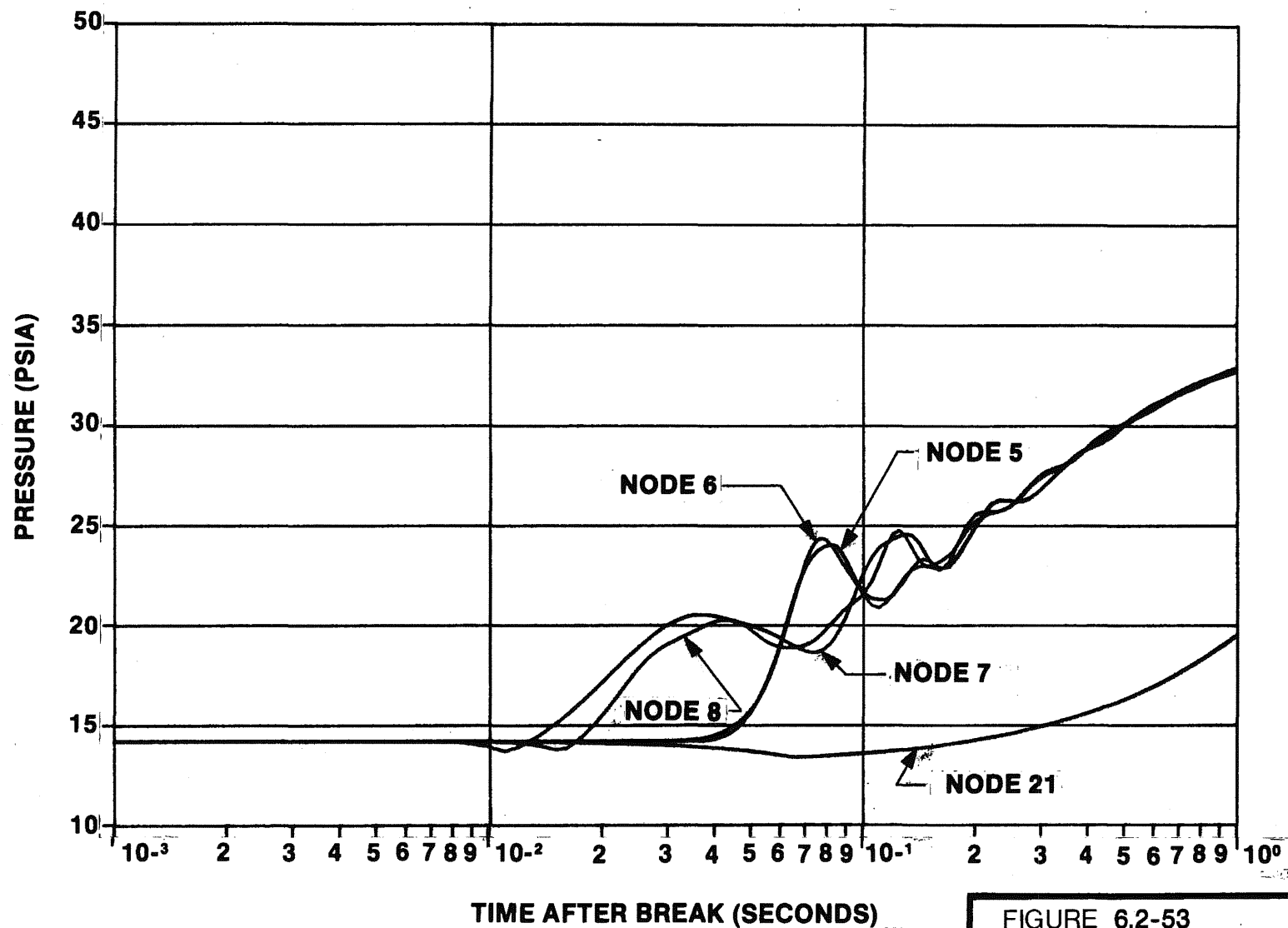


FIGURE 6.2-53

NODAL PRESSURES
FEEDWATER LINE BREAK 21-NODE MODEL
RPV-BSW ANNULUS
SHEET 3 OF 6

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

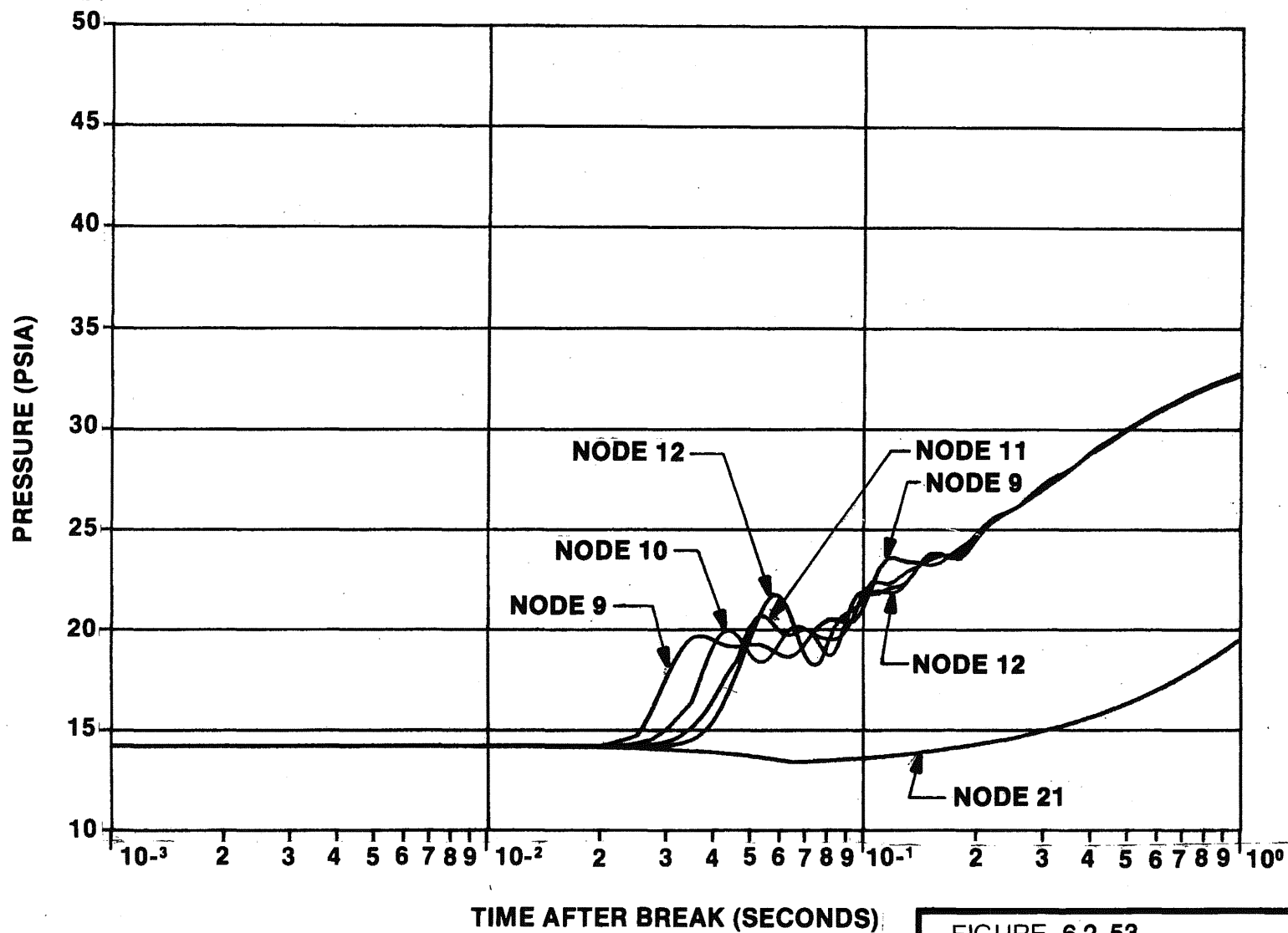


FIGURE 6.2-53

NODAL PRESSURES
FEEDWATER LINE BREAK 21-NODE MODEL
RPV-BSW ANNULUS
SHEET 4 OF 6

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

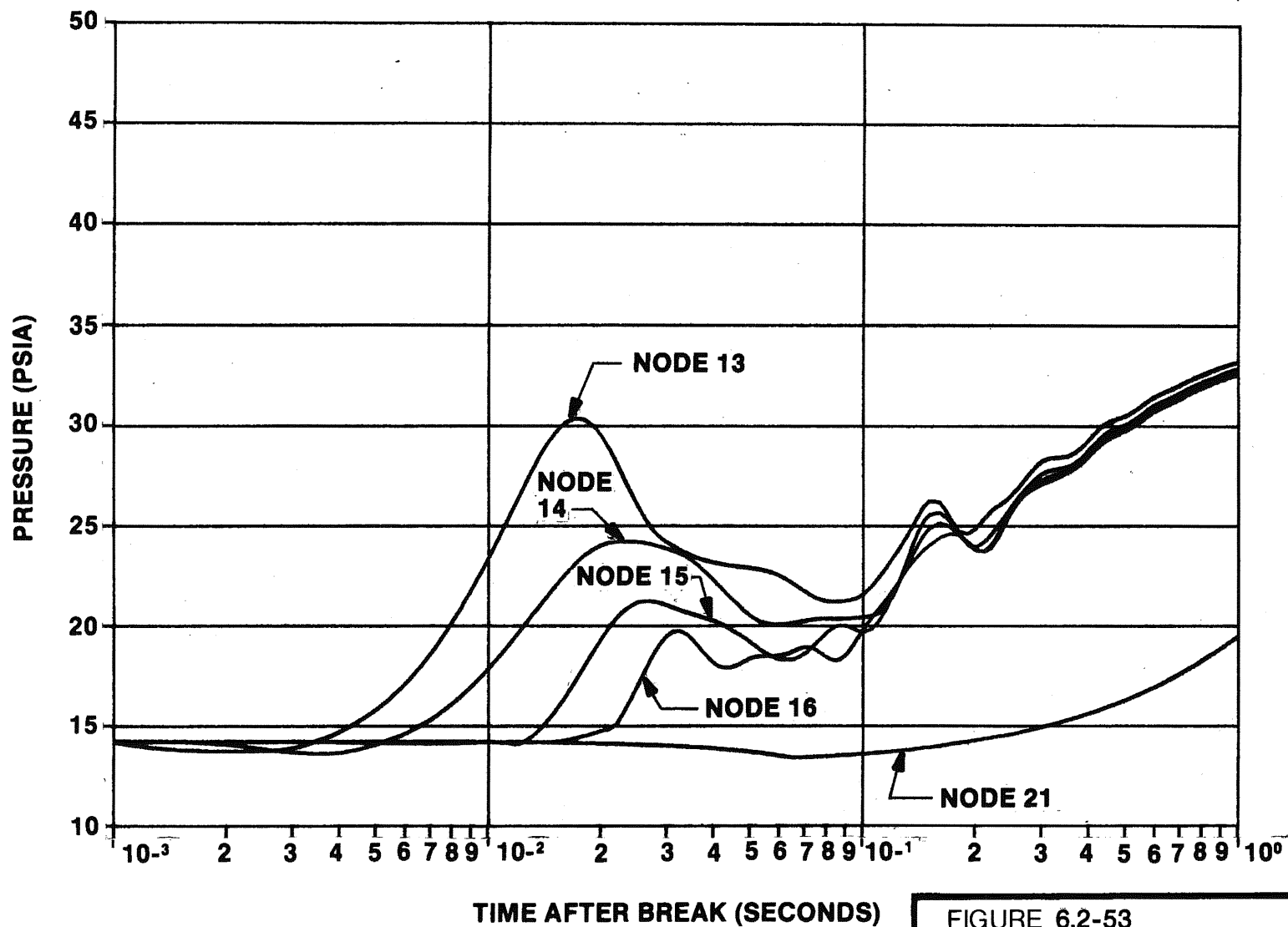


FIGURE 6.2-53

NODAL PRESSURES
FEEDWATER LINE BREAK 21-NODE MODEL
RPV-BSW ANNULUS
SHEET 5 OF 6

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

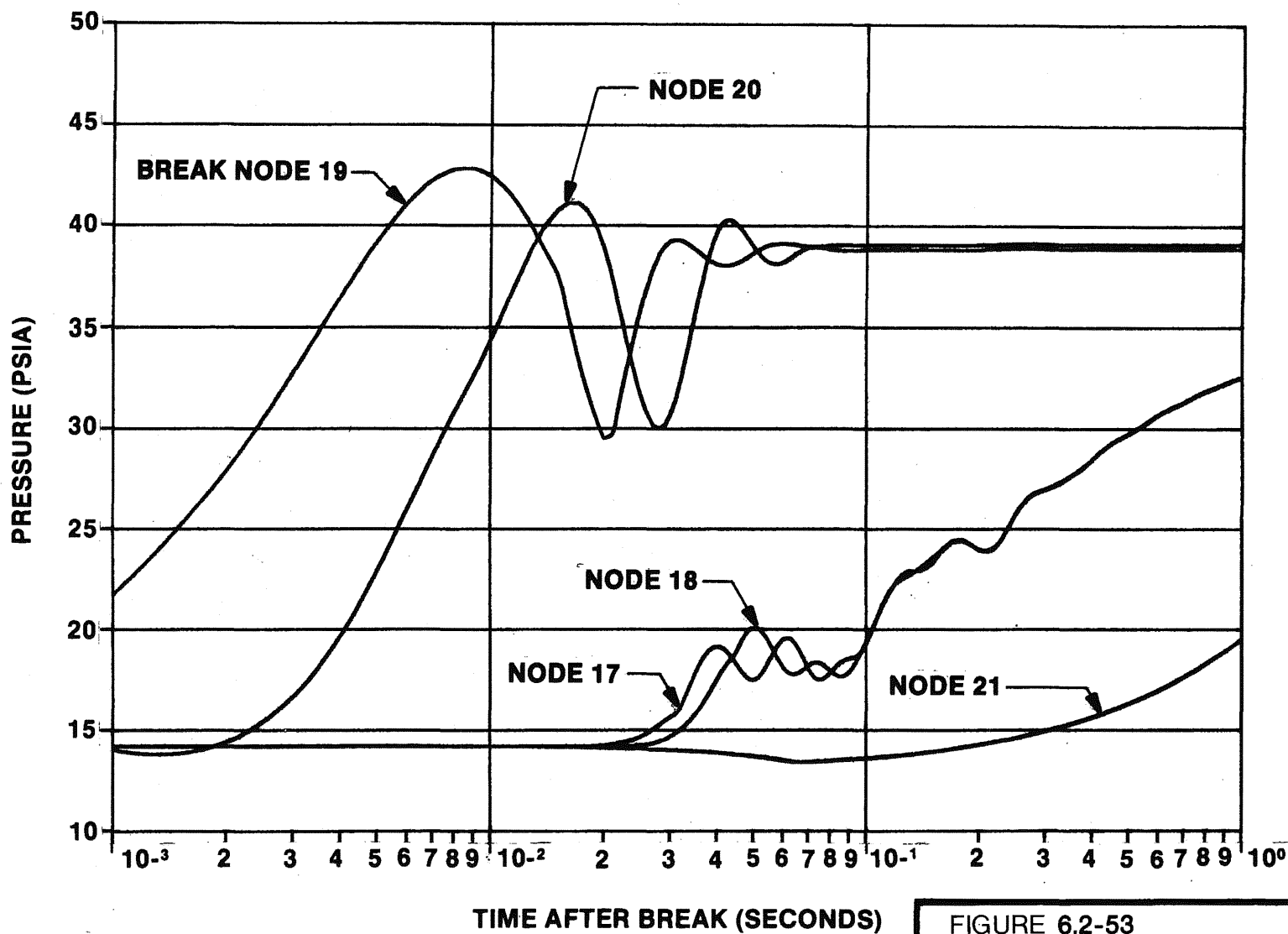
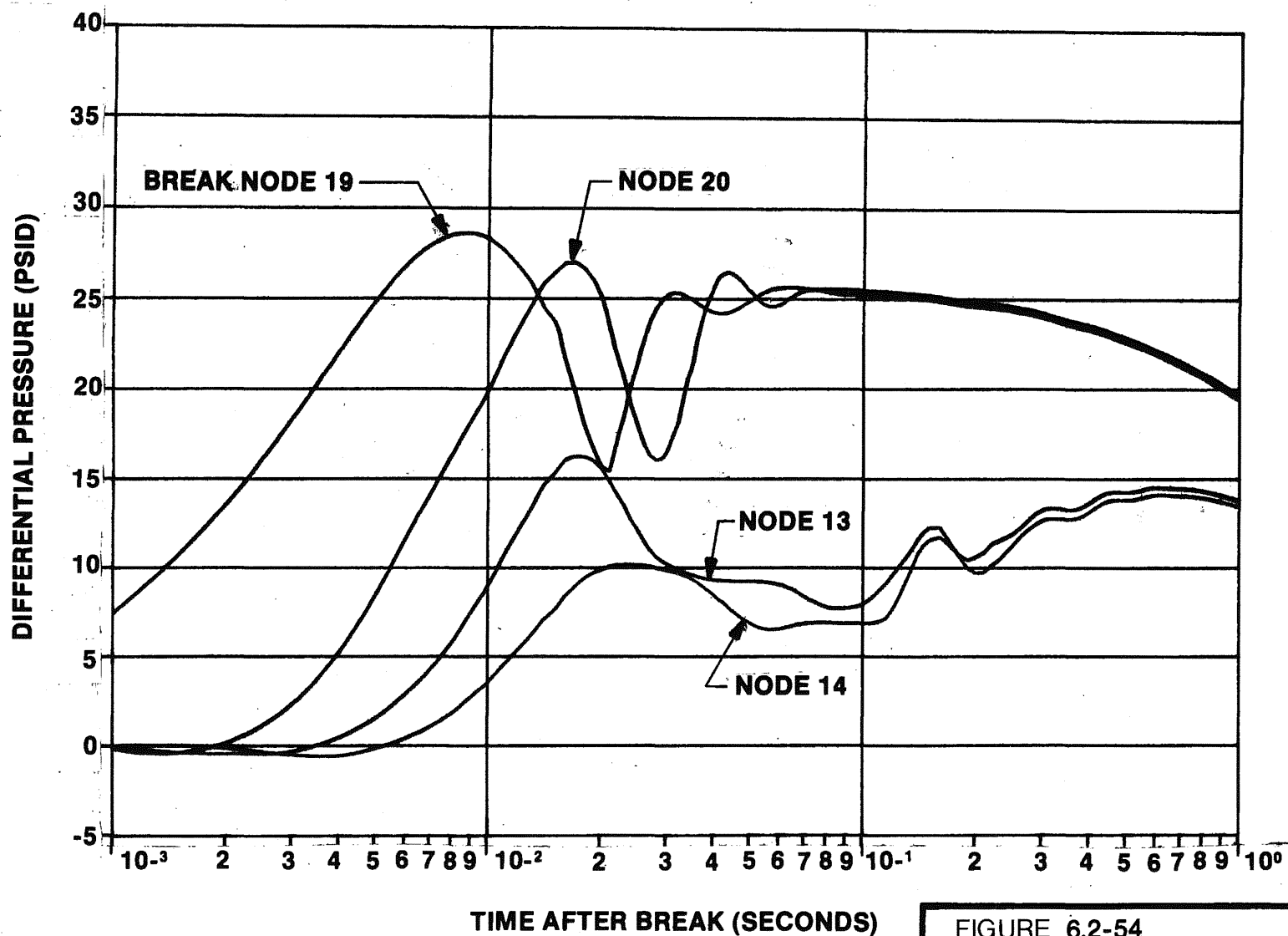


FIGURE 6.2-53

NODAL PRESSURES
FEEDWATER LINE BREAK 21-NODE MODEL
RPV-BSW ANNULUS
SHEET 6 OF 6

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



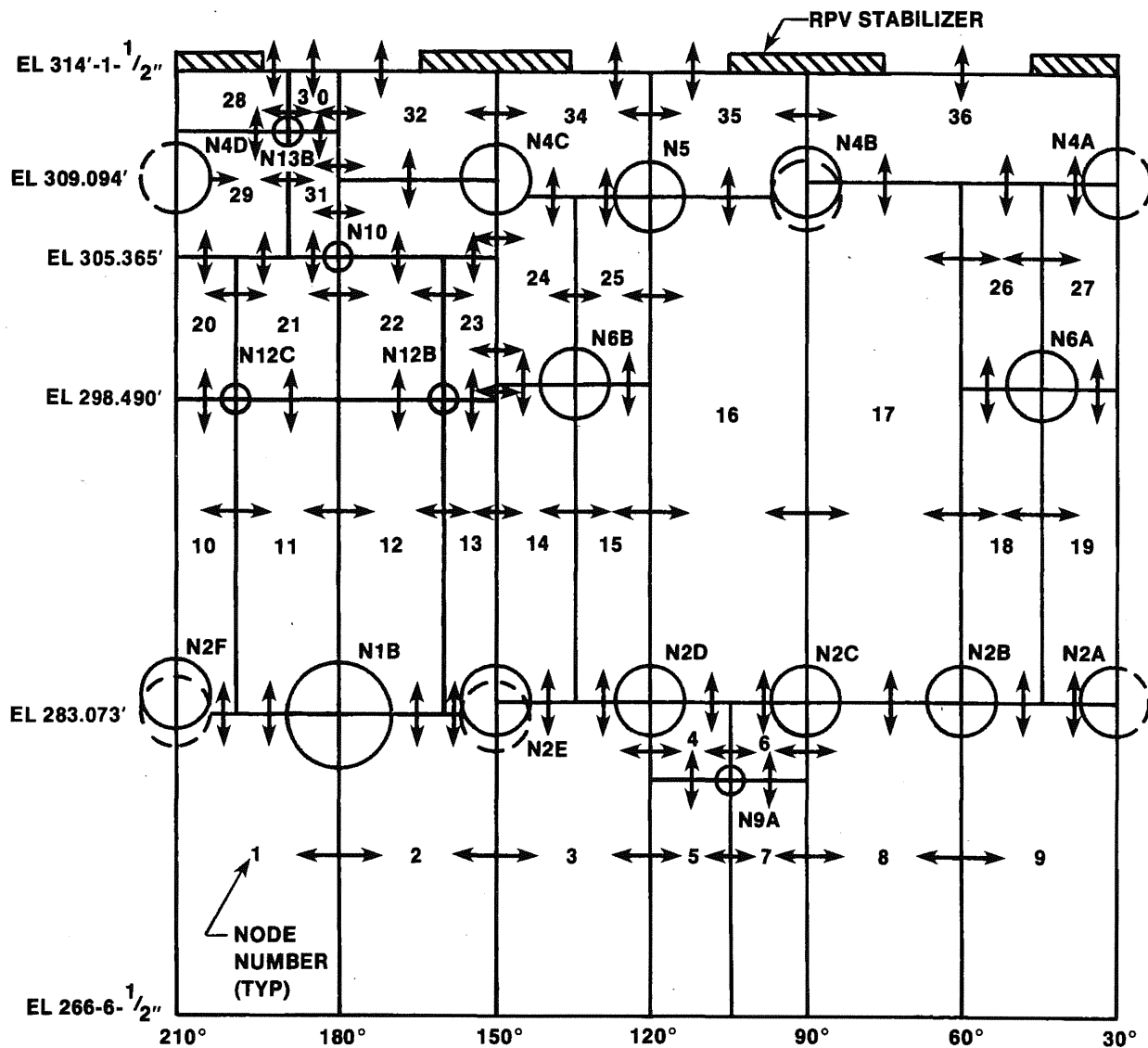
NOTE:

1. DIFFERENTIALS ARE RELATIVE TO NODE 21

FIGURE 6.2-54

NODAL PRESSURE DIFFERENTIALS
FEEDWATER LINE BREAK 21-NODE MODEL
RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



PIPE DESIGNATION

N1B: RECIRCULATION SUCTION (24")
N2A-F: RECIRCULATION INLET (12")
N4A-D: FEEDWATER INLET (12")
N5: LPCS (10")
N6A-B: RHR/LPCI MODE (12")
N9A: JET PUMP INSTRUMENTATION (4")
N10: CRD HYDRAULIC SYSTEM RETURN (3")
N12B-C: INSTRUMENTATION — WATER LEVEL (2")
N13B: INSTRUMENTATION — WATER LEVEL (2")

NOTES:

1. INDICATES THE ASSUMED LOCATION OF THE PIPE NOZZLE.
2. THE FEEDWATER LINE BREAK IS ASSUMED TO OCCUR IN NODE 29

FIGURE 6.2-55

NODALIZATION DIAGRAM
 FEEDWATER LINE BREAK
 37-NODE MODEL
 RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

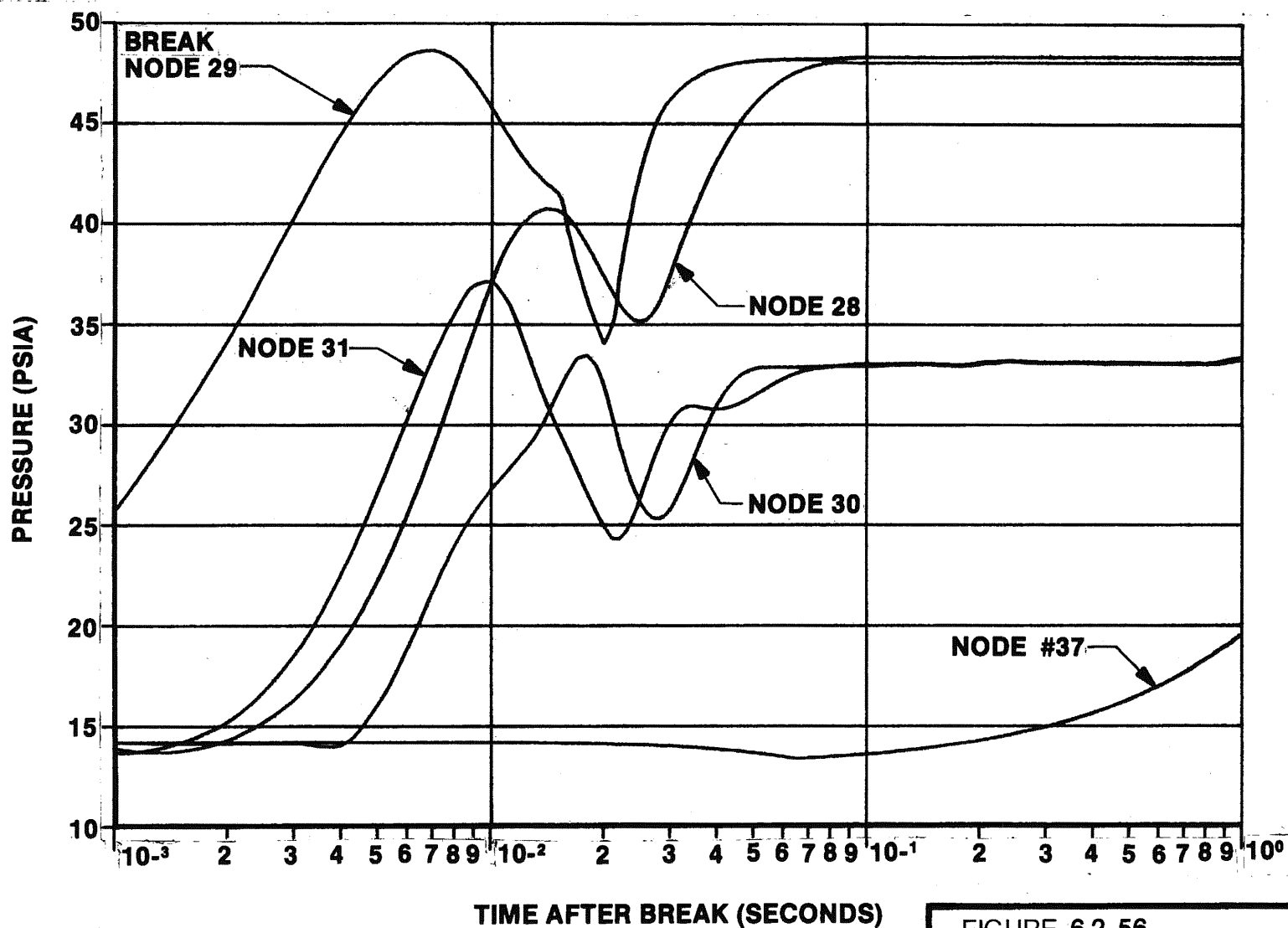


FIGURE 6.2-56

NODAL PRESSURES
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS
SHEET 1 OF 10

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

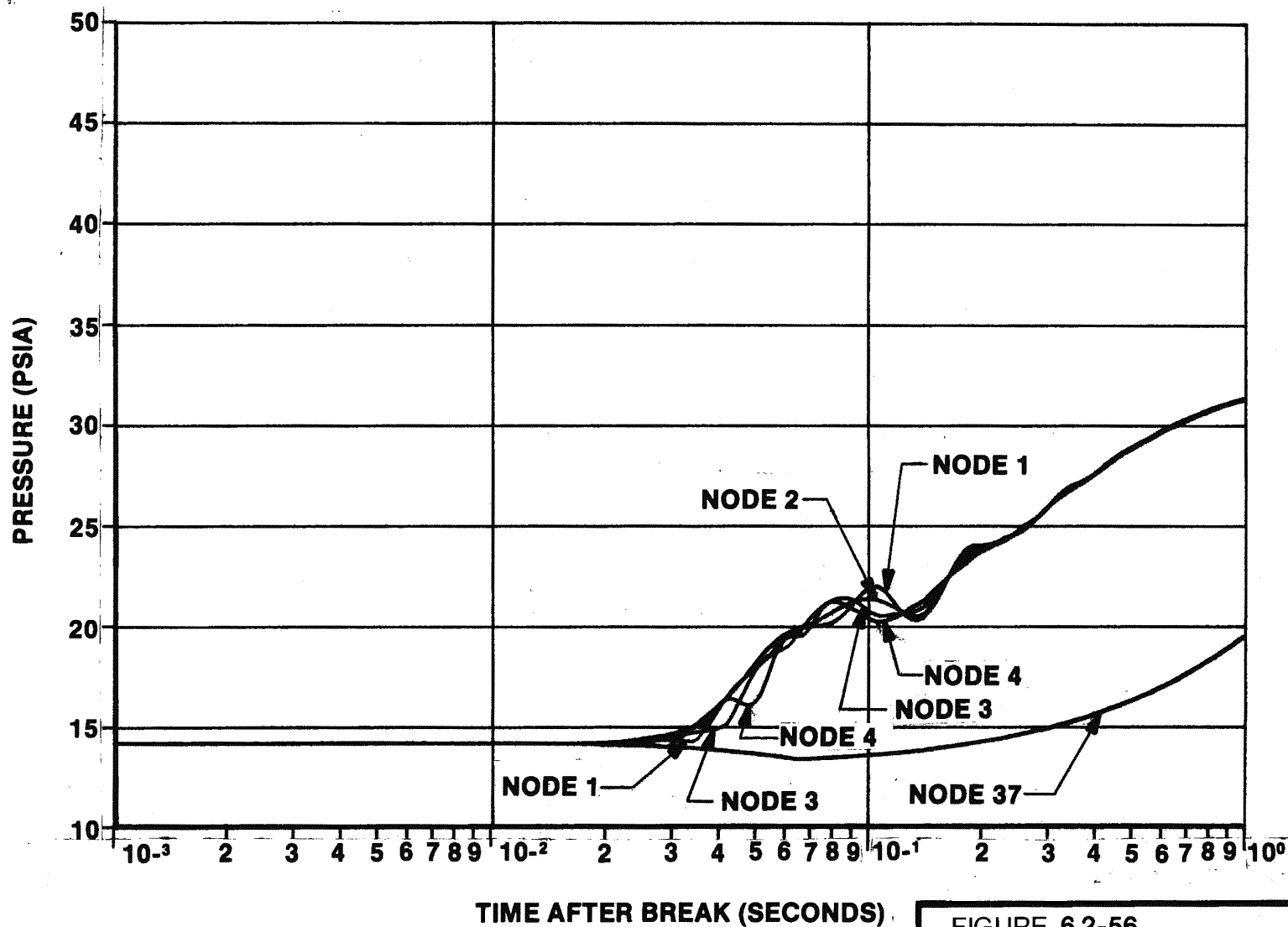


FIGURE 6.2-56

NODAL PRESSURES
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS
SHEET 2 OF 10

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

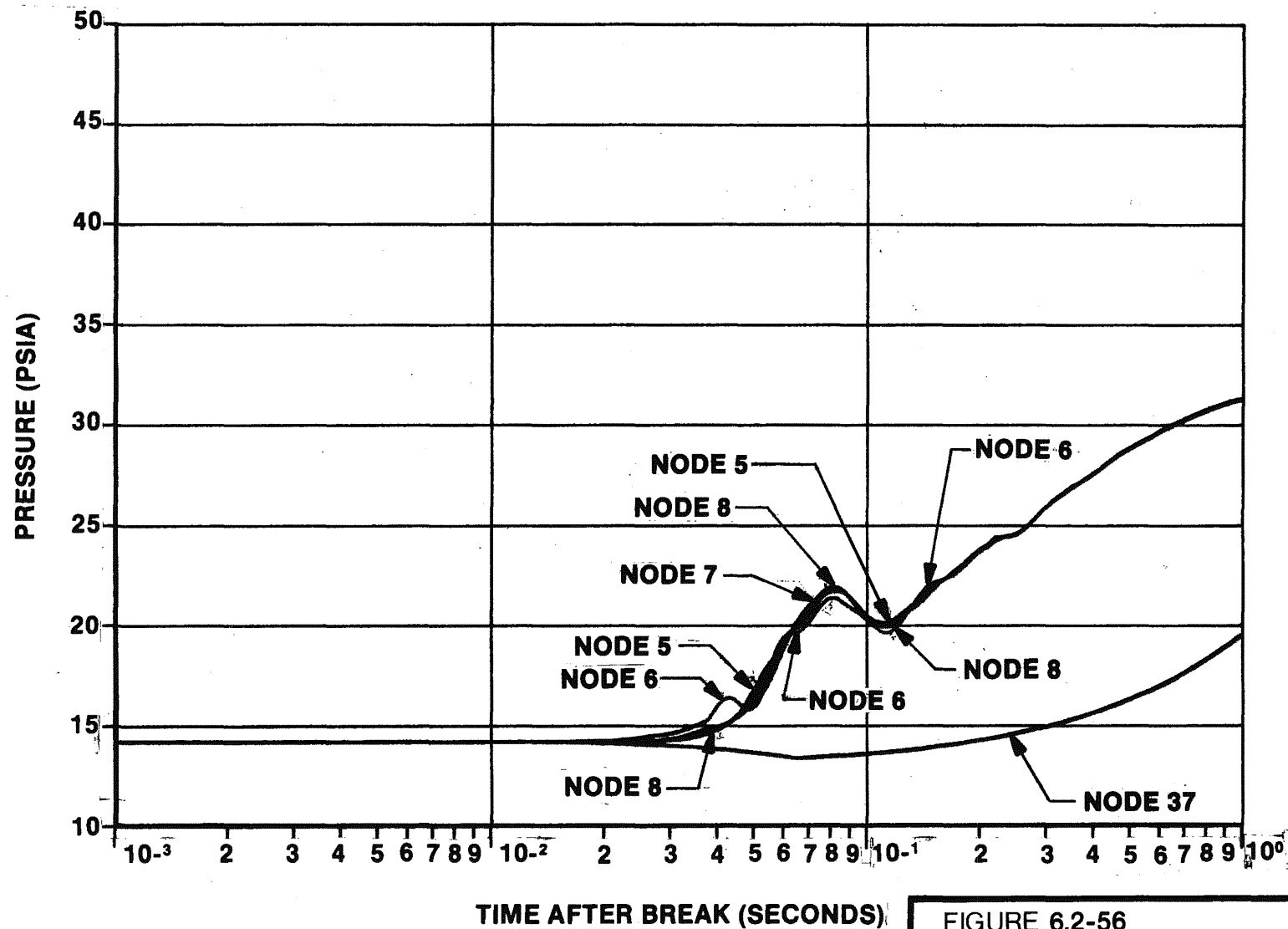


FIGURE 6.2-56

NODAL PRESSURES
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS
SHEET 3 OF 10

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

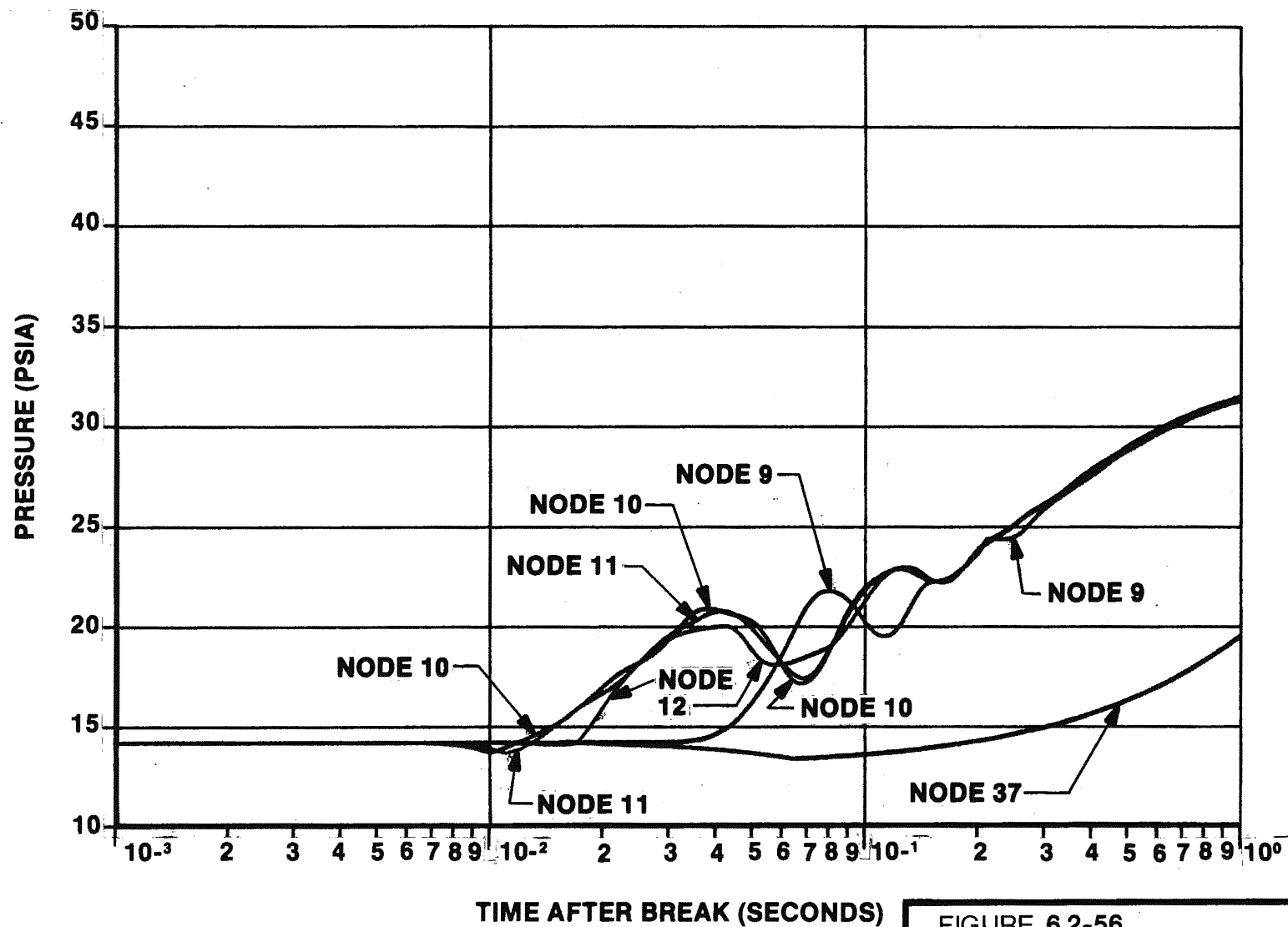


FIGURE 6.2-56

NODAL PRESSURES
 FEEDWATER LINE BREAK 37-NODE MODEL
 RPV-BSW ANNULUS
 SHEET 4 OF 10

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

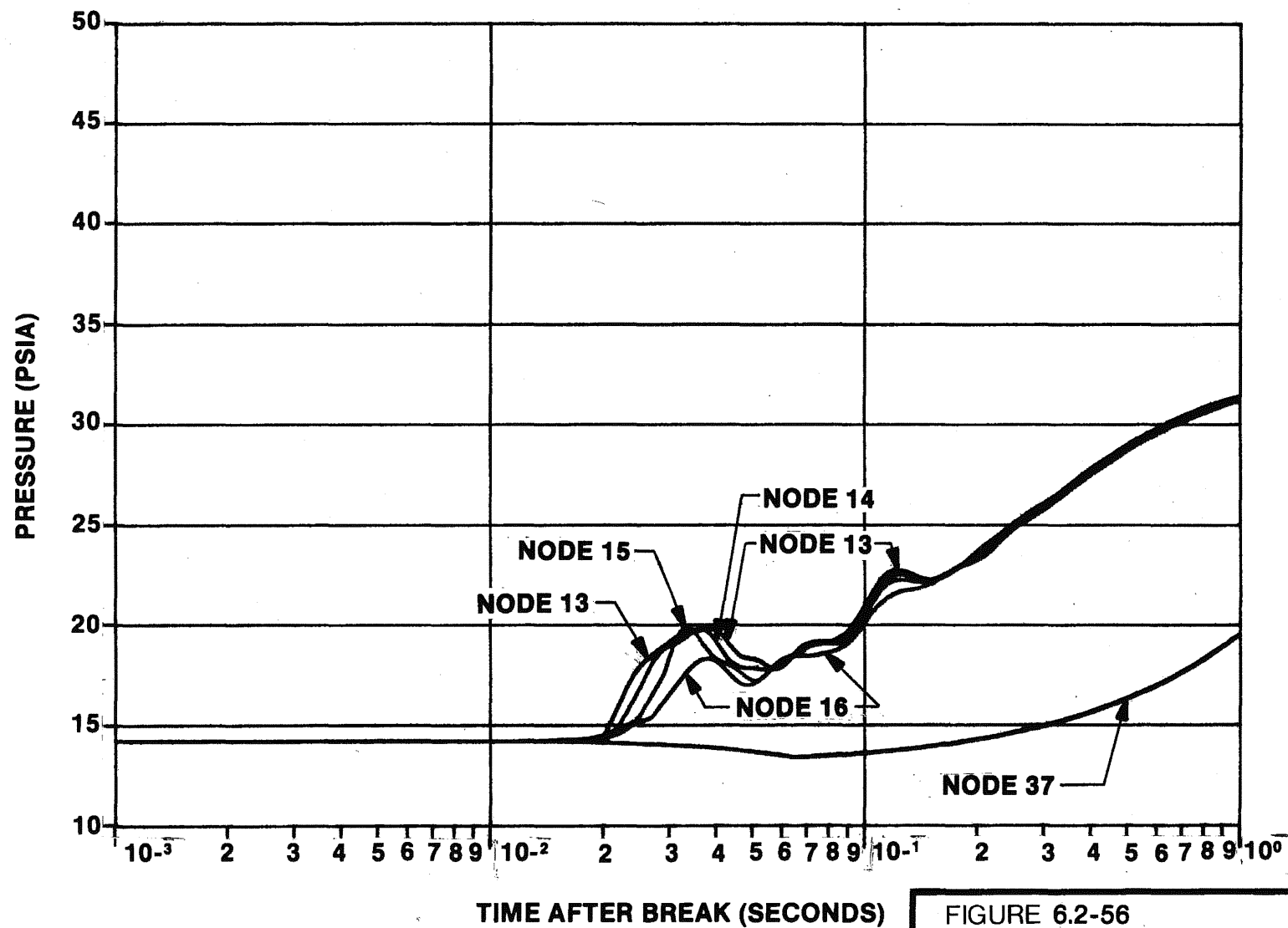


FIGURE 6.2-56

NODAL PRESSURES
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS
SHEET 5 OF 10

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

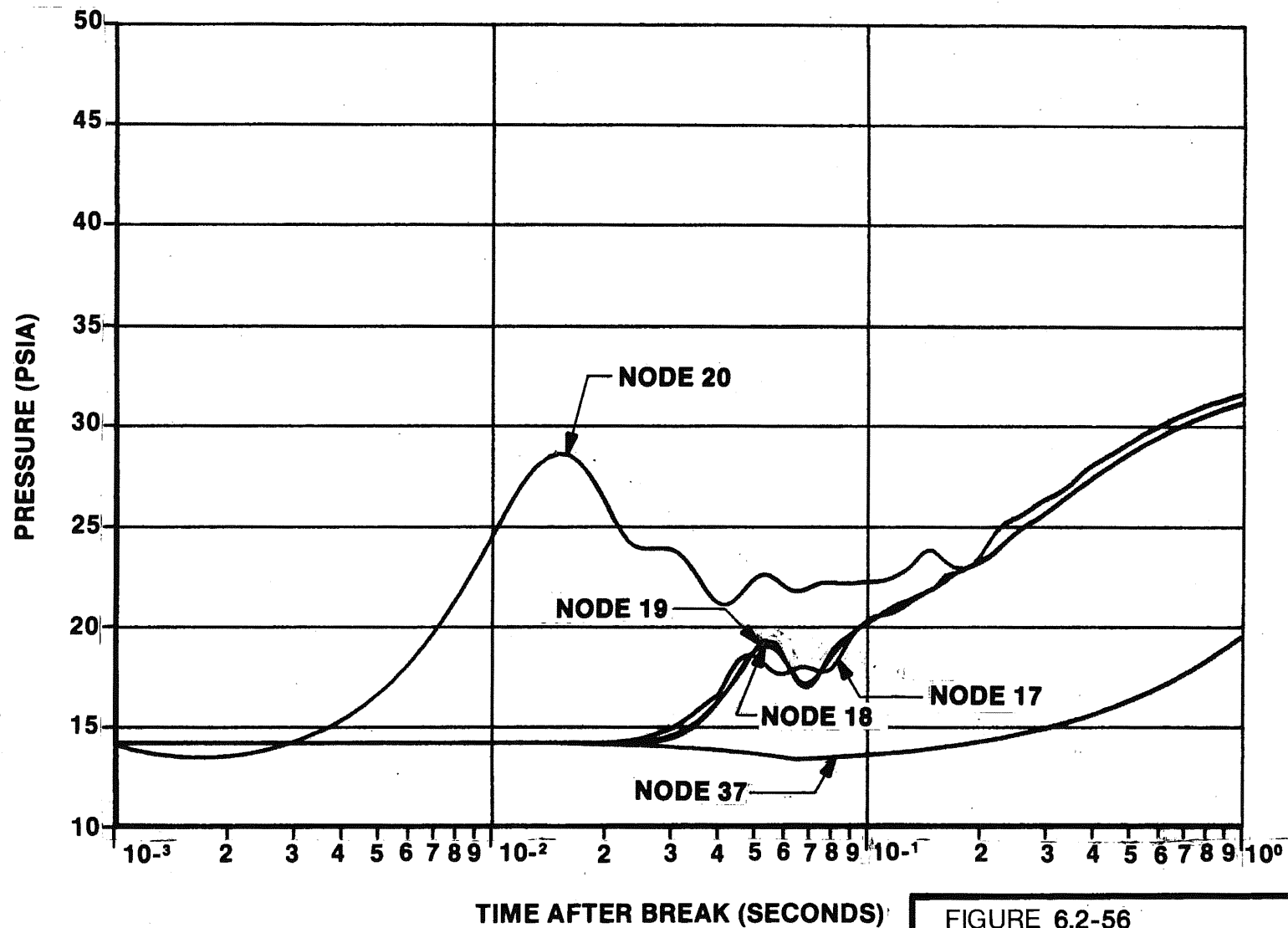


FIGURE 6.2-56

NODAL PRESSURES
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS
SHEET 6 OF 10

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

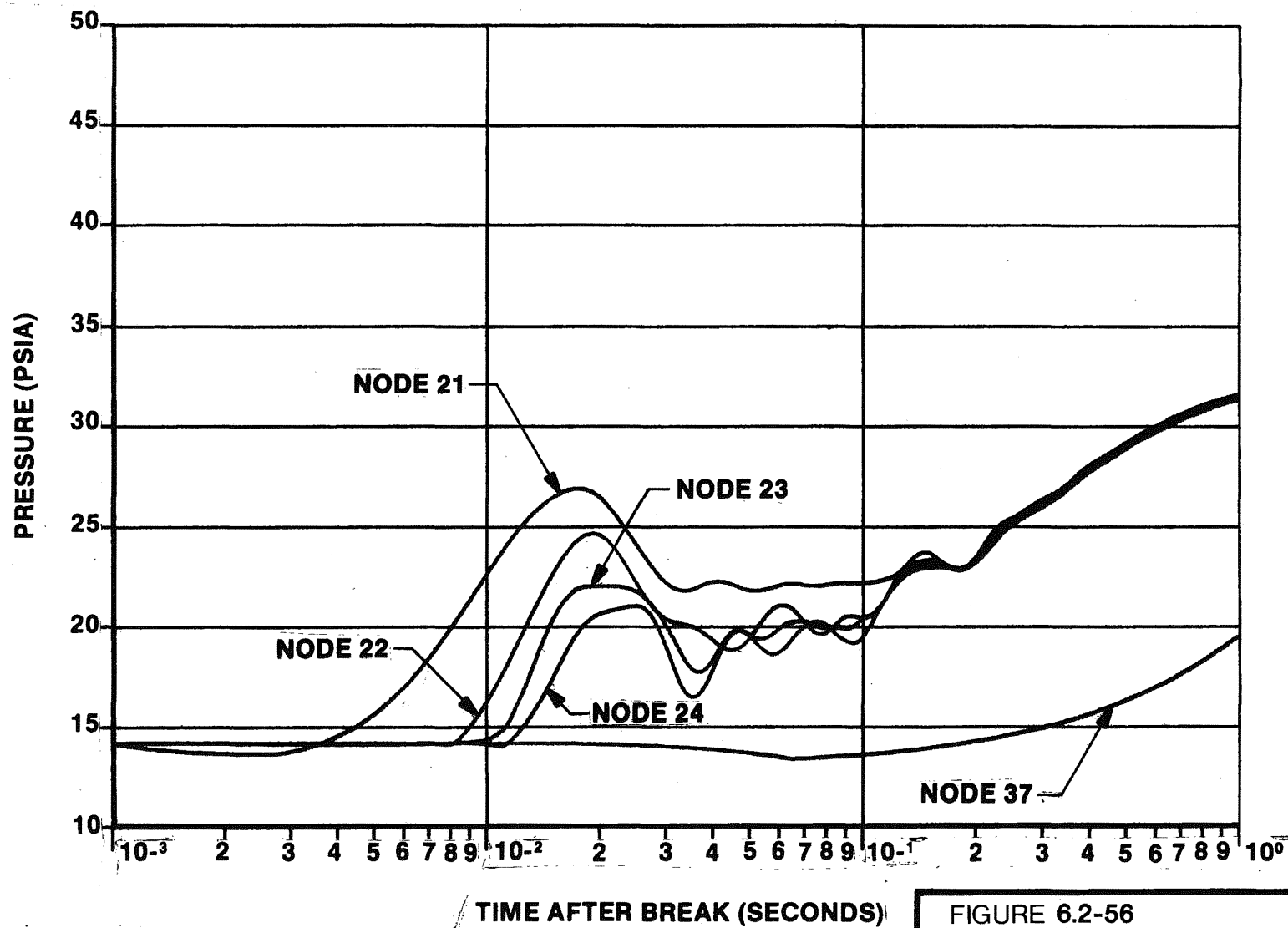


FIGURE 6.2-56

NODAL PRESSURES
 FEEDWATER LINE BREAK 37-NODE MODEL
 RPV-BSW ANNULUS
 SHEET 7 OF 10

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

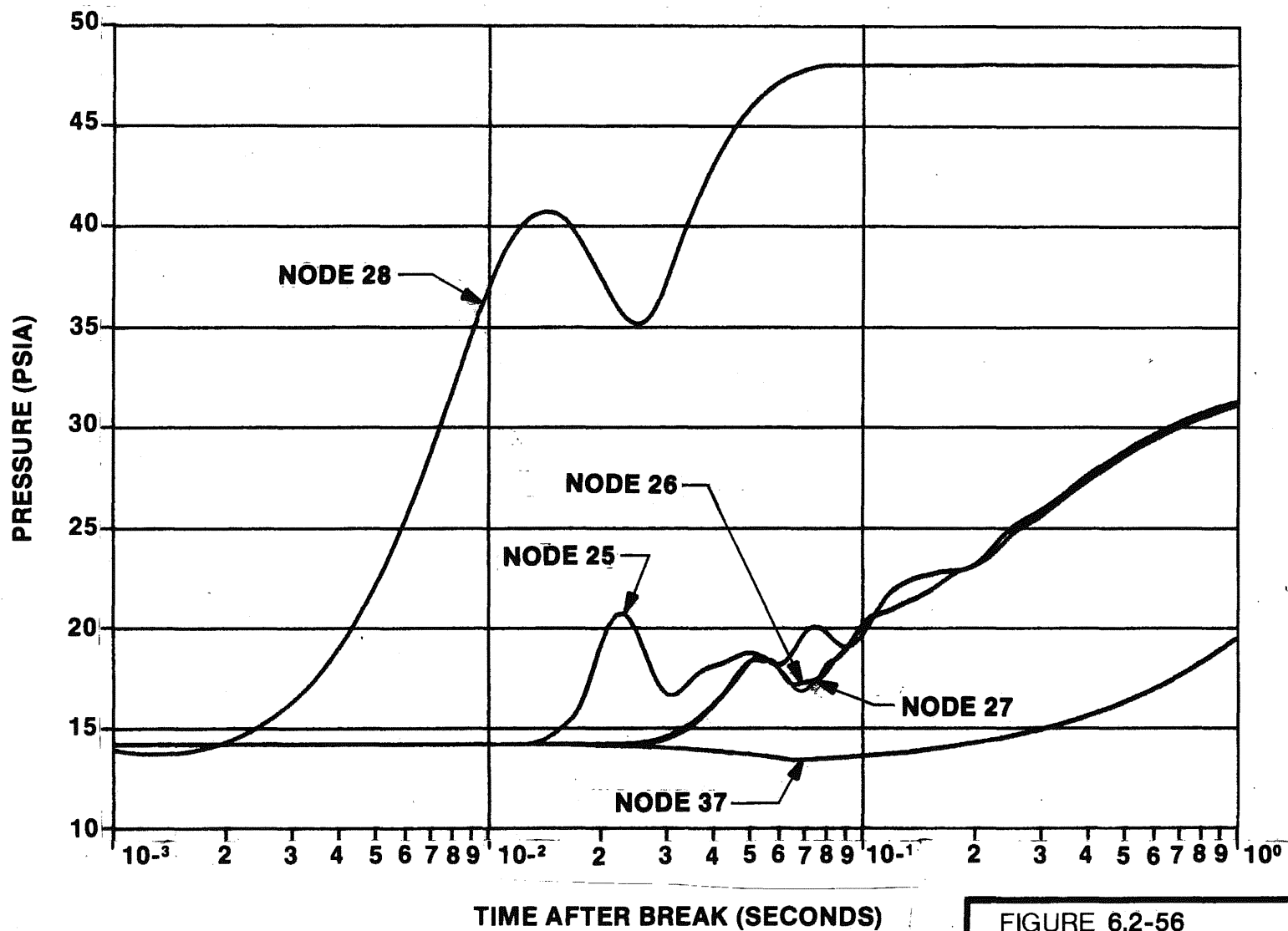
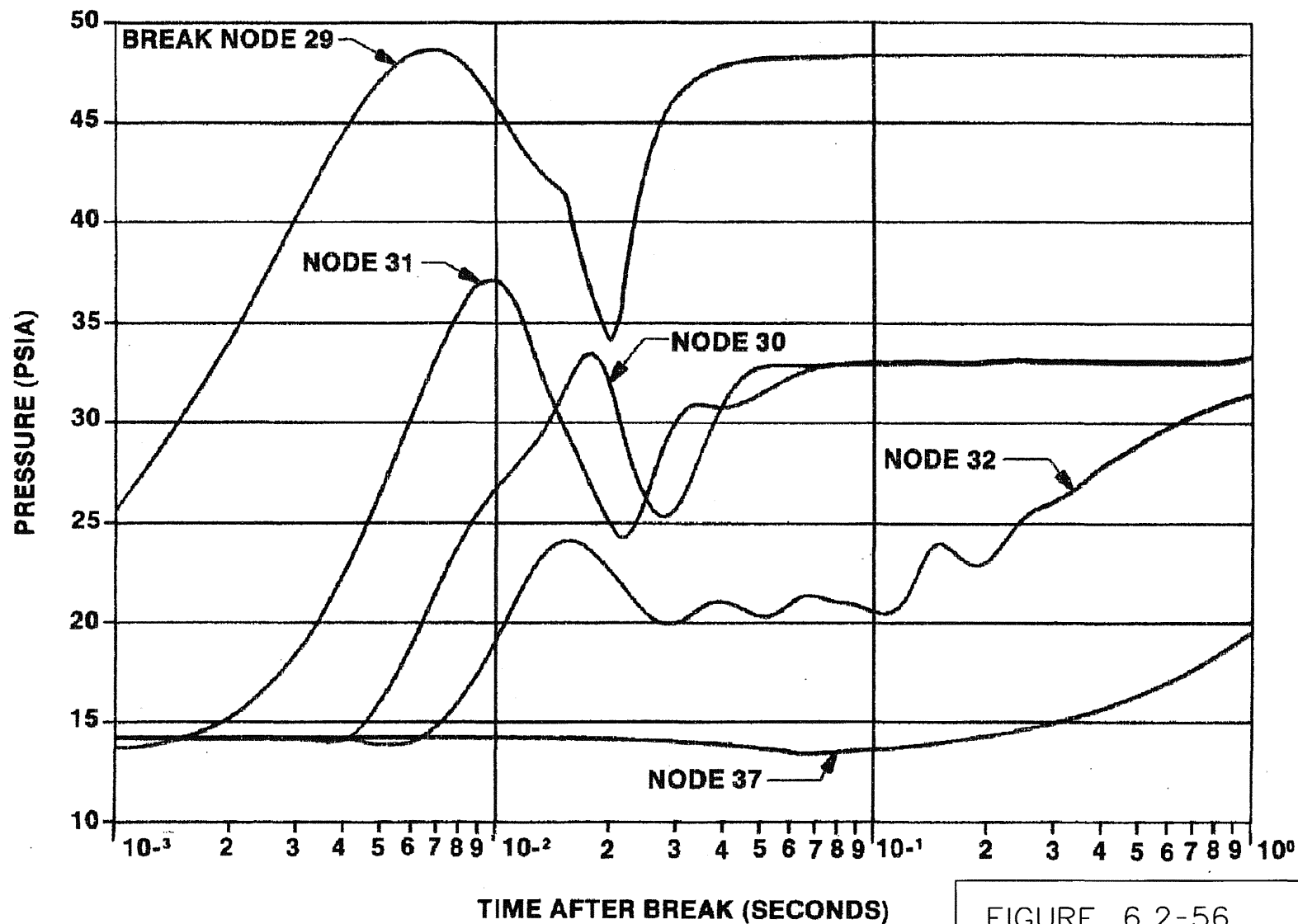


FIGURE 6.2-56

NODAL PRESSURES
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS
SHEET 8 OF 10

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



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DO NOT MAKE ANY CHANGES MANUALLY.

FIGURE 6.2-56

NODAL PRESSURES
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS
SHEET 9 OF 10

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.

UPDATED SAFETY ANALYSIS REPORT

SOURCE: CALC ES-157

USAR REVISION 15

OCTOBER 2002

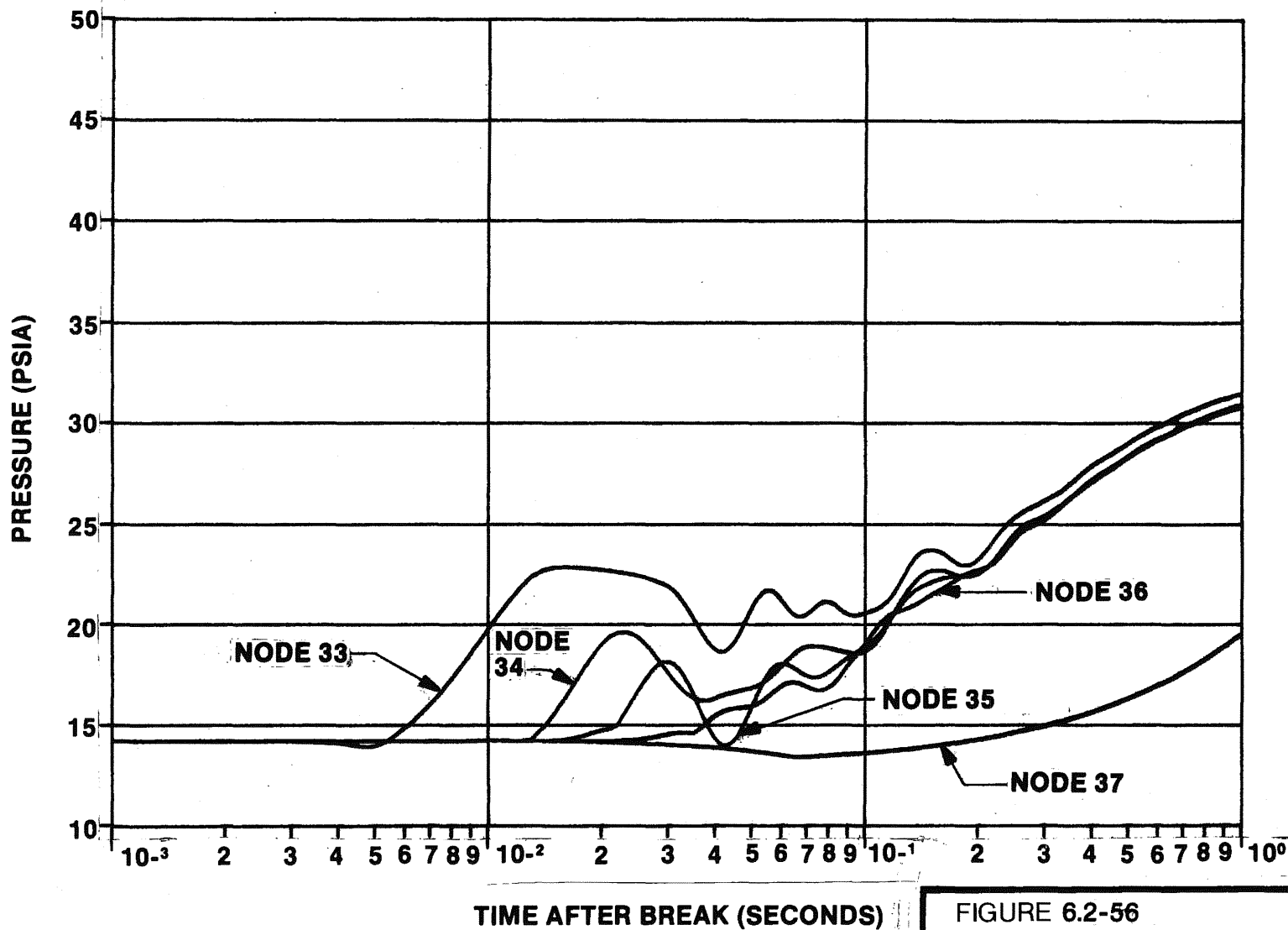
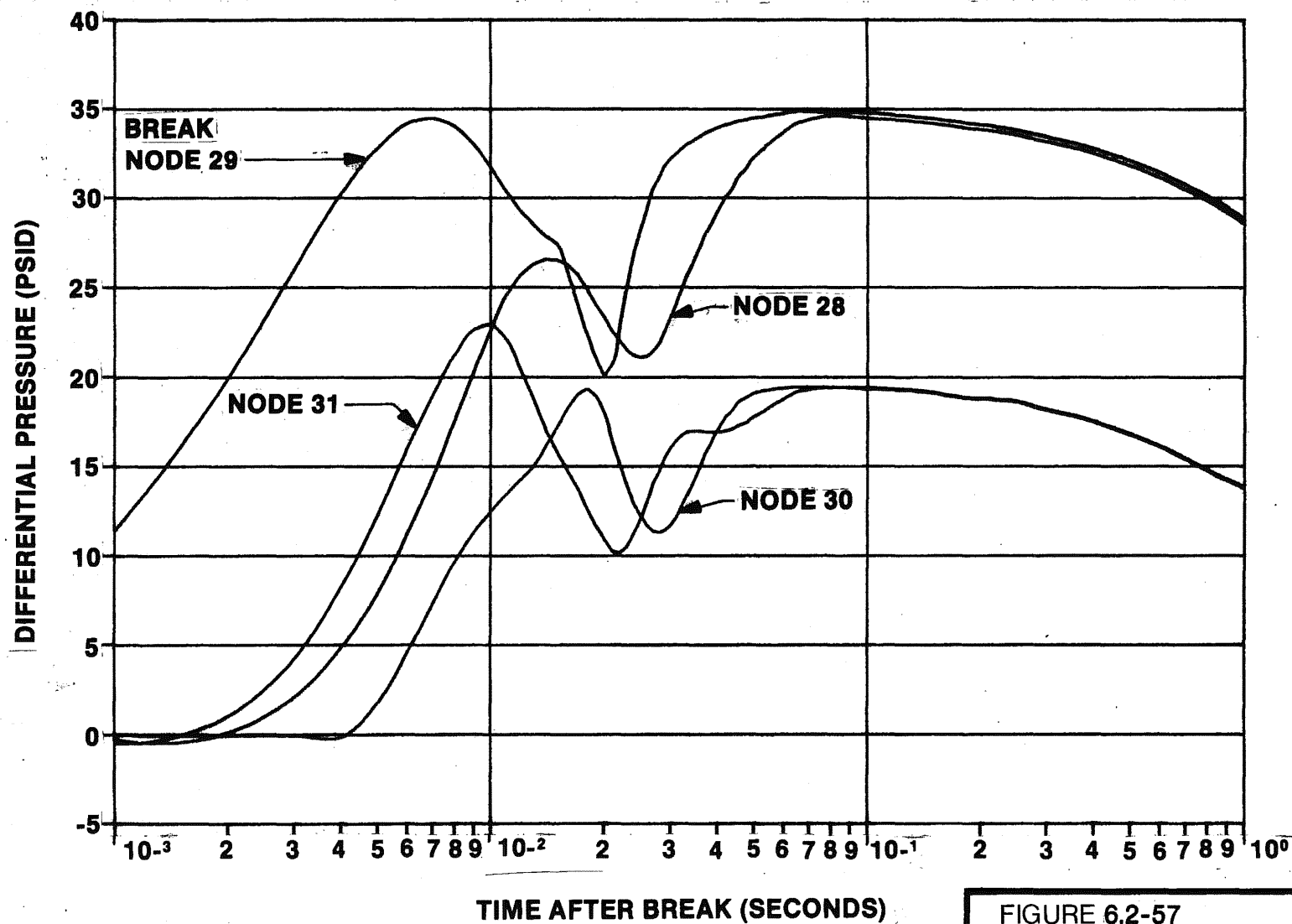


FIGURE 6.2-56

NODAL PRESSURES
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS
SHEET 10 OF 10

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



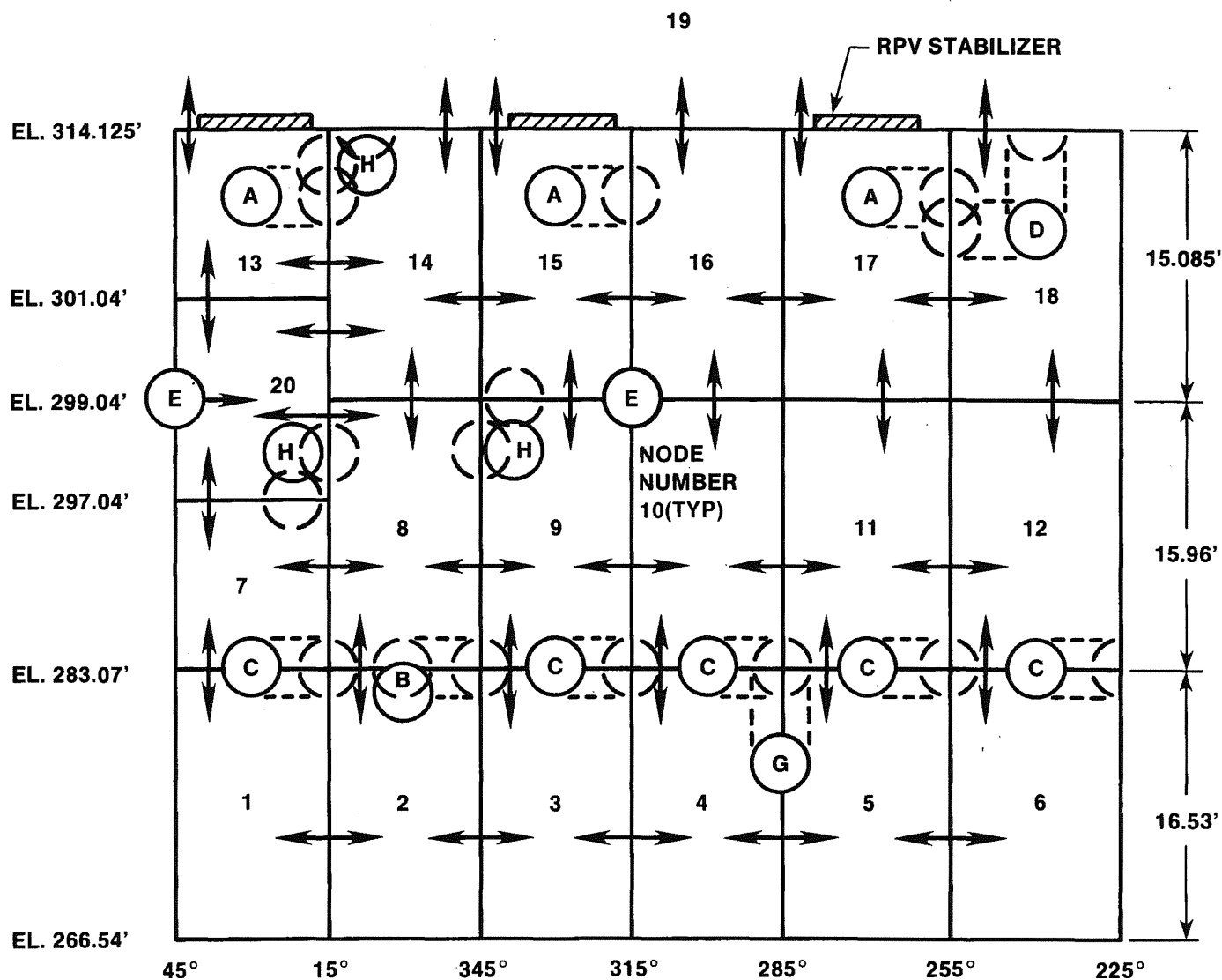
NOTE:

1. DIFFERENTIALS ARE RELATIVE TO NODE 37


FIGURE 6.2-57

NODAL PRESSURE DIFFERENTIALS
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



NOTES:

1.  INDICATES THE ASSUMED LOCATION OF THE PIPE NOZZLE.
2. THE LPCI BREAK IS ASSUMED TO OCCUR IN NODE 20.

PIPE DESIGNATION

- A: FEEDWATER INLET (12")
 B: RECIRCULATION SUCTION (24")
 C: RECIRCULATION INLET (12")
 D: LPCS (10")
 E: RHR/LPCI MODE (12")
 F: CRD HYDRAULIC SYSTEM RETURN (3")
 G: JET PUMP INSTRUMENTATION (4")
 H: WATER LEVEL INSTRUMENTATION (2")

FIGURE 6.2-58

NODALIZATION DIAGRAM LOW PRESSURE
 COOLANT INJECTION LINE BREAK
 RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

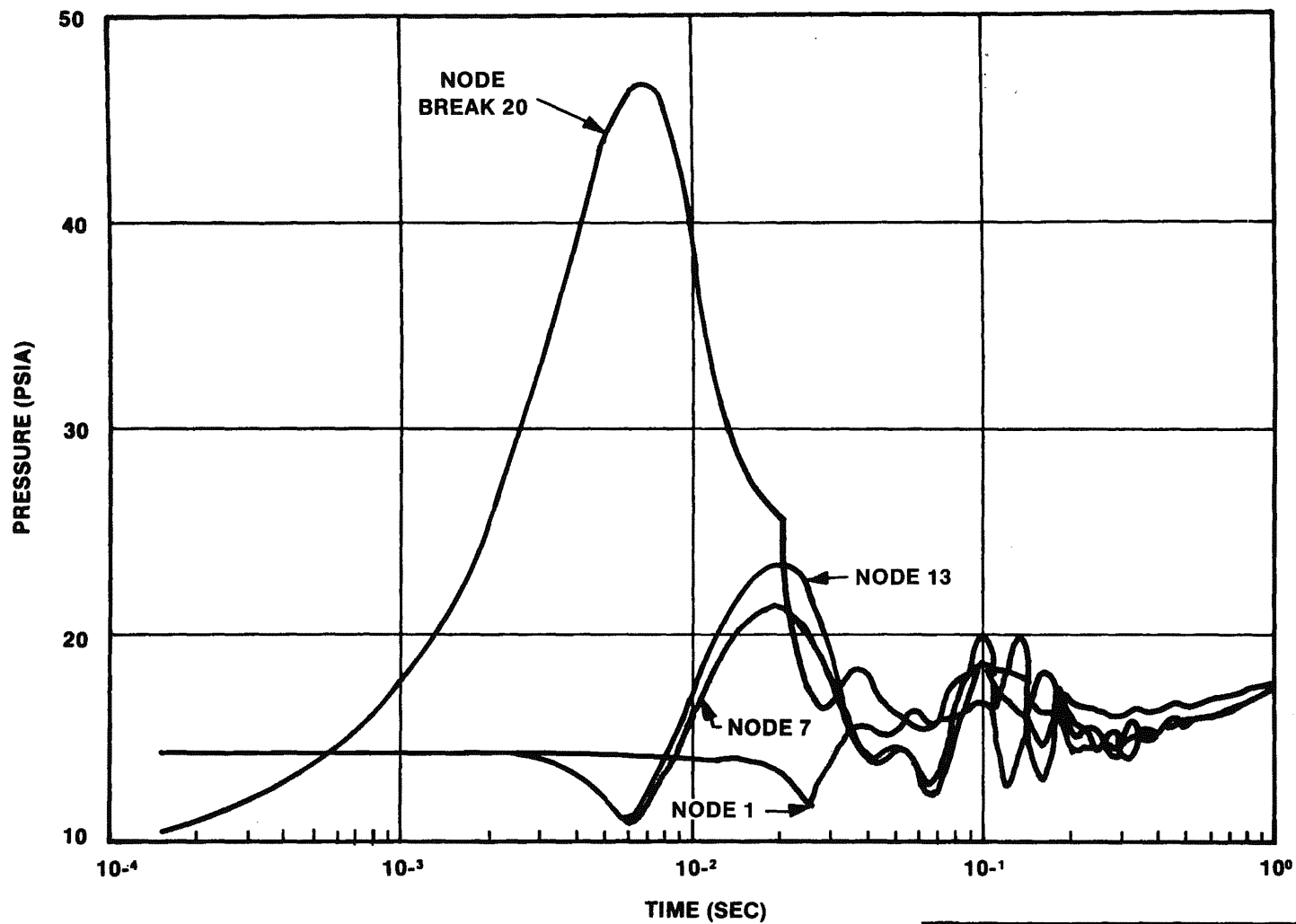


FIGURE 6.2-59

NODAL PRESSURES LOW PRESSURE
COOLANT INJECTION LINE BREAK
RPV-BSW ANNULUS
SHEET 1 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

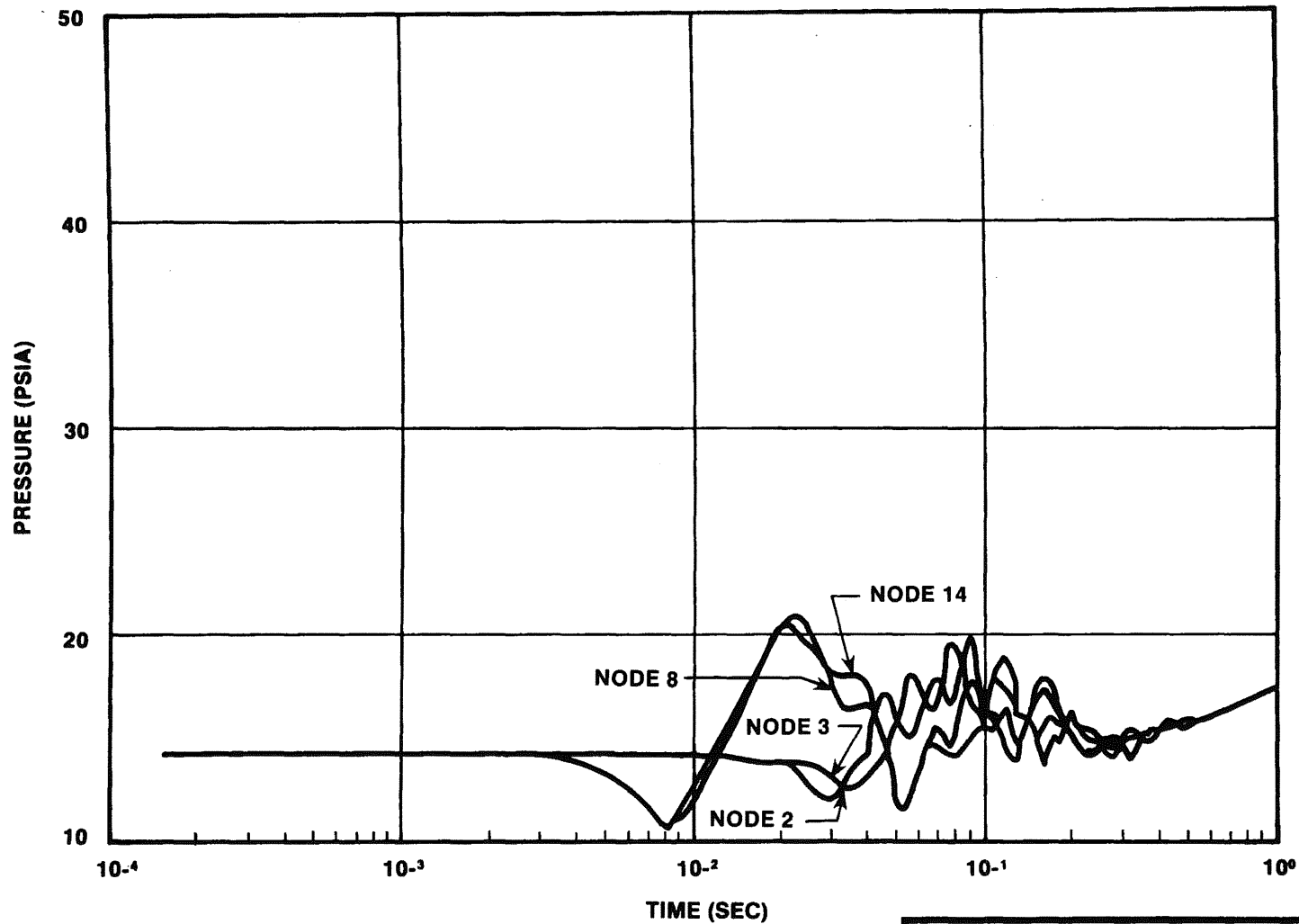


FIGURE 6.2-59

NODAL PRESSURES LOW PRESSURE
COOLANT INJECTION LINE BREAK
RPV-BSW ANNULUS
SHEET 2 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

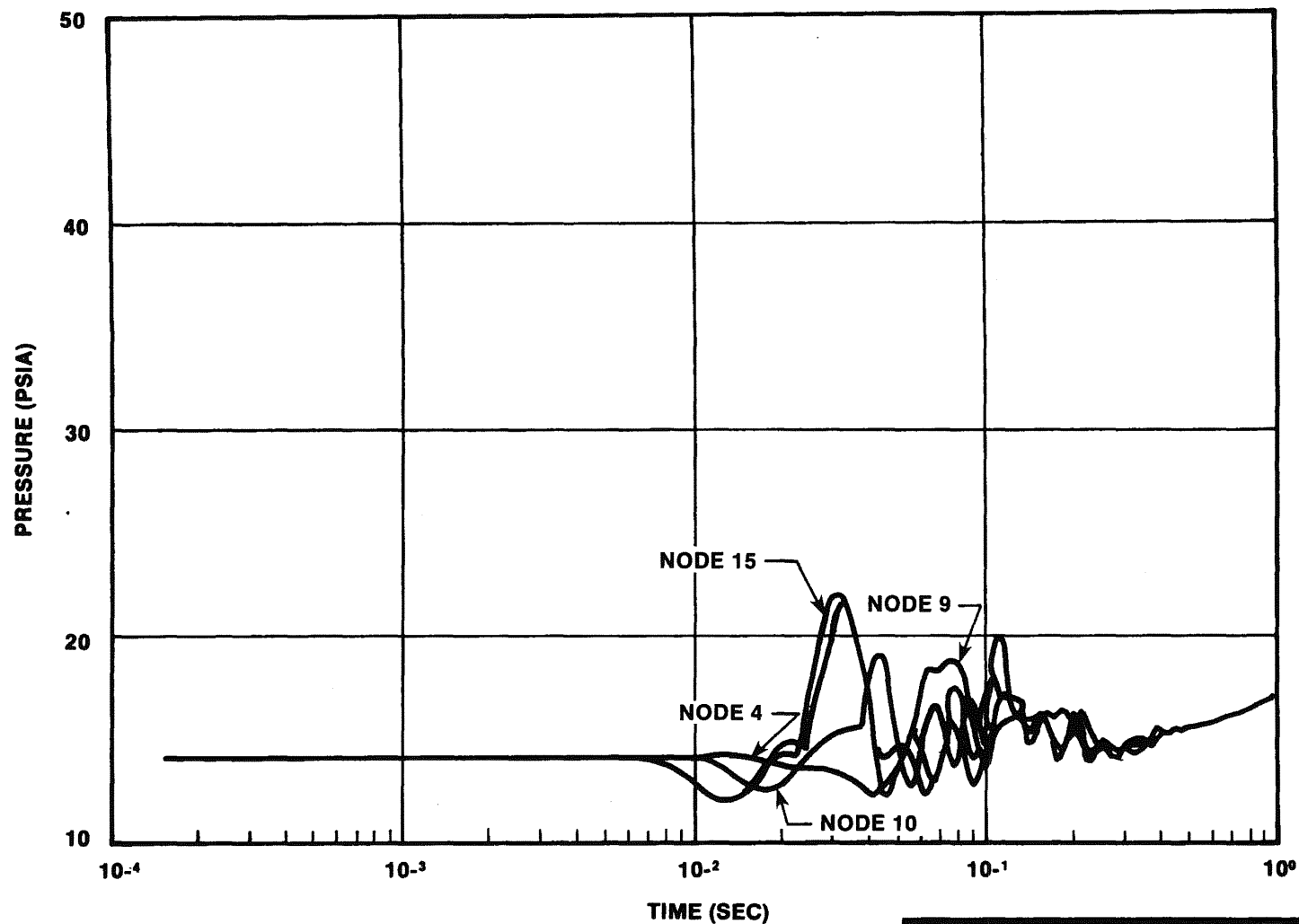


FIGURE 6.2-59

NODAL PRESSURES LOW PRESSURE
COOLANT INJECTION LINE BREAK
RPV-BSW ANNULUS
SHEET 3 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

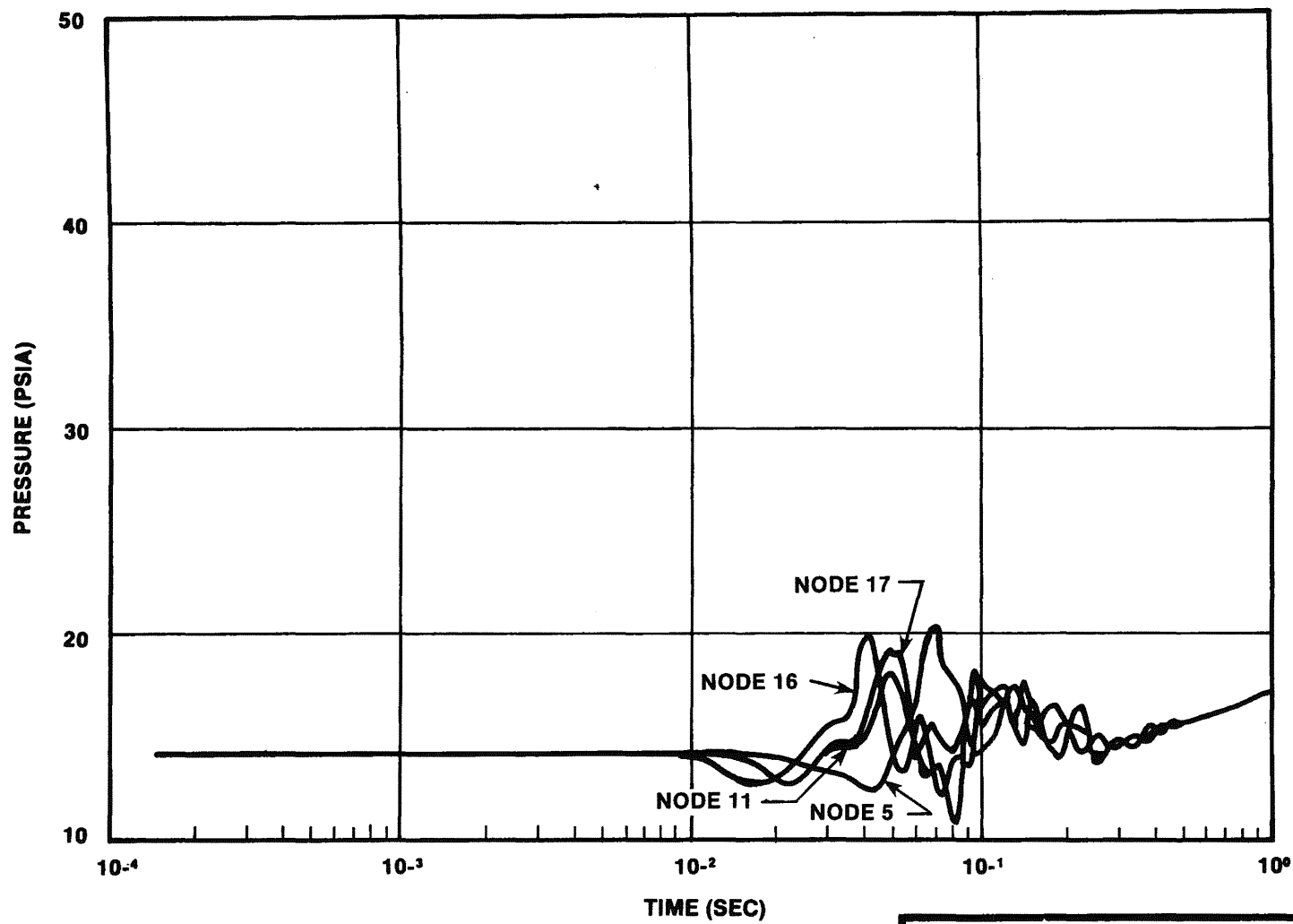


FIGURE 6.2-59

NODAL PRESSURES LOW PRESSURE
COOLANT INJECTION LINE BREAK
RPV-BSW ANNULUS
SHEET 4 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

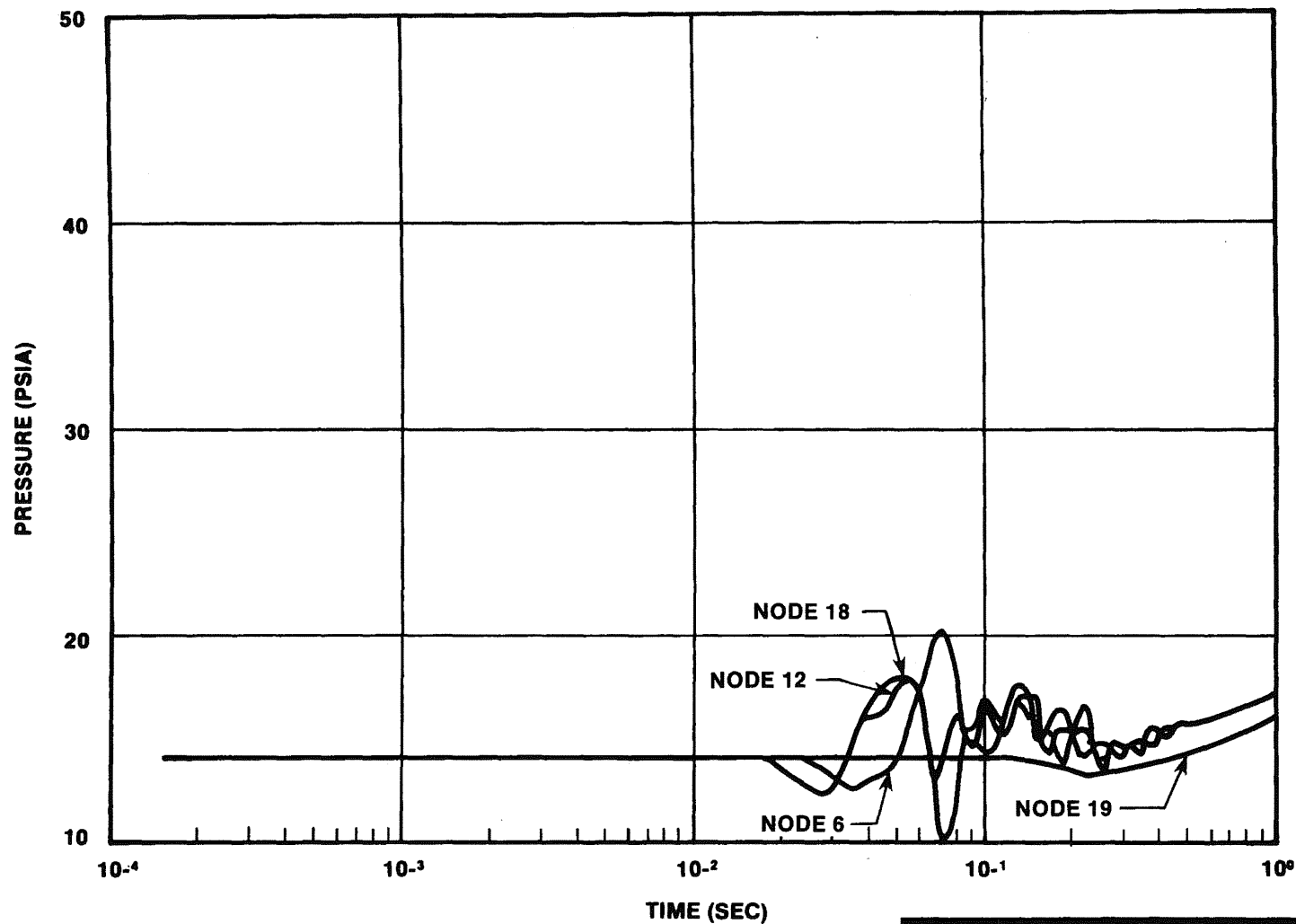
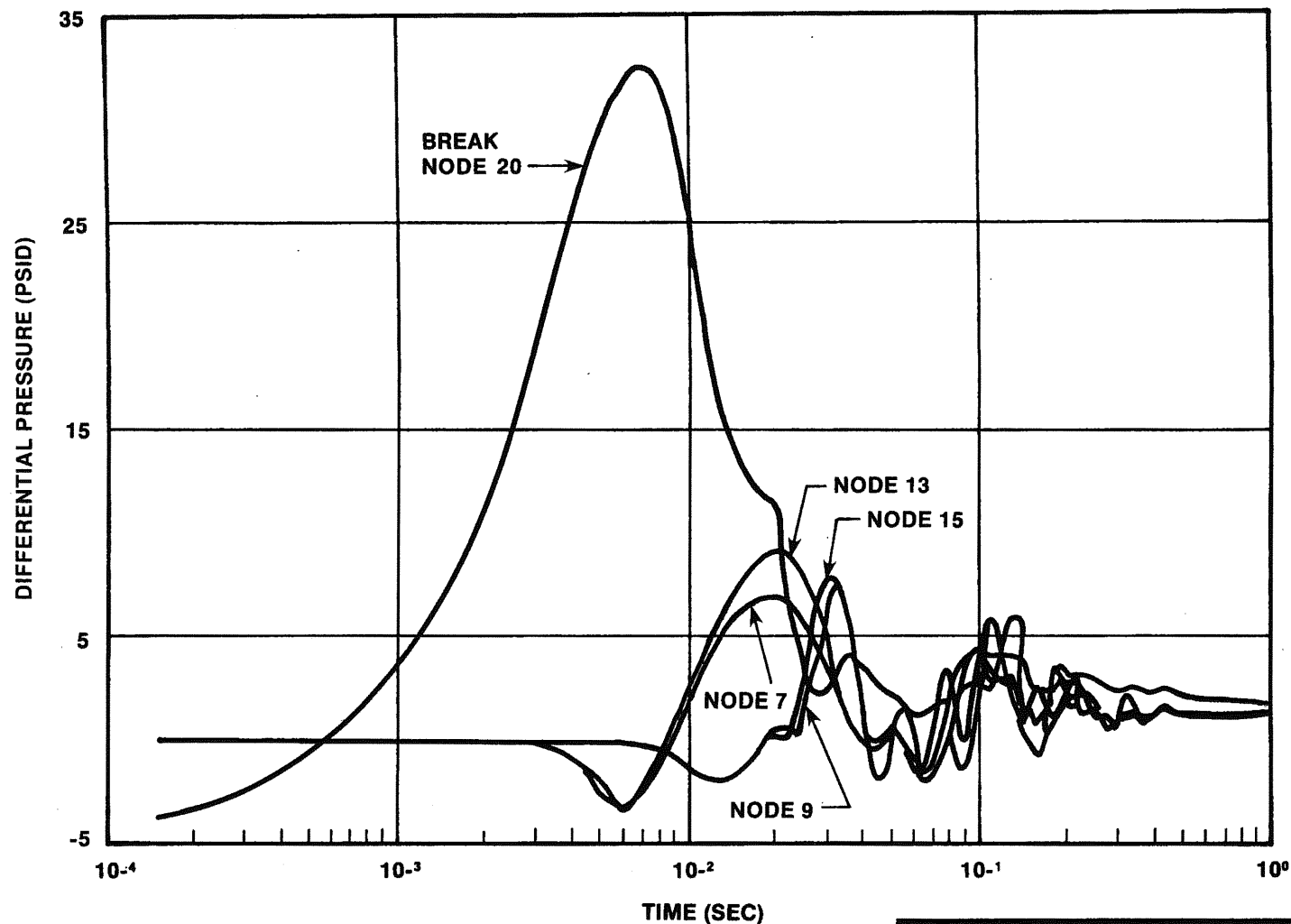


FIGURE 6.2-59

NODAL PRESSURES LOW PRESSURE
COOLANT INJECTION LINE BREAK
RPV-BSW ANNULUS
SHEET 5 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

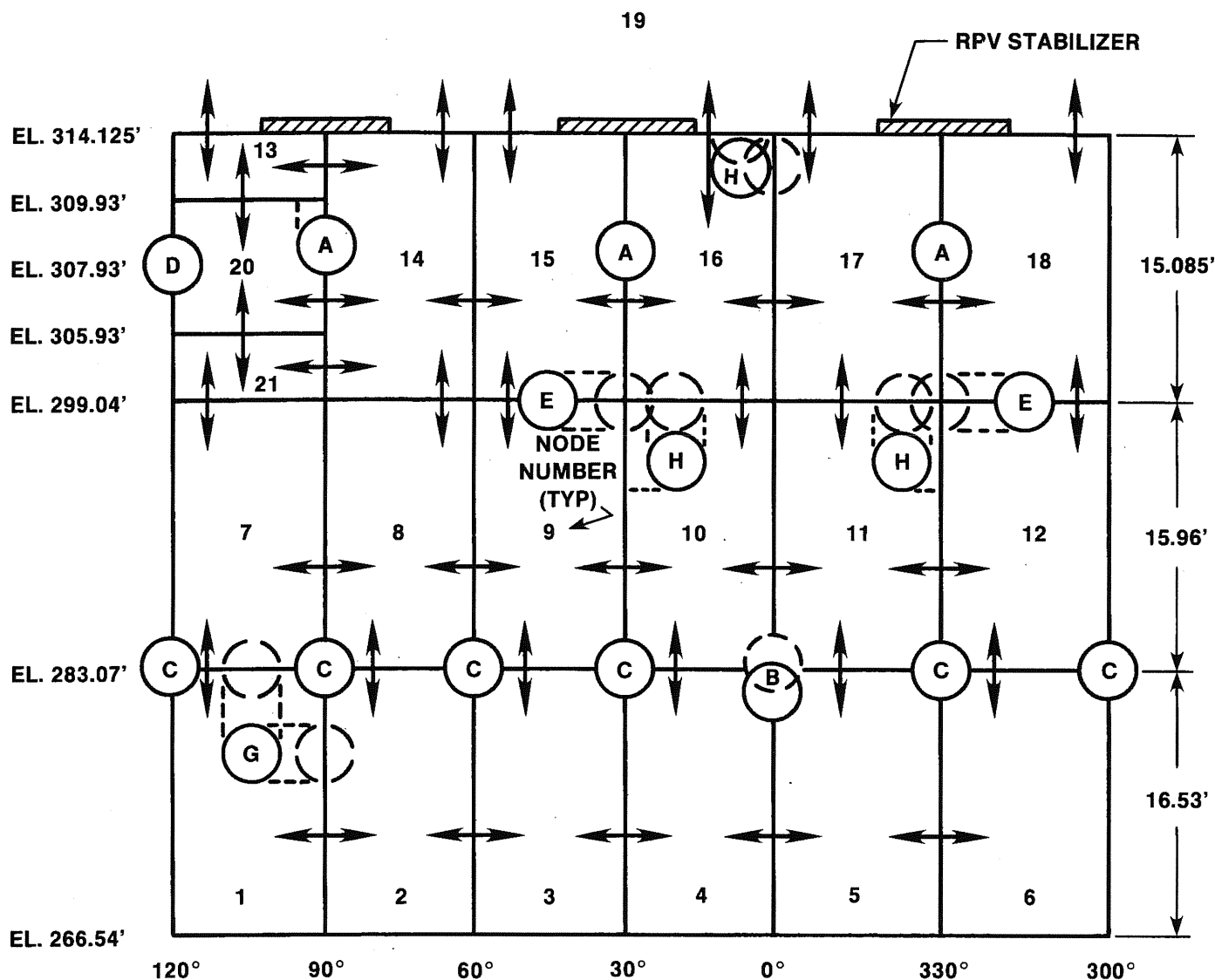


NOTE:
1. DIFFERENTIALS ARE RELATIVE TO NODE 19

FIGURE 6.2-60

**NODAL PRESSURE DIFFERENTIALS
LOW PRESSURE COOLANT INJECTION LINE
BREAK RPV-BSW ANNULUS**

**NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT**



NOTES:

1. INDICATES THE ASSUMED LOCATION OF THE PIPE NOZZLE.
2. THE LPCS BREAK IS ASSUMED TO OCCUR IN NODE 20.

PIPE DESIGNATION

- A: FEEDWATER INLET (12")
- B: RECIRCULATION SUCTION (24")
- C: RECIRCULATION INLET (12")
- D: LPCS (10")
- E: RHR/LPCI MODE (12")
- F: CRD HYDRAULIC SYSTEM RETURN (3")
- G: JET PUMP INSTRUMENTATION (4")
- H: WATER LEVEL INSTRUMENTATION (2")

FIGURE 6.2-61

NODALIZATION DIAGRAM LOW PRESSURE
CORE SPRAY LINE BREAK
RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

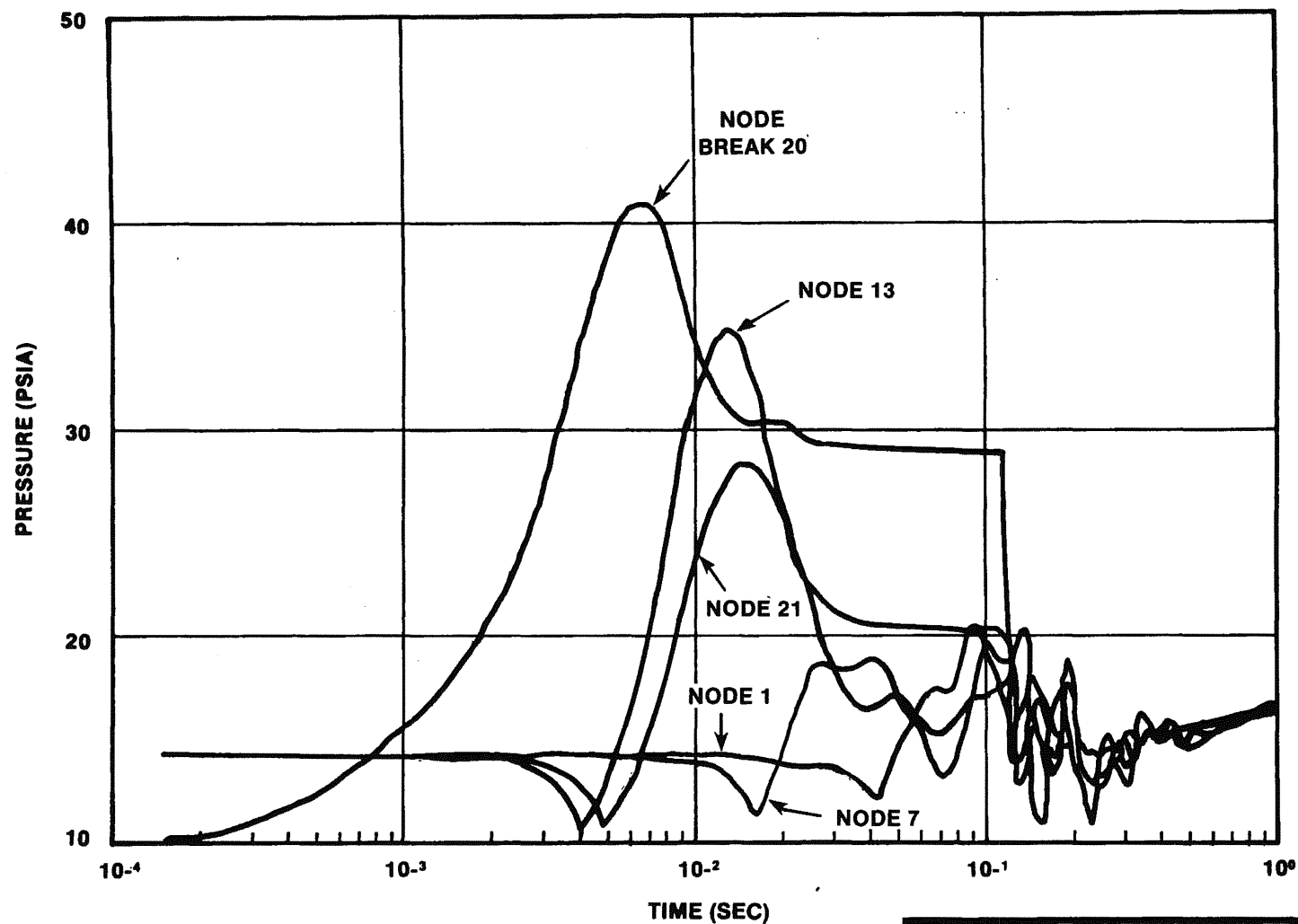


FIGURE 6.2-62

NODAL PRESSURES LOW PRESSURE
CORE SPRAY LINE BREAK
RPV-BSW ANNULUS
SHEET 1 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

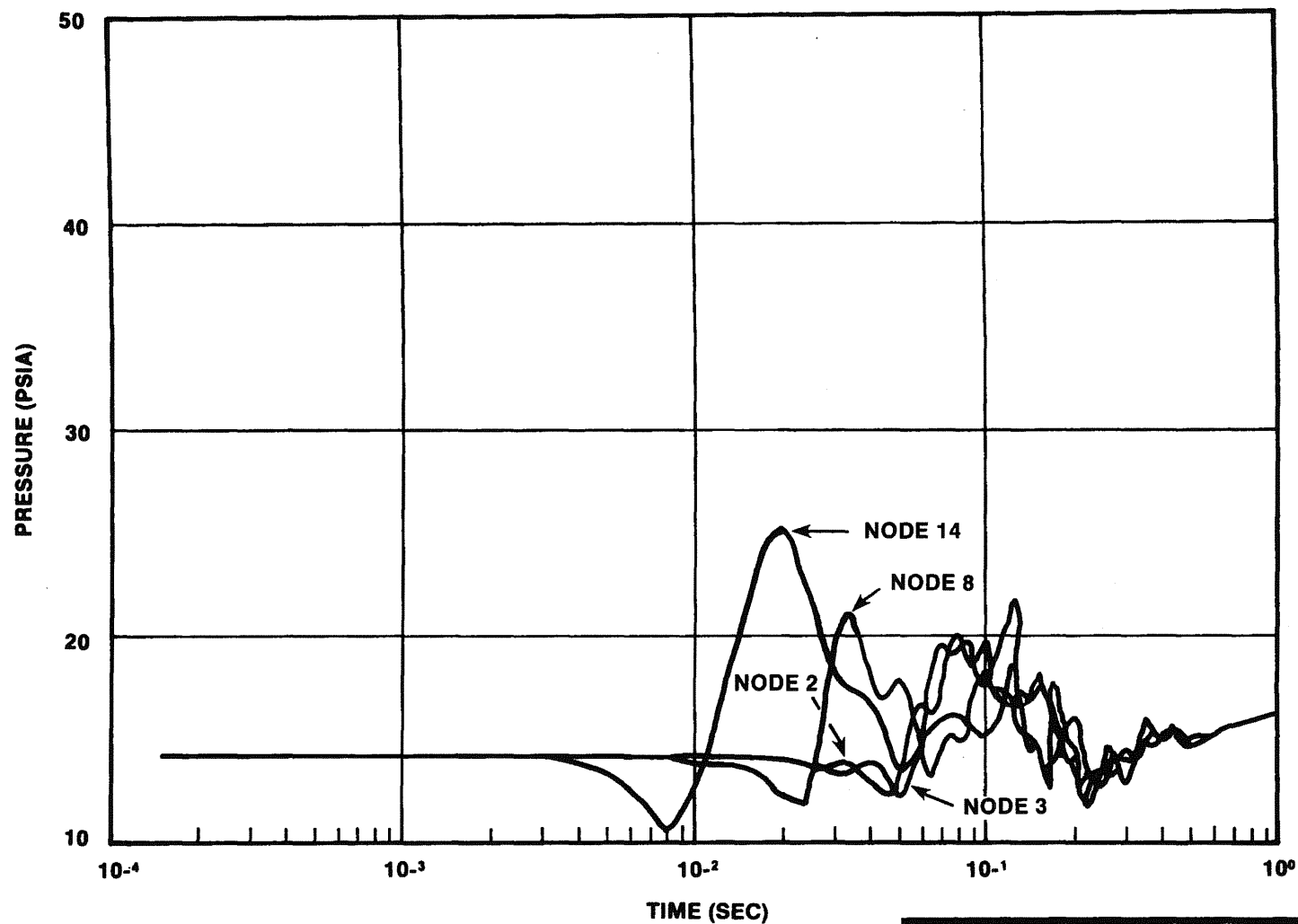


FIGURE 6.2-62

NODAL PRESSURES LOW PRESSURE
CORE SPRAY LINE BREAK
RPV-BSW ANNULUS
SHEET 2 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

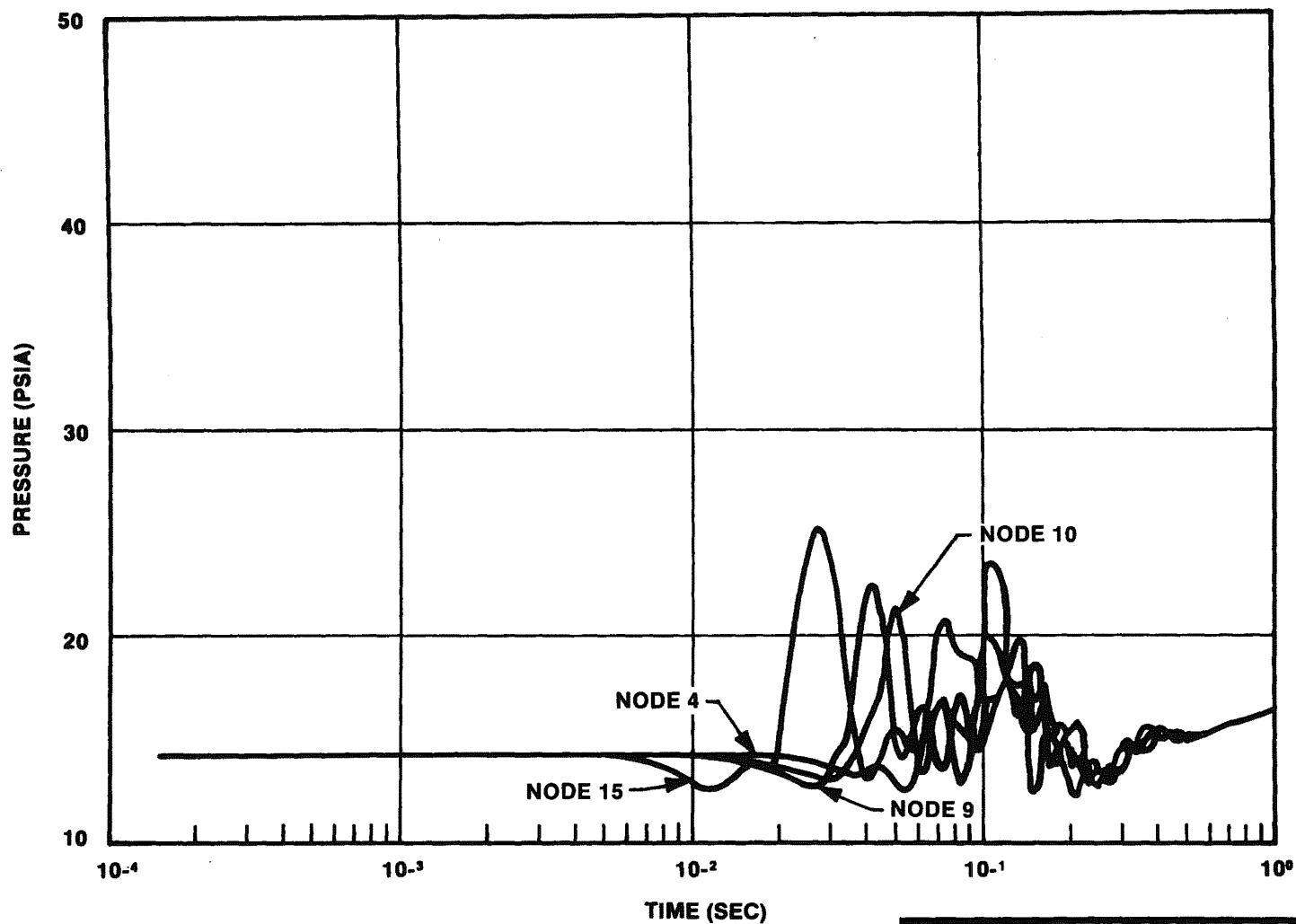


FIGURE 6.2-62

NODAL PRESSURES LOW PRESSURE
CORE SPRAY LINE BREAK
RPV-BSW ANNULUS
SHEET 3 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

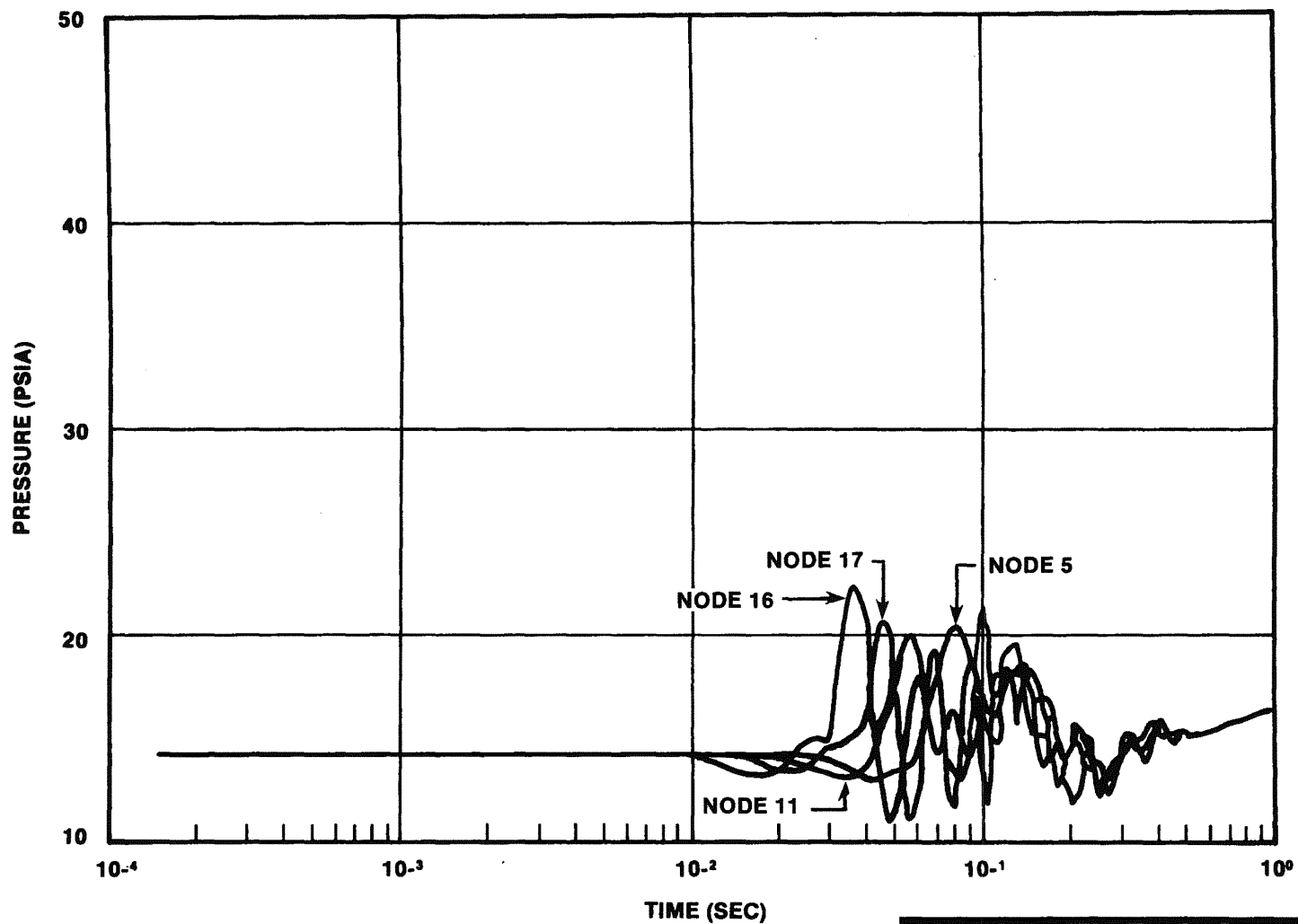


FIGURE 6.2-62

NODAL PRESSURES LOW PRESSURE
CORE SPRAY LINE BREAK
RPV-BSW ANNULUS
SHEET 4 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

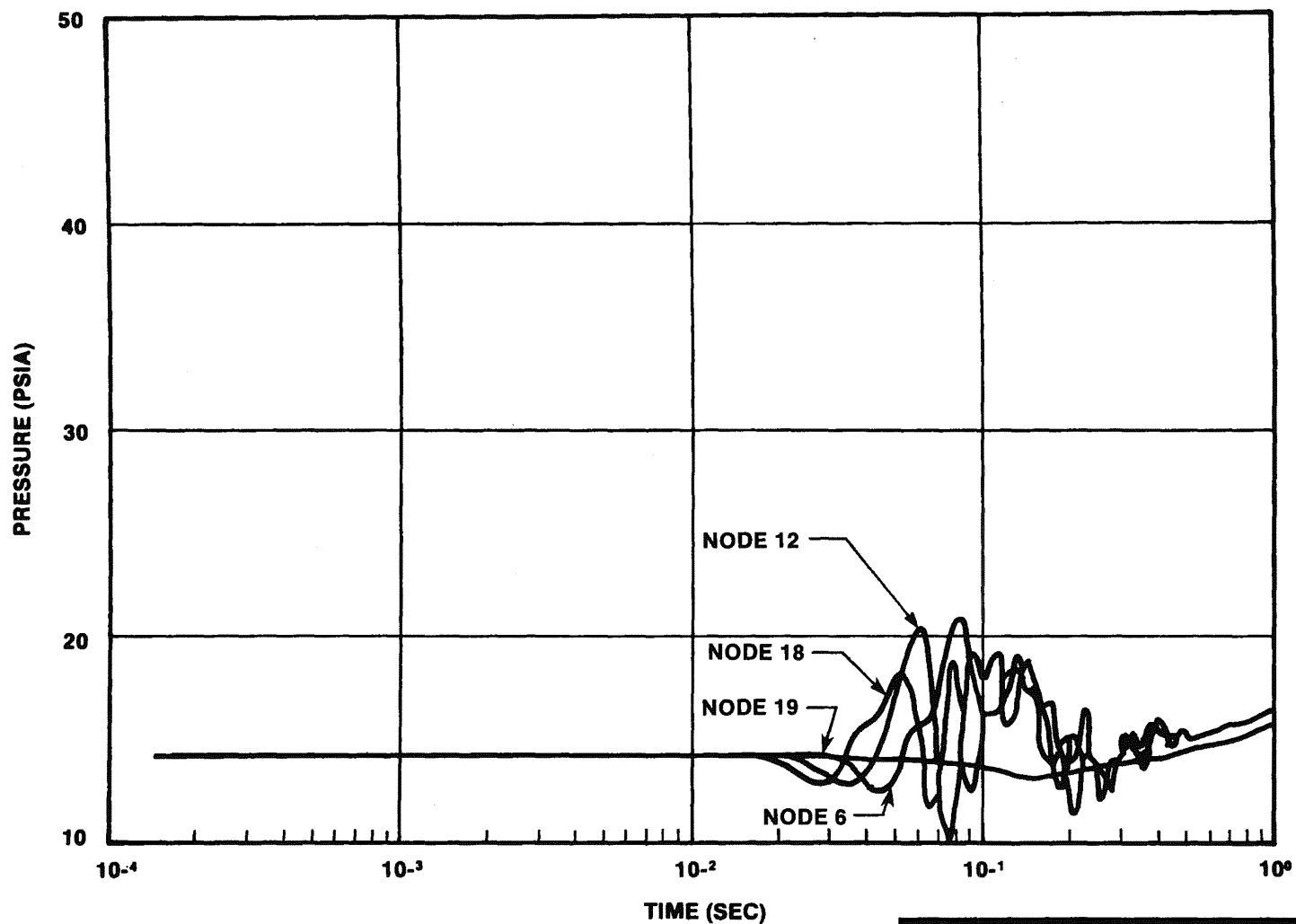
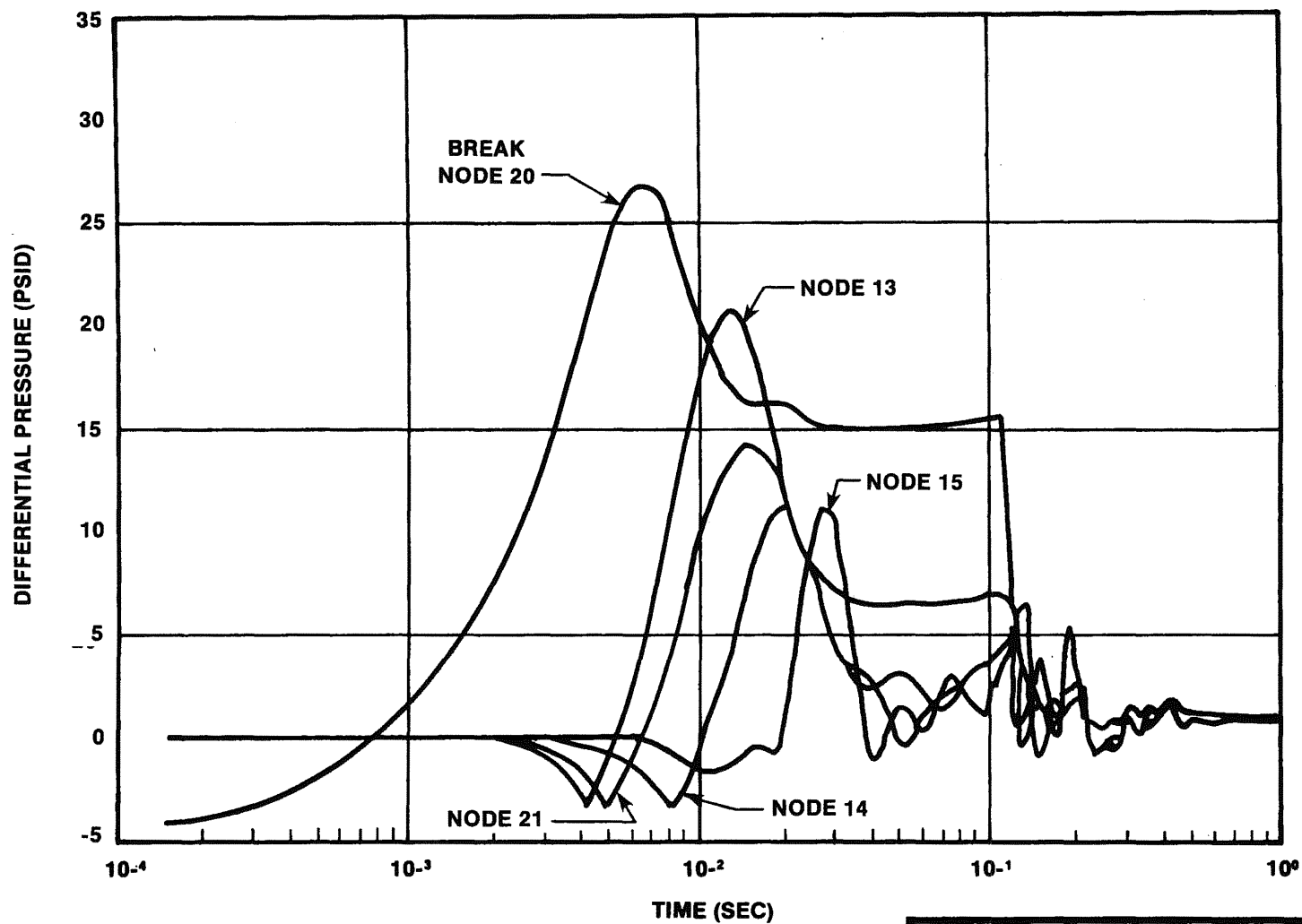


FIGURE 6.2-62

NODAL PRESSURES LOW PRESSURE
CORE SPRAY LINE BREAK
RPV-BSW ANNULUS
SHEET 5 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



NOTE:
1. DIFFERENTIALS ARE RELATIVE TO NODE 19

FIGURE 6.2-62A

**NODAL PRESSURE DIFFERENTIALS
LOW PRESSURE CORE SPRAY LINE BREAK
RPV-BSW ANNULUS**

**NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT**

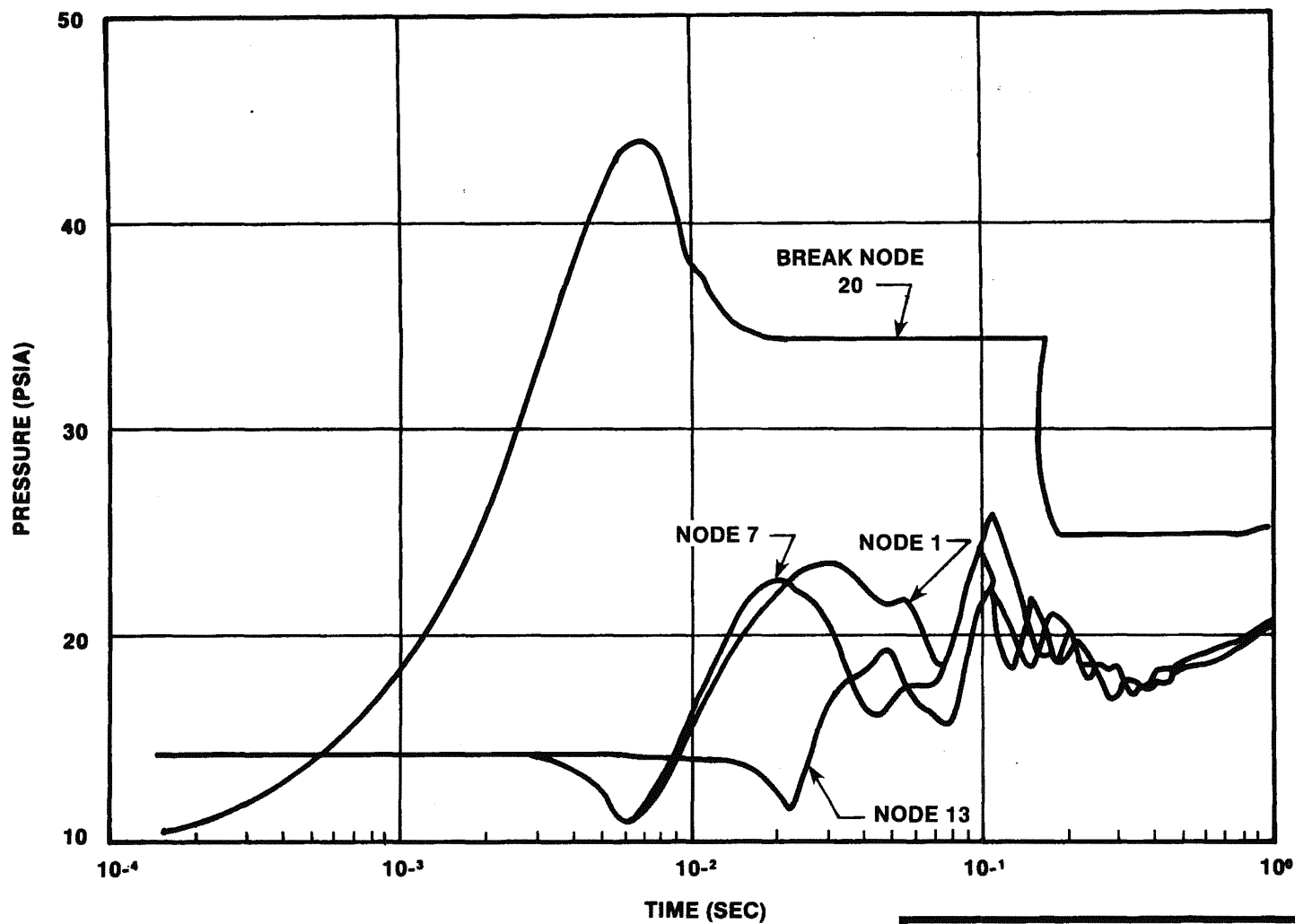


FIGURE 6.2-64

NODAL PRESSURES RECIRCULATION
INLET LINE BREAK RPV-BSW ANNULUS
SHEET 1 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

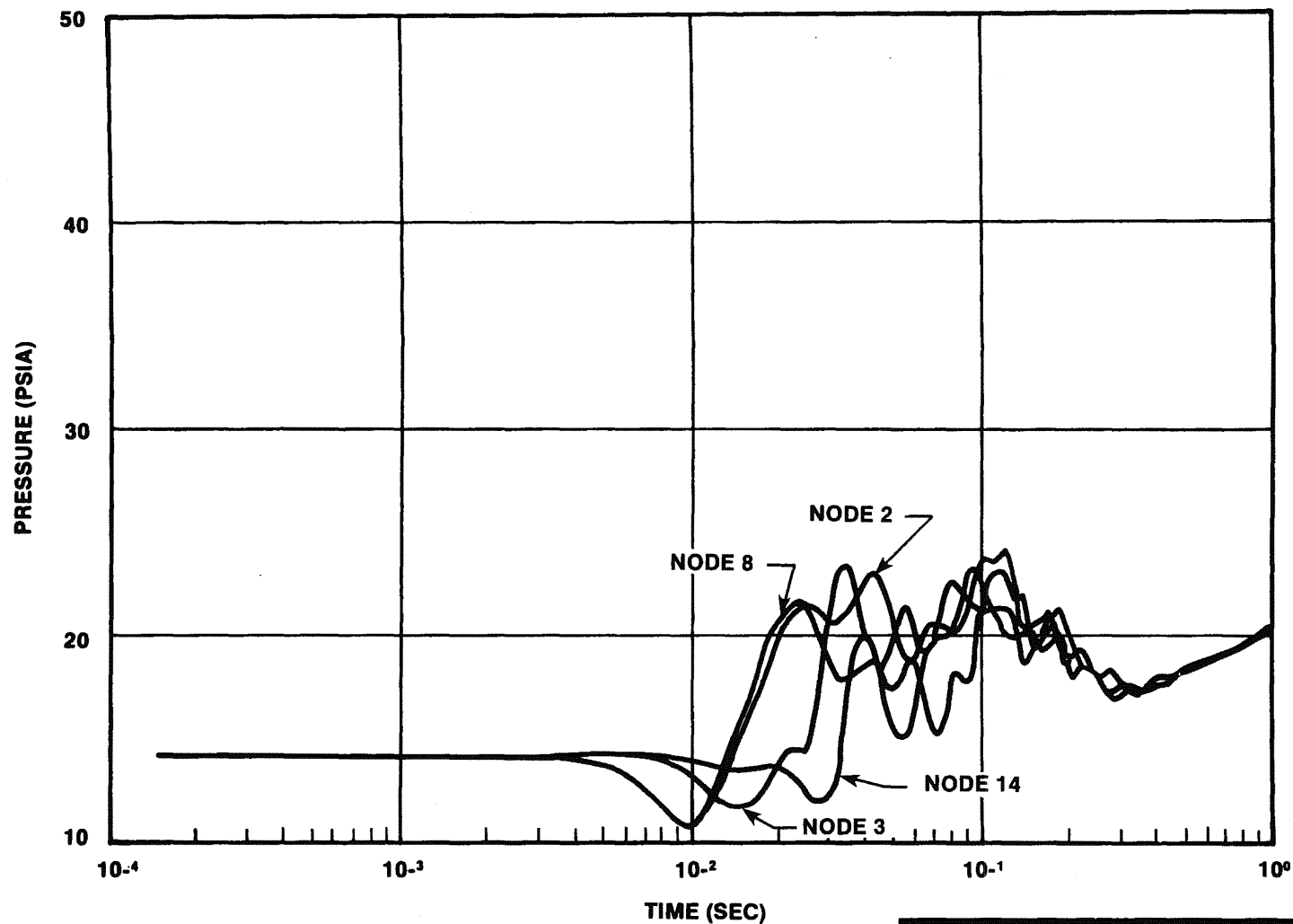


FIGURE 6.2-64

NODAL PRESSURES RECIRCULATION
INLET LINE BREAK RPV-BSW ANNULUS
SHEET 2 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

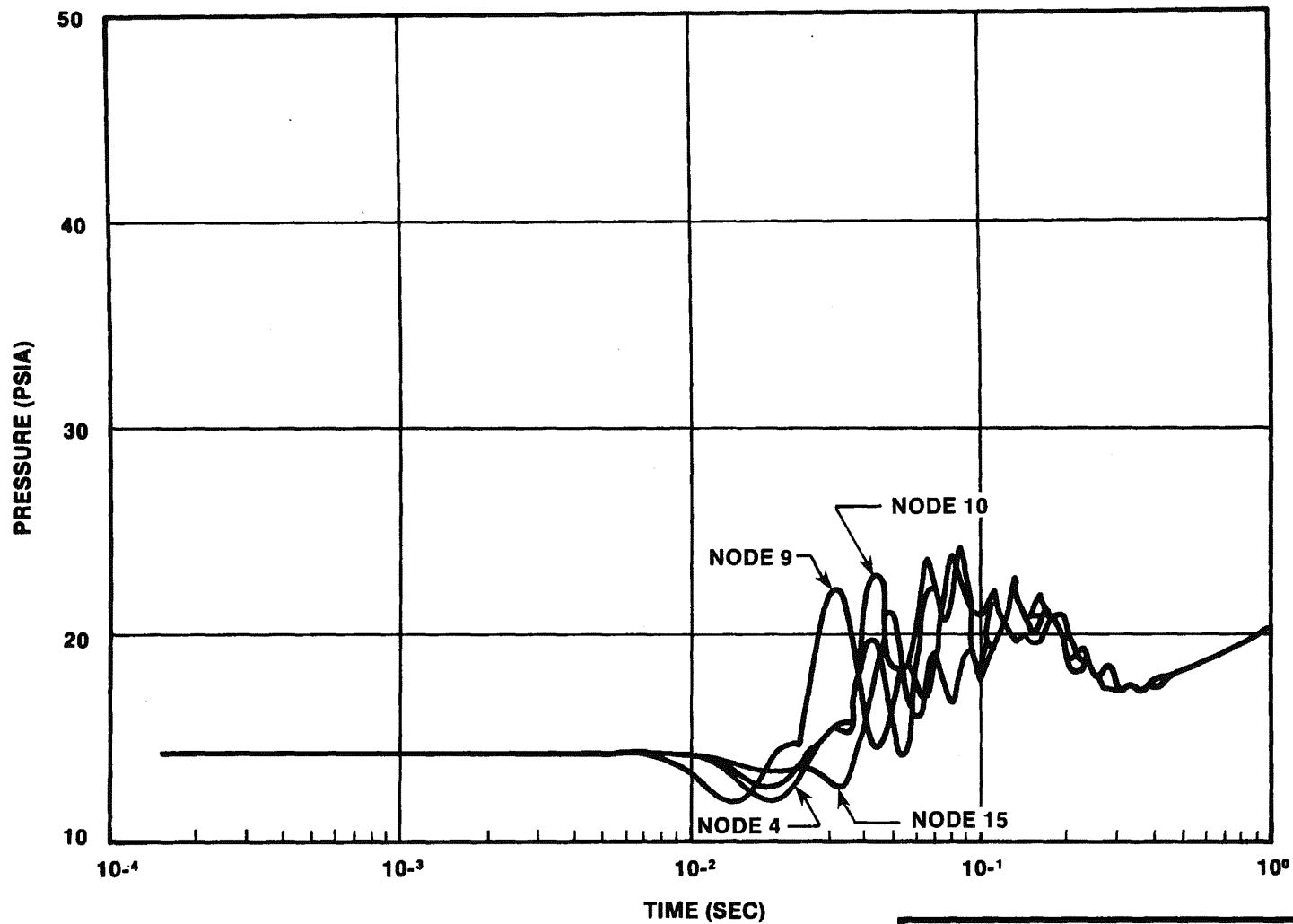


FIGURE 6.2-64

NODAL PRESSURES RECIRCULATION
INLET LINE BREAK RPV-BSW ANNULUS
SHEET 3 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

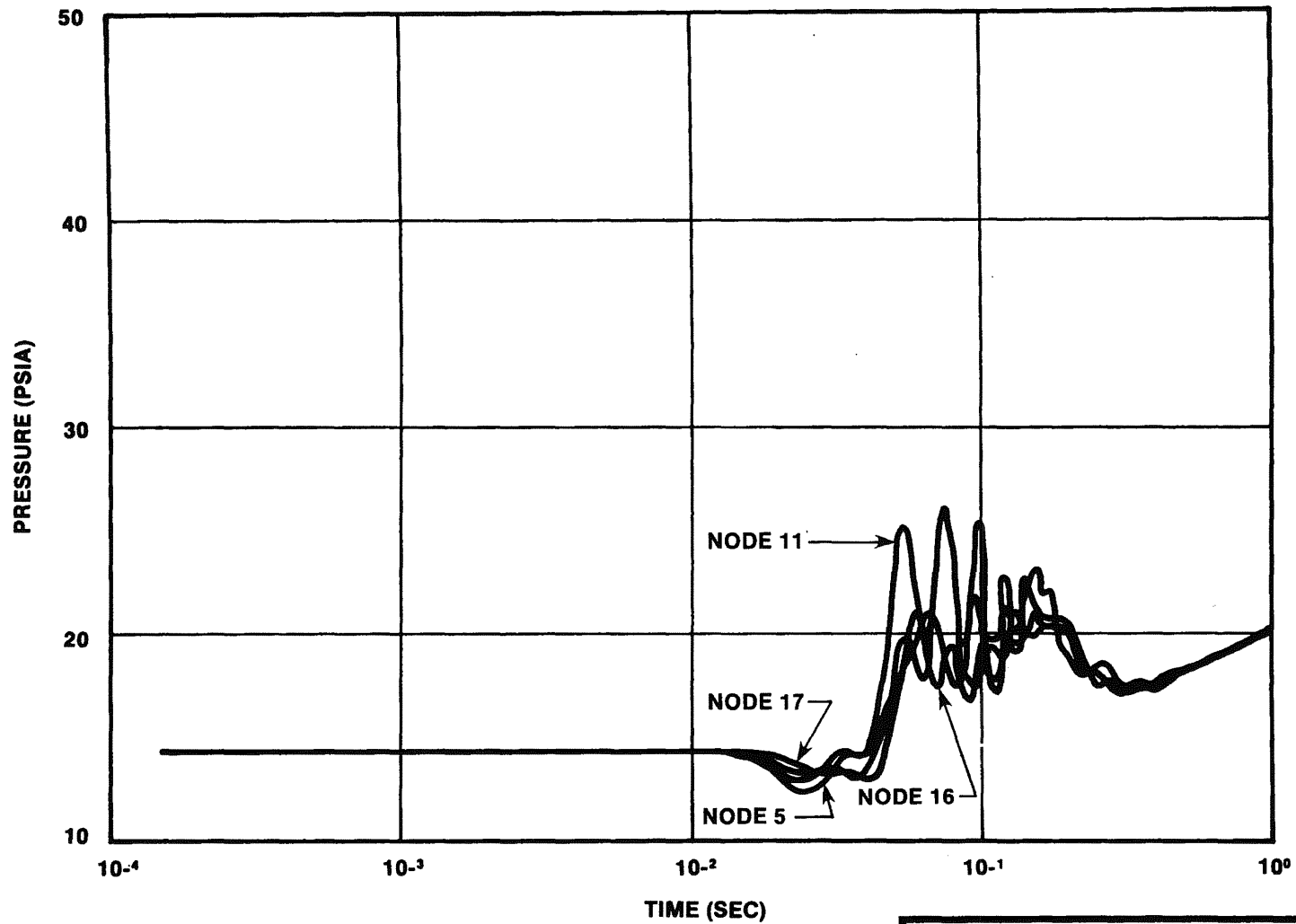


FIGURE 6.2-64

NODAL PRESSURES RECIRCULATION
INLET LINE BREAK RPV-BSW ANNULUS
SHEET 4 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

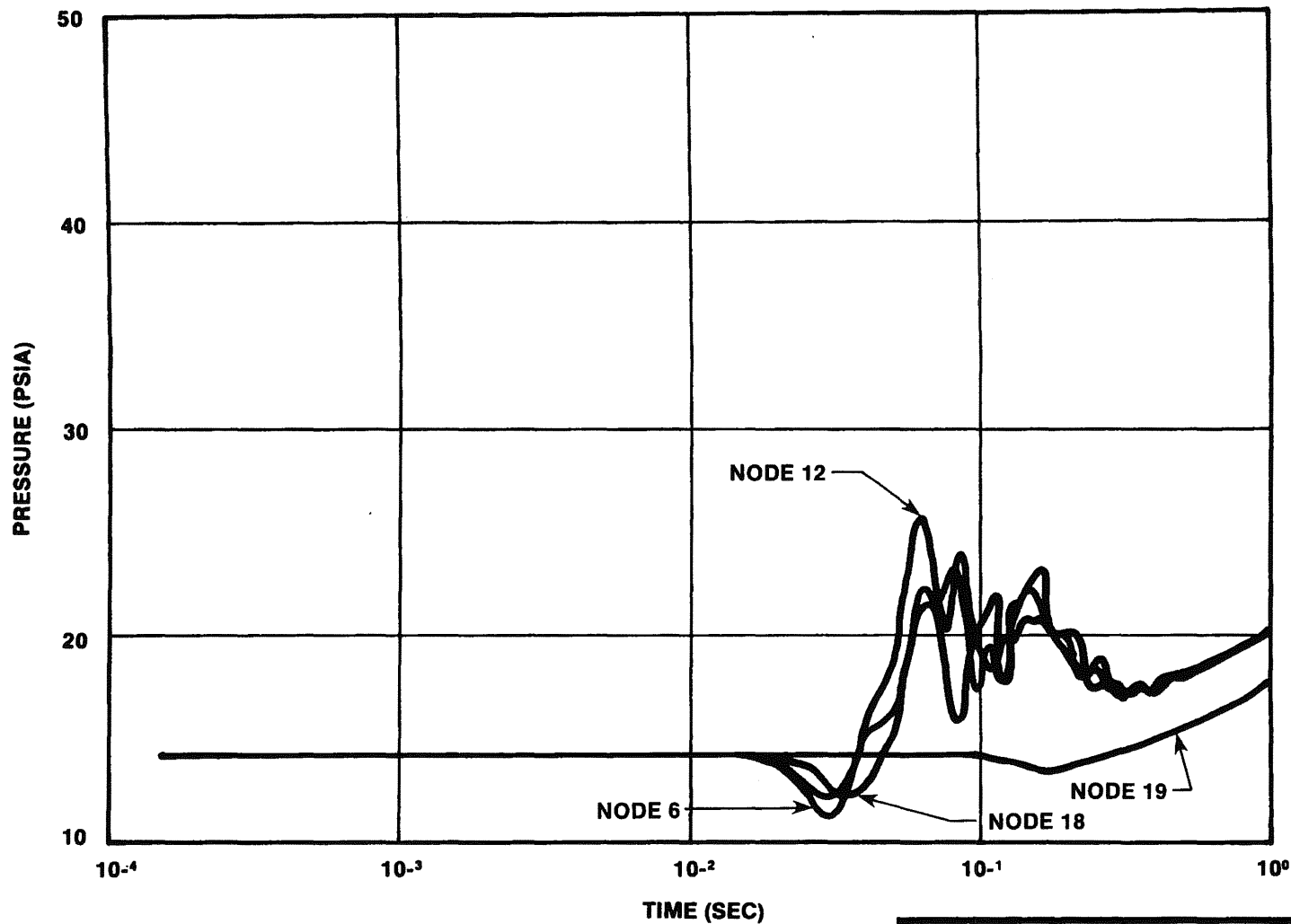
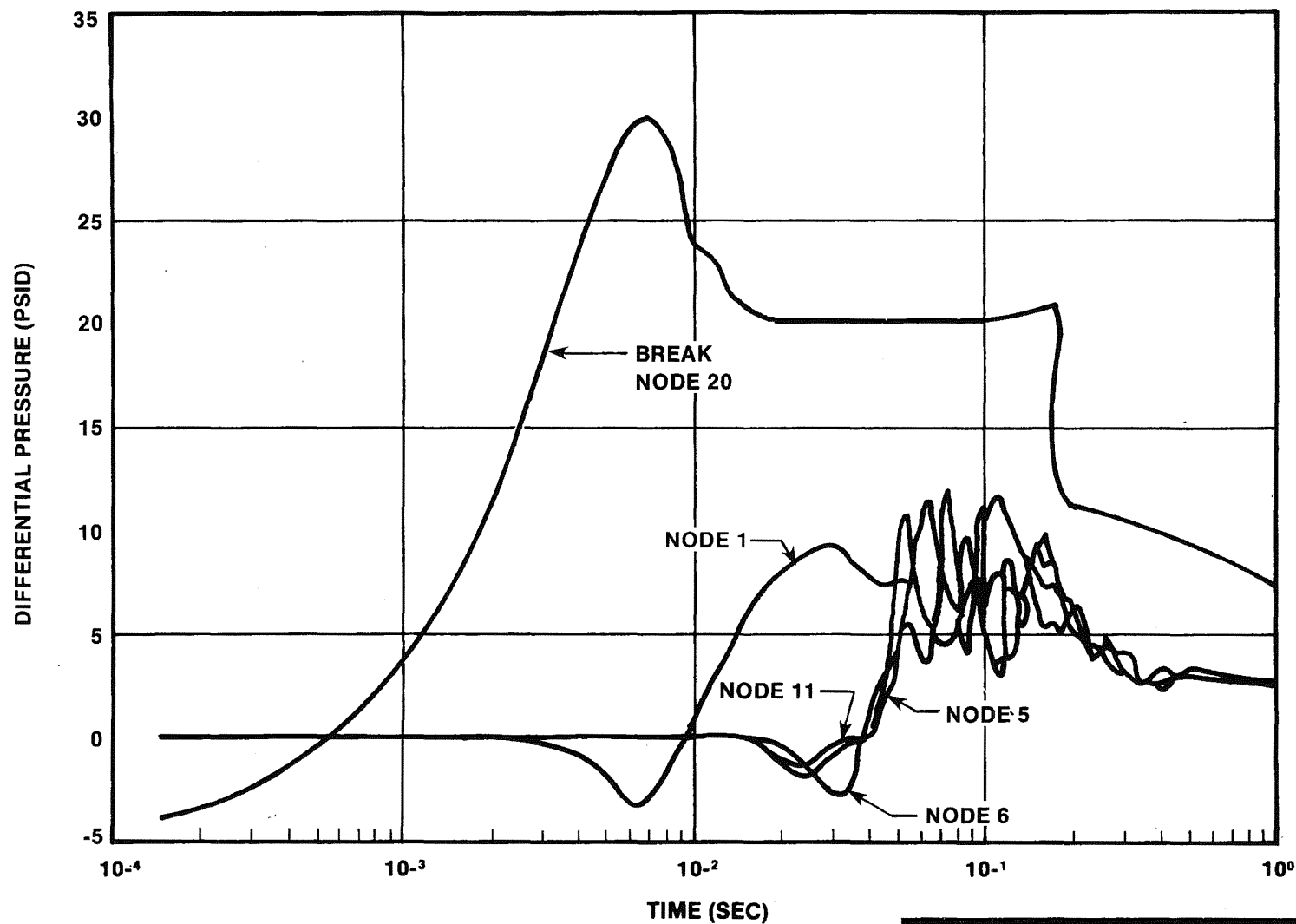


FIGURE 6.2-64

NODAL PRESSURES RECIRCULATION
INLET LINE BREAK RPV-BSW ANNULUS
SHEET 5 OF 5

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

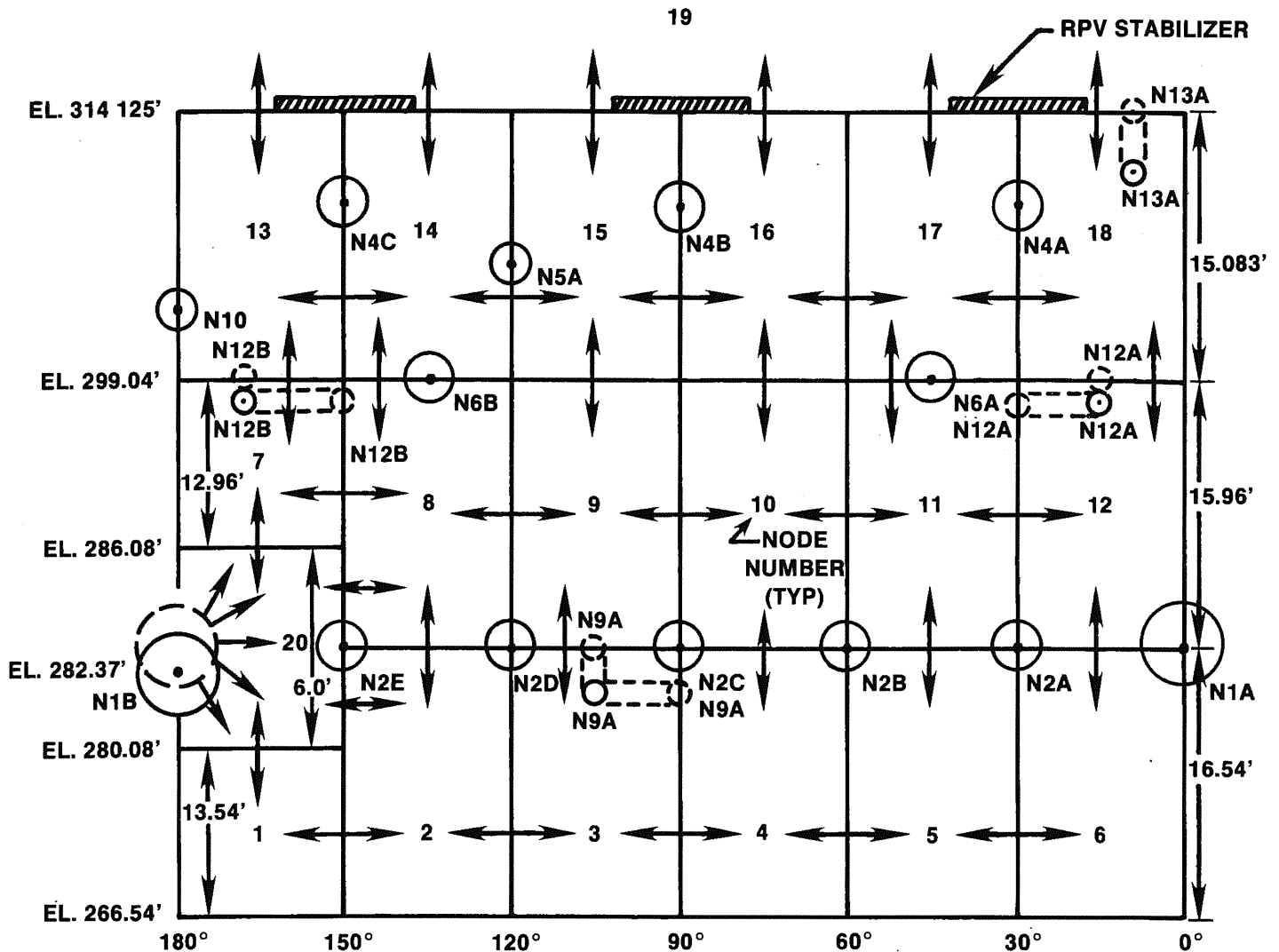


NOTE:
1: DIFFERENTIALS ARE RELATIVE TO NODE 19

FIGURE 6.2-64A

NODAL PRESSURE DIFFERENTIALS
RECIRCULATION INLET LINE BREAK
RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



PIPE DESIGNATION

N1A-B: RECIRCULATION SUCTION (24")
 N2A-E: RECIRCULATION INLET (12")
 N4A-C: FEEDWATER INLET (12")
 N5: LPCS (10")
 N6A-B: RHR/LPCI MODE (12")
 N9A: JET PUMP INSTRUMENTATION (4")
 N10: CRD HYDRAULIC SYSTEM RETURN (3")
 N12A-B: INSTRUMENTATION — WATER LEVEL (2")
 N13A: INSTRUMENTATION — WATER LEVEL (2")

NOTES:

1. INDICATES THE ASSUMED LOCATION OF THE PIPE NOZZLE.
2. THE RECIRCULATION SUCTION LINE BREAK IS ASSUMED TO OCCUR IN NODE 20

FIGURE 6.2-65

NODALIZATION DIAGRAM
 RECIRCULATION SUCTION LINE BREAK
 RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

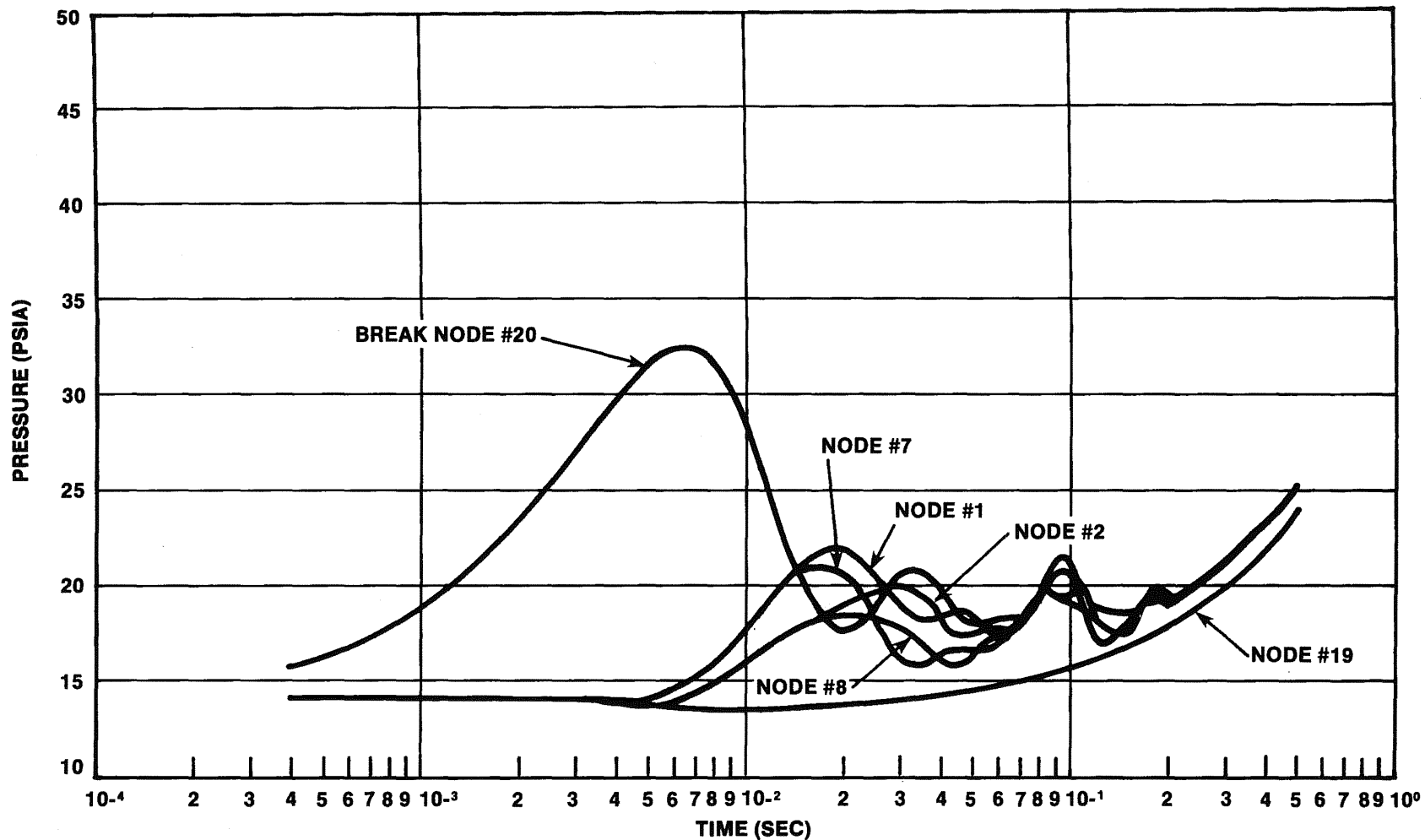


FIGURE 6.2-66

NODAL PRESSURES
RECIRCULATION SUCTION LINE BREAK
RPV-BSW ANNULUS
SHEET 1 OF 6

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

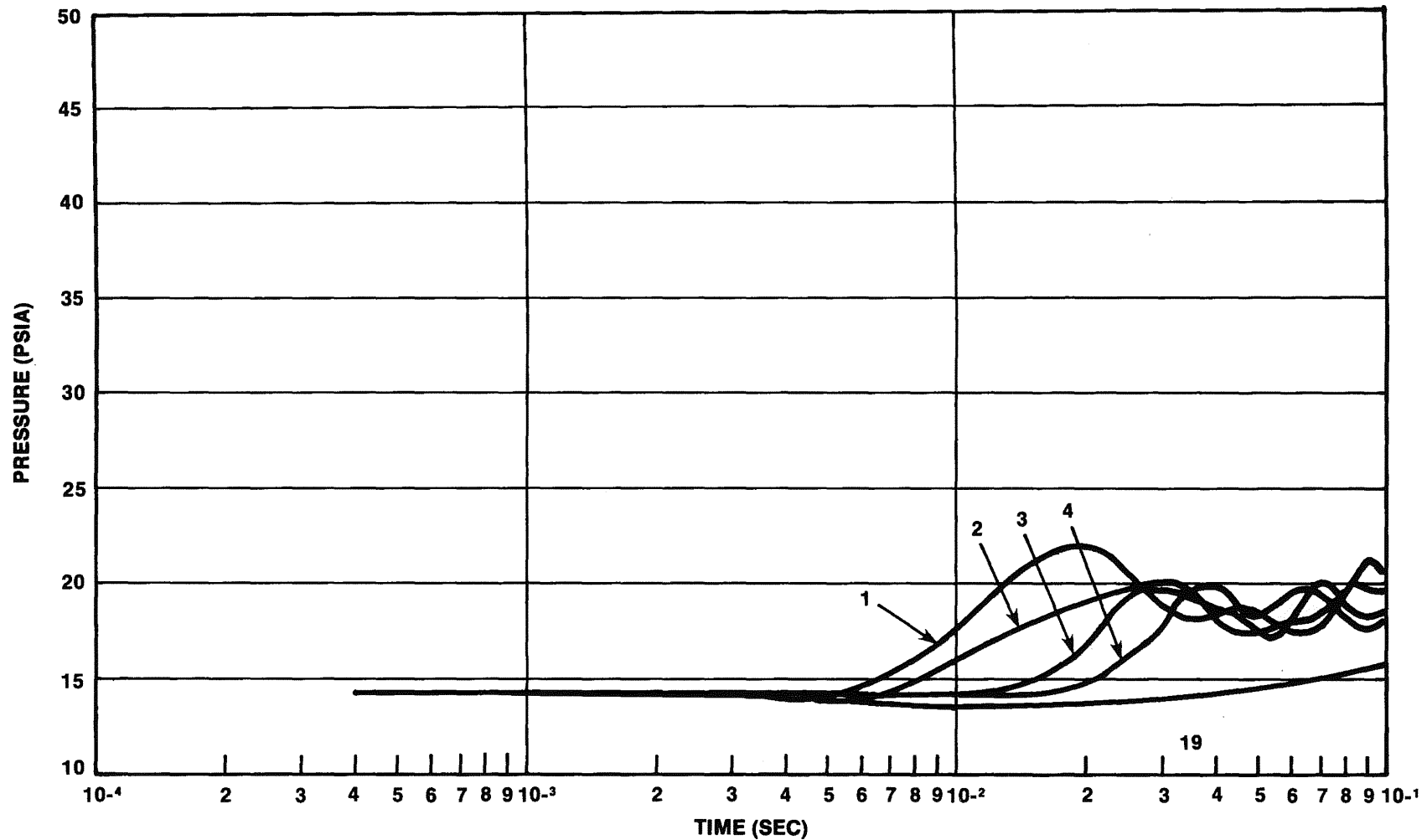


FIGURE 6.2-66

NODAL PRESSURES
RECIRCULATION SUCTION LINE BREAK
RPV-BSW ANNULUS
SHEET 2 OF 6

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

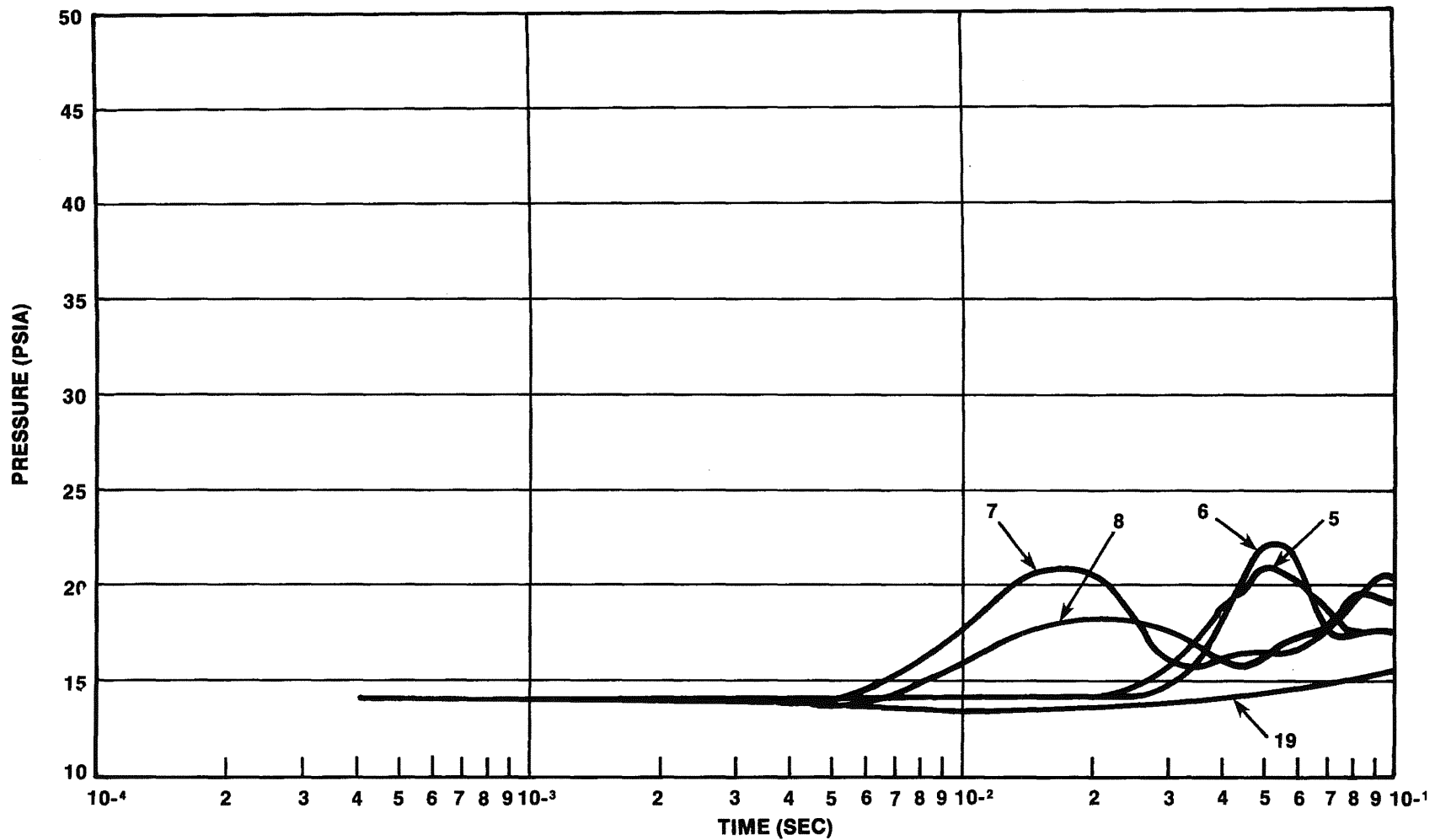


FIGURE 6.2-66

NODAL PRESSURES
 RECIRCULATION SUCTION LINE BREAK
 RPV-BSW ANNULUS
 SHEET 3 OF 6

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

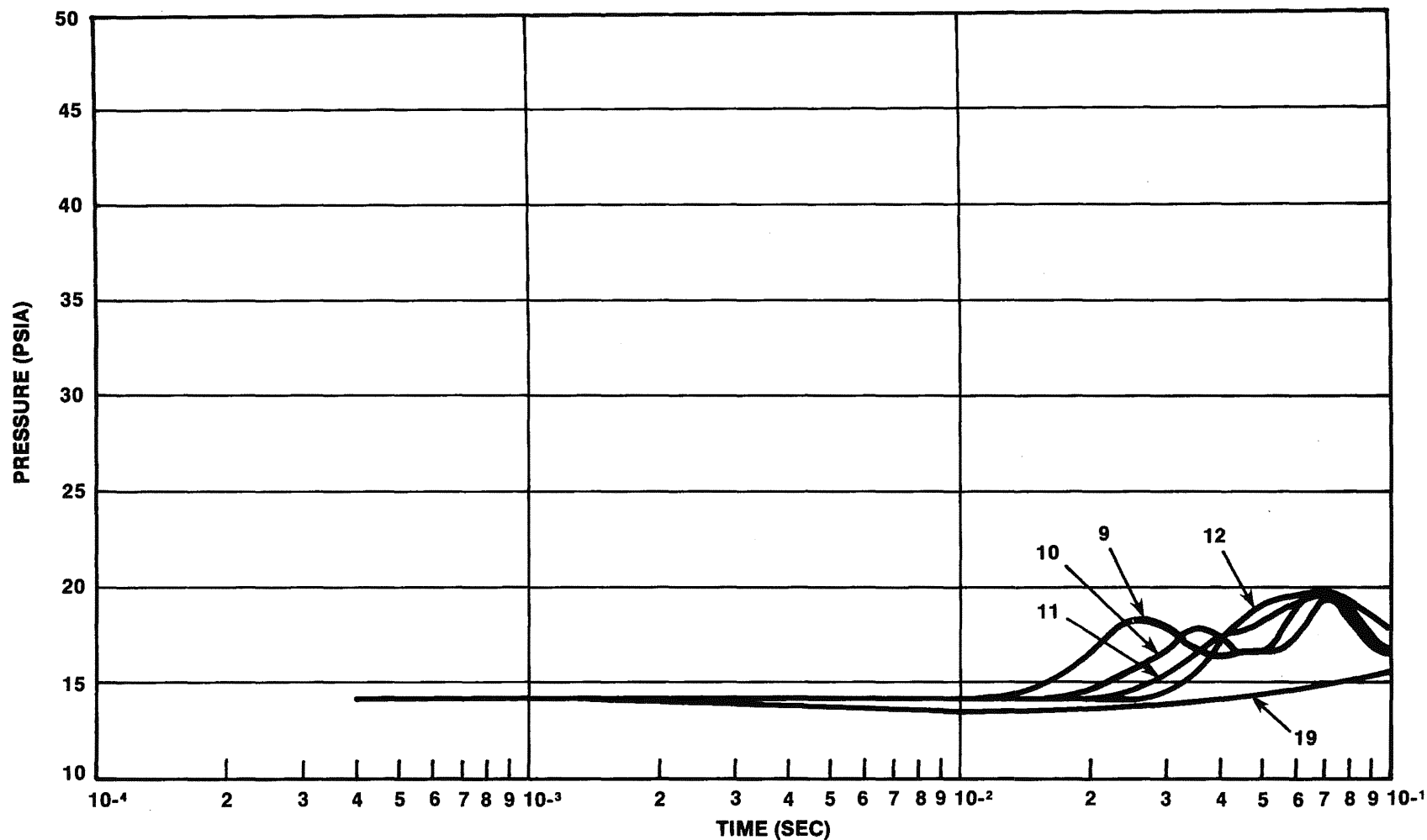


FIGURE 6.2-66

NODAL PRESSURES
RECIRCULATION SUCTION LINE BREAK
RPV-BSW ANNULUS
SHEET 4 OF 6

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

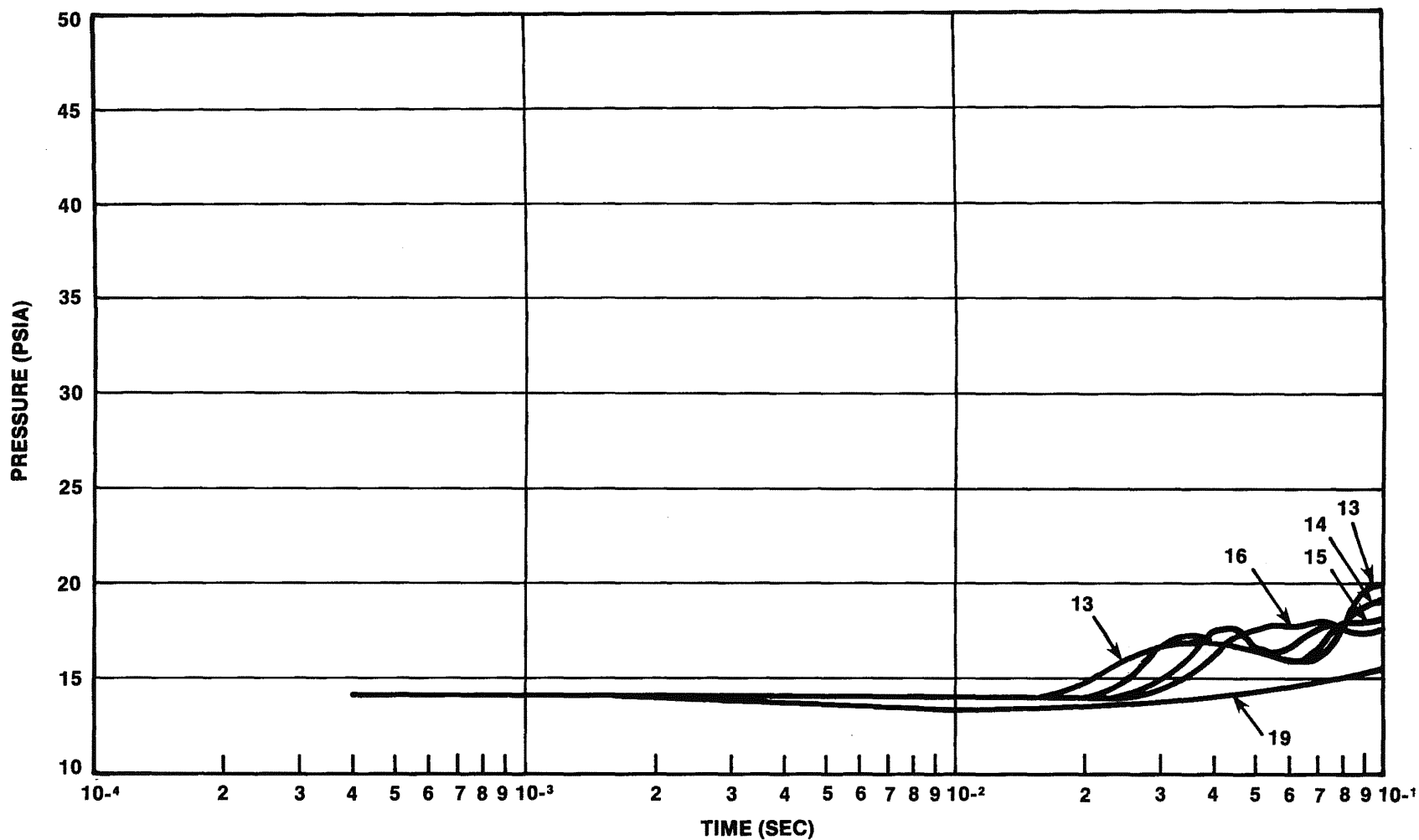


FIGURE 6.2-66

NODAL PRESSURES
 RECIRCULATION SUCTION LINE BREAK
 RPV-BSW ANNULUS
 SHEET 5 OF 6

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

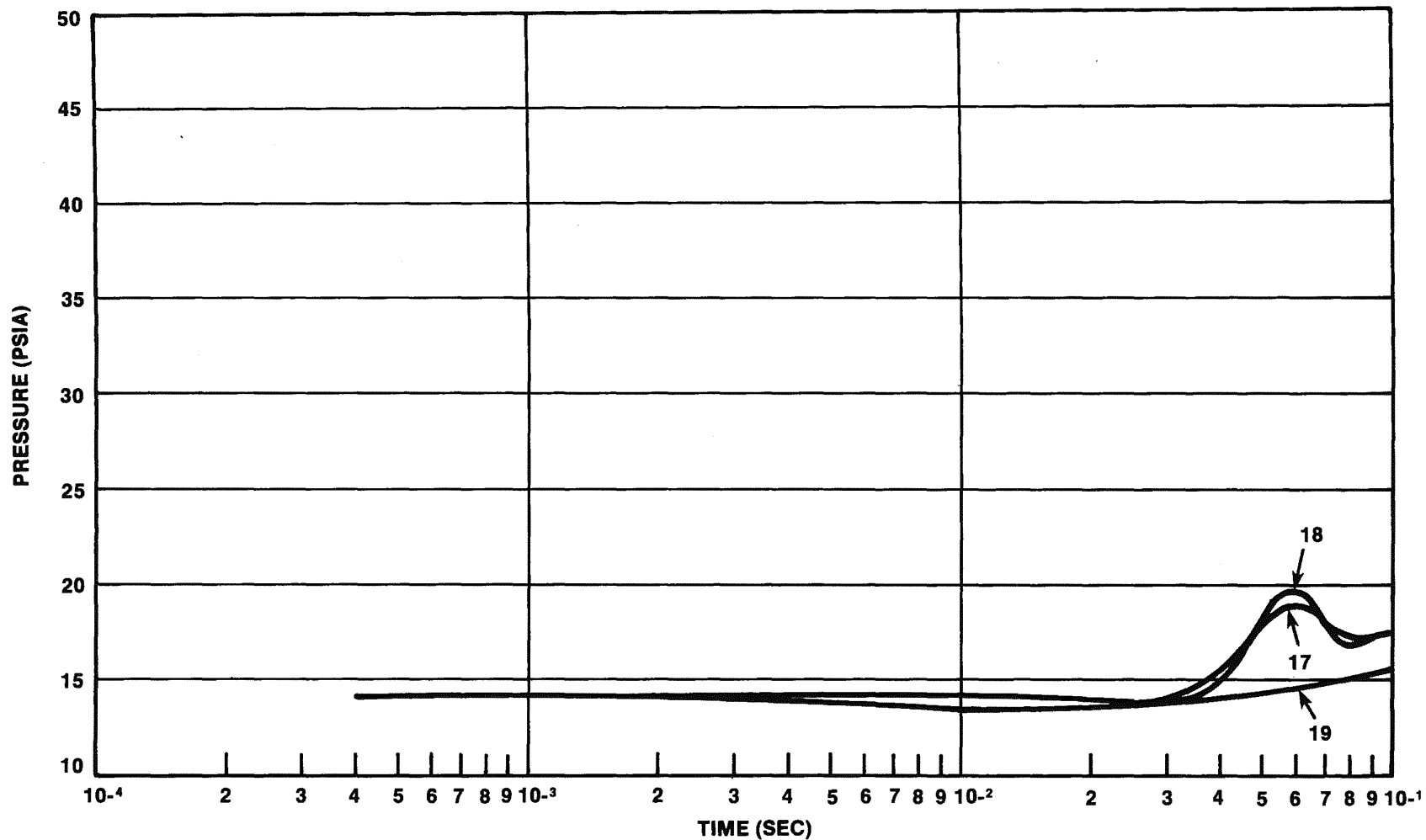
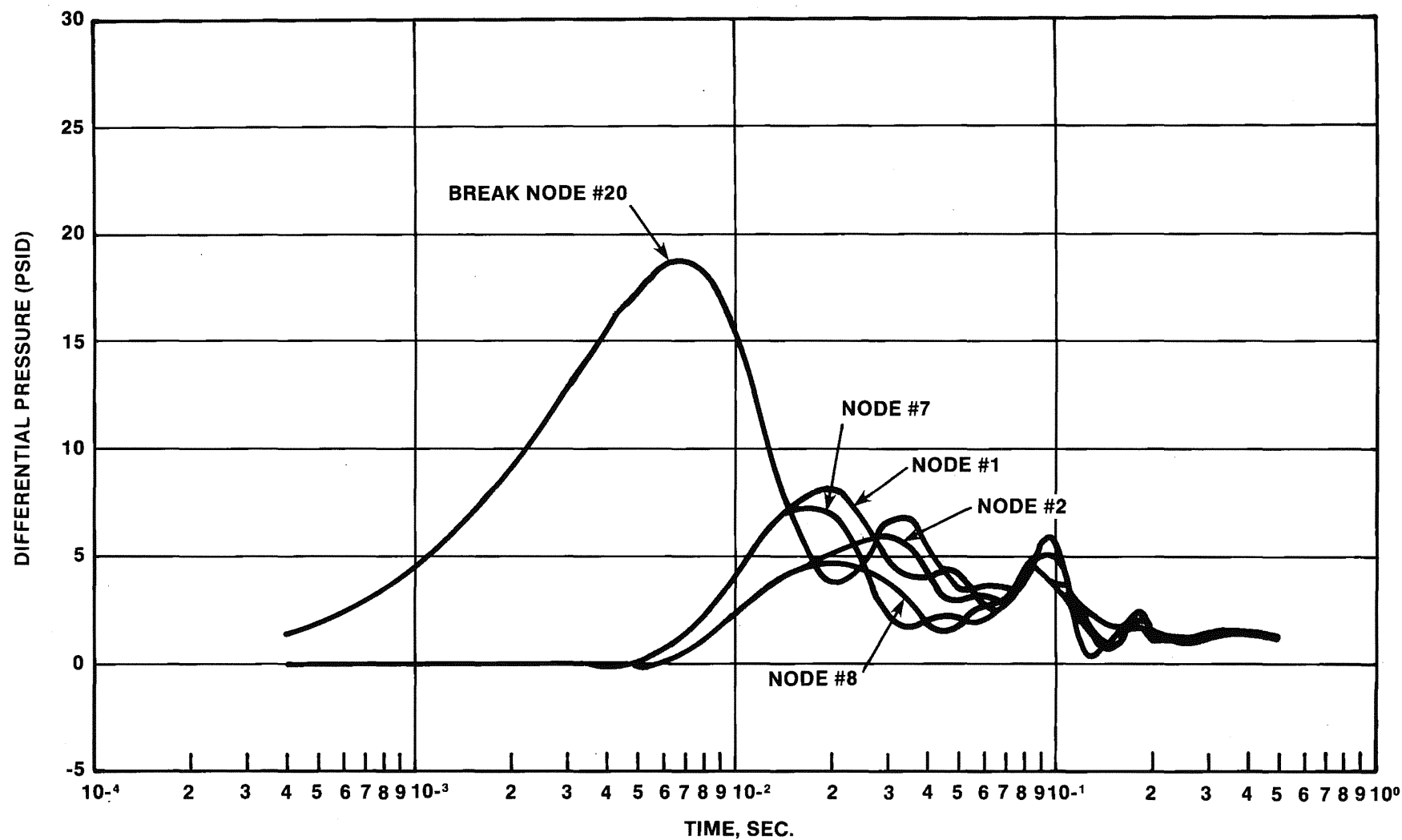


FIGURE 6.2-66

NODAL PRESSURES
 RECIRCULATION SUCTION LINE BREAK
 RPV-BSW ANNULUS
 SHEET 6 OF 6

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT



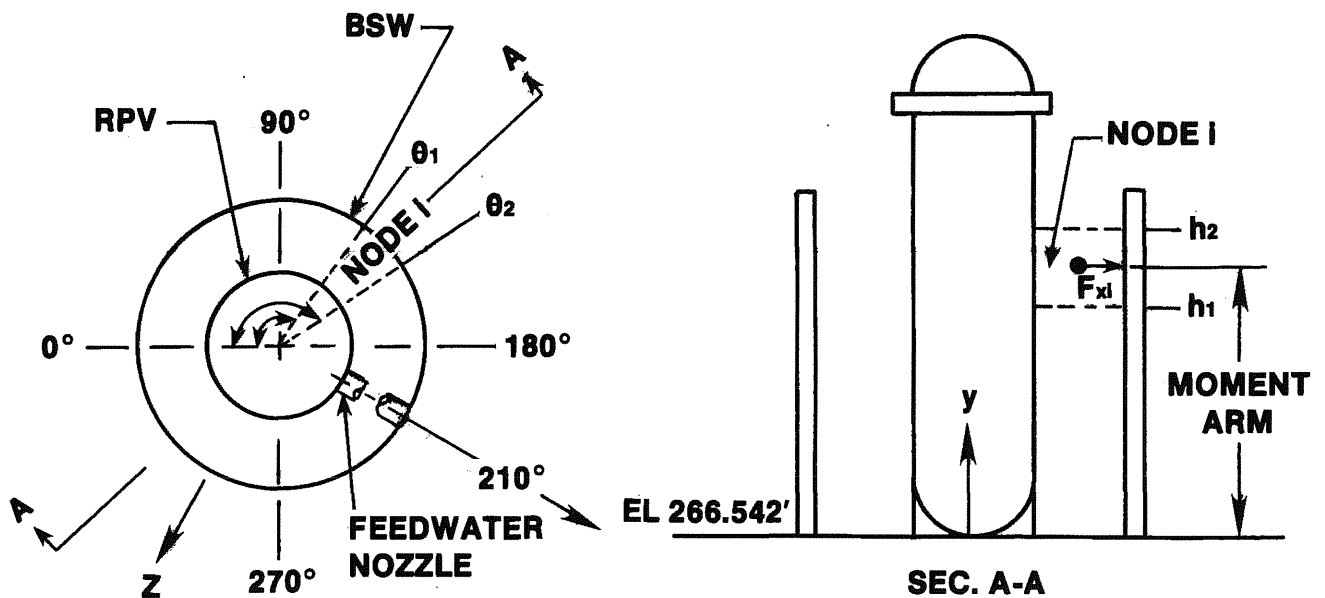
NOTE:

1: DIFFERENTIALS ARE RELATIVE TO NODE 19

FIGURE 6.2-66A

**NODAL PRESSURE DIFFERENTIALS
RECIRCULATION SUCTION LINE BREAK
RPV-BSW ANNULUS**

**NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT**



θ_1 AND θ_2 ARE BOUNDARY AZIMUTHS FOR NODE I.

SPAN = $\theta_2 - \theta_1$ NODAL HEIGHT = $h_2 - h_1$

RPV OR = 11.167 FT BSW IR = 14.063 FT = r

PROJECTED X-AREA = $r(h_2 - h_1) (\sin(\theta_2 - 210^\circ) - \sin(\theta_1 - 210^\circ))$

PROJECTED Z-AREA = $r(h_2 - h_1) (\cos(\theta_1 - 210^\circ) - \cos(\theta_2 - 210^\circ))$

MOMENT ARM = $1/2 (h_1 + h_2) - 266.542$ ft.

THE X-AXIS IS THE BREAK AXIS

FIGURE 6.2-67

ANNULUS PRESSURIZATION GEOMETRY
FOR FORCE AND MOMENT CALCULATIONS
FEEDWATER LINE BREAKS
RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

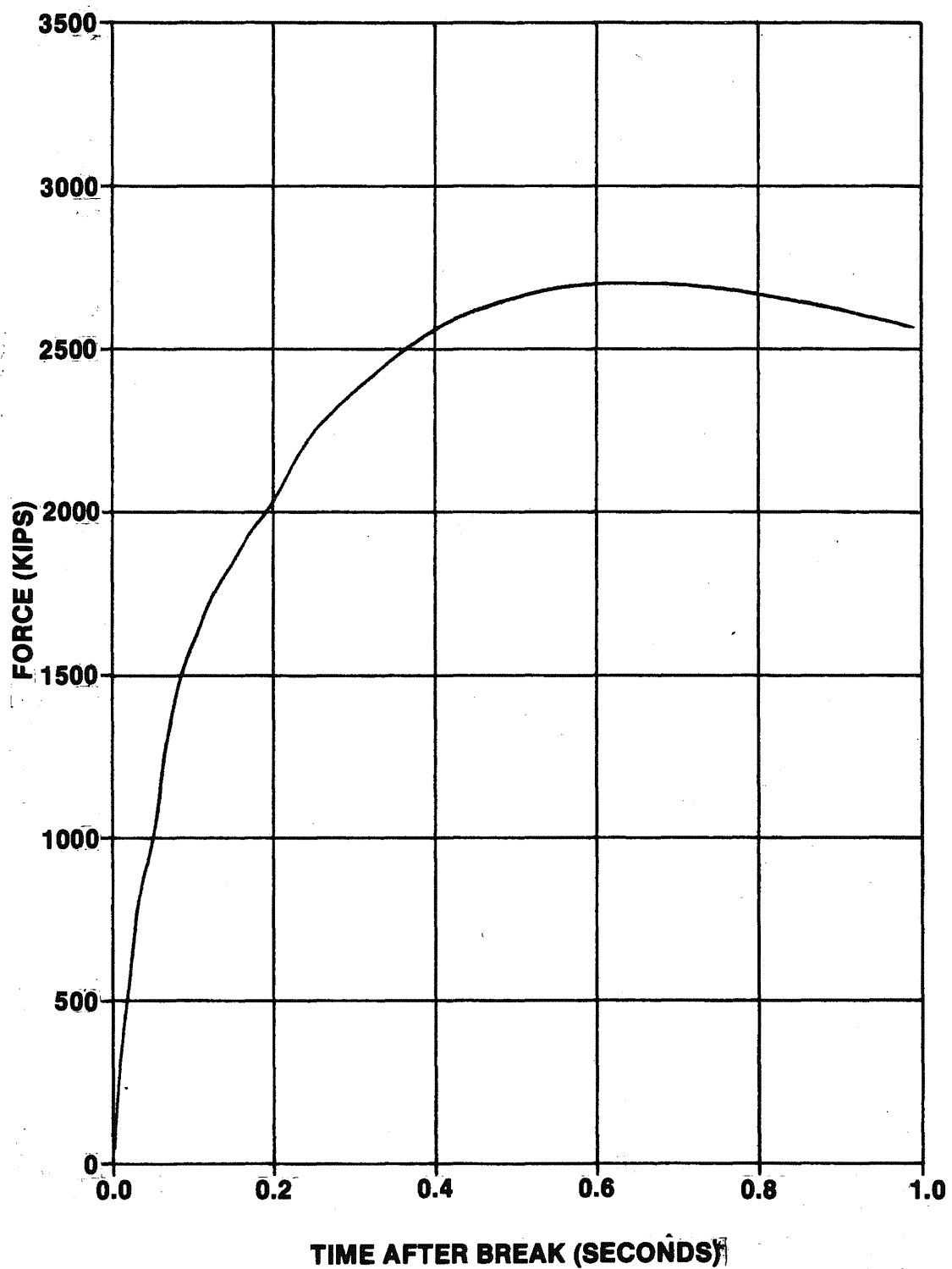


FIGURE 6.2-68

VECTOR SUM OF HALF-ANNULUS FORCES
ACTING ON BSW
FEEDWATER LINE BREAK 21-NODE MODEL
RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

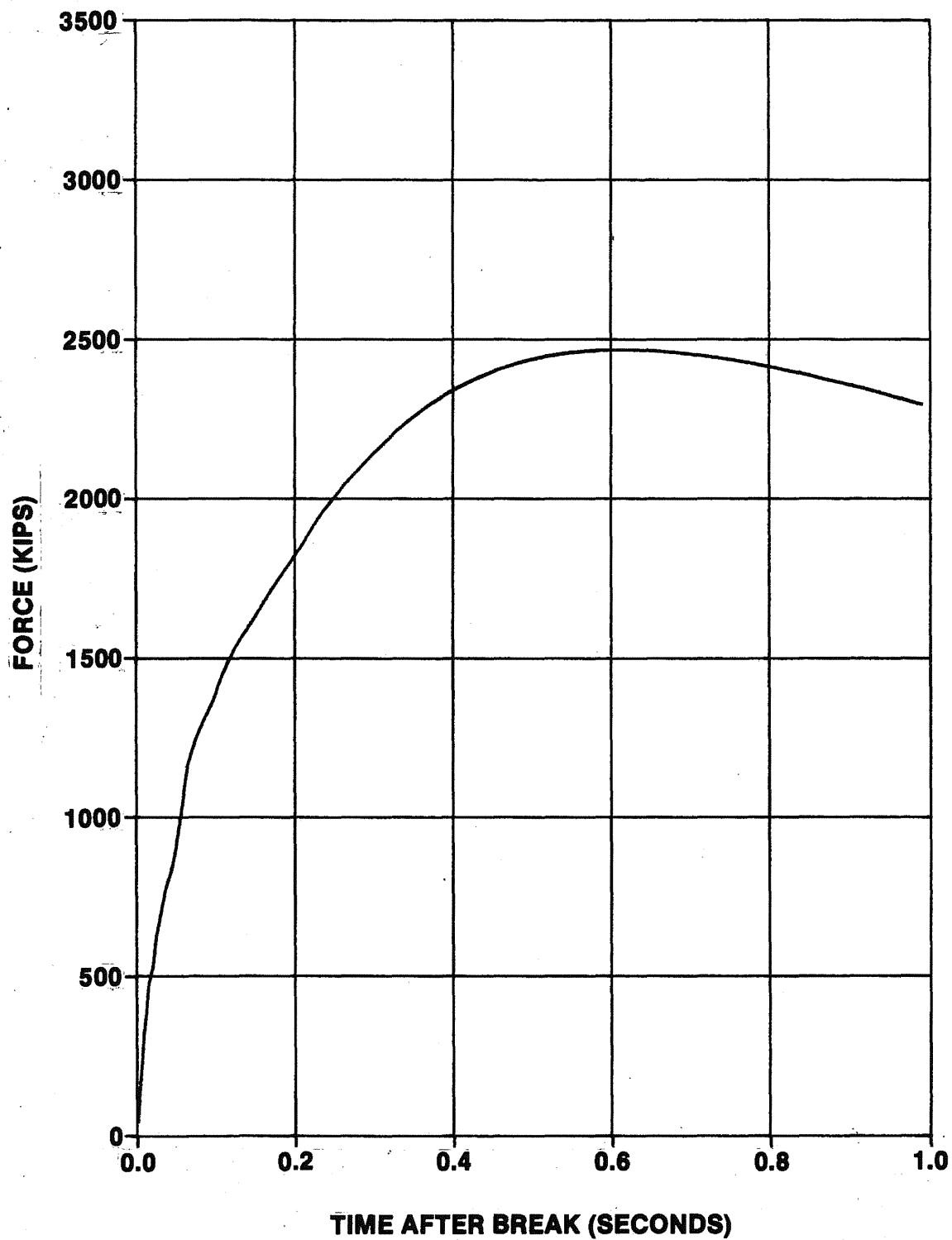


FIGURE 6.2-68A

VECTOR SUM OF HALF-ANNULUS FORCES
ACTING ON BSW
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

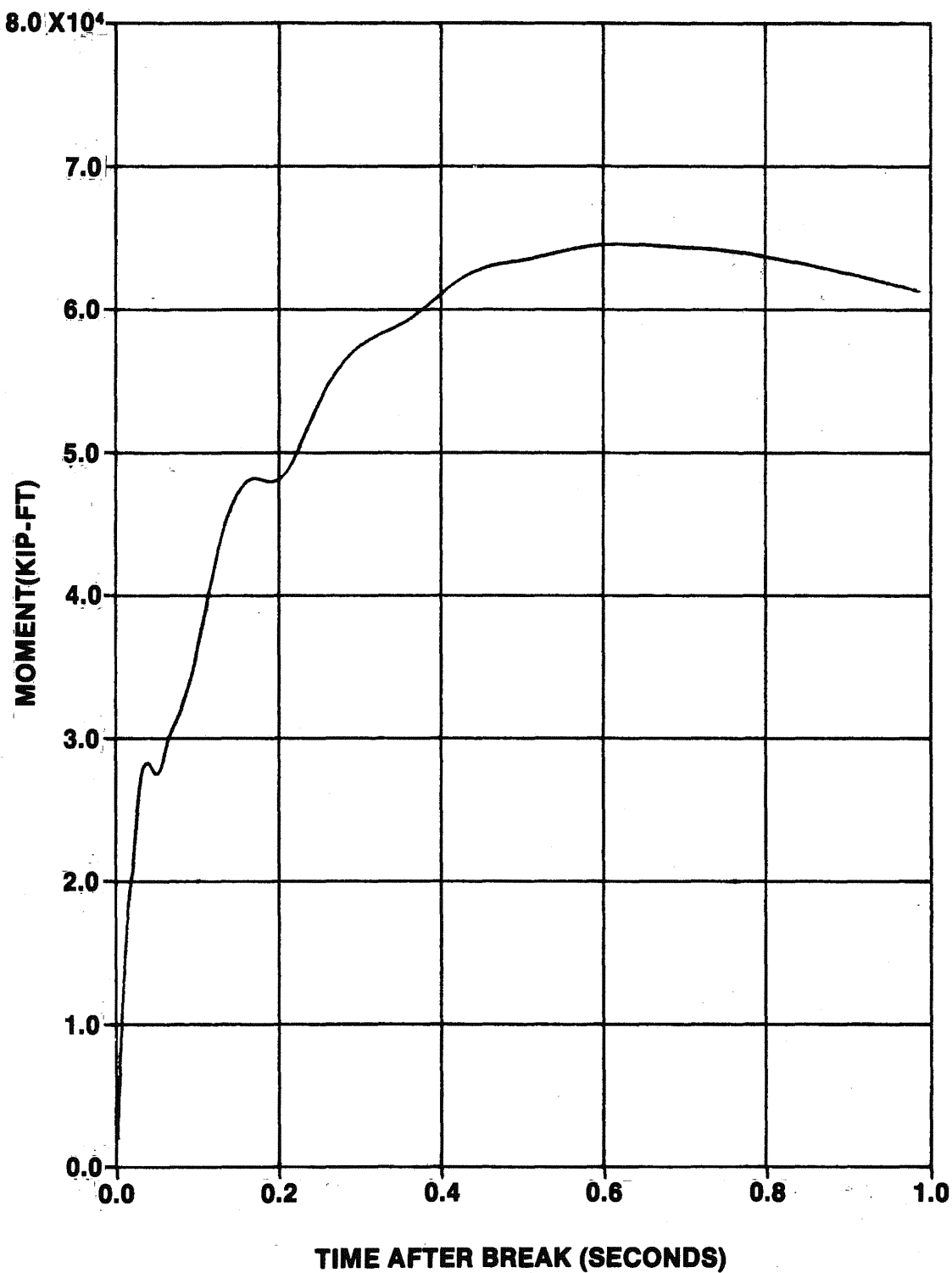


FIGURE 6.2-69

VECTOR SUM OF HALF-ANNULUS MOMENTS
ACTING ON BSW
FEEDWATER LINE BREAK 21-NODE MODEL
RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

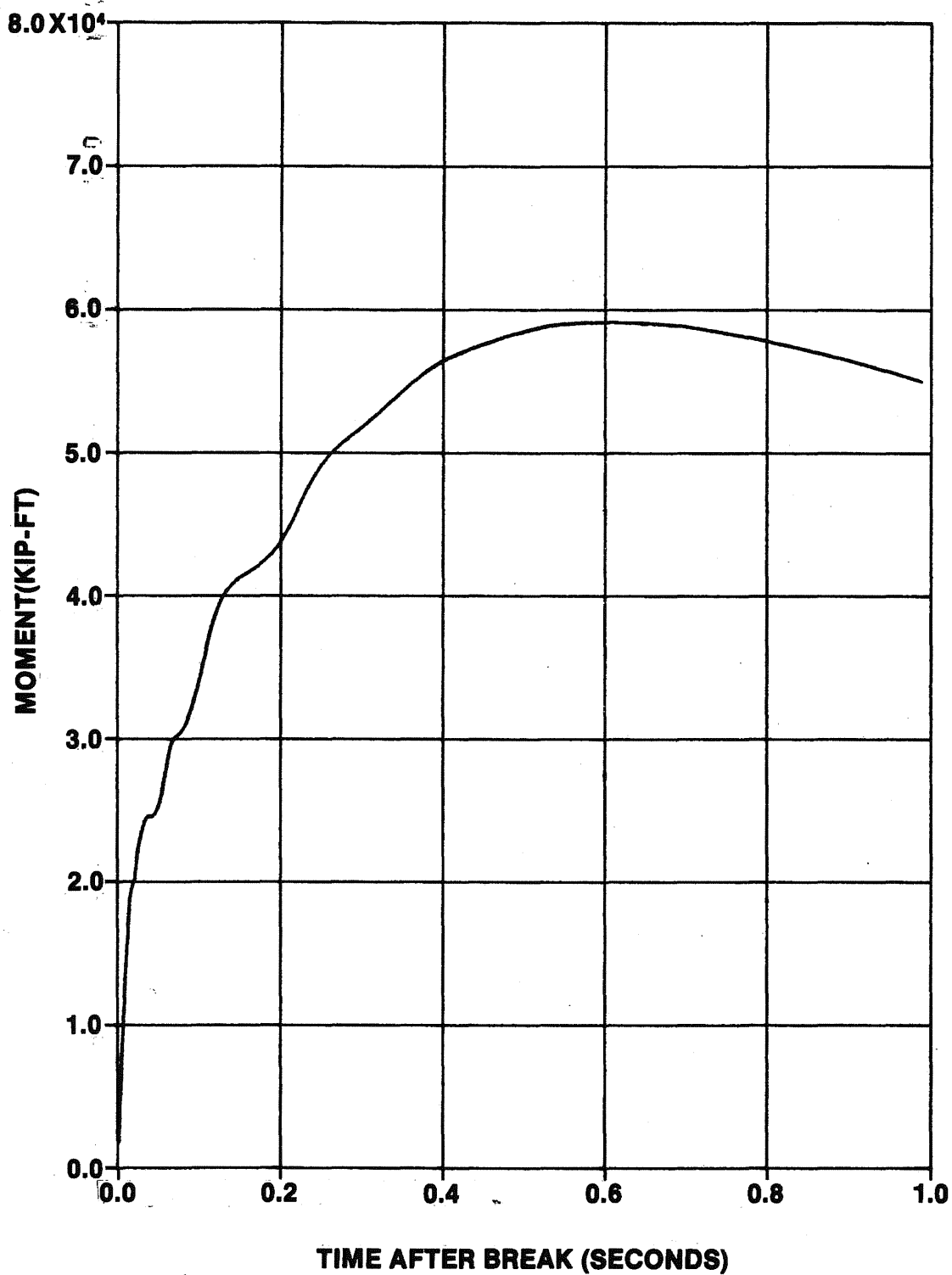
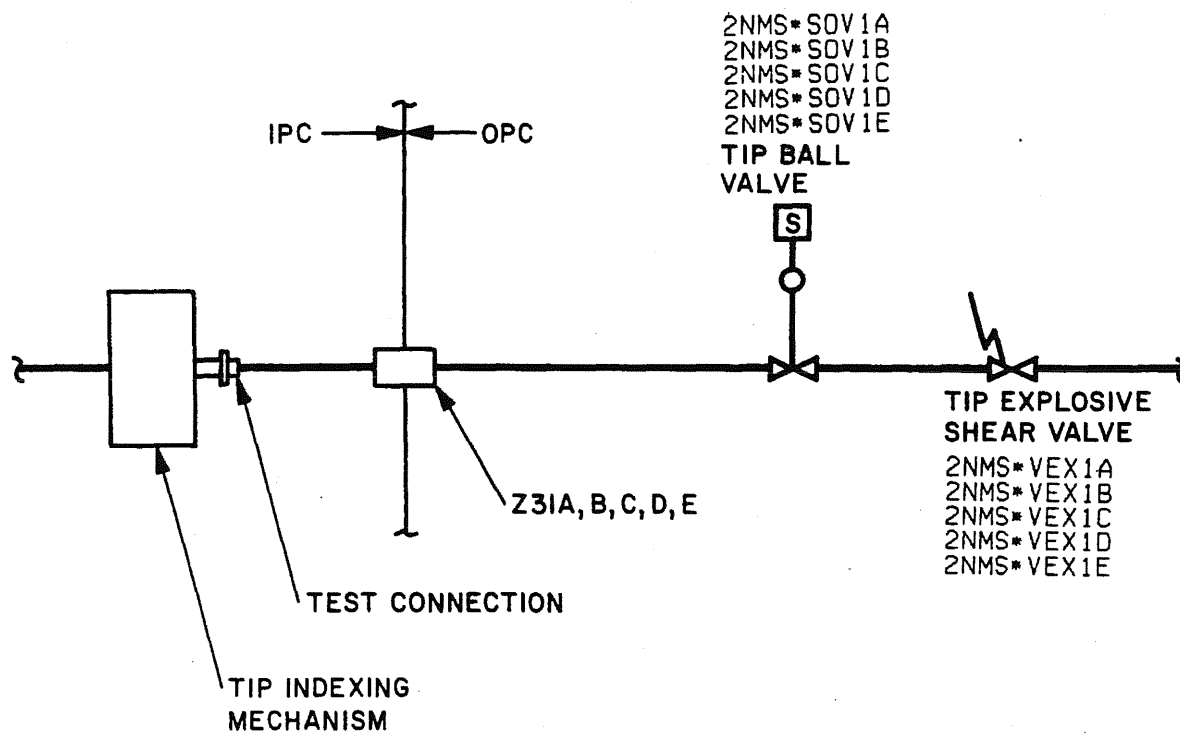


FIGURE 6.2-69A

VECTOR SUM OF HALF-ANNULUS MOMENTS
ACTING ON BSW
FEEDWATER LINE BREAK 37-NODE MODEL
RPV-BSW ANNULUS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



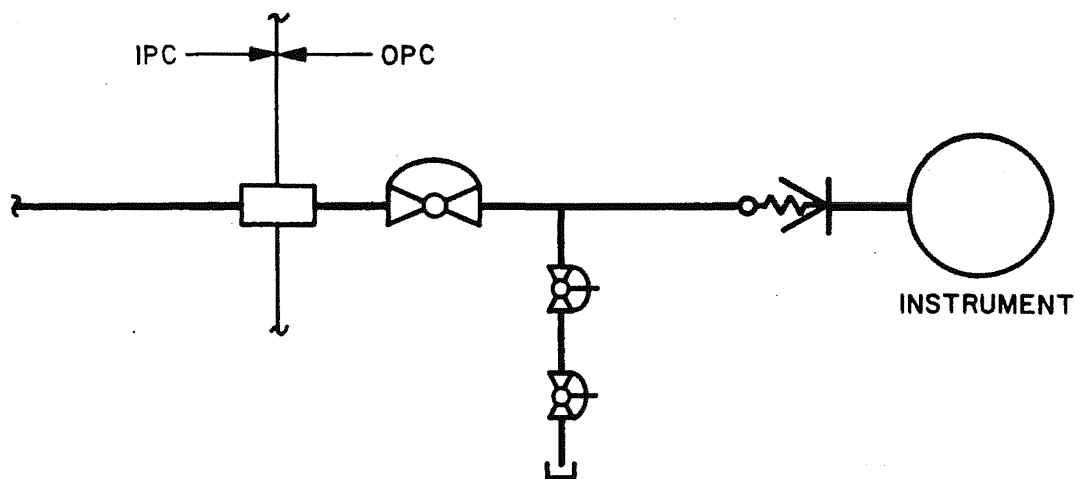
Z-31A, B, C, D, E TIP DRIVE GUIDE VALVE TO RPV

SOURCE: EM-38A-5

FIGURE 6.2-70

ISOLATION VALVE ARRANGEMENT
FOR PENETRATION Z-31A, B, C, D, E

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



INSTRUMENT LINES FROM RPV/PRIMARY CONTAINMENT

NOTE: THIS FIGURE REPRESENTS THE GENERAL ISOLATION VALVE ARRANGEMENT OF NUMEROUS INSTRUMENT LINES. ALTHOUGH PHYSICAL DETAILS MAY DIFFER FOR INDIVIDUAL LINES, THE SAFETY FUNCTION AND TESTING CAPABILITIES REMAIN UNCHANGED.

SOURCE: N/A

FIGURE 6.2-70a

ISOLATION VALVE ARRANGEMENT
FOR INSTRUMENT LINES

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

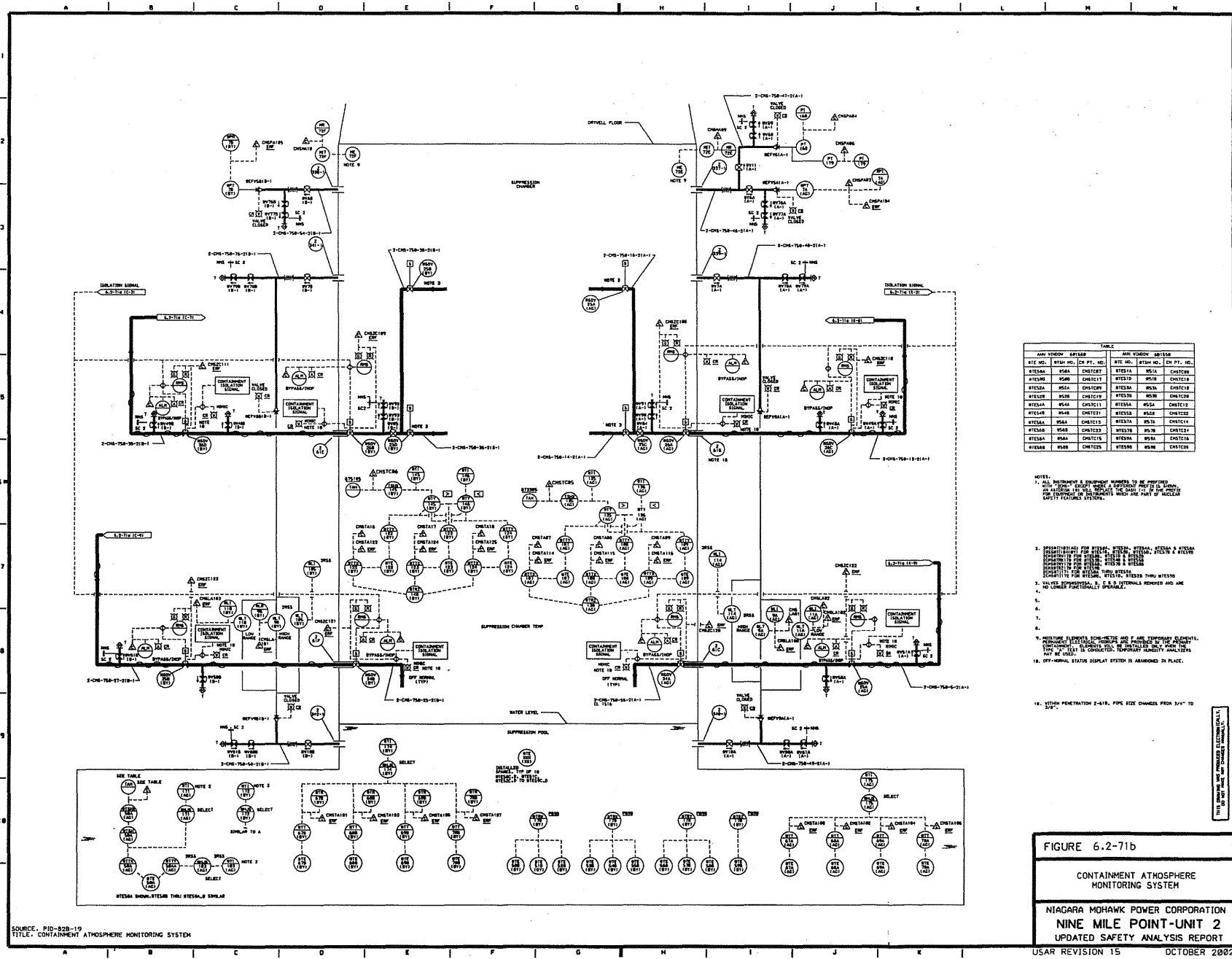


FIGURE 6.2-71b

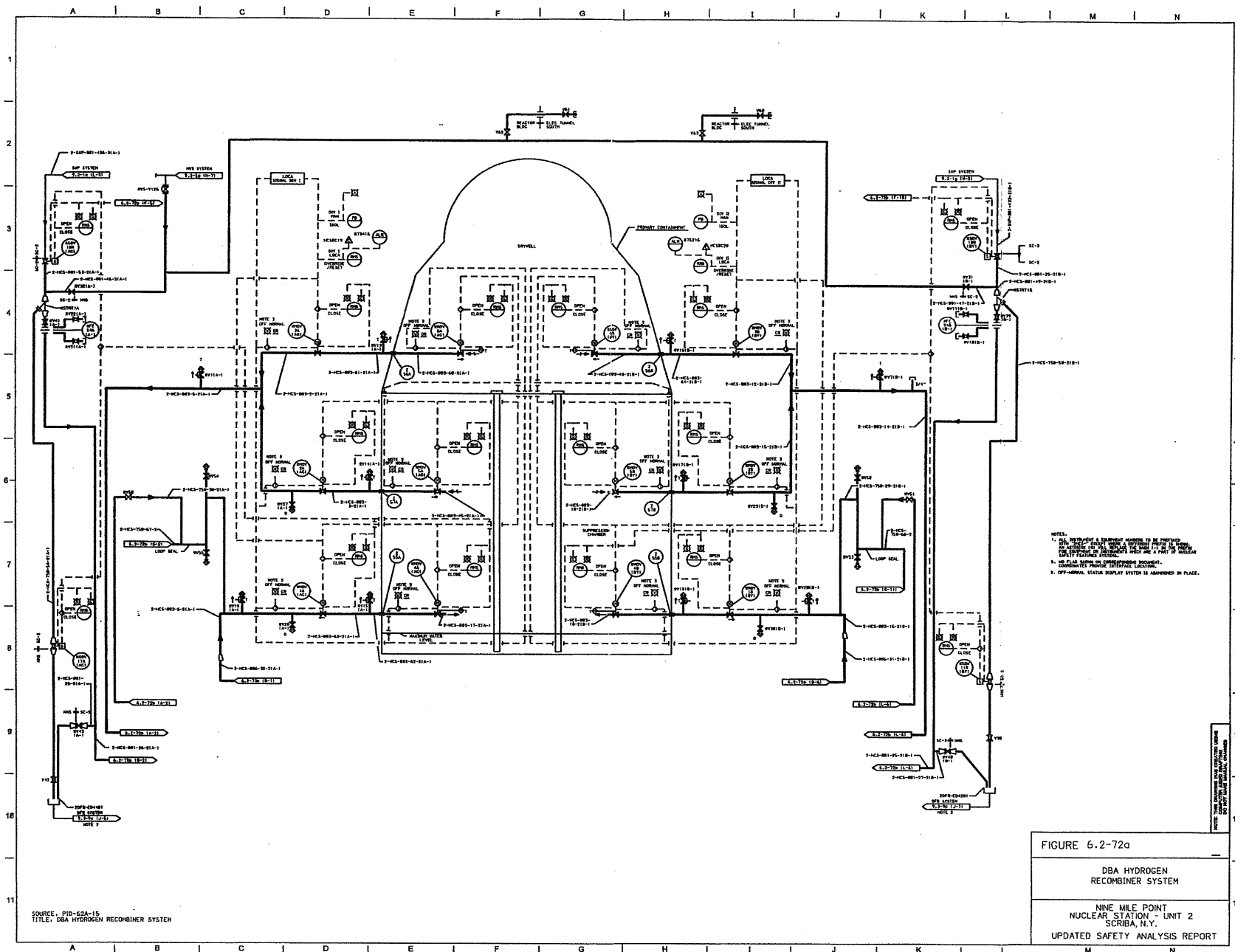
CONTAINMENT ATMOSPHERE MONITORING SYSTEM

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT-UNIT 2

UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 15 OCTOBER 2002



**THIS FIGURE
HAS BEEN DELETED**

FIGURE 6.2-72C

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

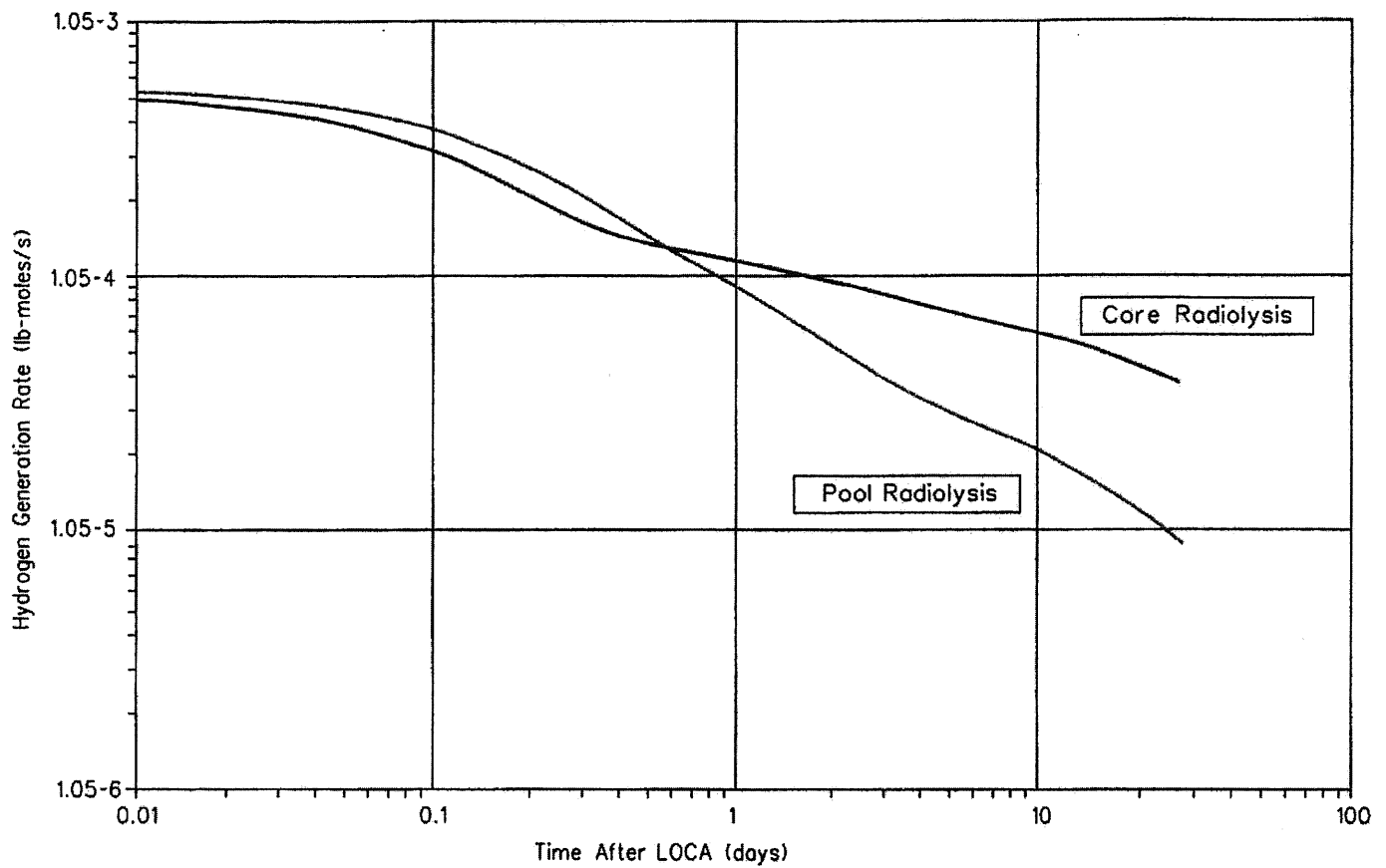


FIGURE: 6.2-72D

HYDROGEN GENERATION RATES
FOLLOWING A DESIGN BASIS
ACCIDENT (DBA)

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

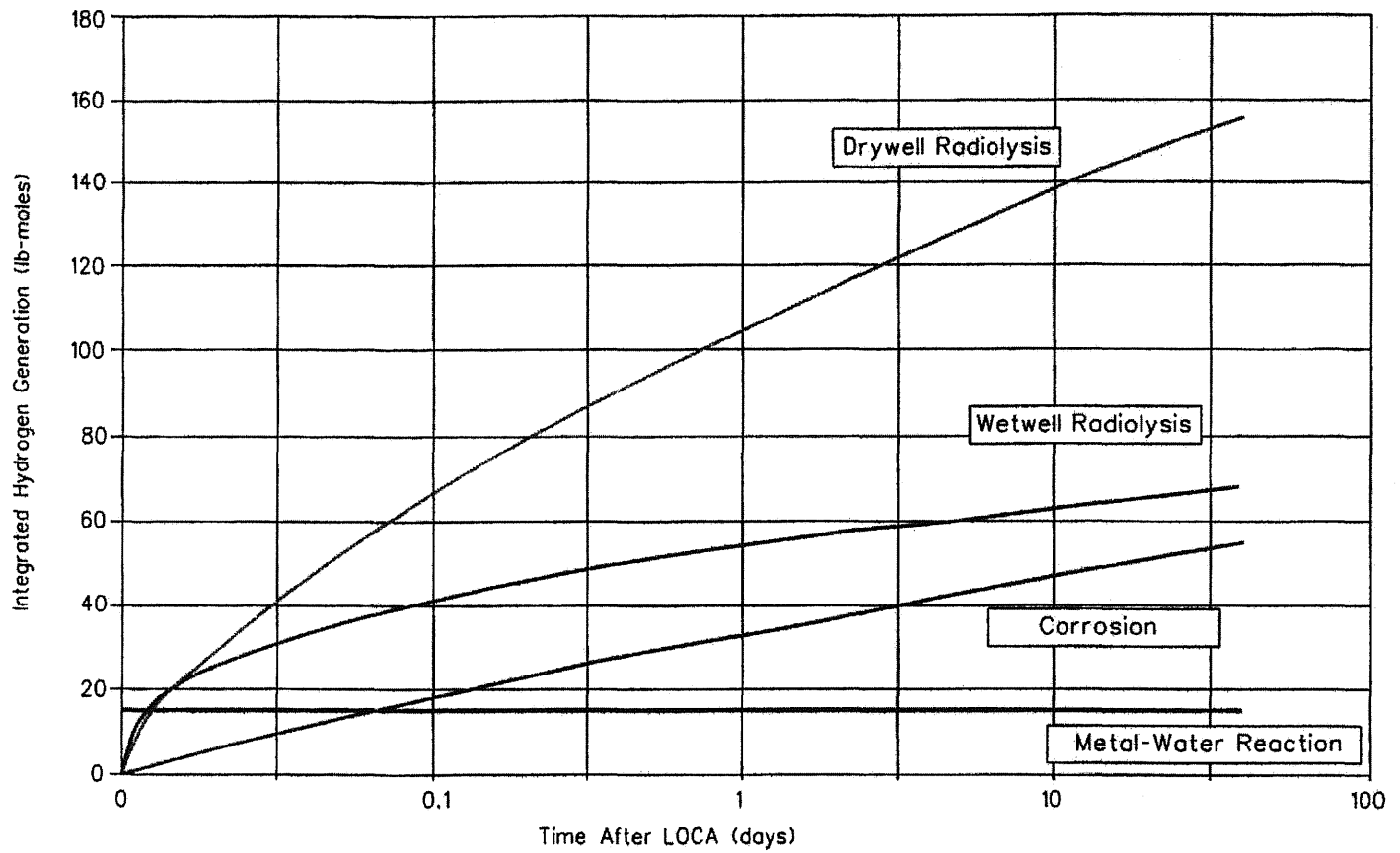


FIGURE: 6.2-72E

INTEGRATED HYDROGEN GENERATION
FOLLOWING DBA

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED

FIGURE: 6.2-72F

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED

FIGURE: 6.2-72G

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

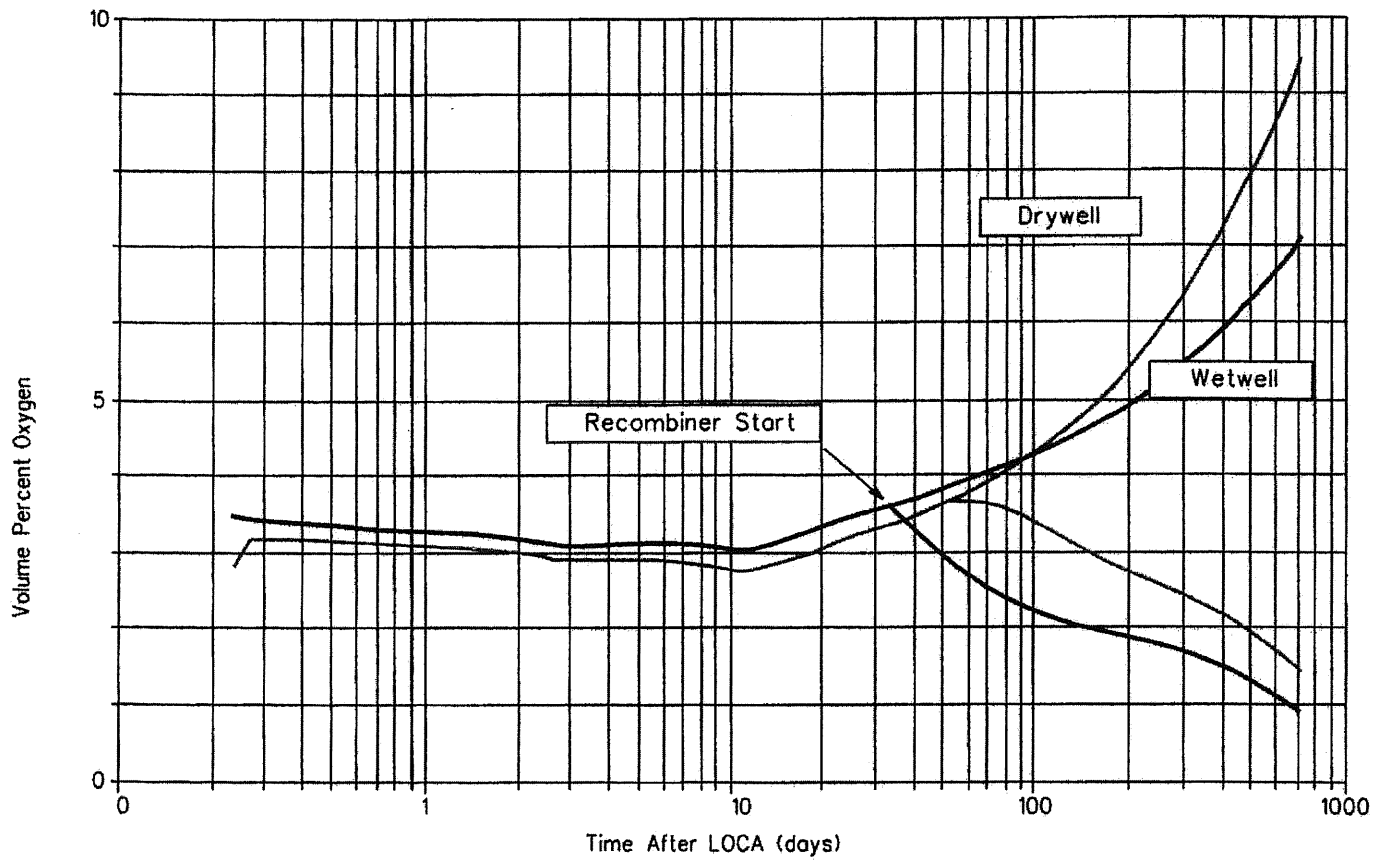


FIGURE: 6.2-72H

OXYGEN CONCENTRATIONS
FOLLOWING A DESIGN BASIS
ACCIDENT (DBA)

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

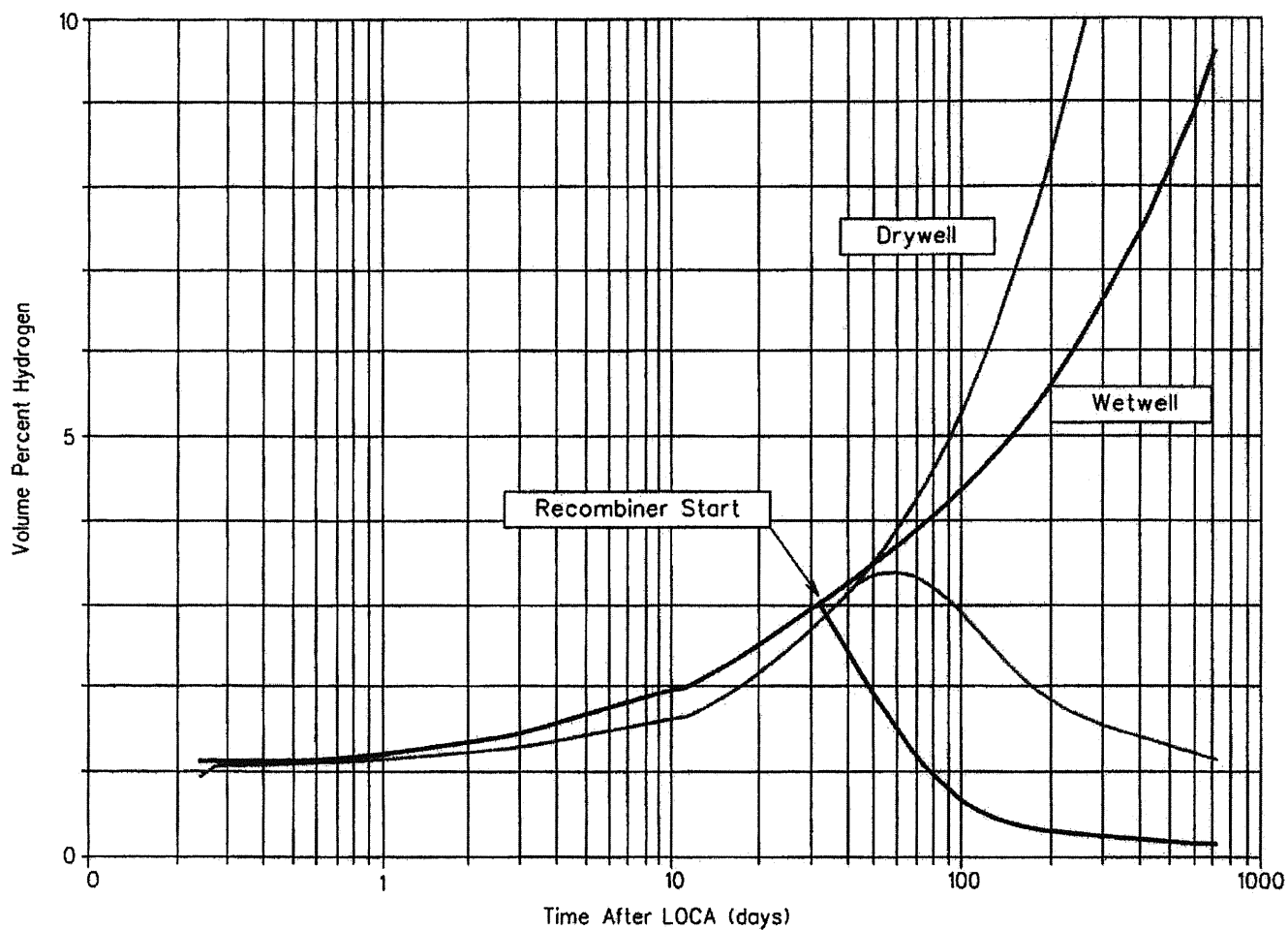


FIGURE: 6.2-72I

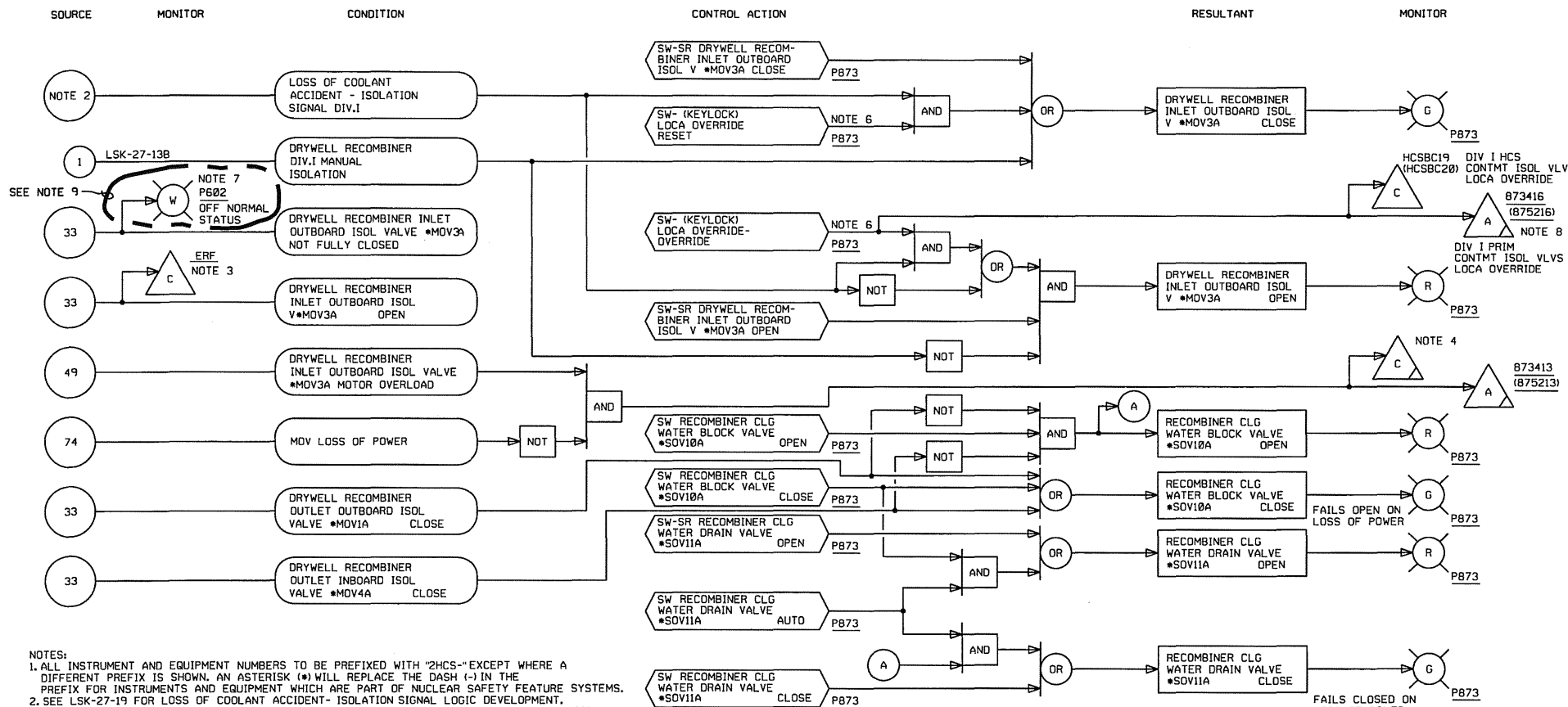
HYDROGEN CONCENTRATIONS
FOLLOWING A DESIGN BASIS
ACCIDENT (DBA)

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED

FIGURE 6.2-72J

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HCS-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR INSTRUMENTS AND EQUIPMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEMS.
2. SEE LSK-27-19 FOR LOSS OF COOLANT ACCIDENT- ISOLATION SIGNAL LOGIC DEVELOPMENT.
3. LOGIC FOR DRYWELL RECOMBINER INLET OUTBOARD ISOLATION VALVE *MOV3A IS SHOWN. LOGIC FOR ALL RECOMBINER ISOLATION VALVES IS SIMILAR (SEE ASSOCIATED EQUIPMENT MARK NUMBERS, NOTE 4).
4. ASSOCIATED EQUIPMENT MARK NUMBERS:

DIV.I	CMPTD NO.	DIV.II	CMPTD NO.
*MOV1A	HCSTC21	*MOV1B	HCSTC22
*MOV2A	HCSTC21	*MOV2B	HCSTC22
*MOV3A	HCSTC21	*MOV3B	HCSTC22
*MOV4A	HCSTC21	*MOV4B	HCSTC22
*MOV5A	HCSTC21	*MOV5B	HCSTC22
*MOV6A	HCSTC21	*MOV6B	HCSTC22
*P873		*P875	

5. LOGIC FOR RECOMBINER COOLING WATER BLOCK VALVE *SOV10A AND DRAIN VALVE *SOV11A IS SHOWN. LOGIC FOR RECOMBINER COOLING WATER BLOCK VALVE *SOV10B AND DRAIN VALVE *SOV11B IS SIMILAR.
6. ONE SWITCH PER DIVISION.
7. OFF NORMAL STATUS INDICATING LIGHT, ONE LIGHT PER ISOLATION VALVE.
8. COMMON ANNUNCIATOR FOR BOTH SYSTEMS HCS AND CPS IN EACH DIVISION.
9. OFF-NORMAL STATUS DISPLAY SYSTEM IS ABANDONED IN PLACE.

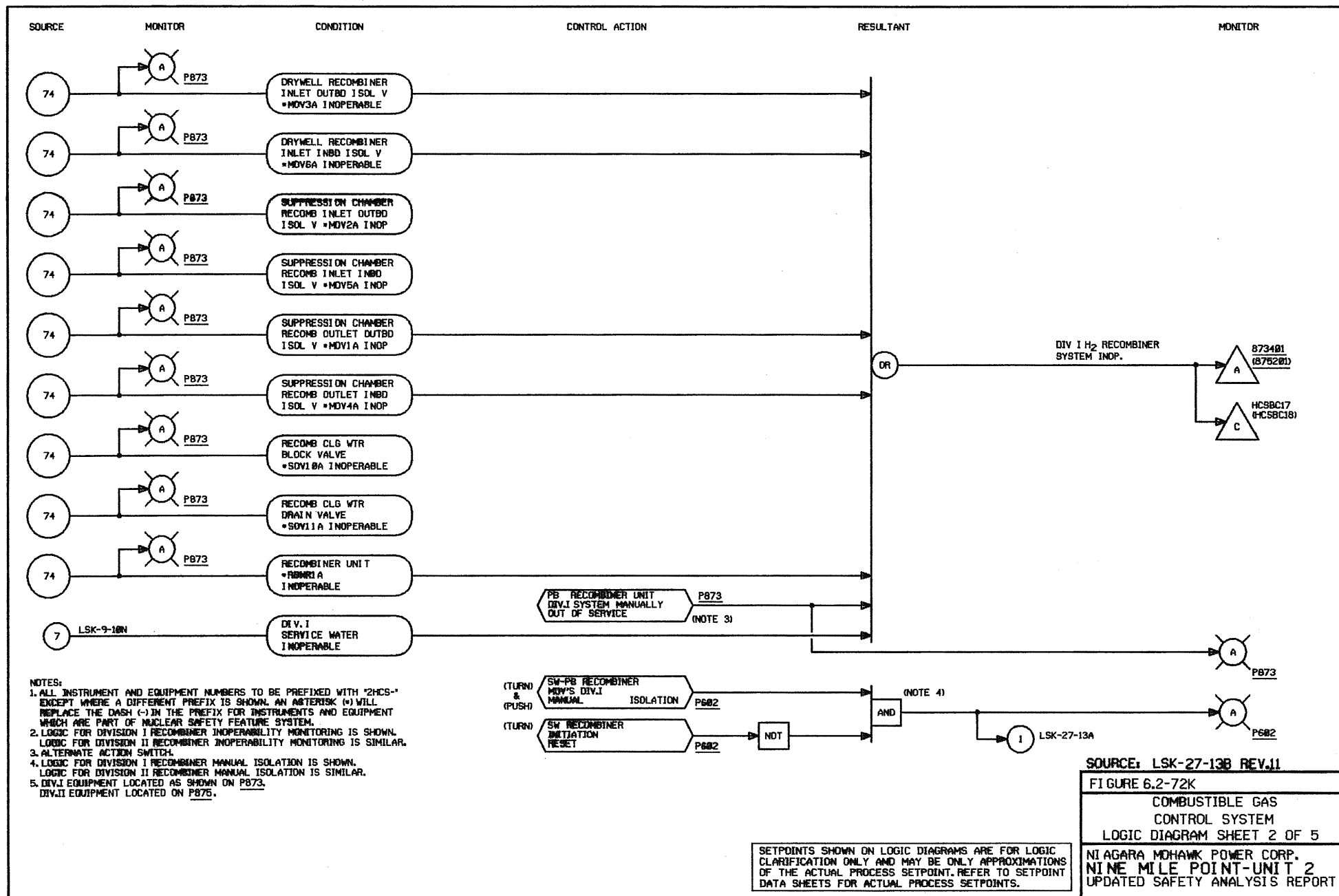
SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

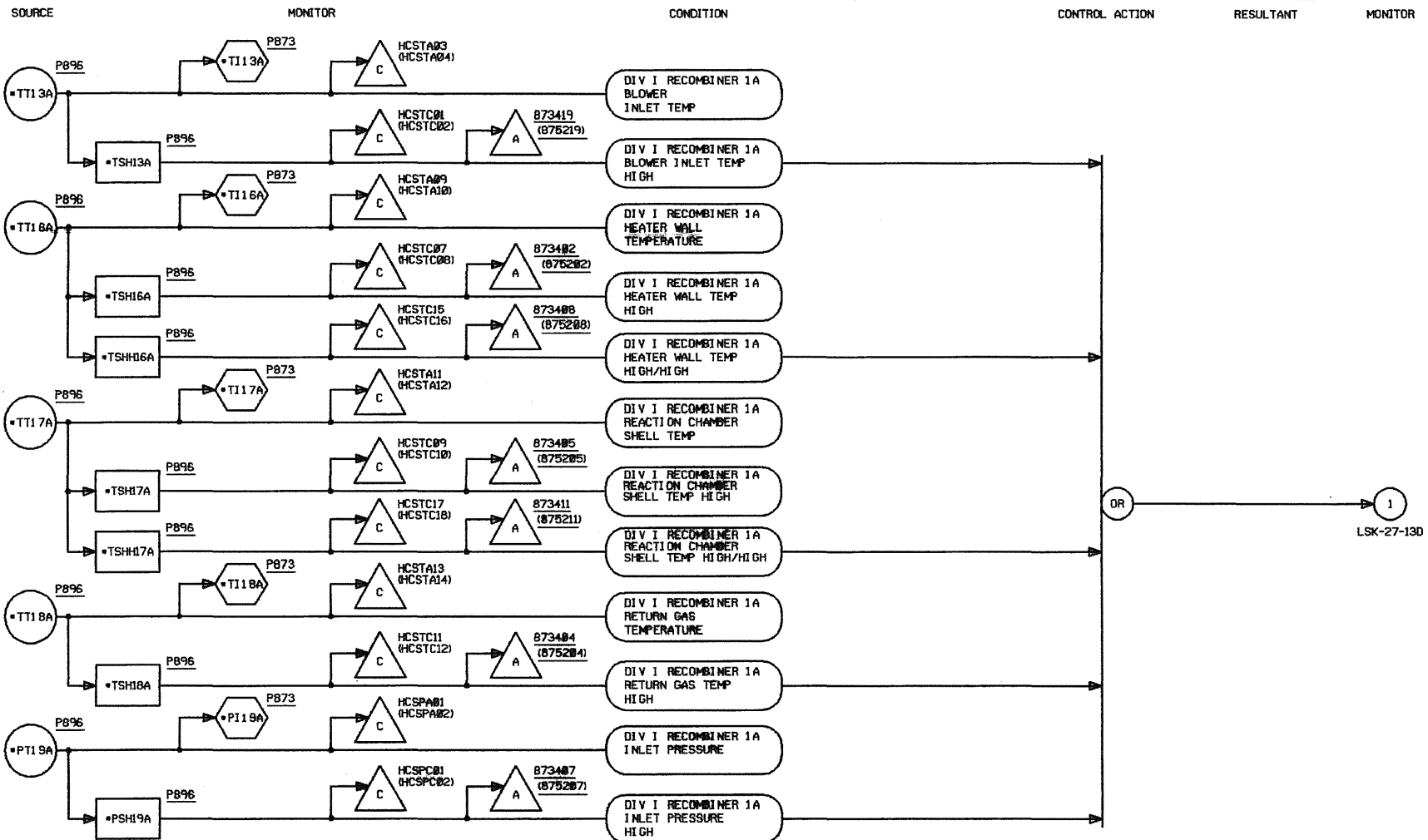
SOURCE: LSK- 27-13A

FIGURE 6.2-72K

COMBUSTIBLE GAS
CONTROL SYSTEM
LOGIC DIAGRAM SHEET 1 OF 5

NIAGARA MOHAWK POWER CORP.
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT





NOTES:

1. ALL INSTRUMENT & EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HCS-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR INSTRUMENTS AND EQUIPMENT WHICH ARE PART OF THE NUCLEAR SAFETY FEATURE SYSTEMS.

2. LOGIC FOR HYDROGEN RECOMBINER *RNR1A IS SHOWN LOGIC FOR HYDROGEN RECOMBINER *RNR1B IS SIMILAR.

3. ASSOCIATED EQUIPMENT MARK NUMBERS:

DIV.I	DIV.II
•TT13A	•TT13B
•TT16A	•TT16B
•TT17A	•TT17B
•PT19A	•PT19B
•P873	•P875
•P896	•P897

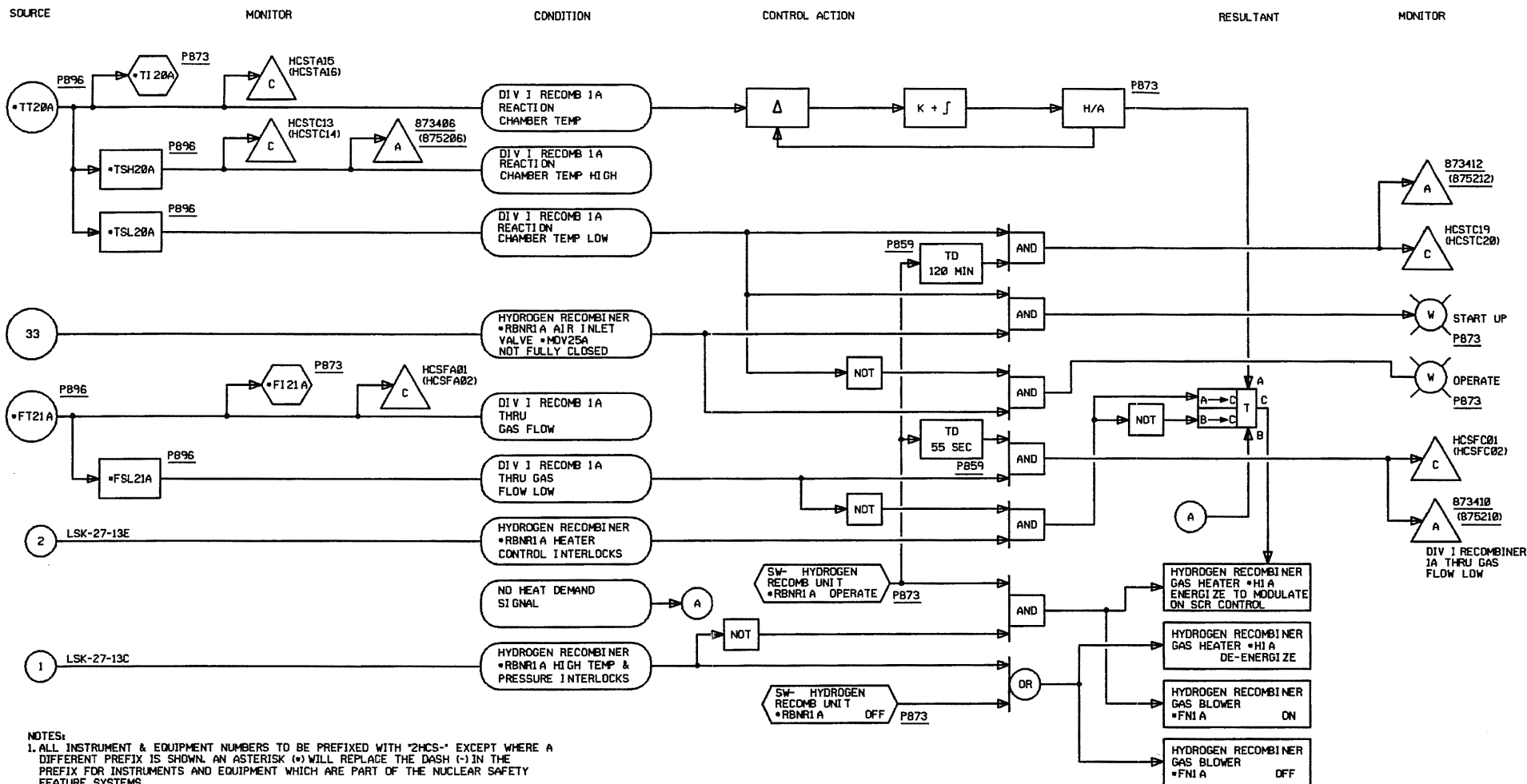
SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-27-13C REV.11

FIGURE 6.2-72K

COMBUSTIBLE GAS
CONTROL SYSTEM
LOGIC DIAGRAM SHEET 3 OF 5

NIAGARA MOHAWK POWER CORP.
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



SOURCE: LSK-27-13D REV.11

FIGURE 6.2-72K

COMBUSTIBLE GAS
CONTROL SYSTEM
LOGIC DIAGRAM SHEET 4 OF 5

NIAGARA MOHAWK POWER CORP.
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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**THIS FIGURE HAS
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FIGURE 6.2-74

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

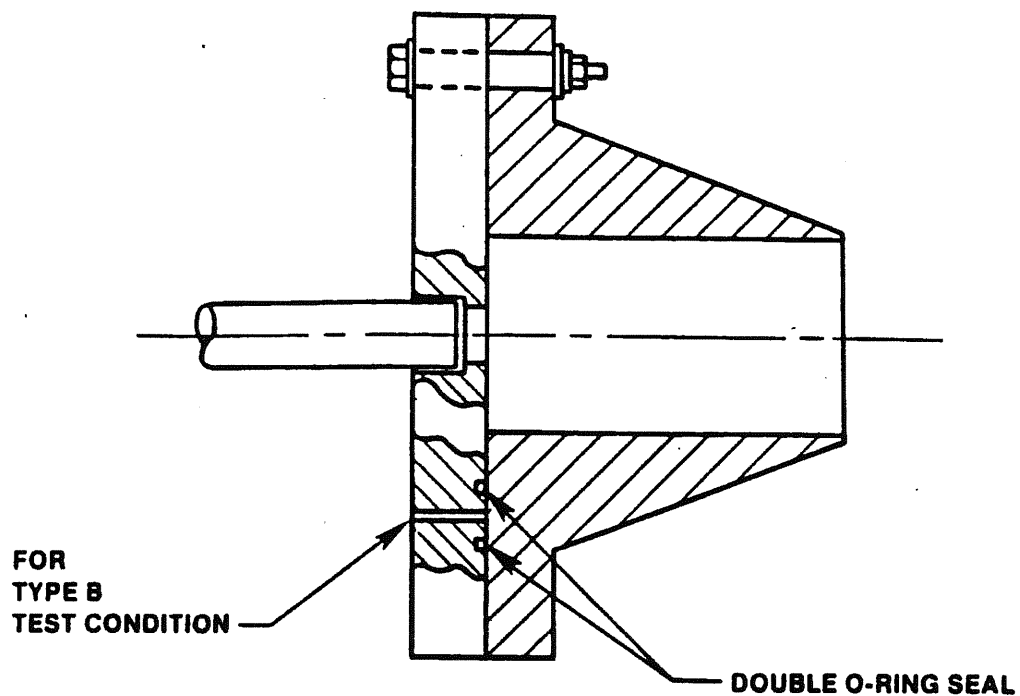


FIGURE 6.2-75

N₂ PURGE PENETRATION

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

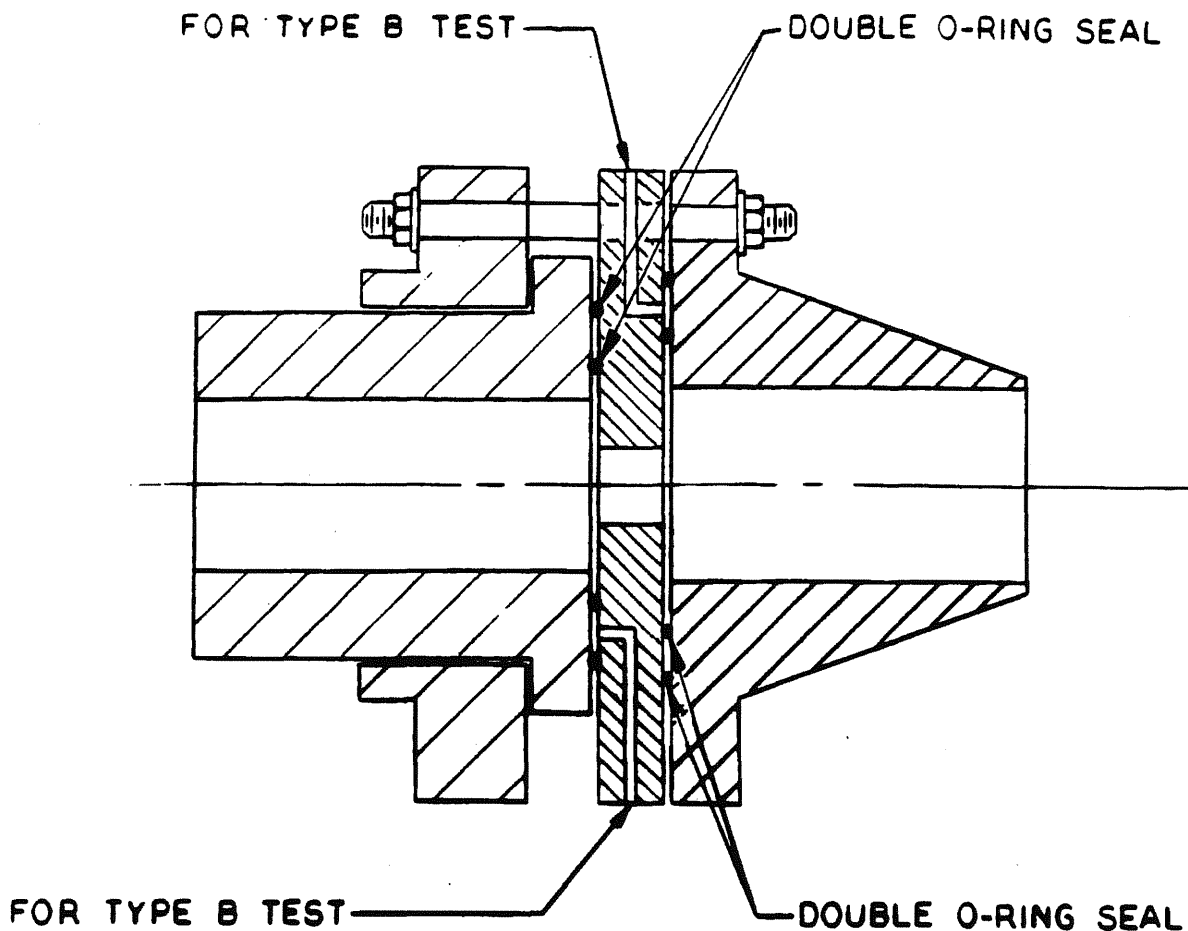


FIGURE 6.2-75b

TRAVERSING IN-CORE PROBE
2NMT#Z31A,B,C,D&E PENETRATIONS

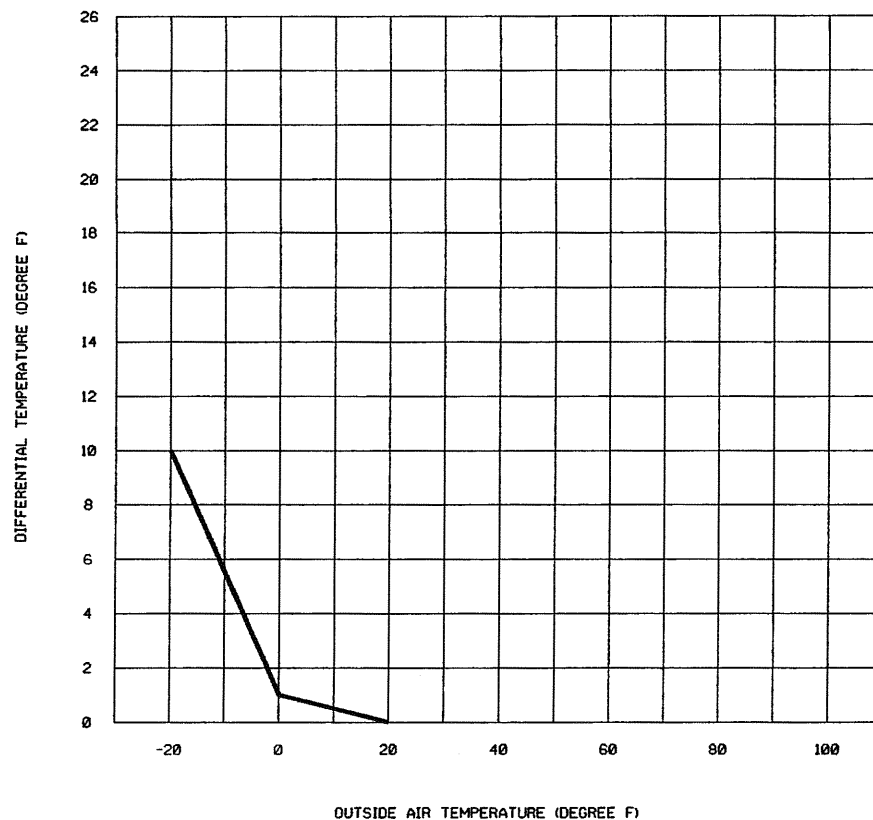
NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

**THIS FIGURE HAS
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FIGURE 6.2-76

SECONDARY CONTAINMENT PRESSURE
VERSUS TIME AFTER A LOSS OF
COOLANT ACCIDENT (LOCA).

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT



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FIGURE 6.2-77

EFFECT OF OUTSIDE AIR TEMPERATURE
ON THE MINIMUM REQUIRED DRAWDOWN
DIFFERENTIAL TEMPERATURE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

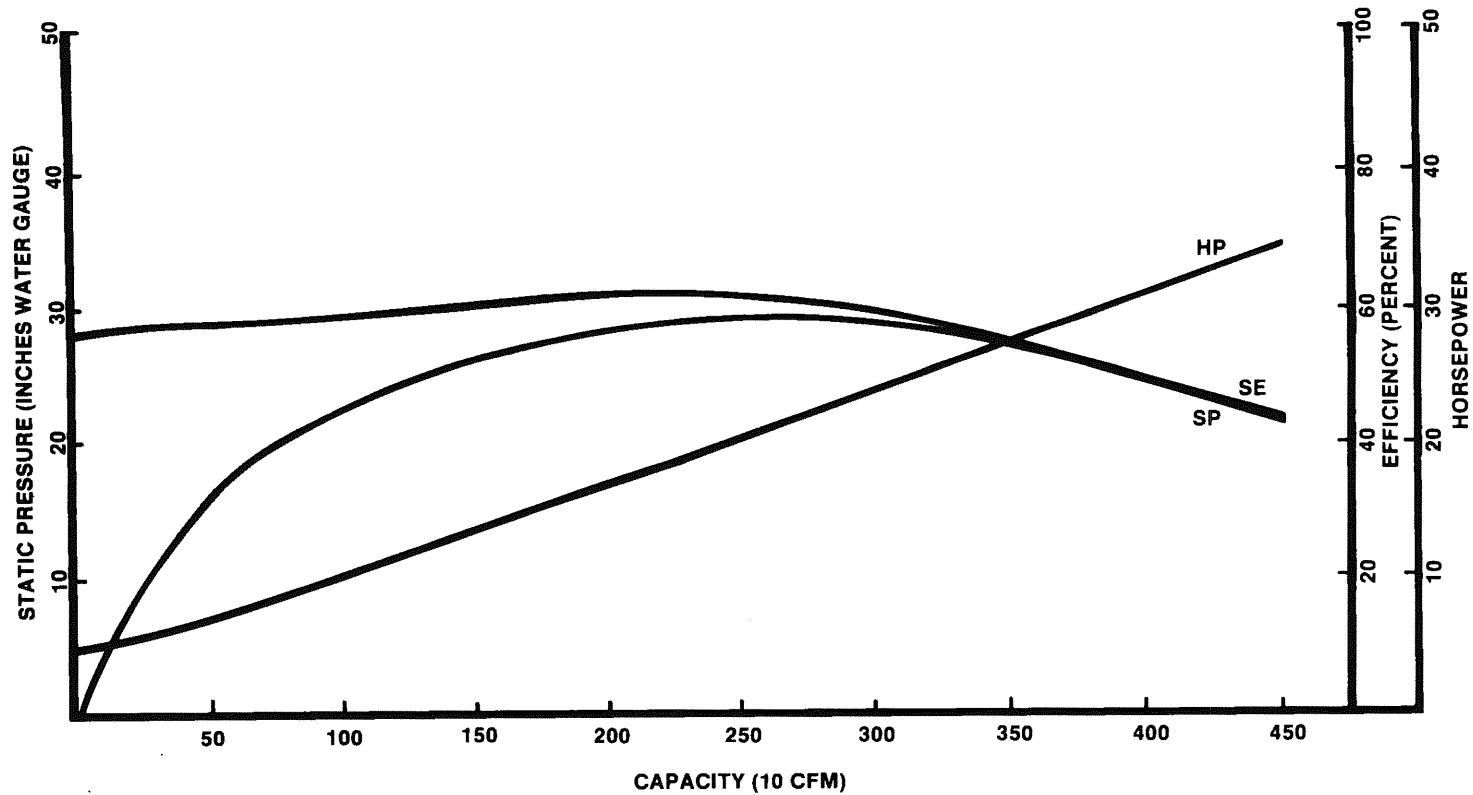


FIGURE 6.2-78

SGTS FAN PERFORMANCE CURVE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

**THIS FIGURE HAS
BEEN DELETED.**

FIGURE 6.2-79

RWCU ARRANGEMENT FROM
ISOLATION VALVES TO WATER SEAL

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

**THIS FIGURE HAS
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FIGURE 6.2-80

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

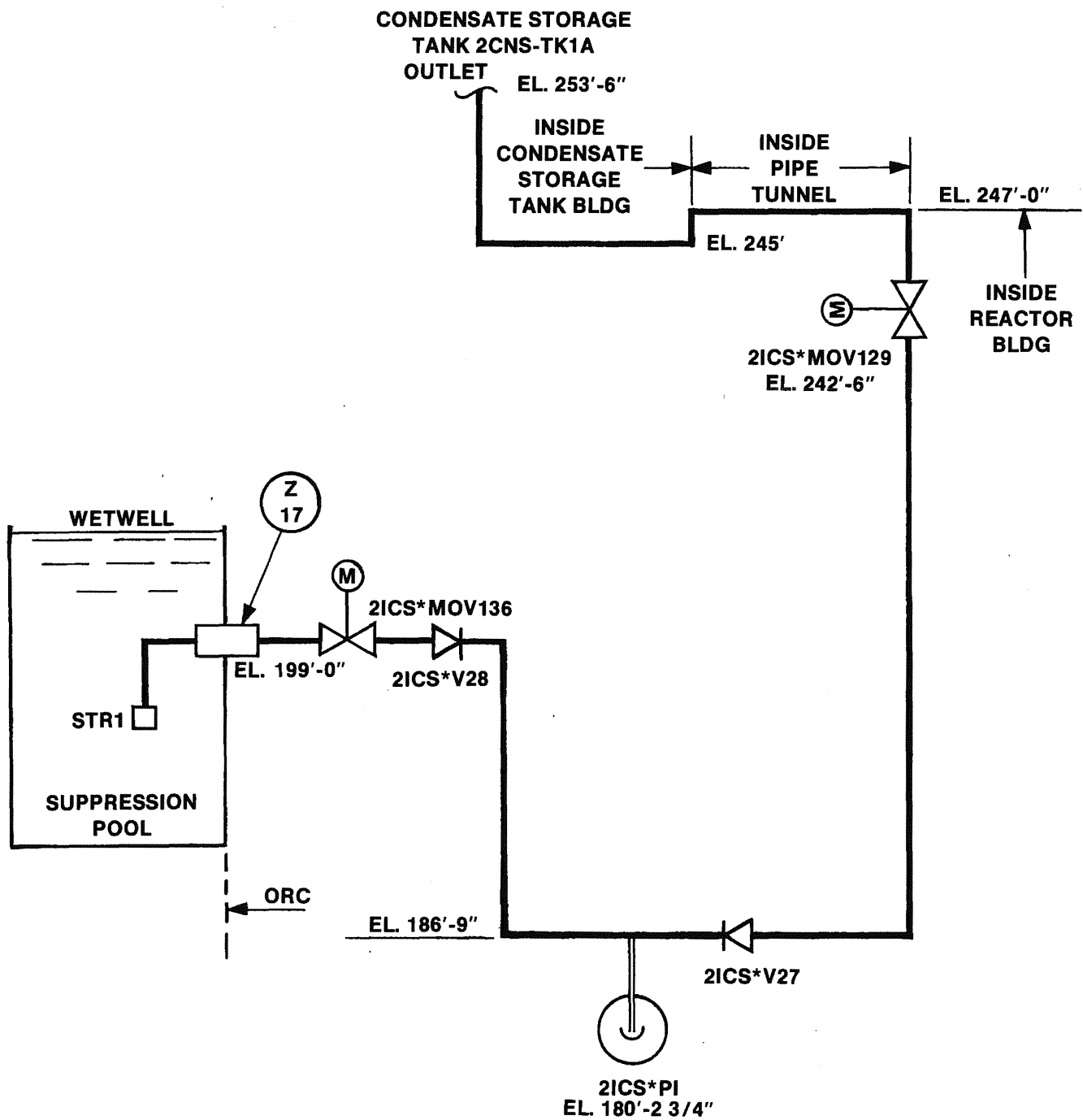


FIGURE 6.2-81

RCIC PUMP SUCTION FROM
SUPPRESSION POOL

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

**THIS FIGURE HAS
BEEN DELETED**

FIGURE 6.2-82

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

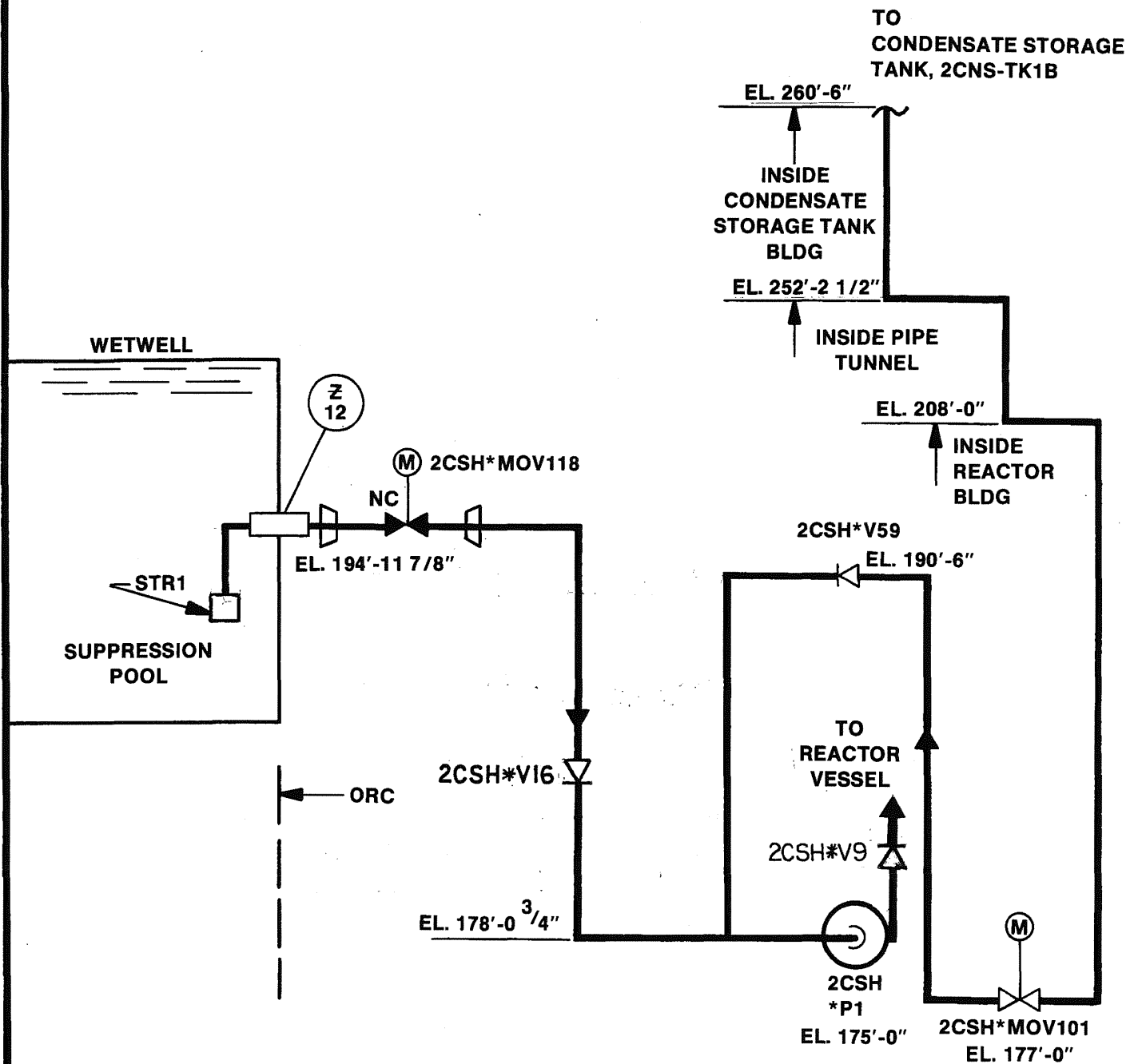


FIGURE 6.2-83

HPCS PUMP SUCTION FROM
SUPPRESSION POOL

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

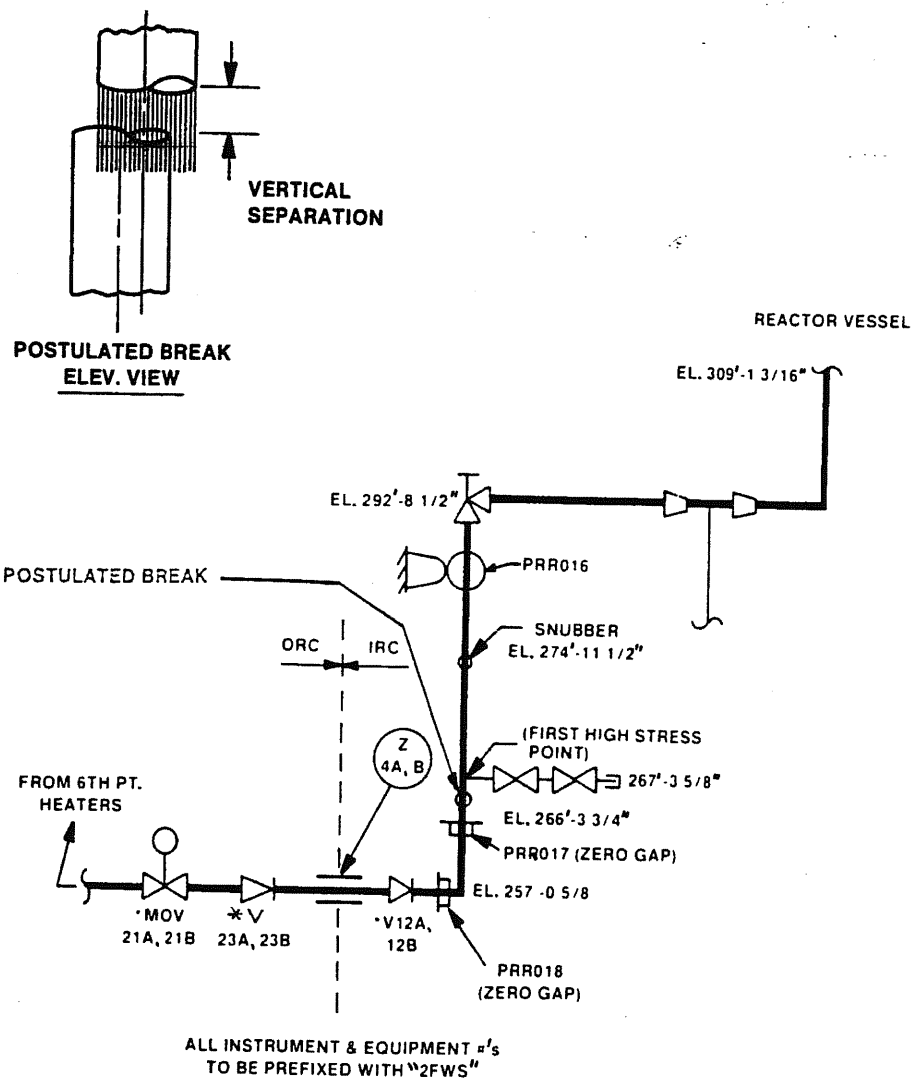


FIG. 6.2-84

FEEDWATER LINES (FWS) TO
REACTOR PRESSURE VESSEL

NINE MILE POINT
NUCLEAR STATION-UNIT 2
SCRIBA, NY

UPDATED SAFETY ANALYSIS REPORT

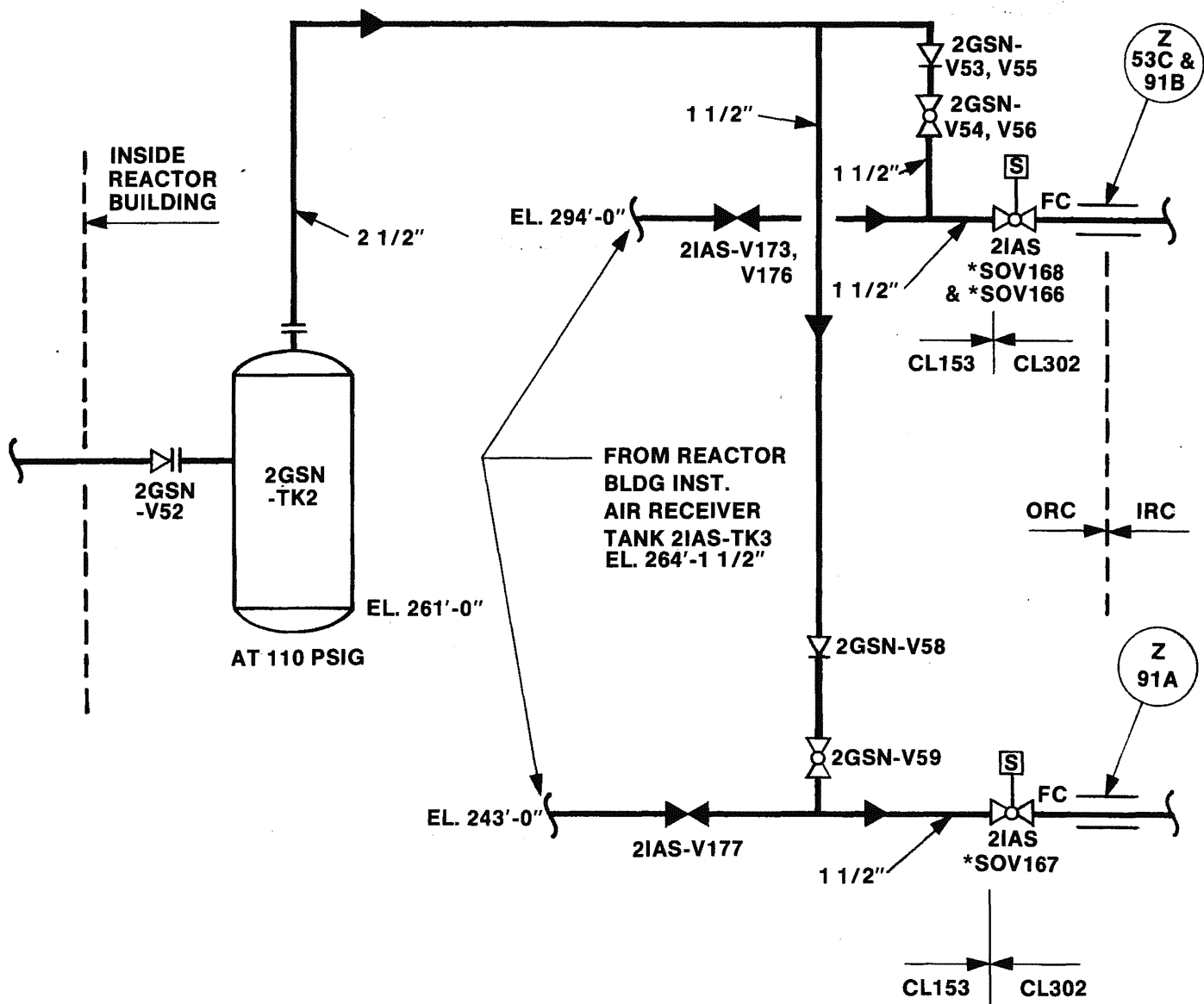


FIGURE 6.2-85

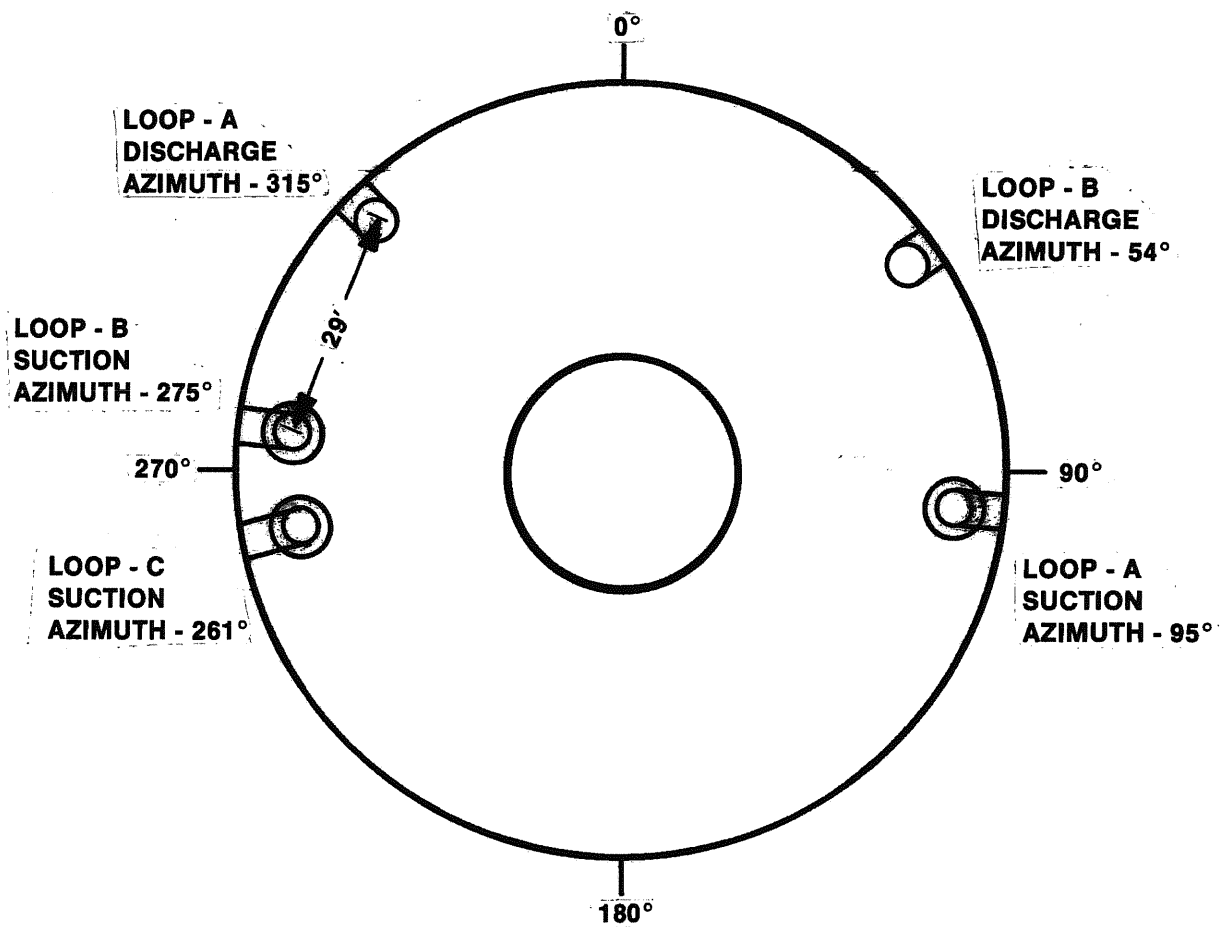
NITROGEN SYSTEM LINES TO REACTOR
BUILDING INSTRUMENT AIR RECEIVER TANK

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

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FIGURE 6.2-86

**NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT**



NORMAL POOL LEVEL	EL — 200'
DISCHARGE	EL — 198'
SUCTION (TOP)	EL — 189'-8"
POOL BOTTOM	EL — 176'

FIGURE 6.2-87

NMP2 — RHR SUCTION & DISCHARGE
SCHEMATIC (PLAN)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

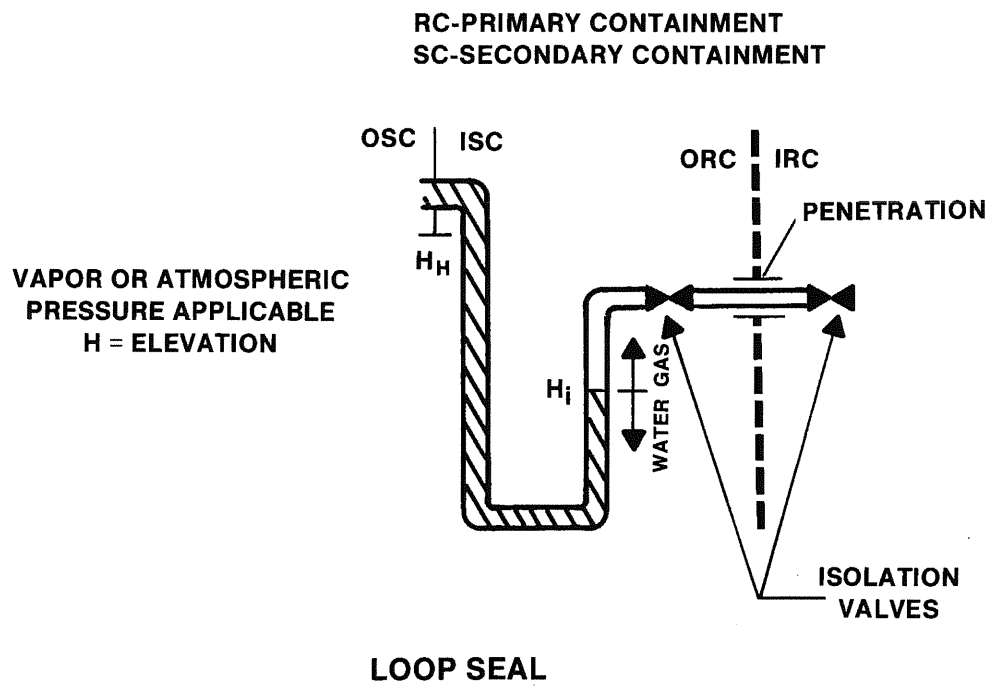
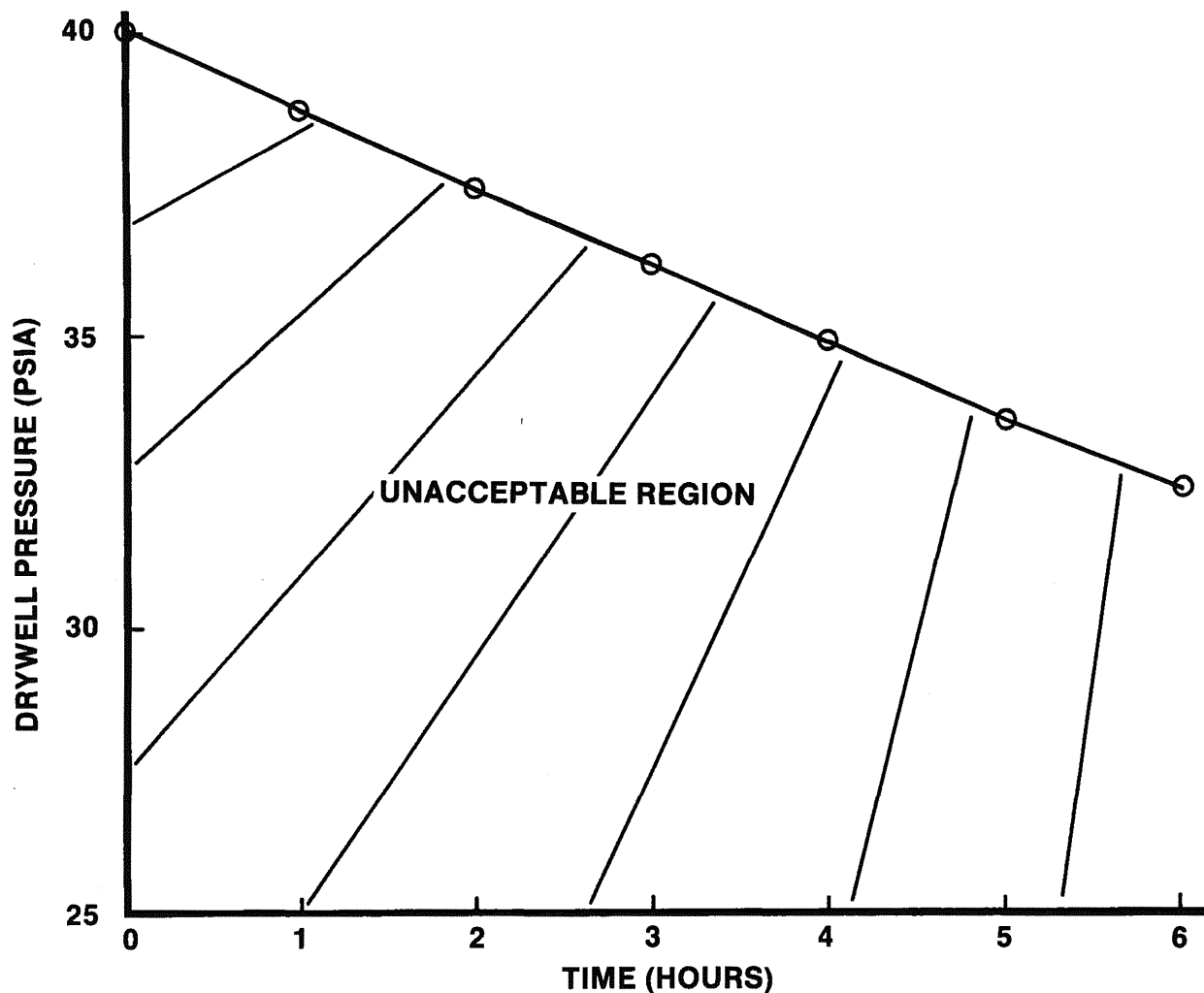


FIGURE 6.2-88

TYPICAL WATER LOOP SEAL

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

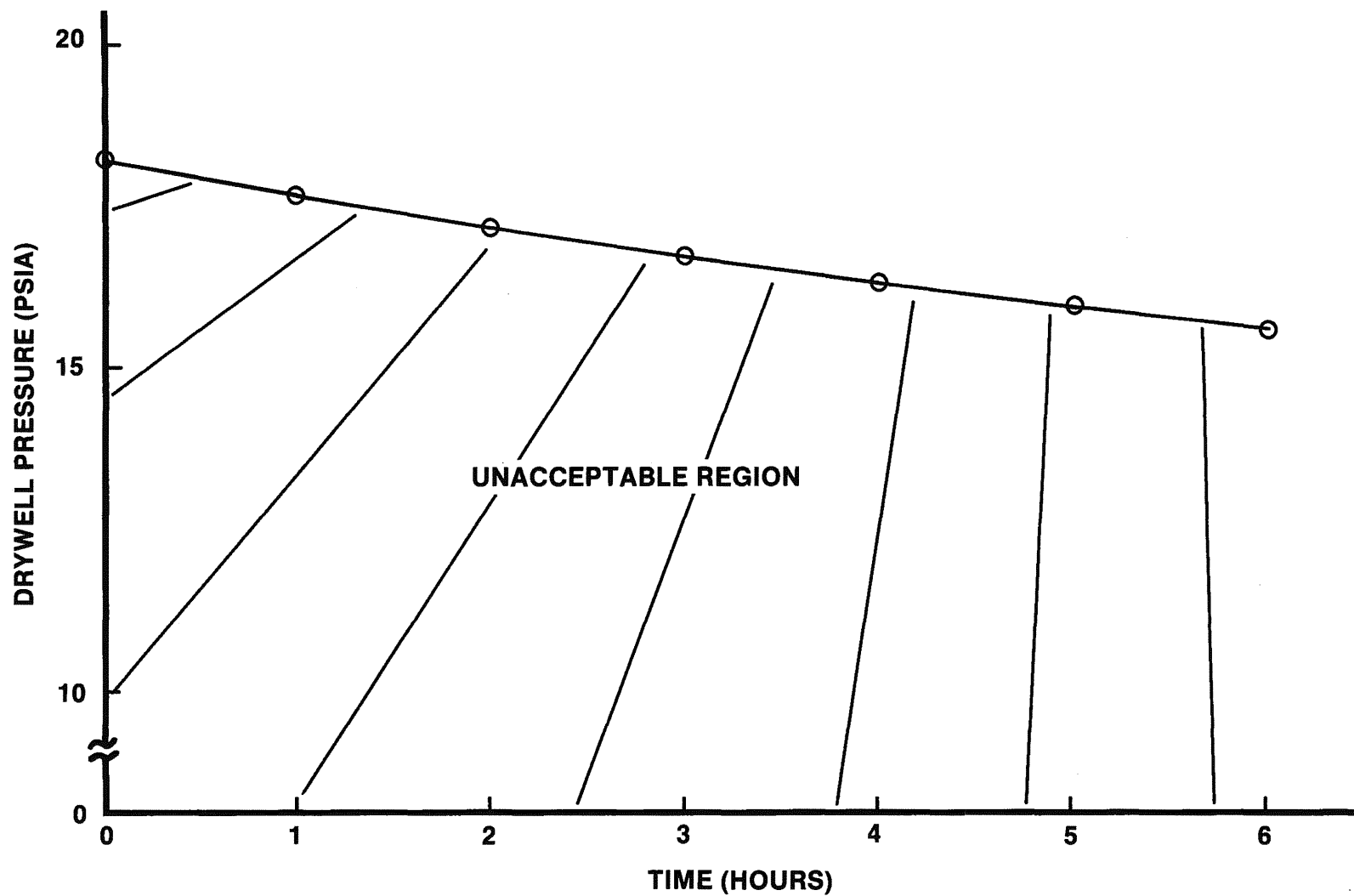


NOTE: THESE RESULTS ARE VALID FOR DW TEMPS 70°F AND ABOVE

FIGURE 6.2-89

DRYWELL PRESSURE DECAY
TRANSIENT FOR HIGH PRESSURE
STEAM BYPASS TEST

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



NOTE: THESE RESULTS ARE VALID FOR DW TEMPS 70°F AND ABOVE

FIGURE 6.2-90

DRYWELL PRESSURE DECAY
TRANSIENT FOR LOW PRESSURE
STEAM BYPASS TEST

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

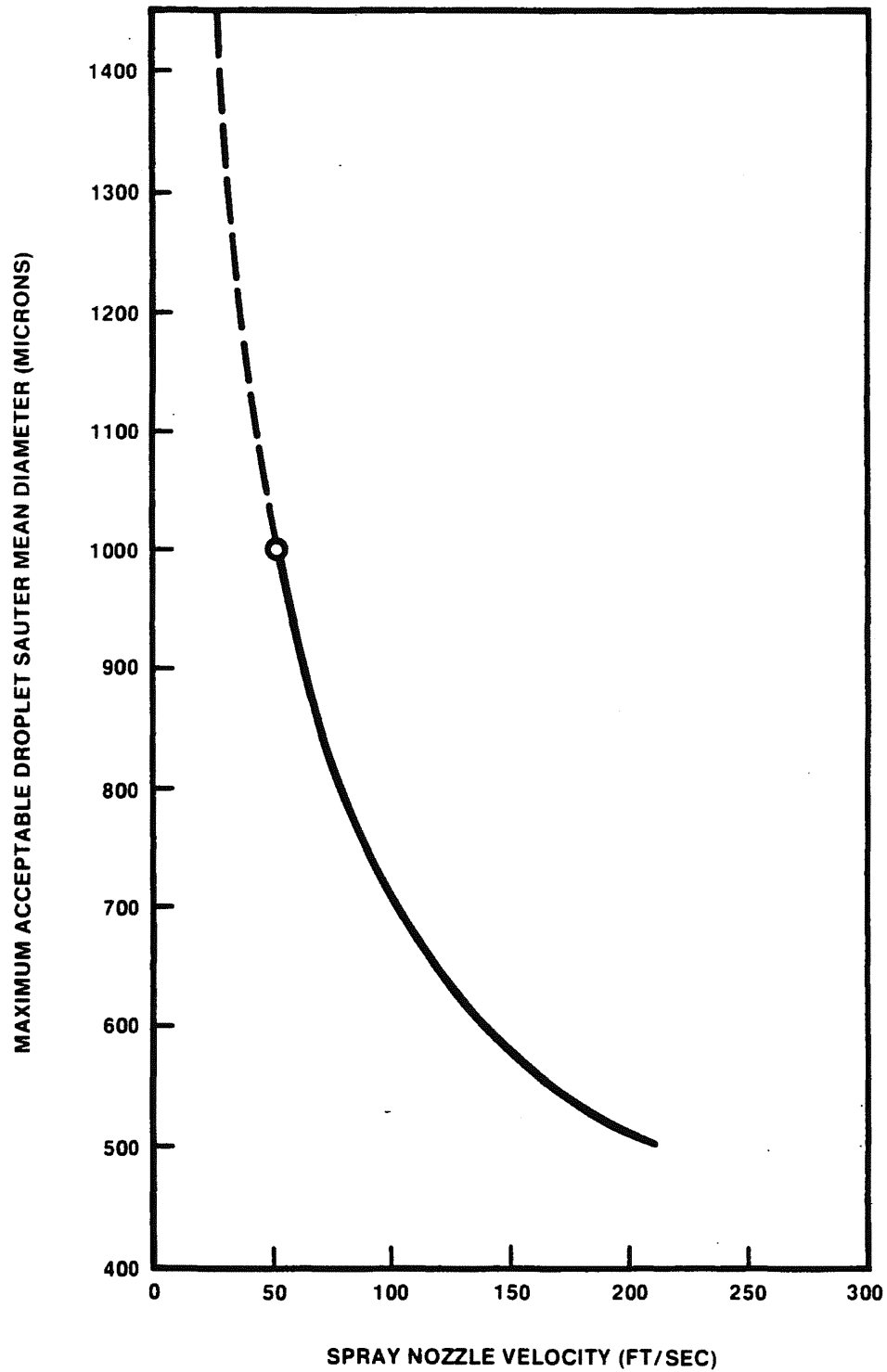


FIGURE 6.2-91

SPRAY PATTERNS AND
PARTICLE SIZE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

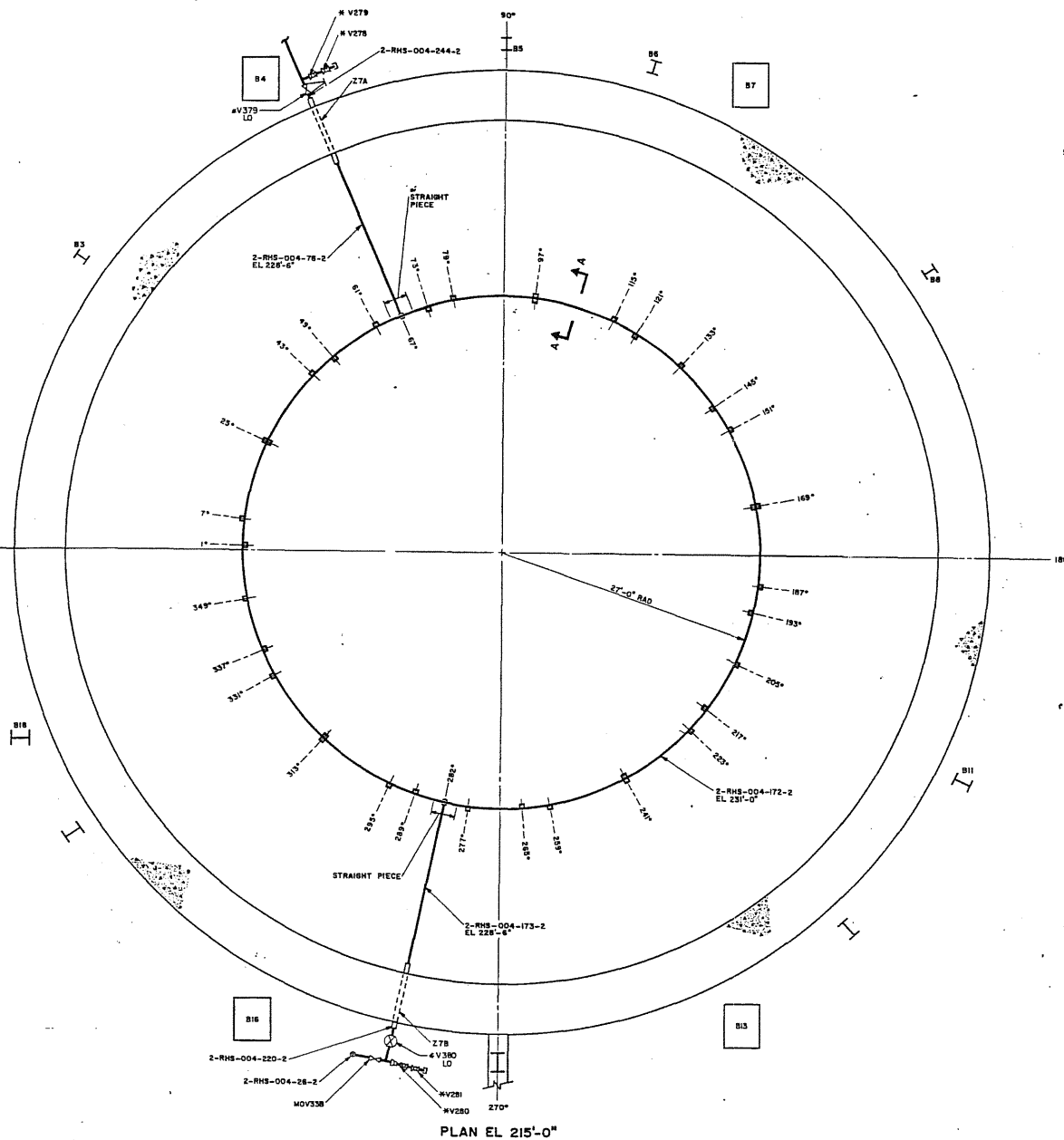


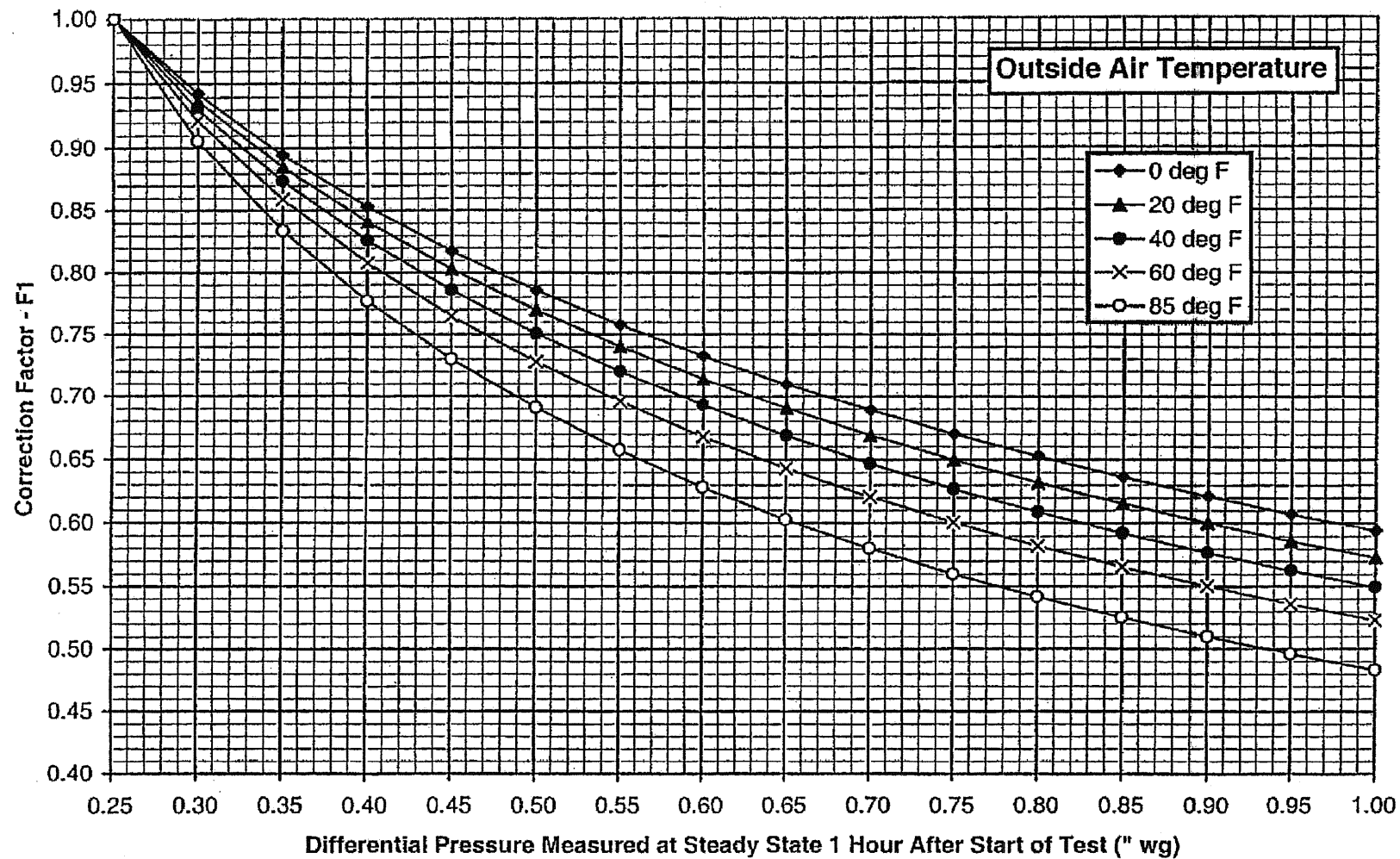
FIGURE 6.2-92

RHR SUPPRESSION CHAMBER
SPRAY HEADER, AND SPRAY NOZZLE
LOCATIONS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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DO NOT MAKE ANY CHANGES MANUALLY.

FIGURE 6.2-95A

CORRECTION FACTORS FOR
INLEAKAGE AT 0.25 INCHES WG

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.

UPDATED SAFETY ANALYSIS REPORT

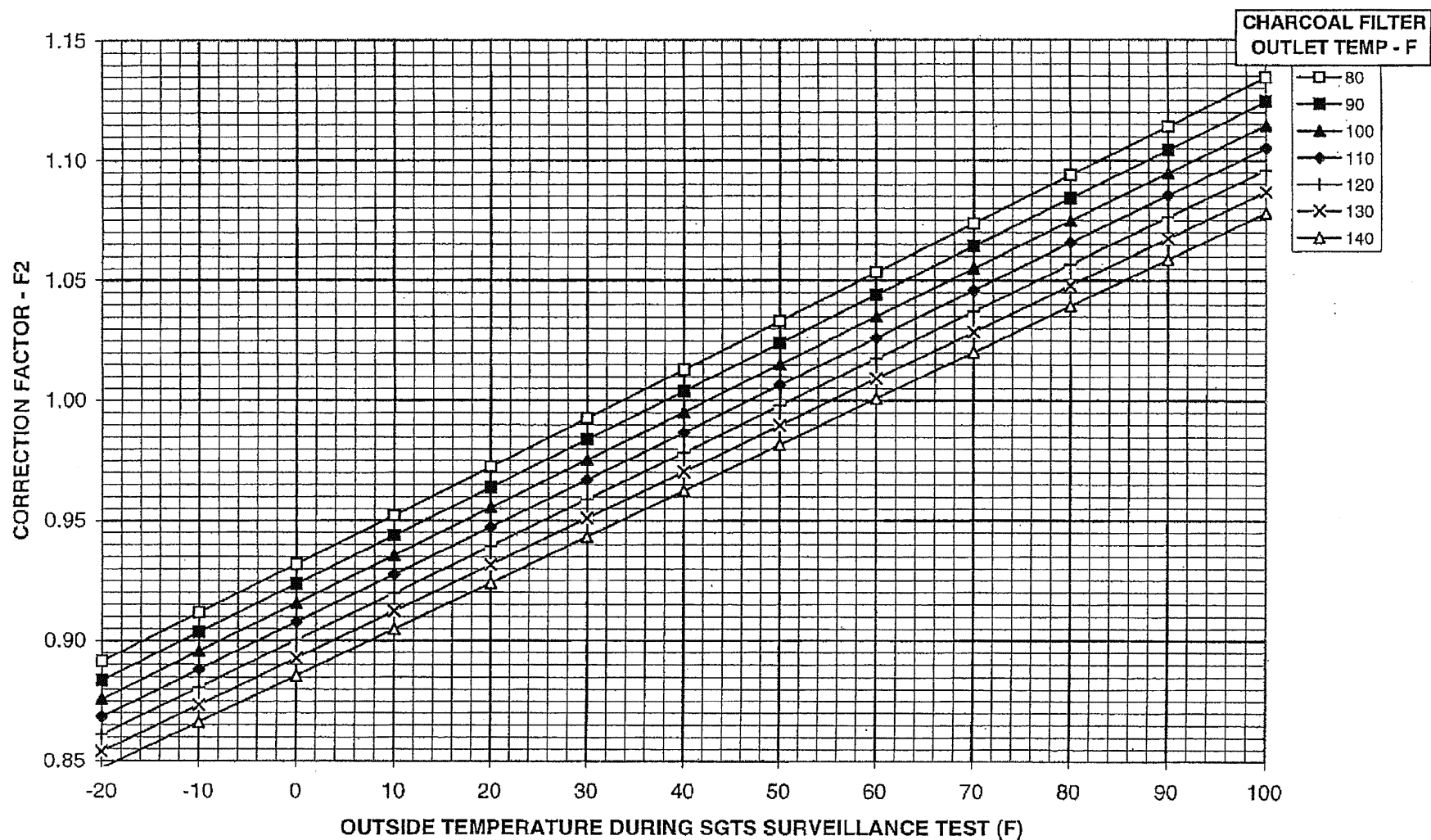


FIGURE 6.2-95B

CORRECTION FACTOR FOR
FLOW METER READING

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

SOURCE: CALC. ES-259

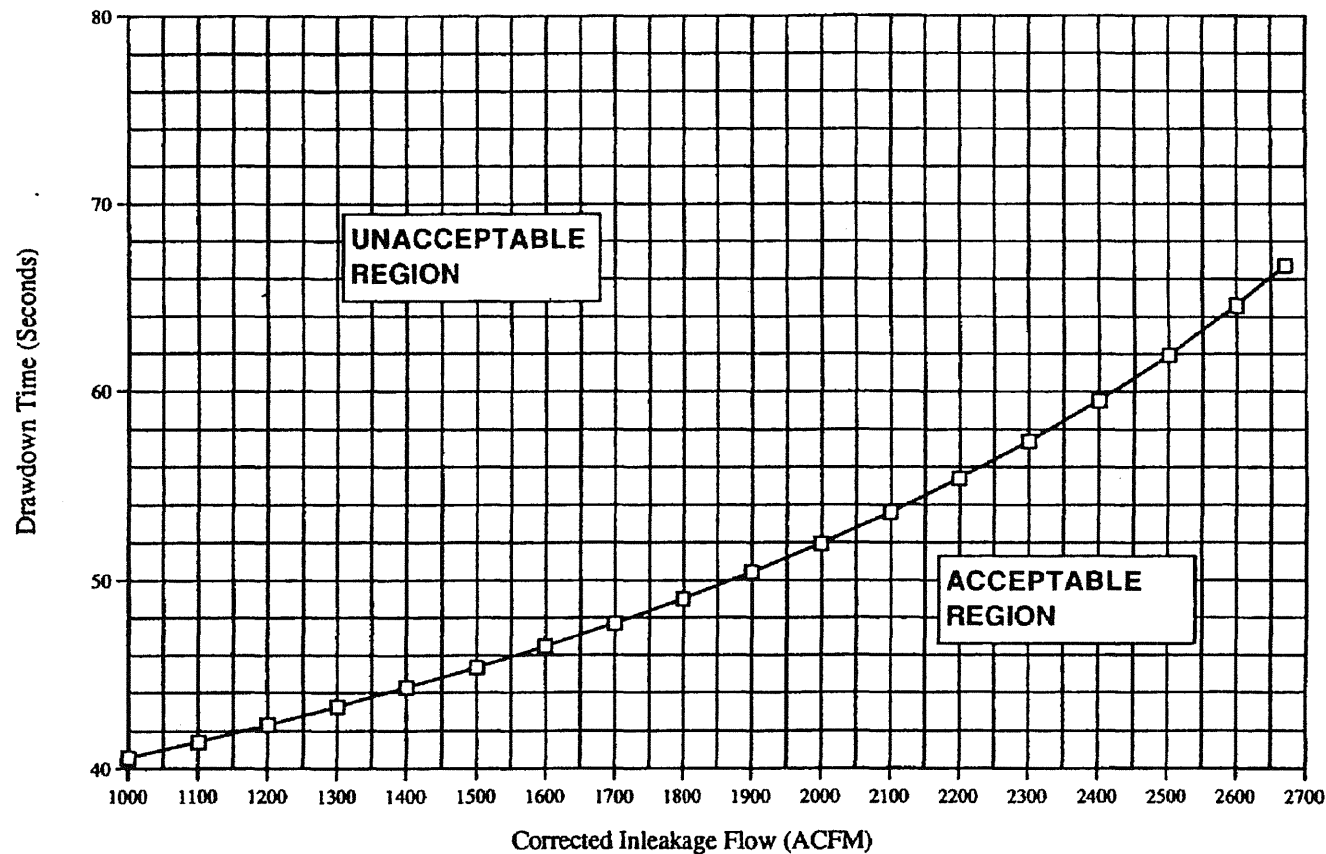


FIGURE 6.2-95C

DRAWDOWN TIME VS.
CORRECTED INLEAKAGE FLOW

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS DRAWING CREATED ELECTRONICALLY

SOURCE: CALC. ES-259

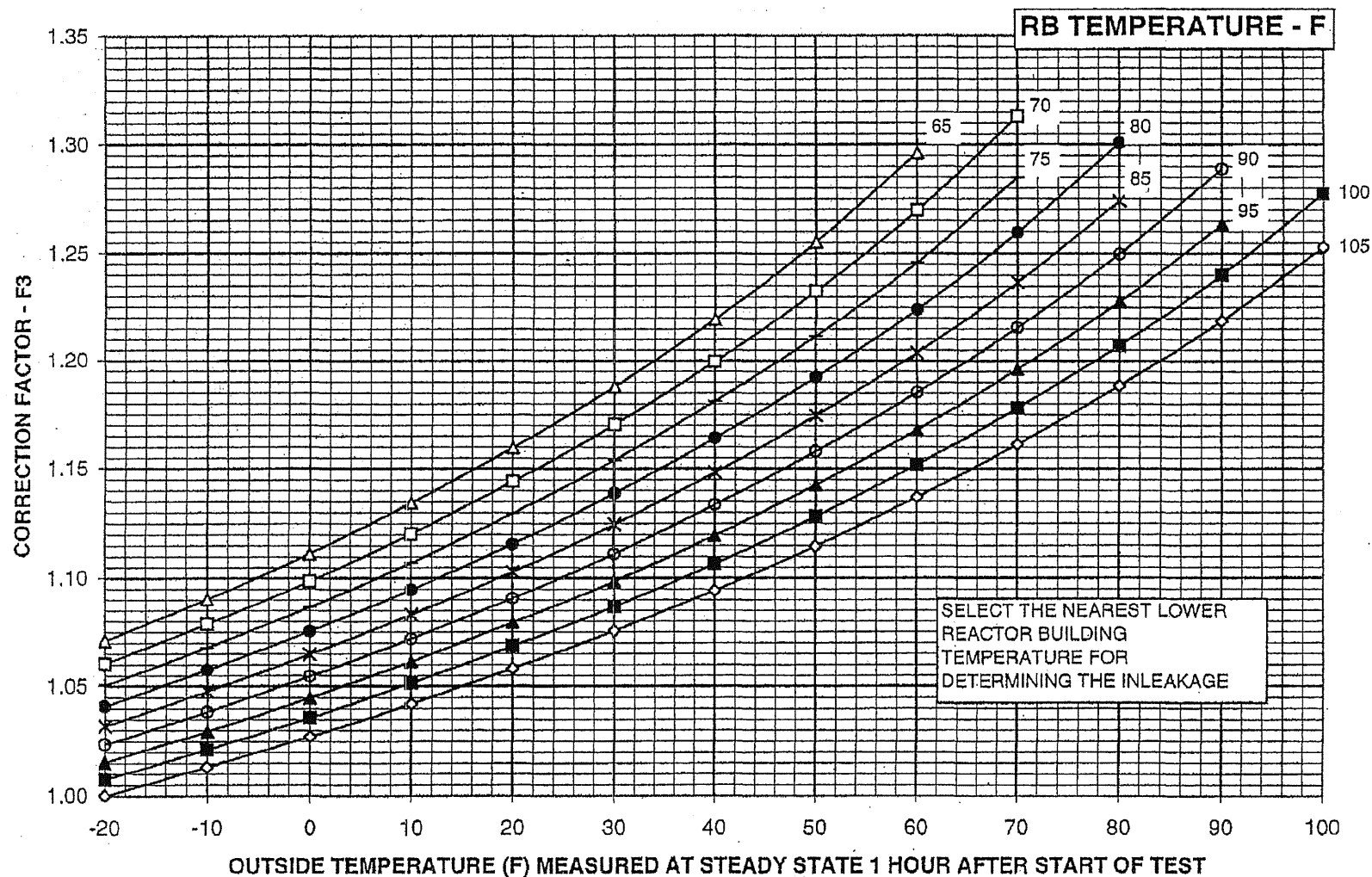


FIGURE 6.2-95D

CORRECTION FACTOR FOR
INLEAKAGE AT -20°F OUTSIDE AIR
& 105°F REACTOR BUILDING AIR

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

SOURCE: CALC. ES-259

MODE H SYSTEM TEST, SUCTION FROM CONDENSATE STORAGE

POSITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FLOW GPM	N/A	485																							1840
PRESS PSIA	14.7																								
TEMP °F	AMB	74.5																							79.4
MAX PRESS																									
DROP FEET																									

SEE NOTE 18 FOR UNIT 2

MODE S SYSTEM ON STANDBY DUTY

POSITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FLOW GPM	N/A	0												N/A
PRESS PSIA	14.7													14.7
TEMP °F	AMB	74.5												79.4
MAX PRESS														
DROP FEET														

MODE CC ACCIDENT OR RCIC BACK-UP REACTOR AT HIGH PRESSURE
(SEE NOTE 21) SUCTION FROM THE SUPPRESSION POOL

POSITION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FLOW GPM																									
PRESS PSIA																									
TEMP °F																									
MAX PRESS																									
DROP FEET																									

TABLE II
LIMITING LINE LOSS

MODE	FLOW PATH	COMMENT
F	18.5-19-20-4-5	SEE NOTE 7
E	1.5-2-3-4	SEE NOTE 8
C OR E	6-7-8-9-10-11-12-13	SEE NOTE 9
J	7-15-16-16.5-17	
H	10-21-22-23-24-25-25.5	
G	21-24-27-17-17.5	

FIGURE 6.3-1

HIGH PRESSURE CORE SPRAY
PROCESS DIAGRAM
SHEET 2 OF 2

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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NOVEMBER 1995

MODE A SYSTEM TEST, SUCTION FROM SUPPRESSION POOL														
POSITION	1	2	3	4	5	6	7	8	9	10	12	13	14	
FLOW GPM	N	7800						7800	0	0	0	0	0	7800
PRESSURE PSIA	14.7													
TEMPERATURE °F	120							120	AMB				AMB	120
MAX PRESSURE DROP FEET		500						40					40	

MODE B SYSTEM TEST, SUCTION FROM RESIDUAL HEAT REMOVAL SYSTEM														
POSITION	1	2	3	4	5	6	7	8	9	10	12	13	14	
FLOW GPM	N	8200									14.7	8200	0	
PRESSURE PSIA	14.7													
TEMPERATURE °F	120										120	AMB	120	
MAX PRESSURE DROP FEET		450										40		

MODE C PUMP OPERATING ON B-PHASE, SUCTION FROM SUPPRESSION POOL														
POSITION	1	2	3	4	5	6	7	8	9	10	12	13	14	
FLOW GPM	N	1000	1000	1000	0	0	0	0	0	0	0	0	0	1000
PRESSURE PSIA	14.7													
TEMPERATURE °F	212													212
MAX PRESSURE DROP FEET		175/820												40

MODE D ACCIDENT, SYSTEM REACTION AT RATED CORE SPRAY 1128 PSID										
POSITION	1	2	3	4	5	6	7	8	9	10
FLOW GPM	N	6350								6350
PRESSURE PSIA	14.7									14.7
TEMPERATURE °F	170									170
MAX PRESSURE DROP FEET		874					17			188

MODE F ACCIDENT, SYSTEM OPERATING AT RADIANT										
POSITION	1	2	3	4	5	6	7	8	9	10
FLOW GPM	N	7800								7800
PRESSURE PSIA	14.7									14.7
TEMPERATURE °F	212									212
MAX PRESSURE DROP FEET		500								

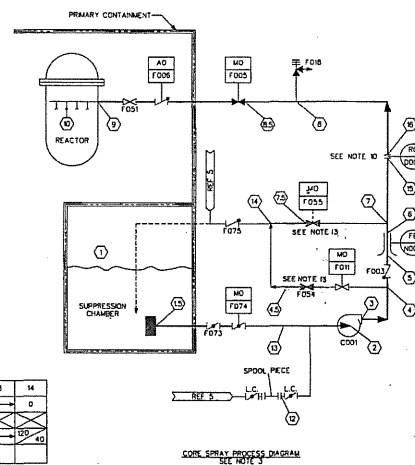
MODE S SYSTEM ON STANDBY DUTY														
POSITION	1	2	3	4	5	6	7	8	9	10	12	13	14	
FLOW GPM	N	0											0	
PRESSURE PSIA	14.7													
TEMPERATURE °F	120							120	AMB	AMB	120	40	40	
MAX PRESSURE DROP FEET		0												

MISCELLANEOUS INFORMATION-SEE NOTE 12														
POSITION	1	2	3	4	5	6	7	8	9	10	12	13	14	
DESIGN TEMPERATURE °F	212							488	REF 4					
DESIGN PRESSURE PSIG	100							550	100					
ESTIMATED LINE SIZES-INCHES	18"							12"	12"					

TABLE 11 LAYING LINE LOSS		
MODE	FLOW PATH	COMMENTS
F	15-13-2	SEE NOTE 5
D OR E	3-4-5-6-8-9-10	
A	7-3-14	
C	4-4.5-14	
B	12-13	SEE NOTE 6

VALVE POSITION				
CONDITION	F074	F005	F011	F012
MODE A	0	C	C	P
MODE B	C	C	C	C
MODE C	0	C	C	C
MODE D	0	0	C	C
MODE E	0	0	C	C
MODE F	0	0	C	C
MODE S	0	C	0	C

P-PARTIALLY OPEN
C-CLOSED
0-FULLY OPEN



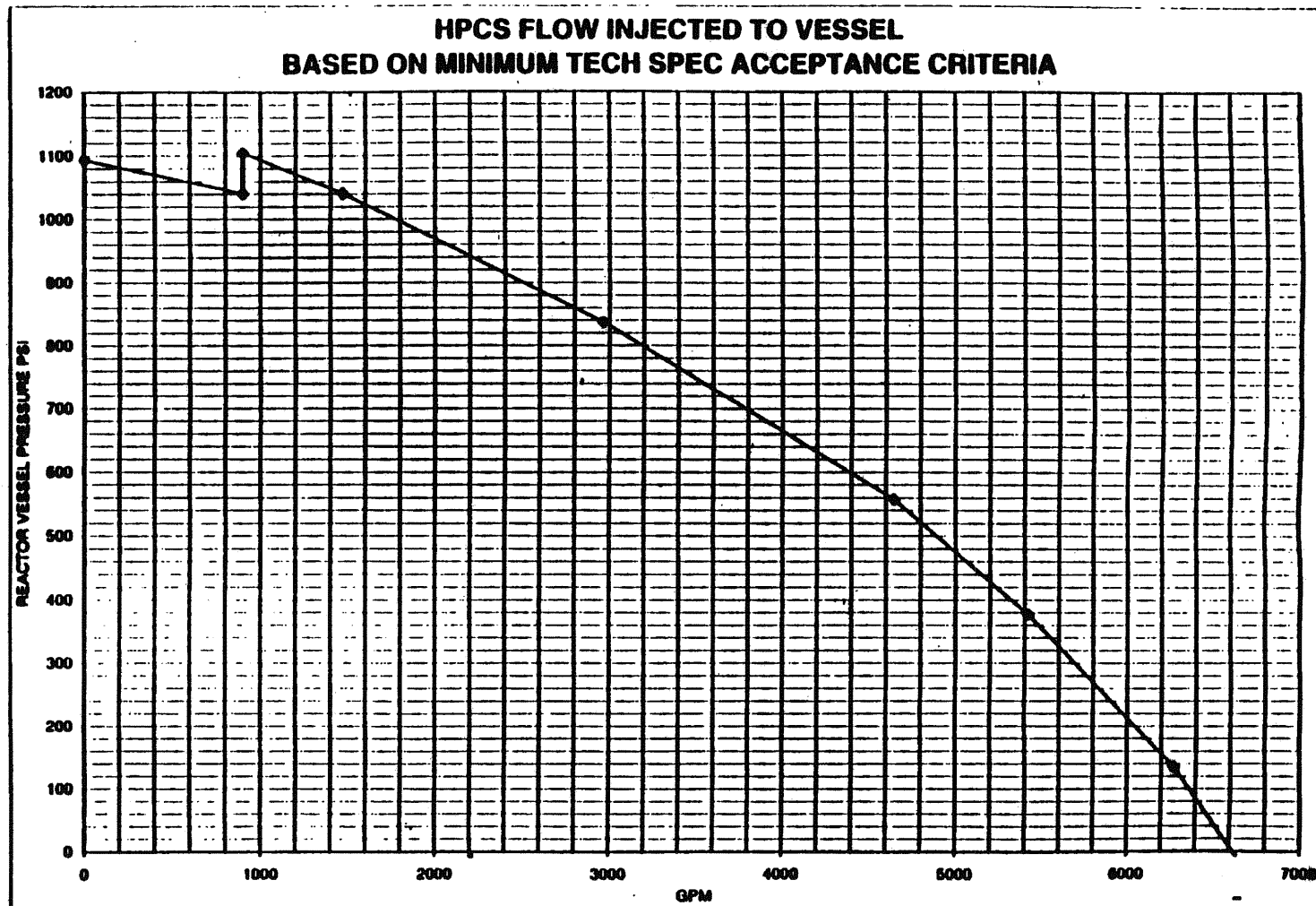
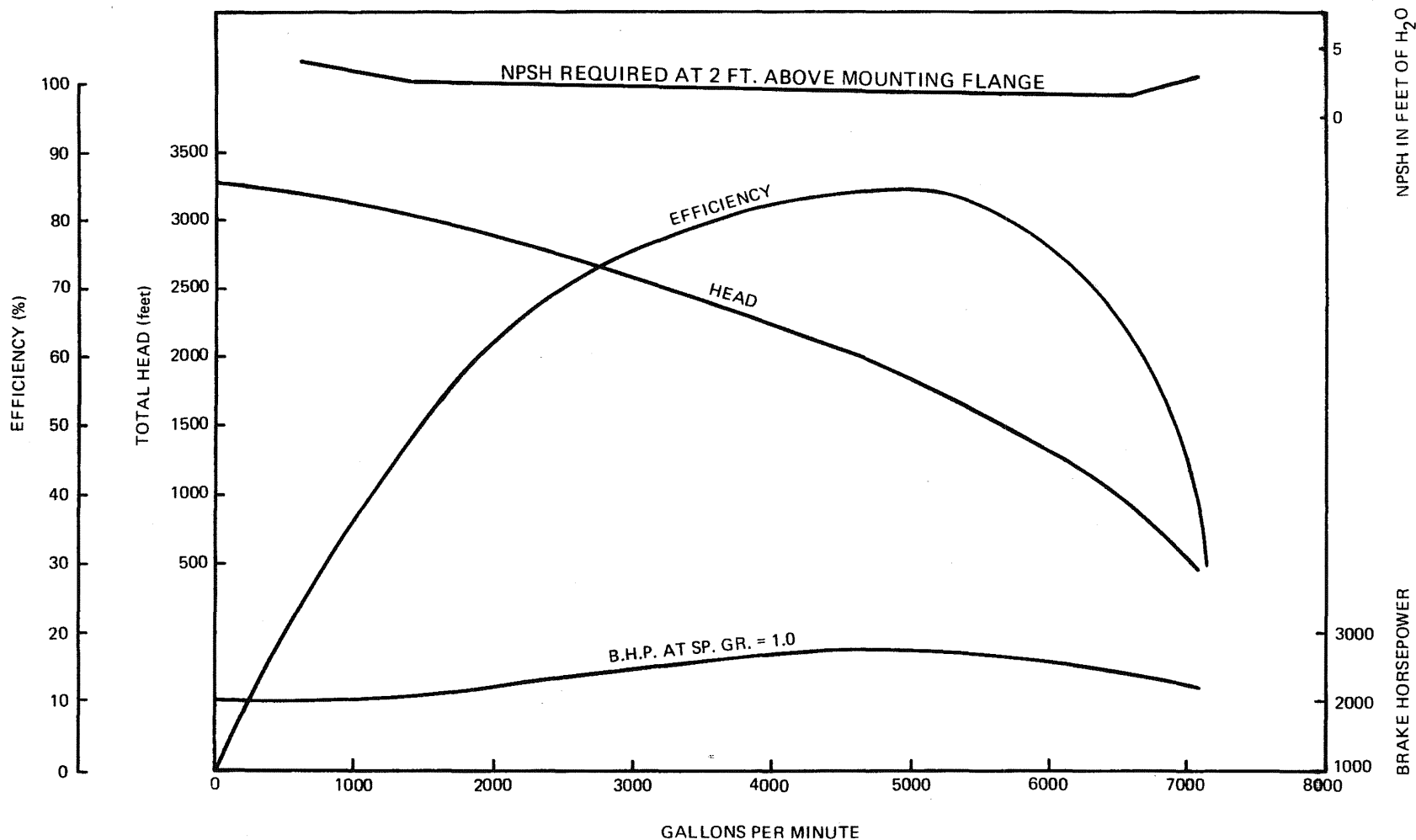


FIGURE 6.3-3a

HEAD VERSUS HIGH PRESSURE CORE
SPRAY FLOW USED IN LOCA ANALYSIS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



Note: Pump curve represents manufacturer's test curve.
Installed performance and minimum acceptable
Technical Specification performance is below this curve.

FIGURE 6.3-3b

HIGH PRESSURE CORE SPRAY
PUMP CHARACTERISTICS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
 UPDATED SAFETY ANALYSIS REPORT

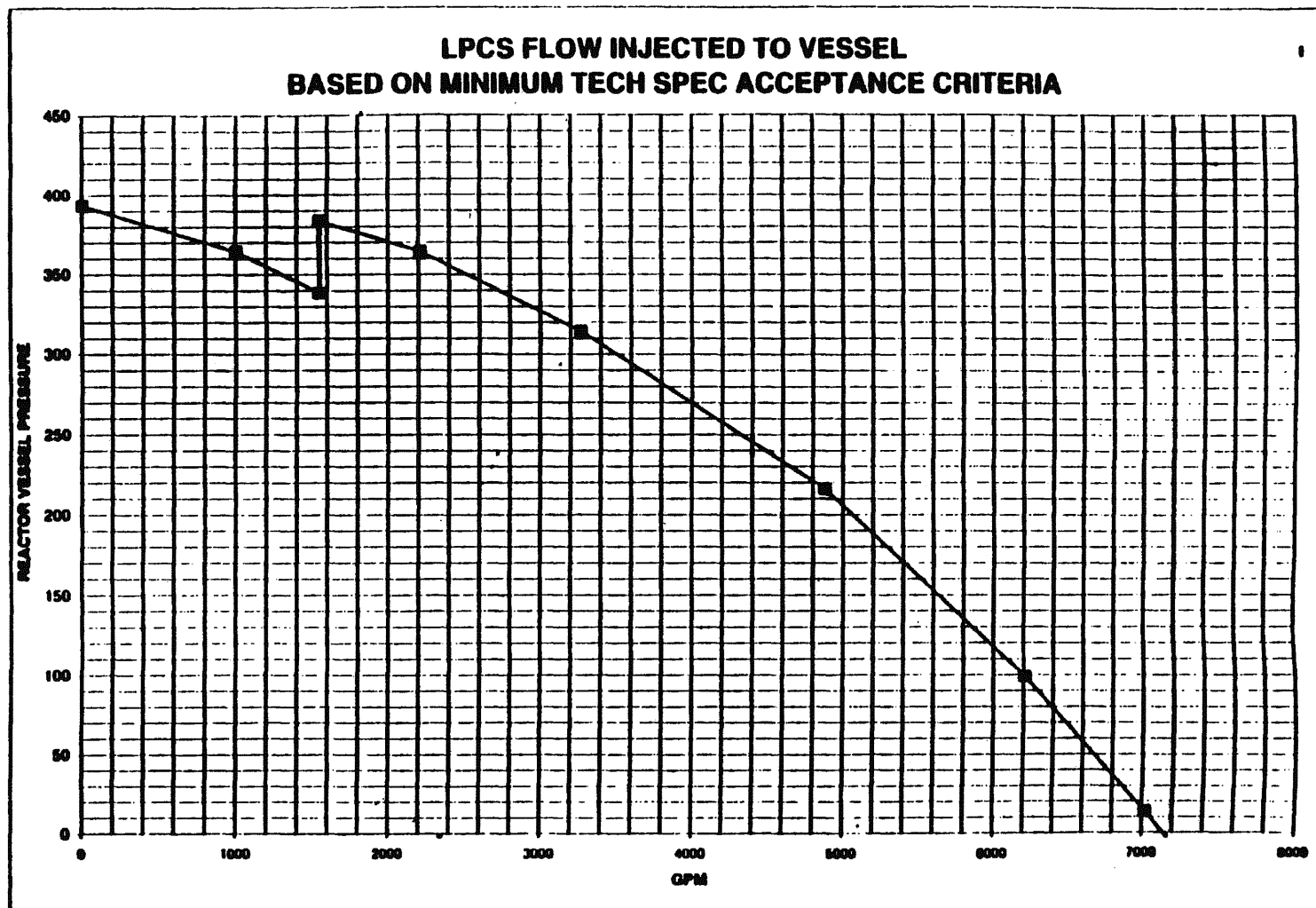
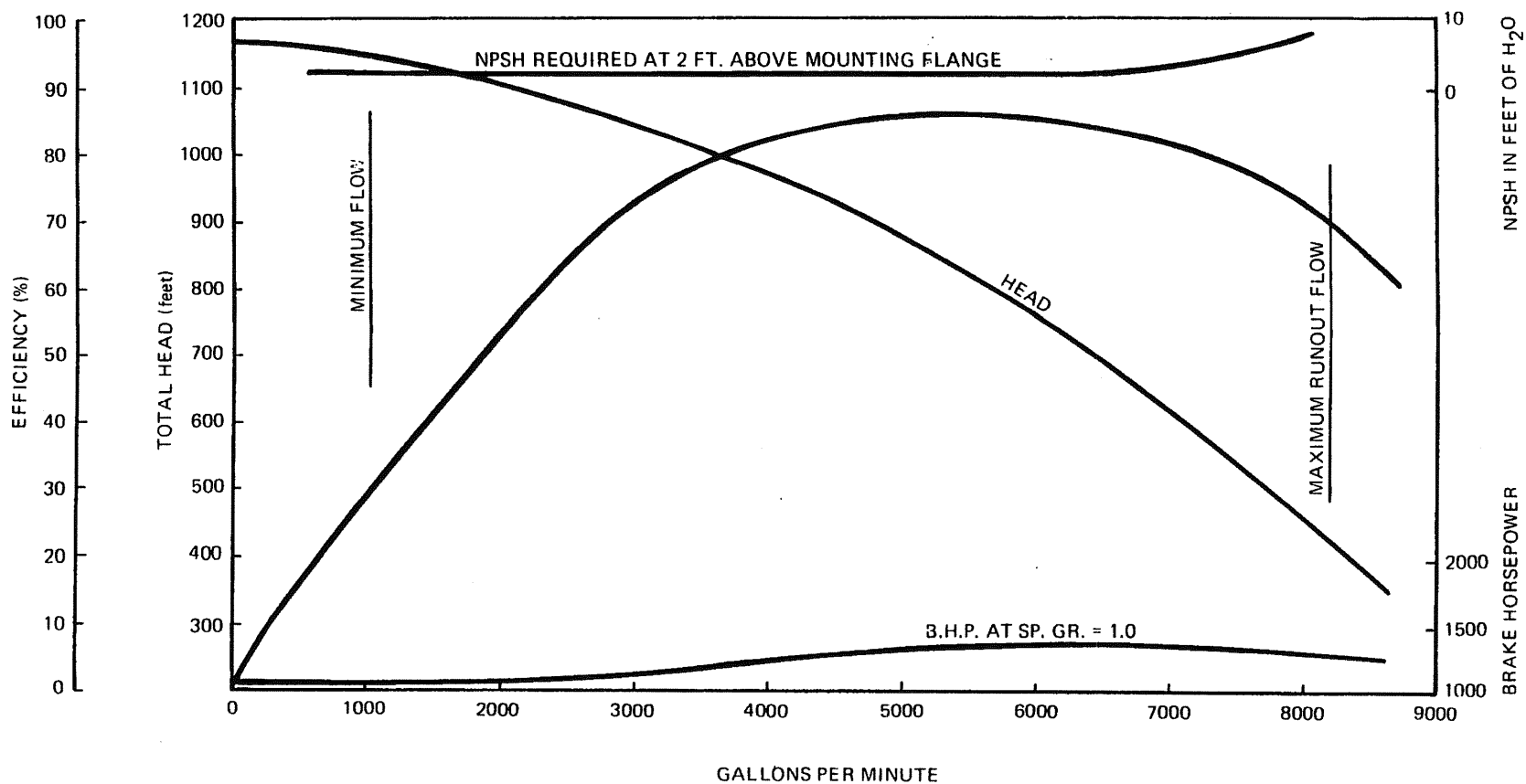


FIGURE 6.3-4a

HEAD VERSUS LOW PRESSURE CORE
SPRAY FLOW USED IN LOCA ANALYSIS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



Note: Pump curve represents manufacturer's test curve.
Installed performance and minimum acceptable
Technical Specification performance is below this curve.

FIGURE 6.3-4b

LOW PRESSURE CORE SPRAY
PUMP CHARACTERISTICS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
 UPDATED SAFETY ANALYSIS REPORT

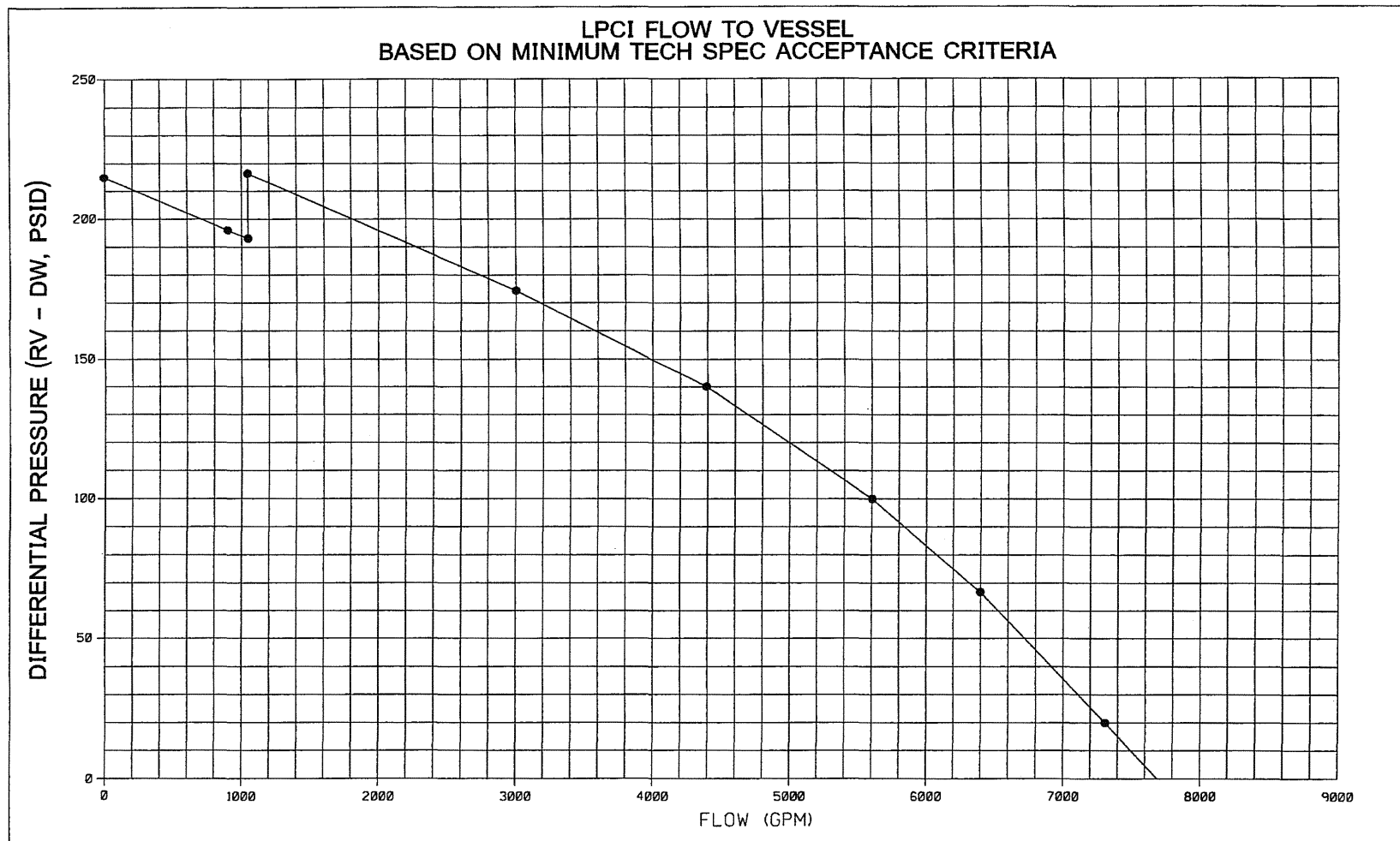
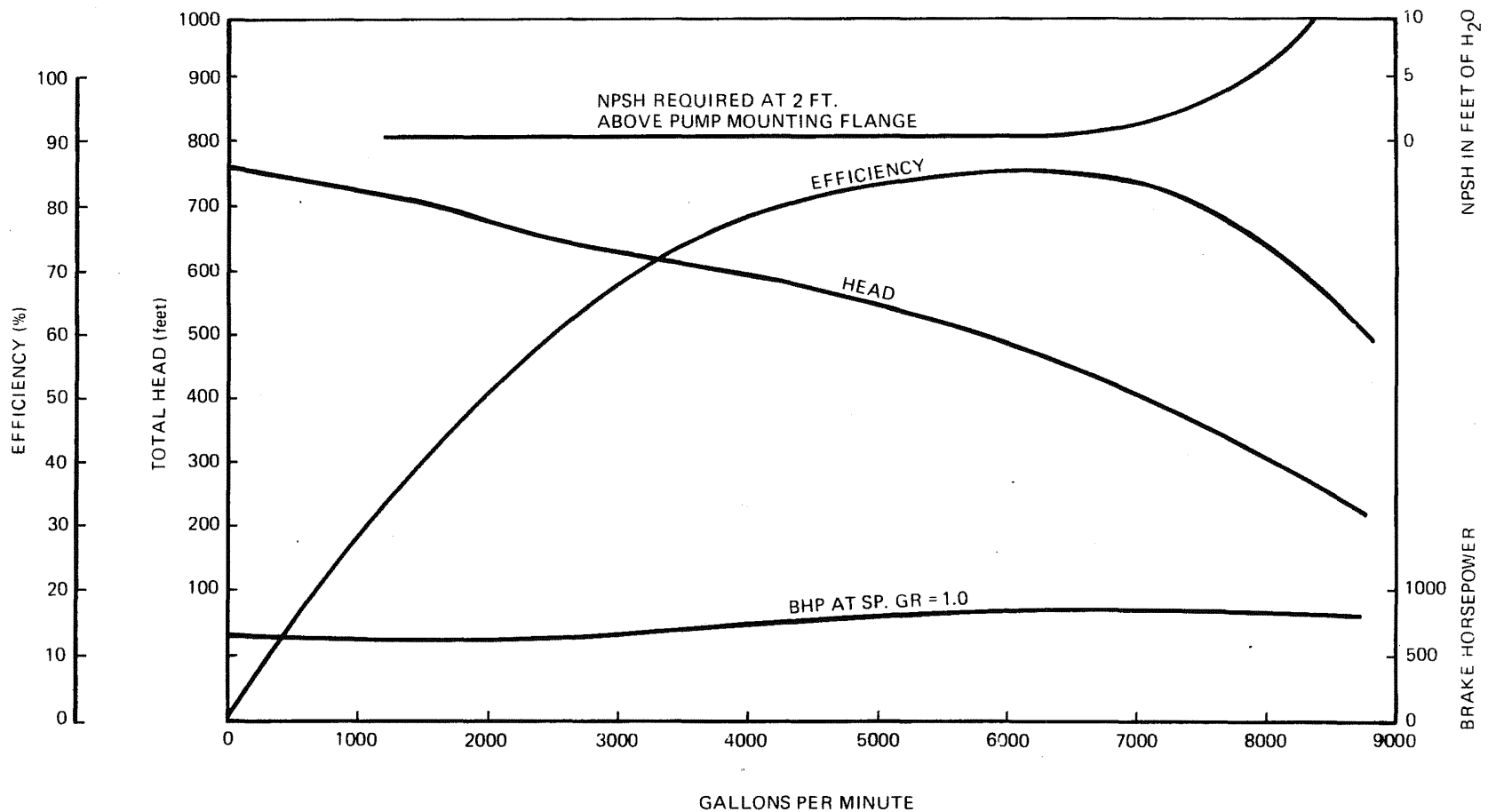


FIGURE 6.3-5a

HEAD VERSUS LOW PRESSURE COOLANT
INJECTION FLOW

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

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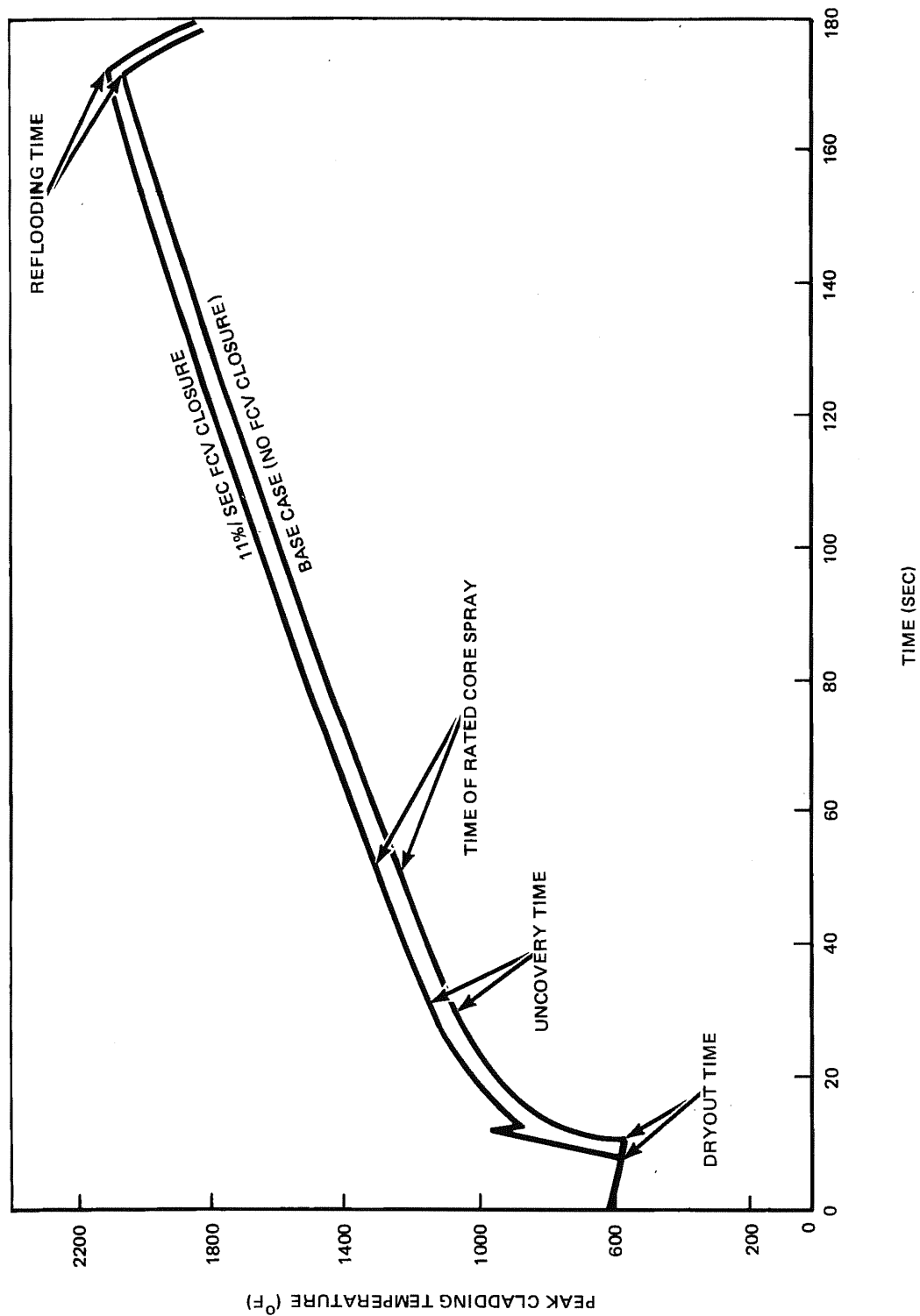


Note: Pump curve represents manufacturer's test curve.
Installed performance and minimum acceptable
Technical Specification performance is below this curve.

FIGURE 6.3-5b

RHR (LPCI)
PUMP CHARACTERISTICS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

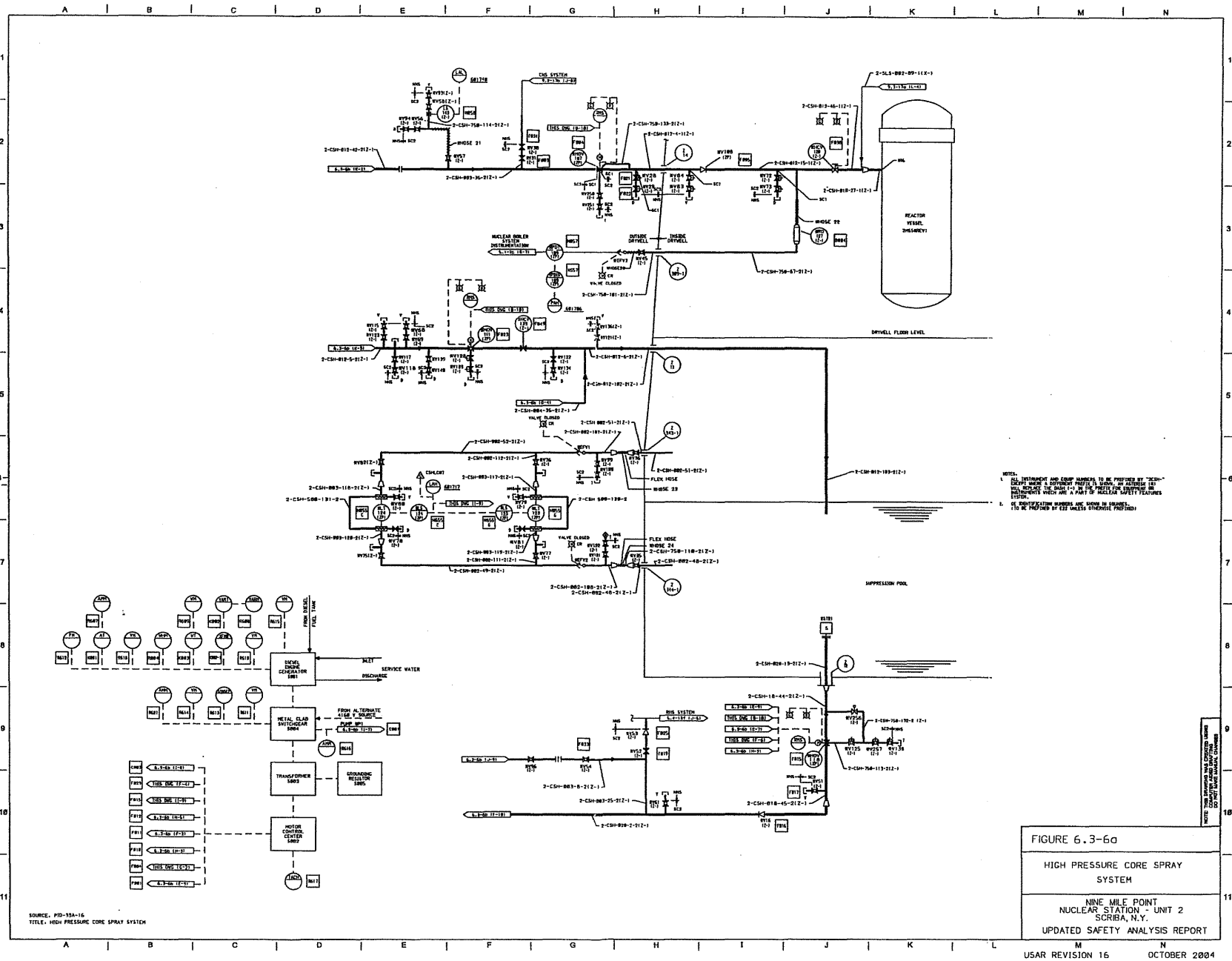


NOTE: THIS FIGURE APPLIES TO INITIAL LOCA ANALYSIS. SEE SECTION 6.3.3.4 FOR SAFER/GESTR - LOCA INFORMATION.

FIGURE 6.3-5c

COMPARISON OF PEAK
CLADDING TEMPERATURE
VS. TIME FOR LOCA ANALYSIS WITH AND
WITHOUT FLOW CONTROL VALVE CLOSURE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

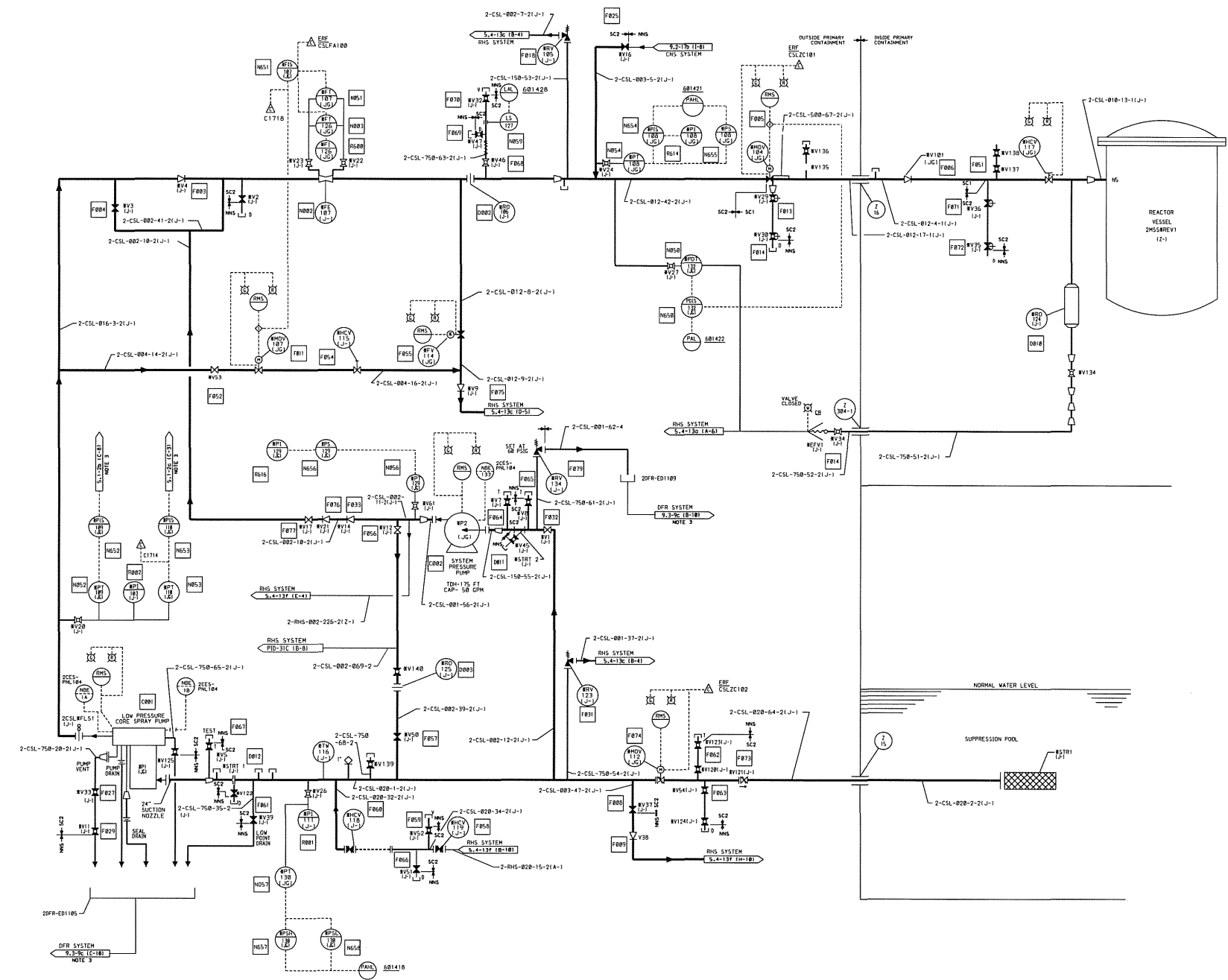


SOURCE: PID-32A-19
TITLE: LOW PRESSURE CORE SPRAY SYSTEM

FIGURE 6.3-7a

LOW PRESSURE
CORE SPRAY

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT



- NOTES.
1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2CSL-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURE SYSTEMS.
 2. G.E. IDENTIFICATION NUMBERS ARE SHOWN IN 7/16" SQUARES. ITO BE PREFIXED BY E21 UNLESS OTHERWISE PREFIXED.
 3. NO FLAG SHOWN ON CORRESPONDING DOCUMENT. COORDINATES PROVIDE INTERFACE LOCATION.

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Peak Cladding Temperatures

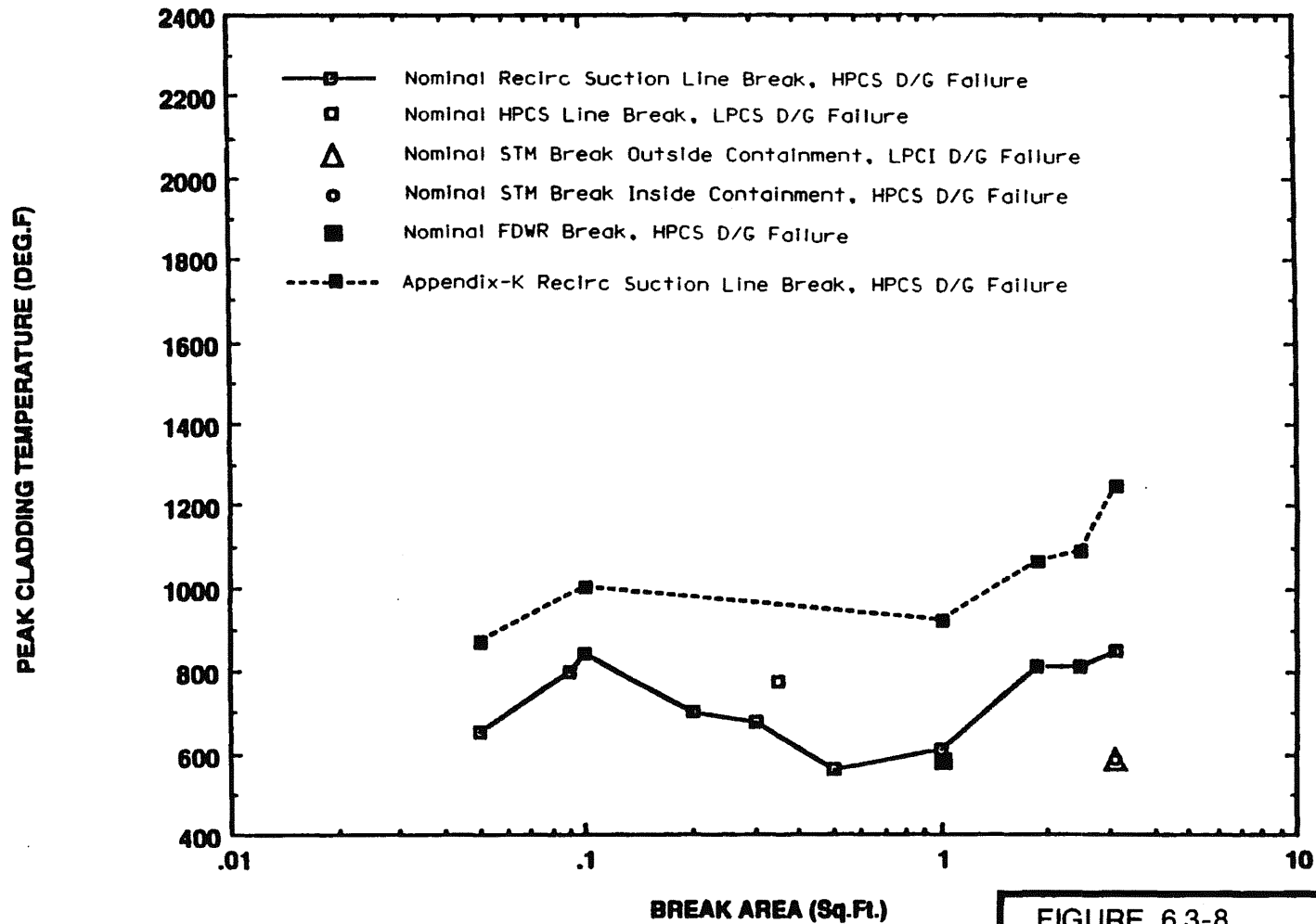


FIGURE 6.3-8

PEAK CLADDING TEMPERATURE AND PEAK
LOCAL OXIDATION VERSUS BREAK AREA

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

Core Power versus time for loss-of-coolant accident analysis

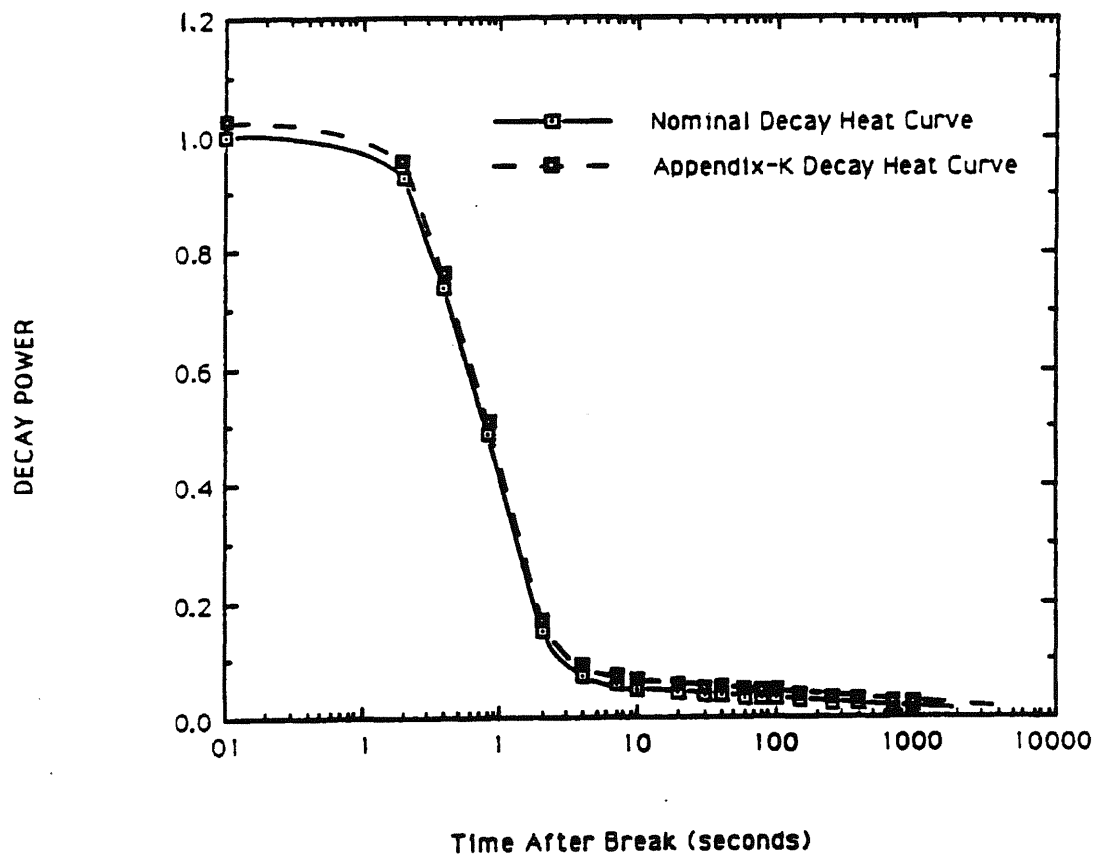
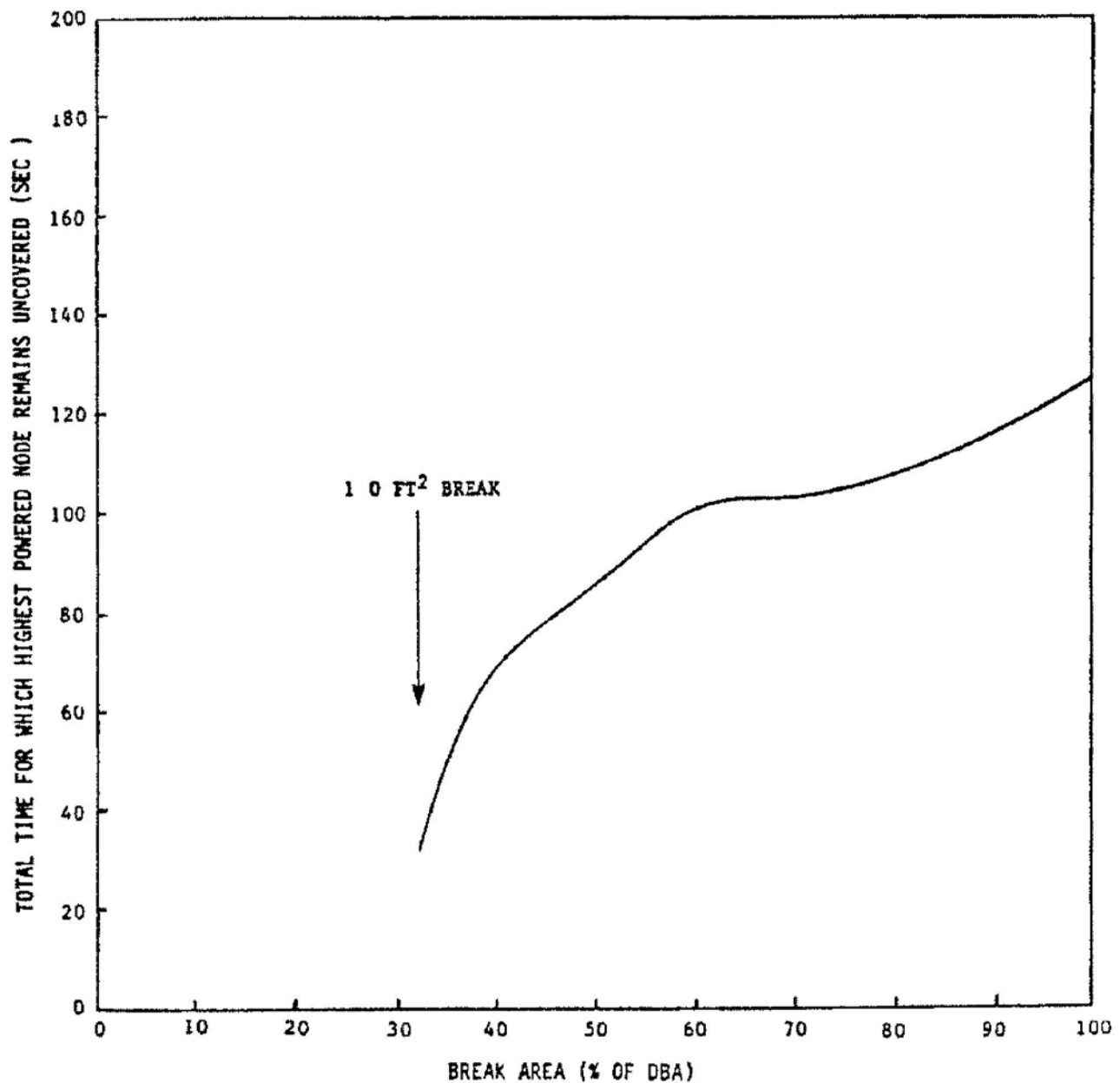


FIGURE 6.3-9

NORMALIZED CORE POWER VERSUS TIME FOR
LOSS-OF-COOLANT ACCIDENT ANALYSIS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

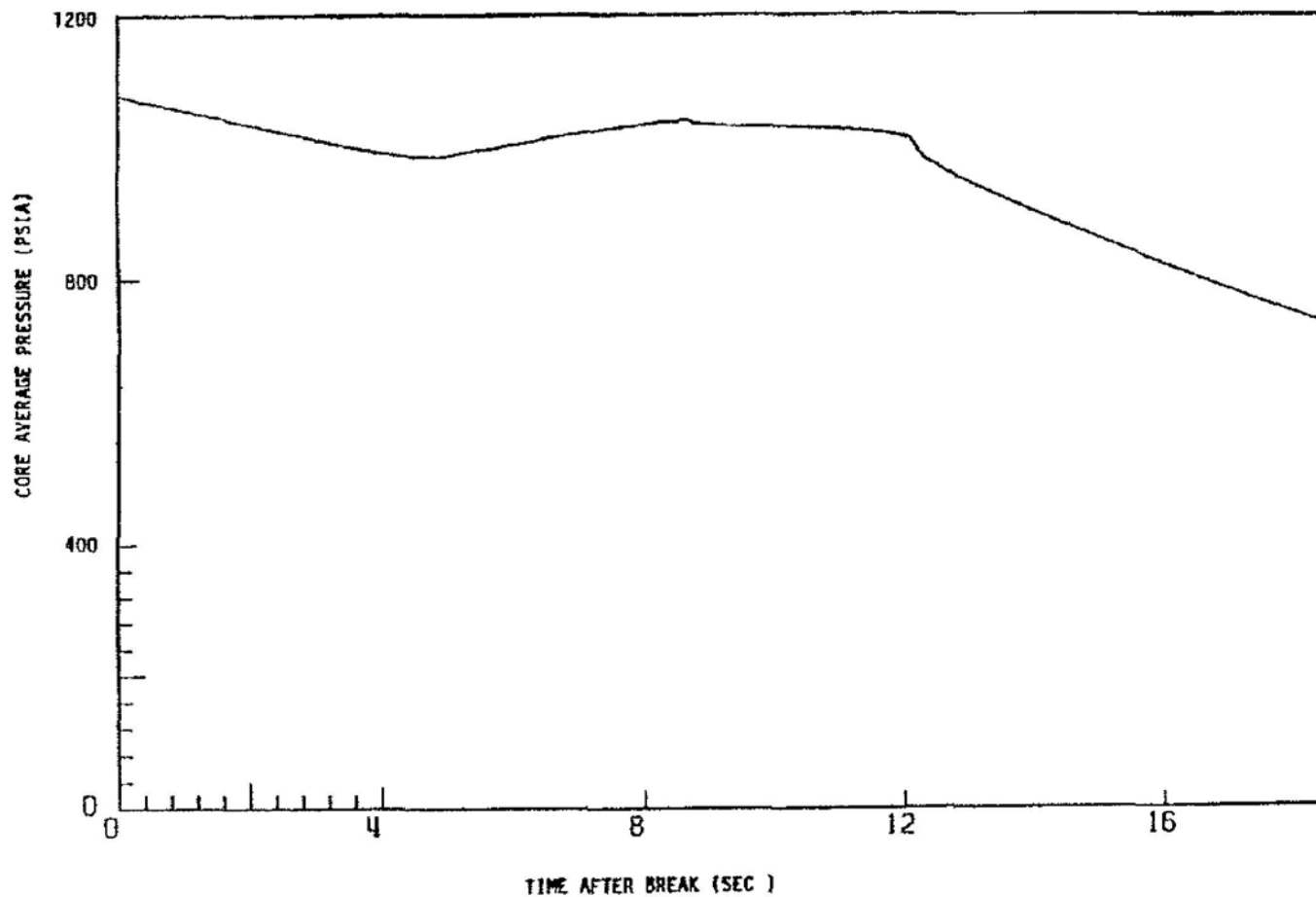


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-10

TOTAL TIME FOR WHICH HIGHEST POWERED
NODE REMAINS UNCOVERED VERSUS BREAK
AREA, LPCS DIESEL GENERATOR FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

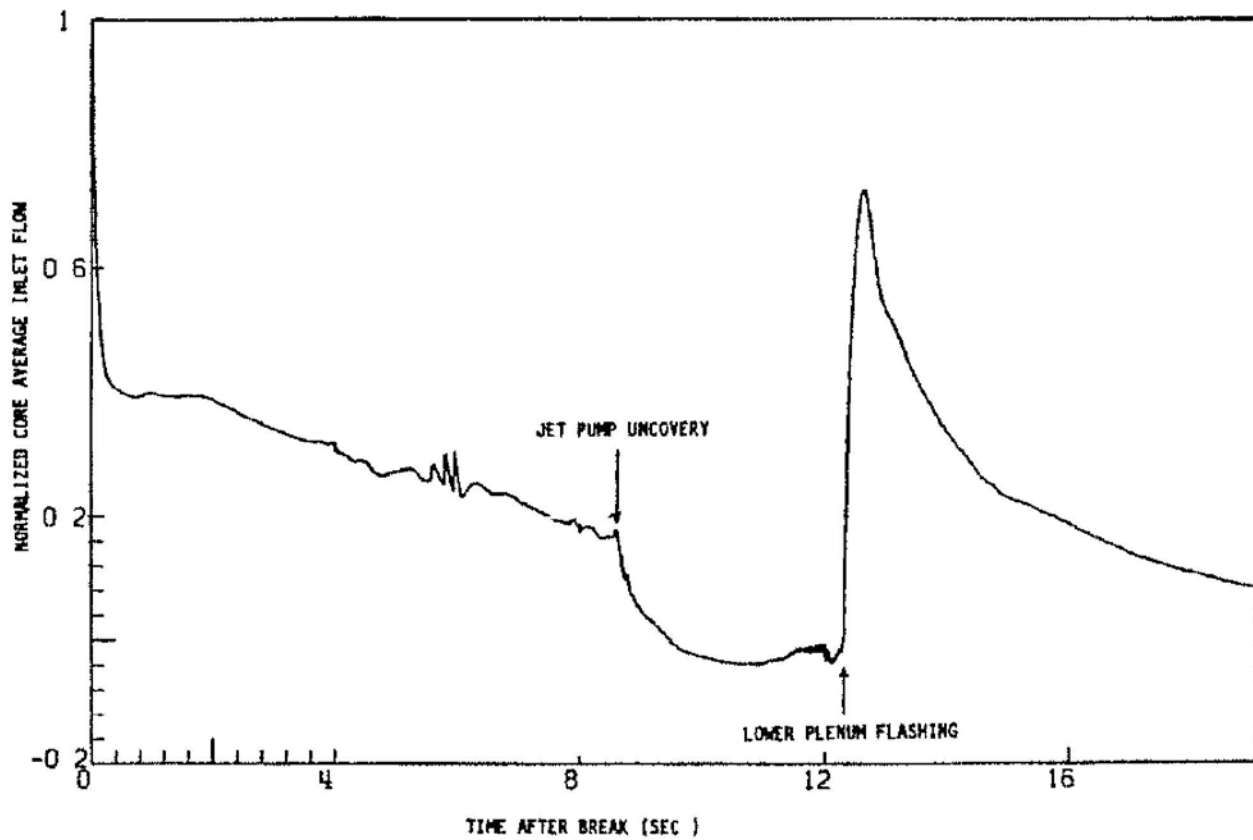


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-11

CORE AVERAGE PRESSURE FOLLOWING A
DESIGN BASIS ACCIDENT RECIRCULATION
SUCTION BREAK, LPCS DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

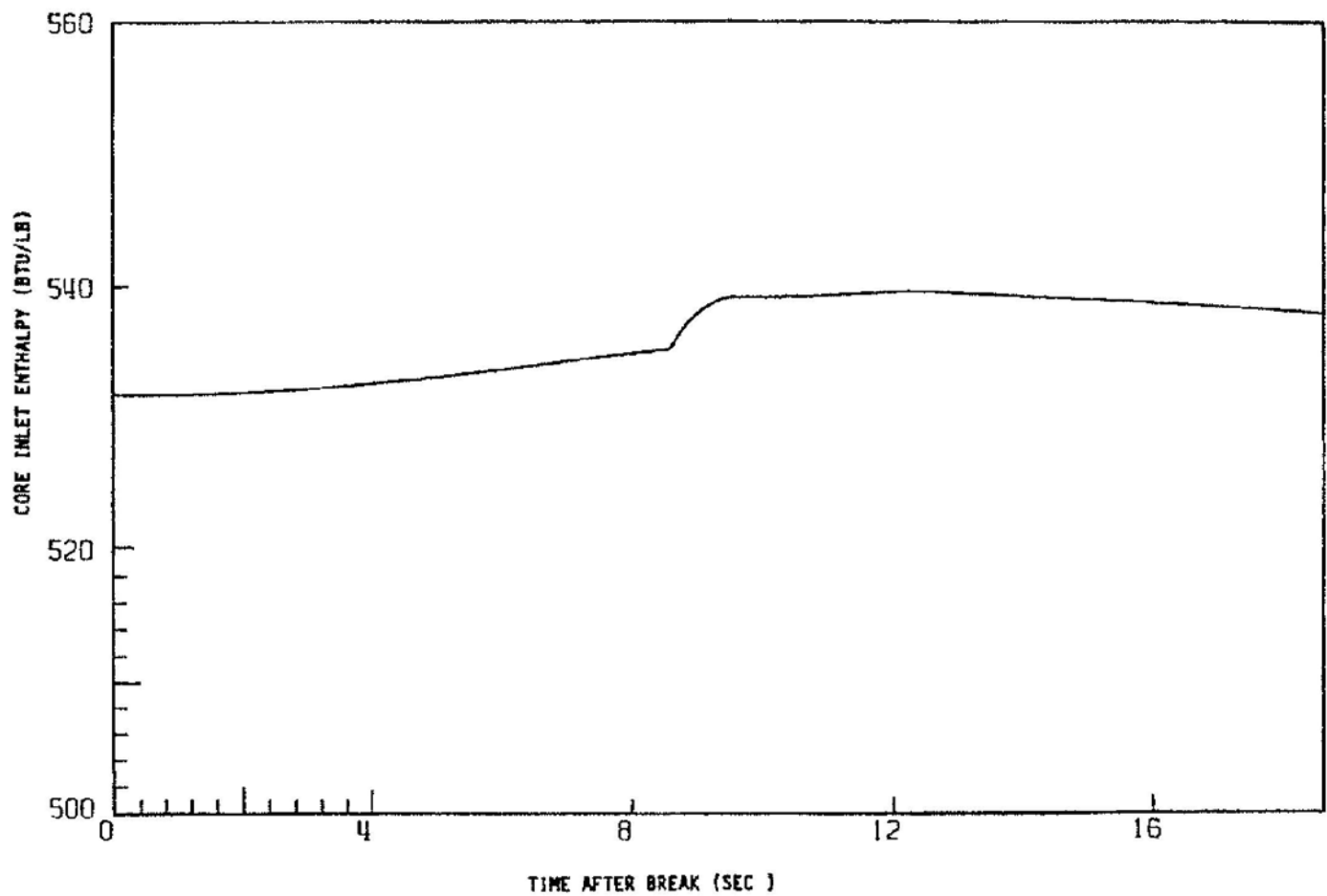


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-12

NORMALIZED CORE AVERAGE INLET FLOW
FOLLOWING A DESIGN BASIS ACCIDENT
RECIRCULATION SUCTION BREAK, LPCS
DIESEL GENERATOR FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

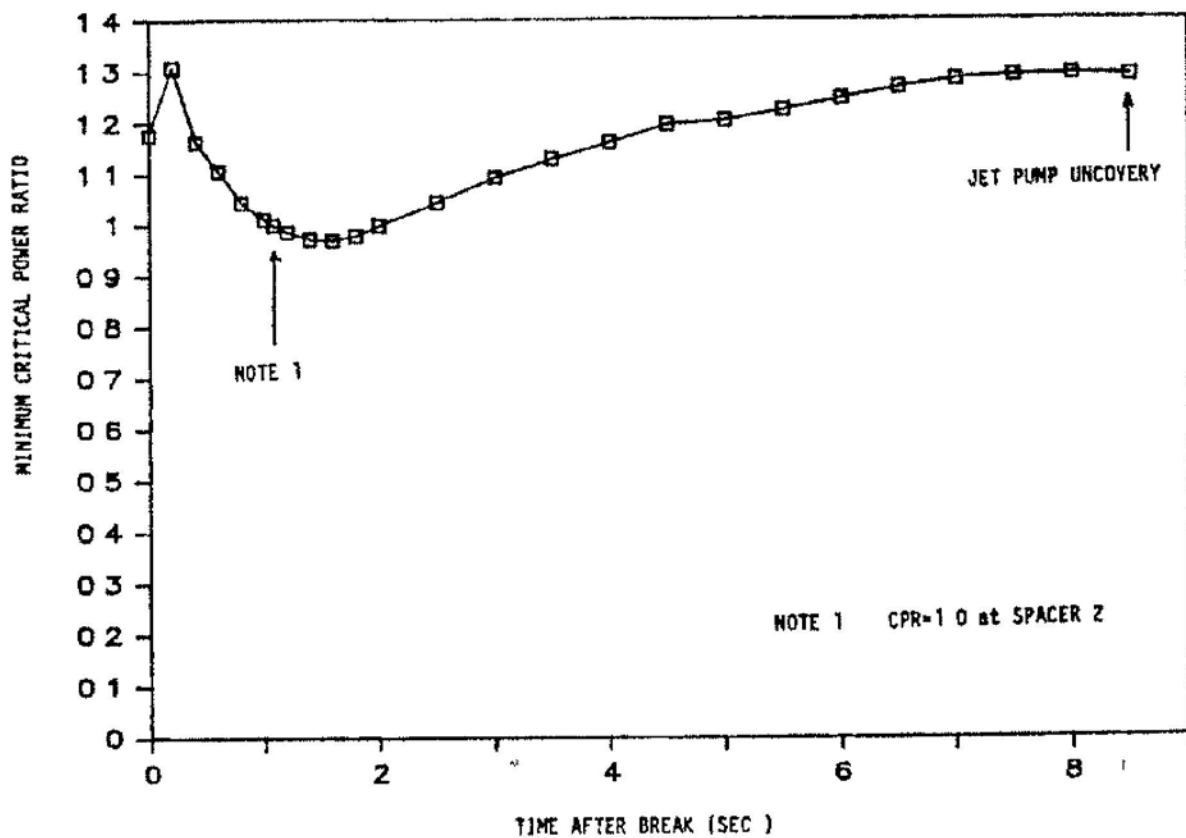


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-13

CORE INLET ENTHALPY FOLLOWING A DESIGN
BASIS ACCIDENT RECIRCULATION SUCTION
BREAK, LPCS DIESEL GENERATOR FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

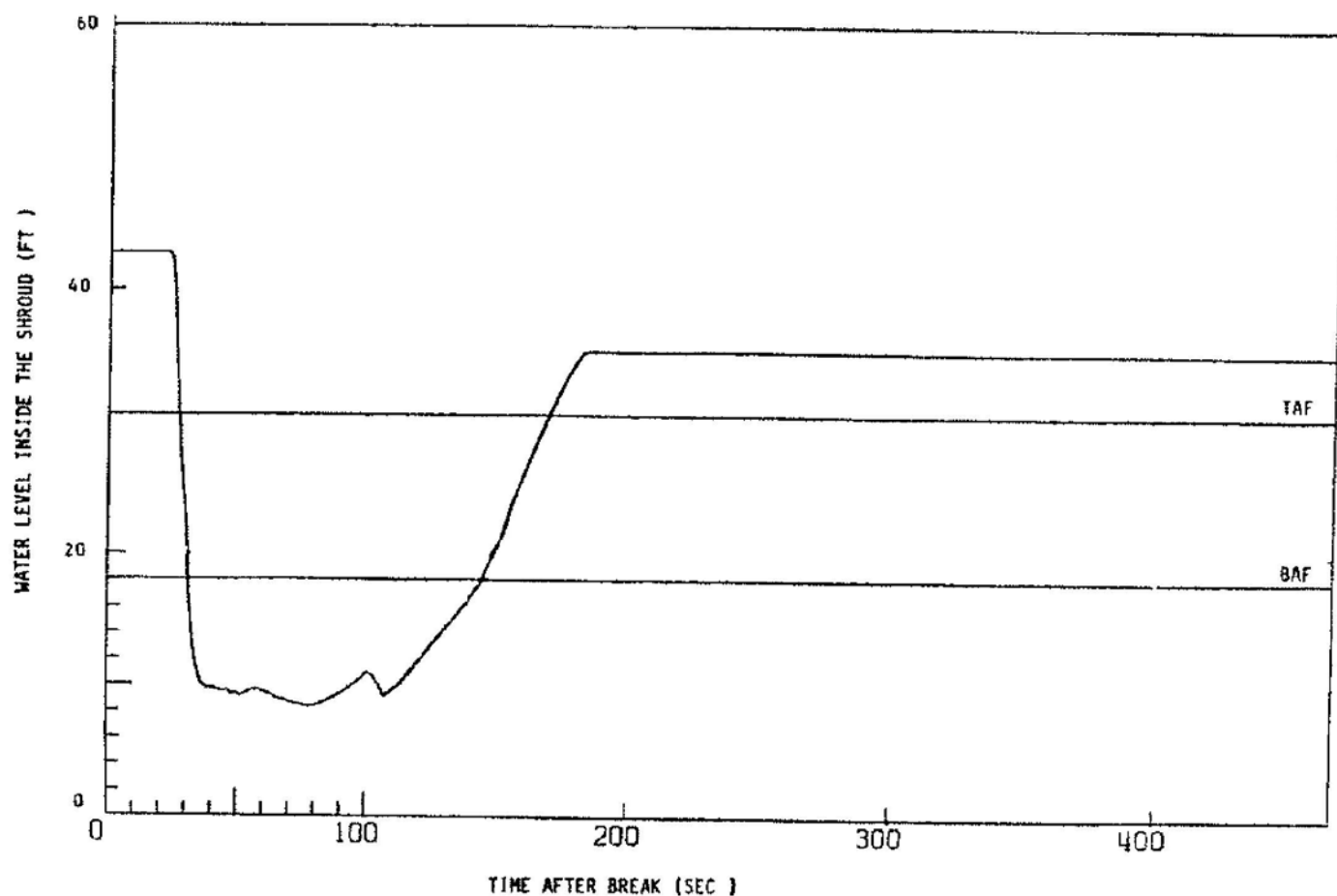


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-14

MINIMUM CRITICAL POWER RATIO FOLLOWING
A DESIGN BASIS ACCIDENT RECIRCULATION
SUCTION BREAK, LPCS DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

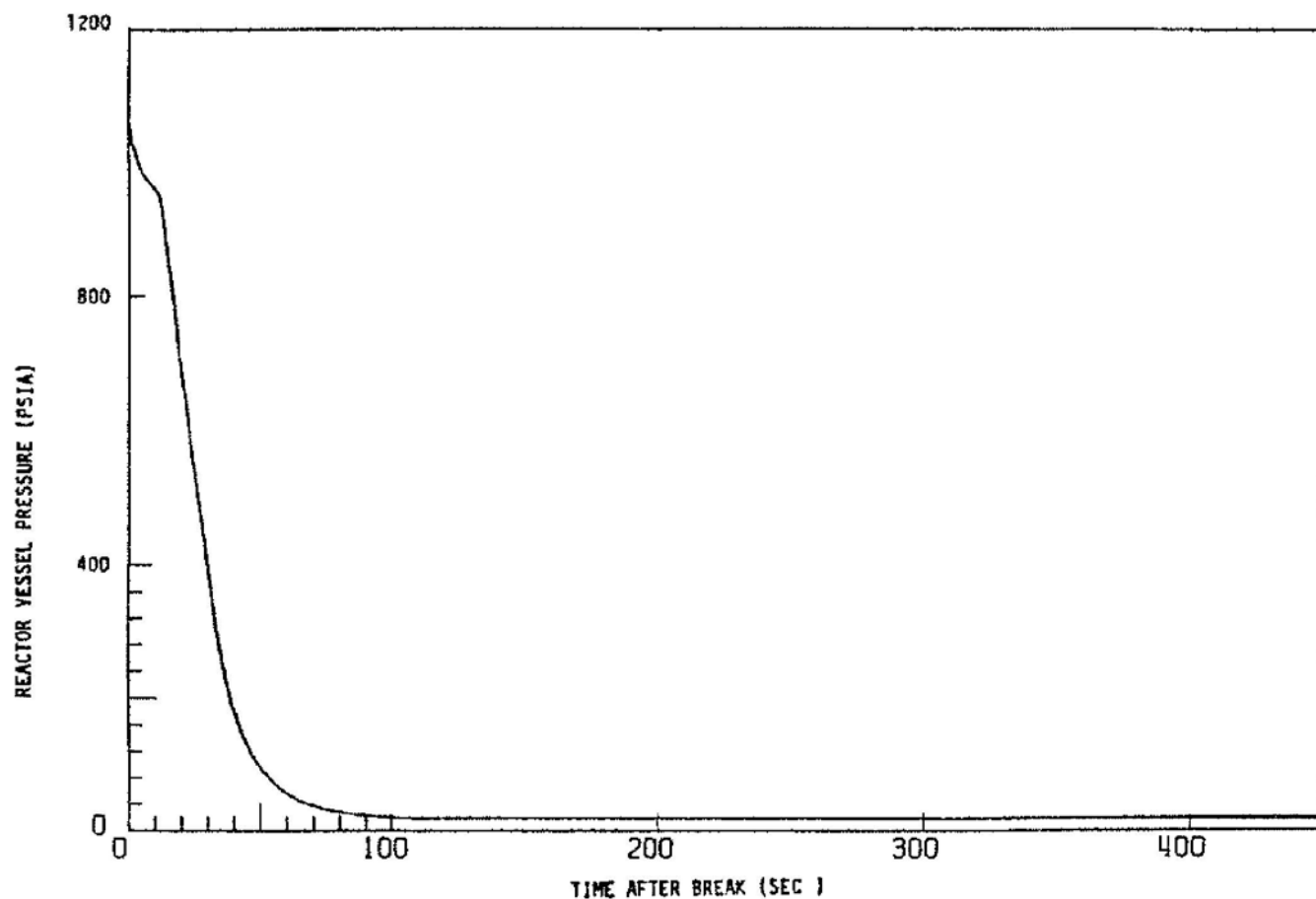


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-15

WATER LEVEL INSIDE SHROUD FOLLOWING A
DESIGN BASIS ACCIDENT RECIRCULATION
SUCTION BREAK, LPCS DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

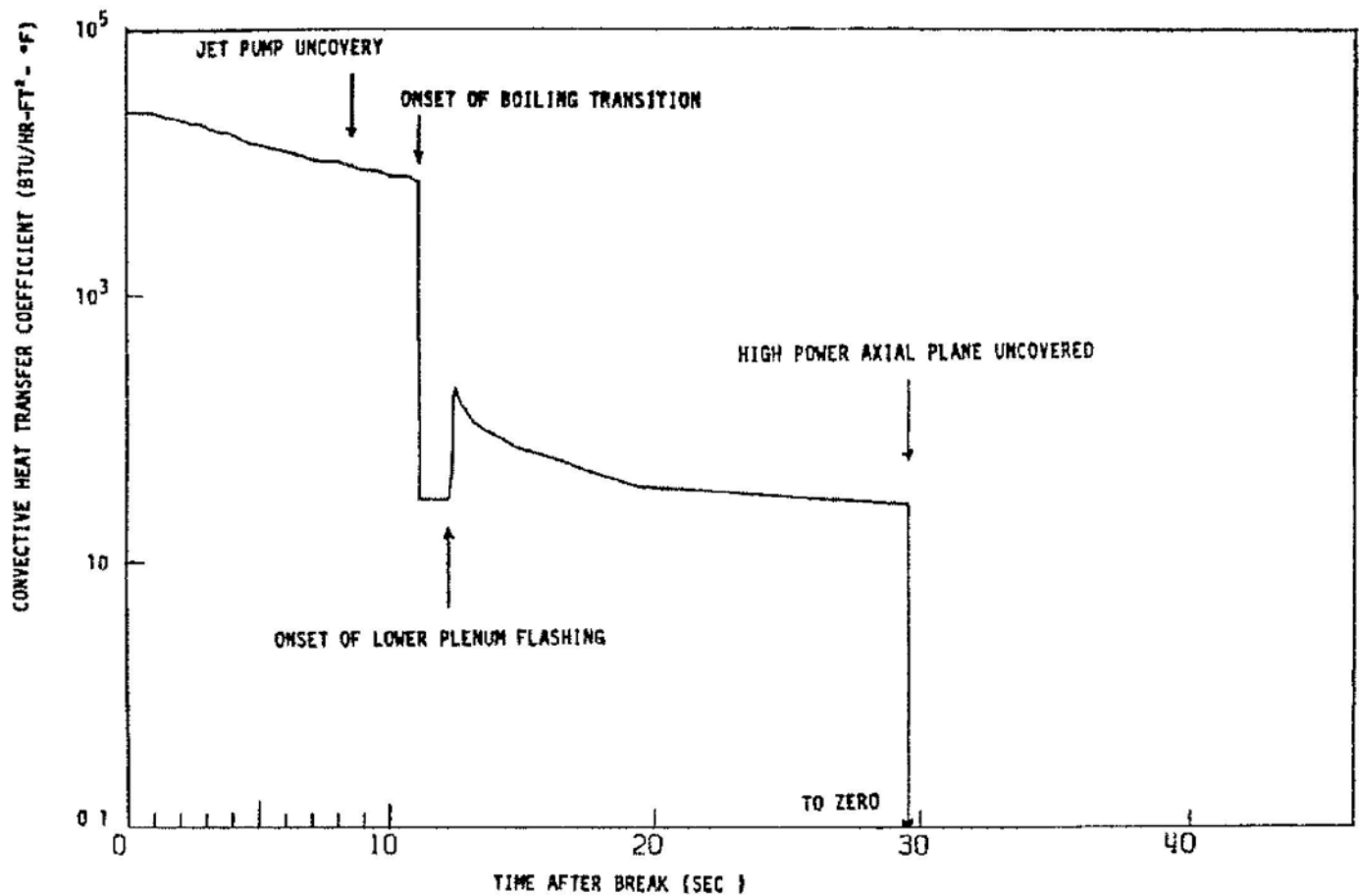


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-16

REACTOR VESSEL PRESSURE FOLLOWING A
DESIGN BASIS ACCIDENT RECIRCULATION
SUCTION BREAK, LPCS DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

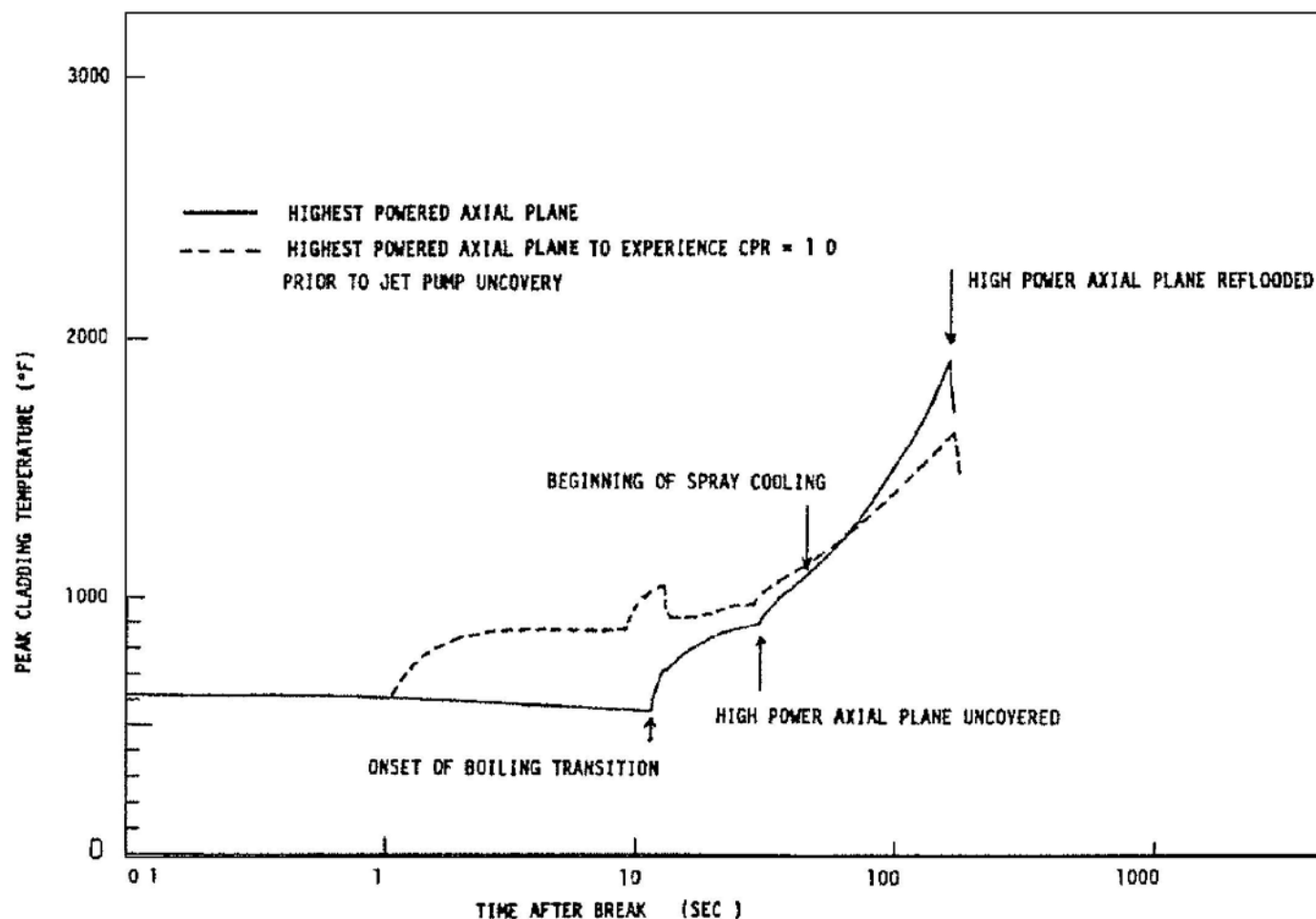


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-17

FUEL ROD CONVECTIVE HEAT TRANSFER
COEFFICIENT DURING BLOWDOWN AT THE
HIGH POWER AXIAL NODE FOLLOWING A
DESIGN BASIS ACCIDENT RECIRCULATION
SUCTION BREAK, LPCS DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

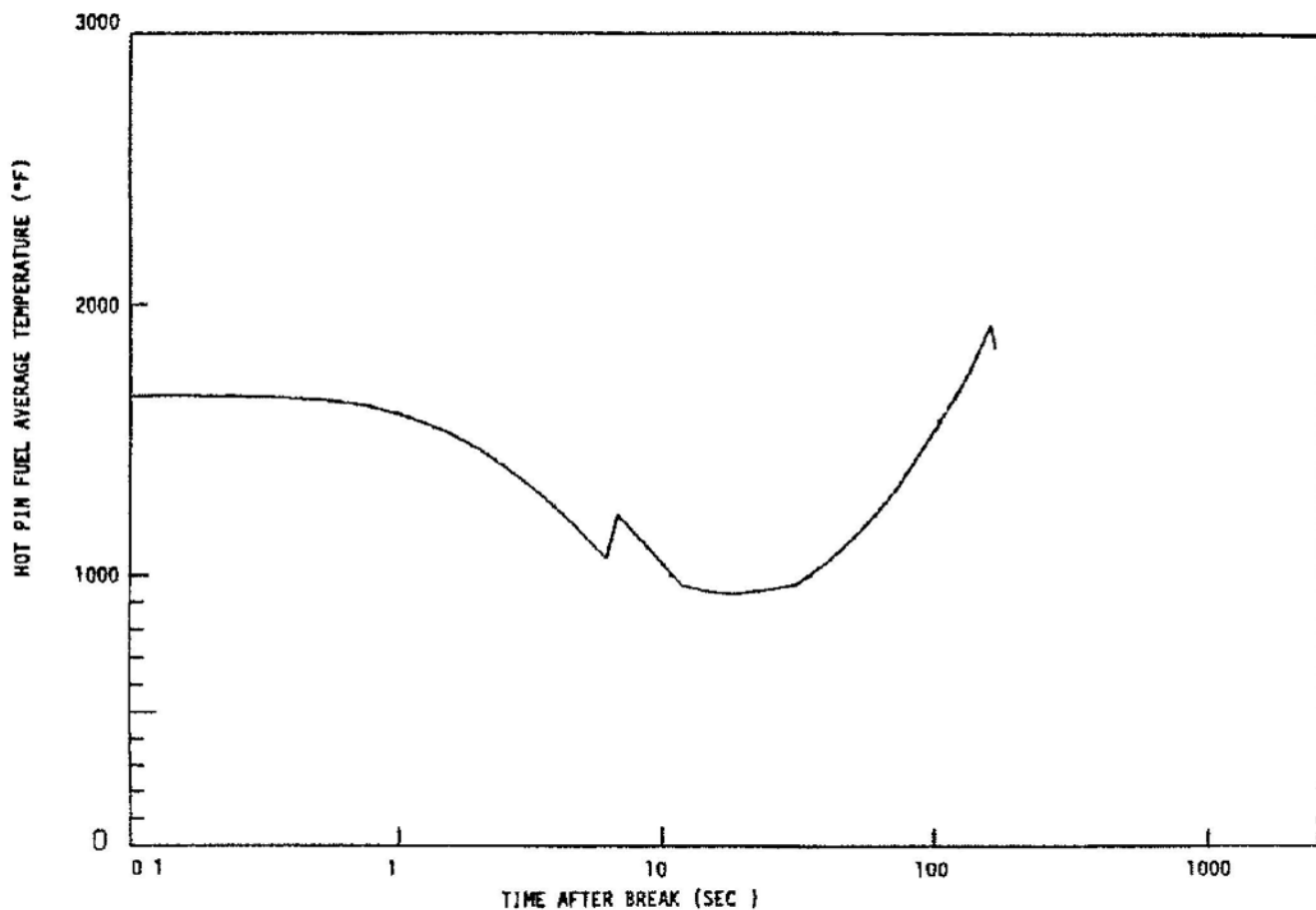


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-18

PEAK CLADDING TEMPERATURE FOLLOWING A
DESIGN BASIS ACCIDENT RECIRCULATION
SUCTION BREAK, LPCS DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

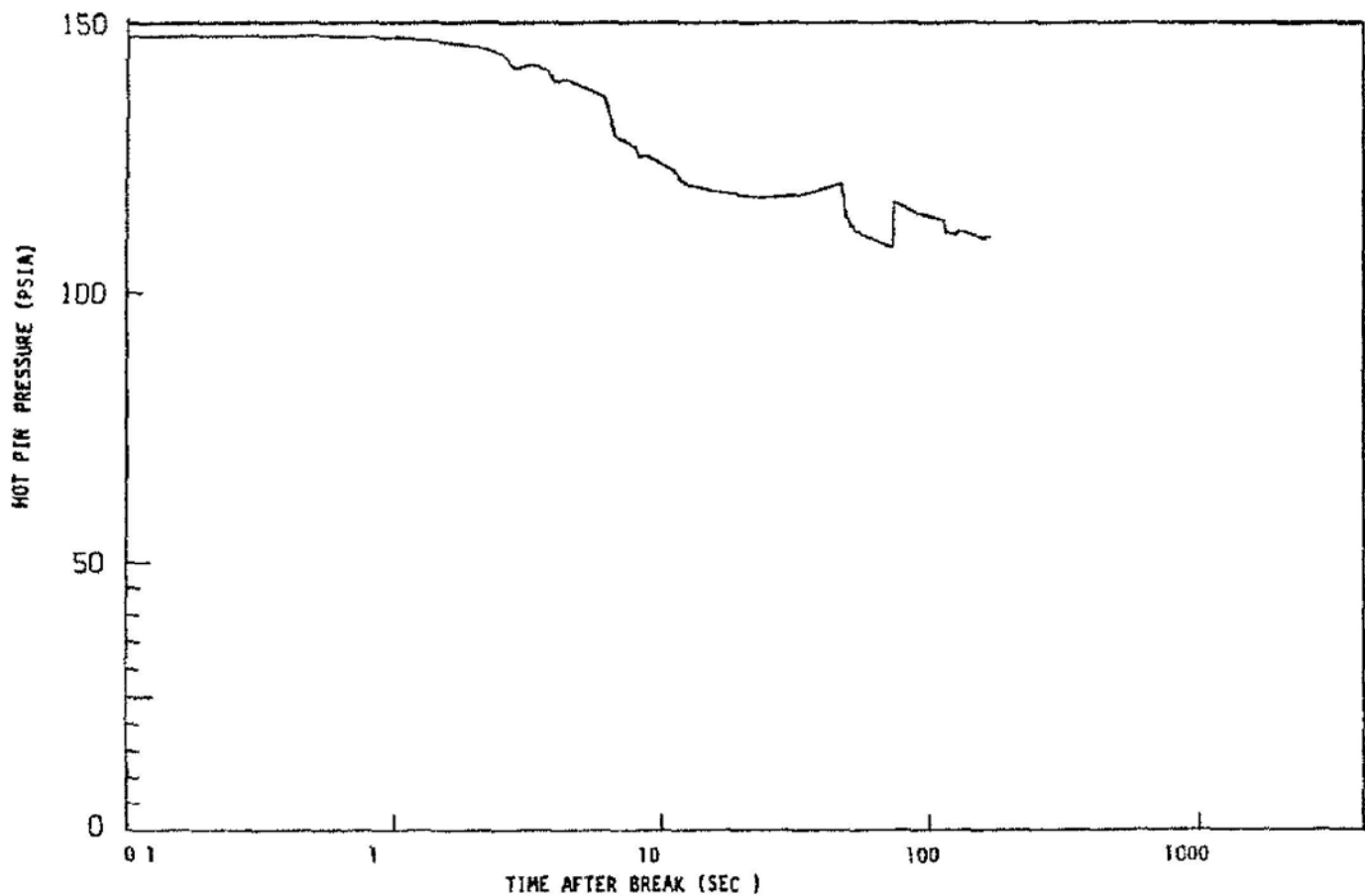


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-19

AVERAGE FUEL TEMPERATURE FOLLOWING A
DESIGN BASIS ACCIDENT RECIRCULATION
SUCTION BREAK, LPCS DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

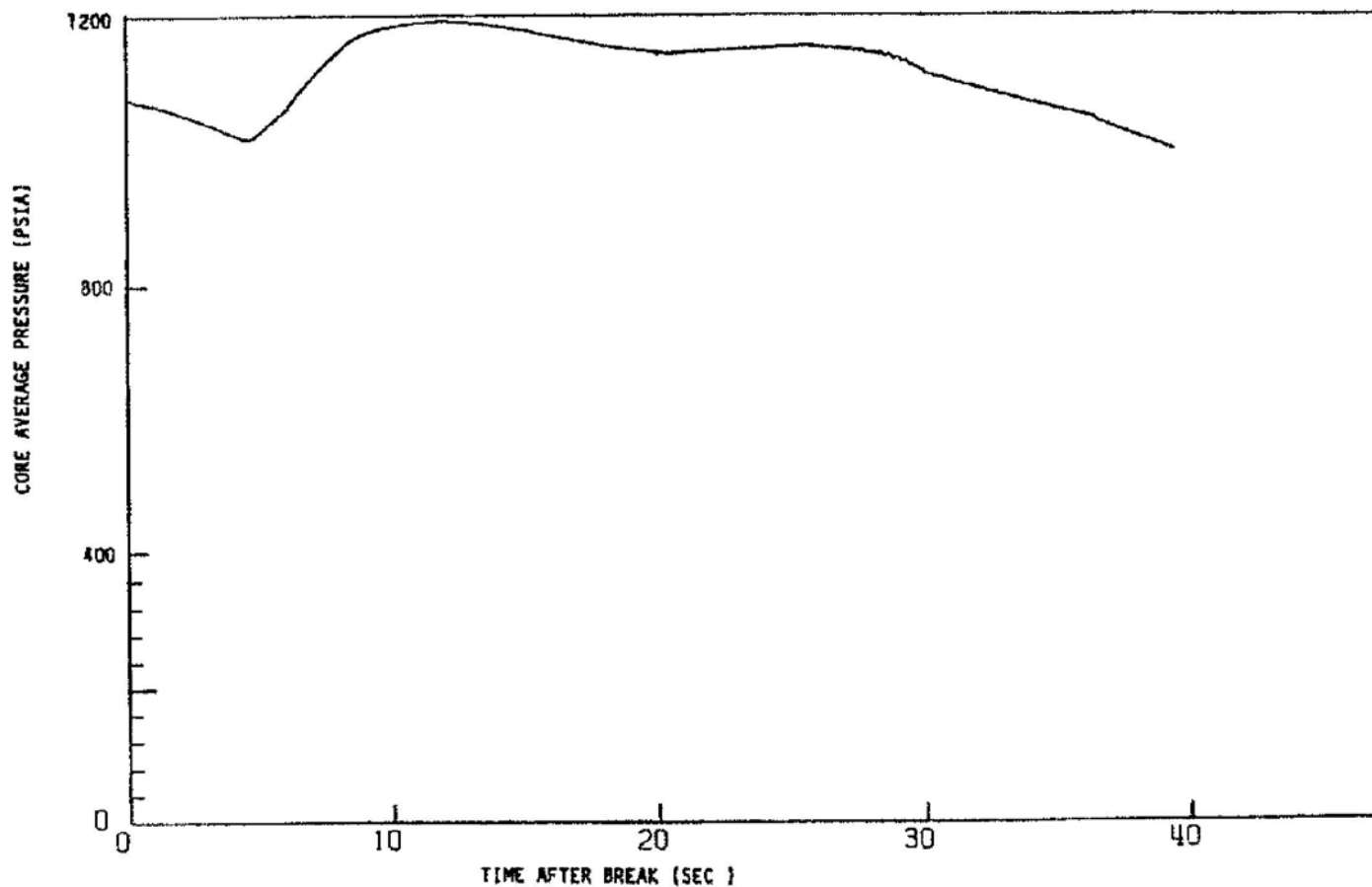


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-20

PCT ROD INTERNAL PRESSURE FOLLOWING
A DESIGN BASIS ACCIDENT RECIRCULATION
SUCTION BREAK, LPCS DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

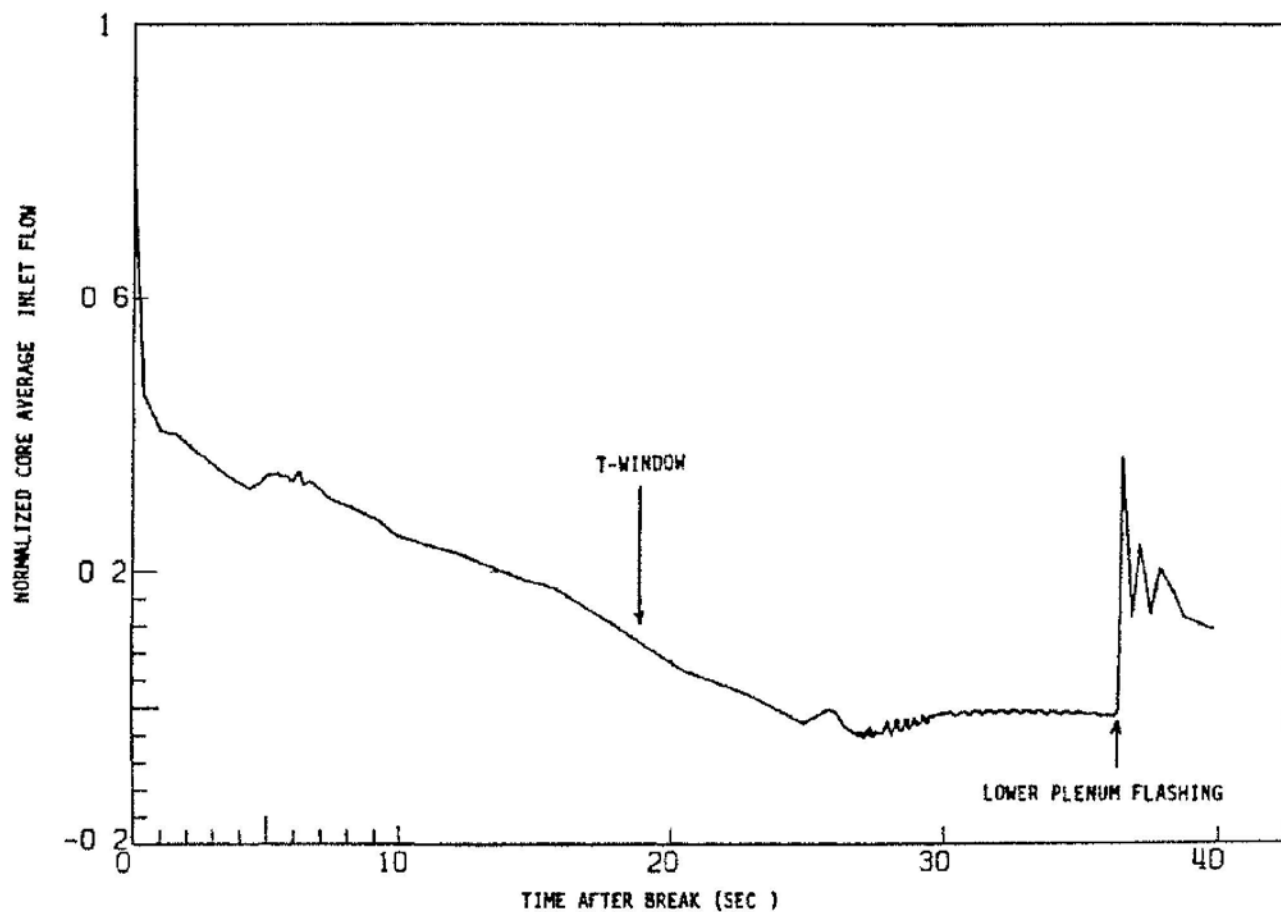


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-21

CORE AVERAGE PRESSURE FOLLOWING A 1.0
SQ FT BREAK (LBM) RECIRCULATION SUCTION
BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

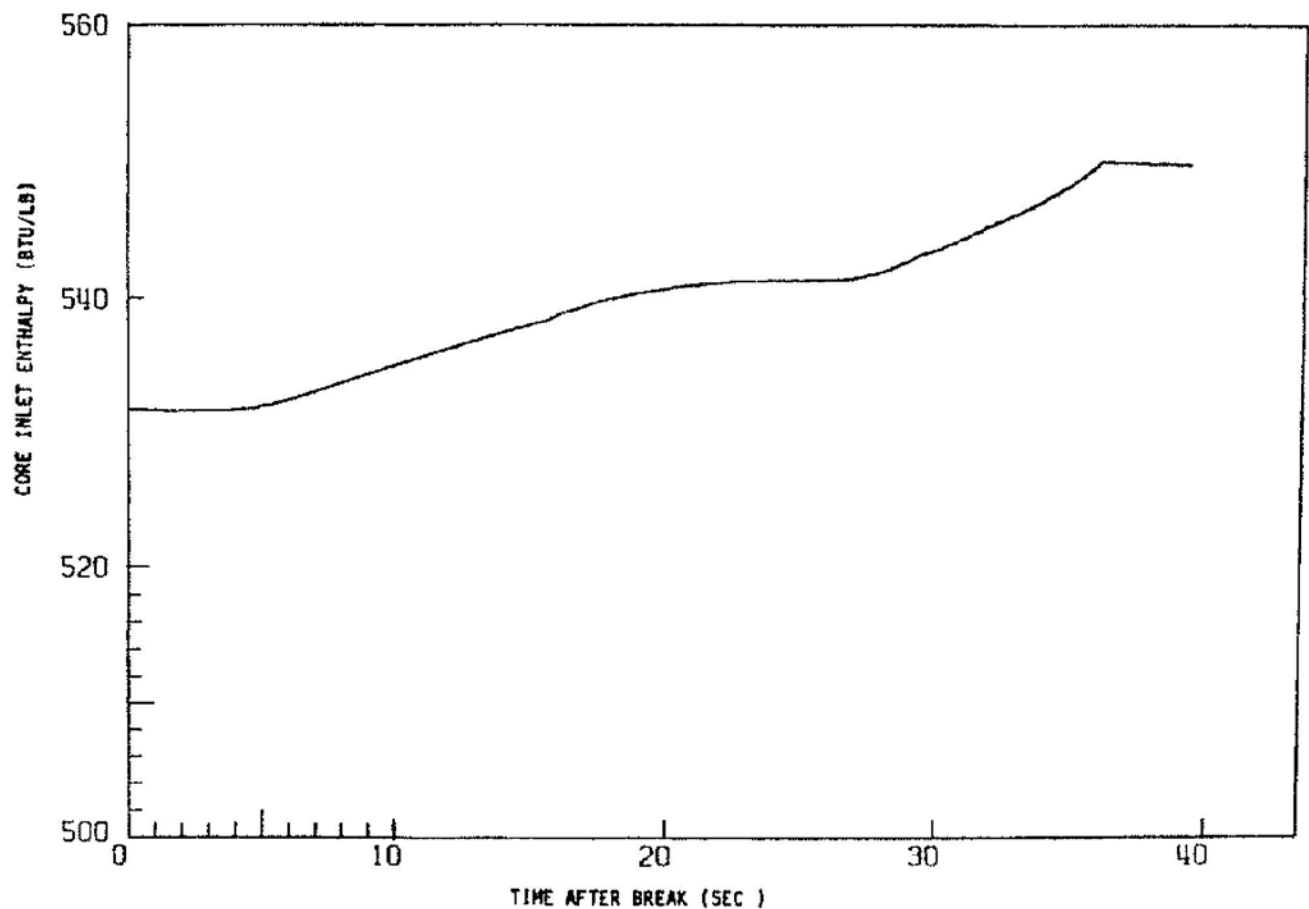


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-22

NORMALIZED CORE AVERAGE INLET FLOW
FOLLOWING A 1.0 SQ FT BREAK (LBM)
RECIRCULATION SUCTION BREAK, HPCS
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

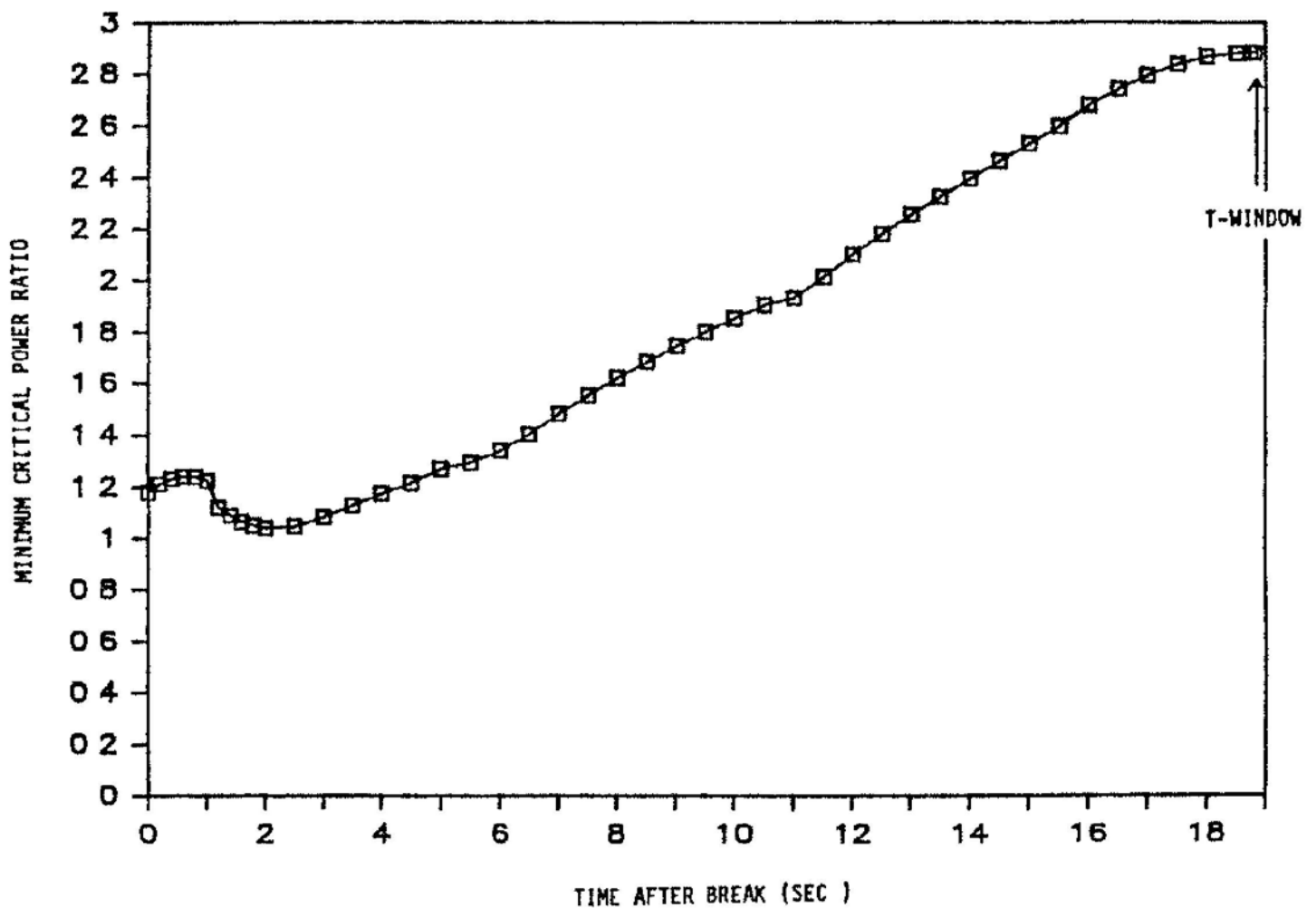


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-23

CORE INLET ENTHALPY FOLLOWING A 1.0
SQ FT BREAK (LMB) RECIRCULATION SUCTION
BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

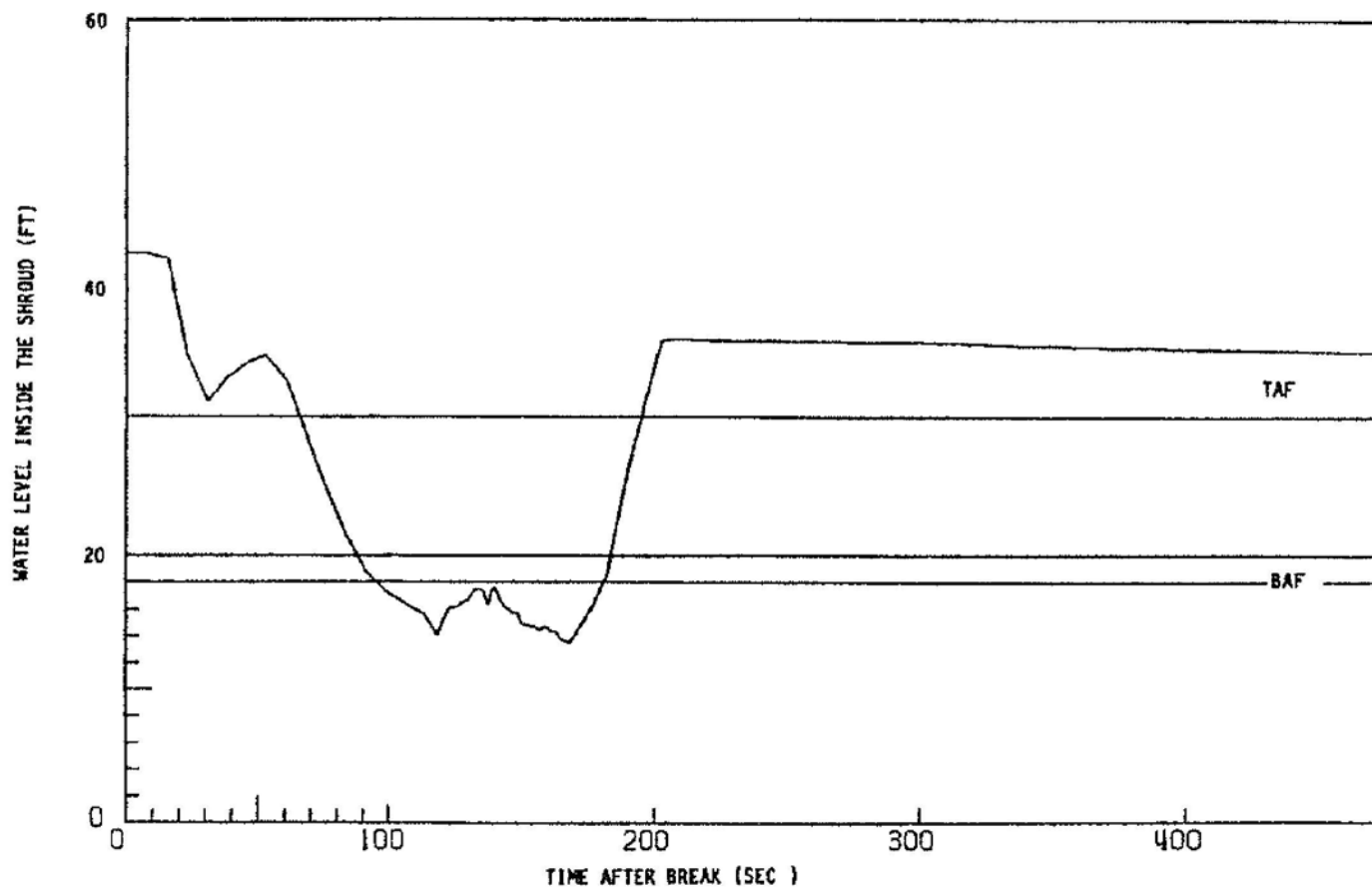


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-24

MINIMUM CRITICAL POWER RATIO FOLLOWING
A 1.0 SQ FT BREAK (LBM) RECIRCULATION
SUCTION BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

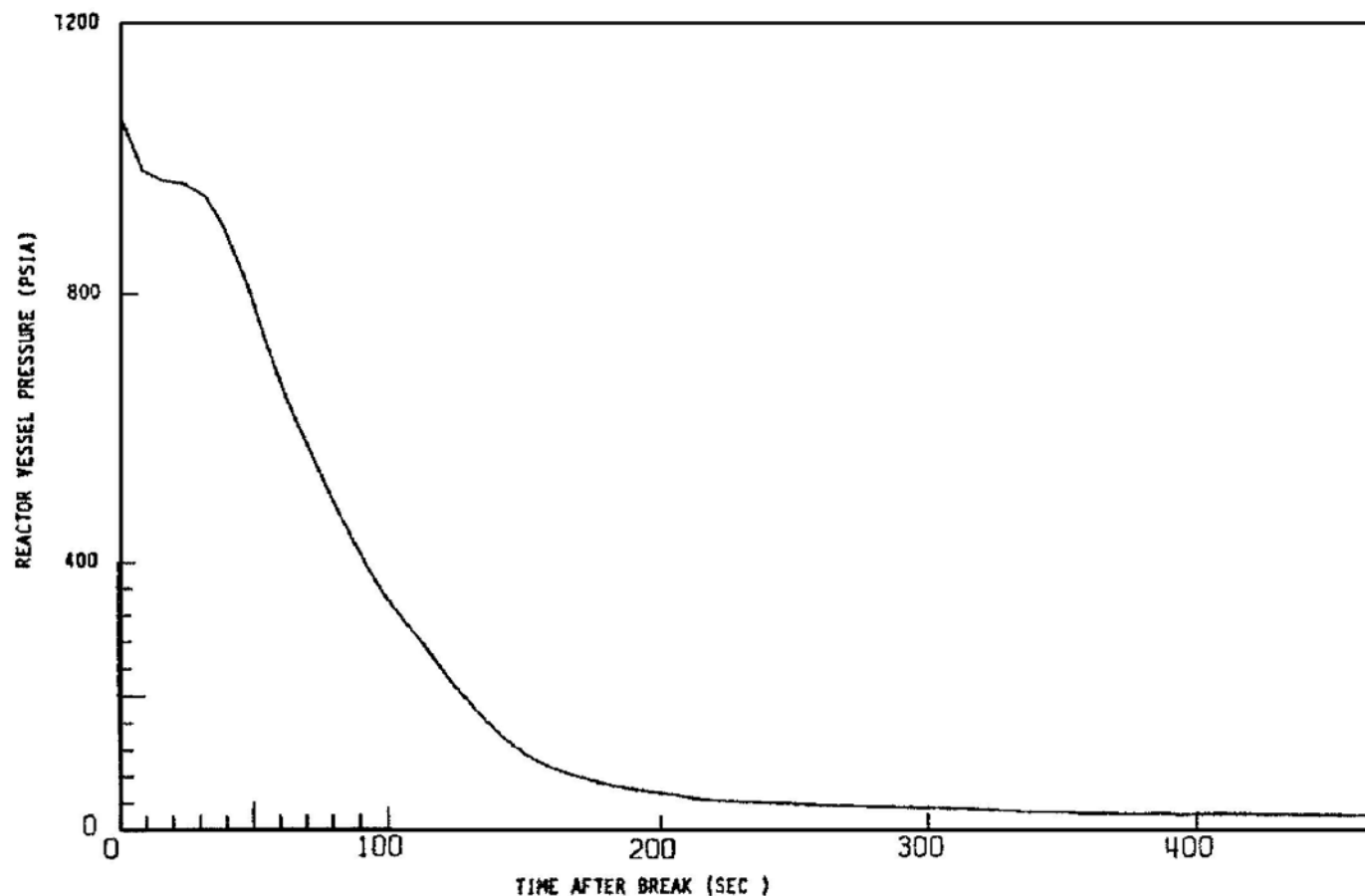


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-25

WATER LEVEL INSIDE SHROUD FOLLOWING A
1.0 SQ FT BREAK (LBM) RECIRCULATION
SUCTION BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

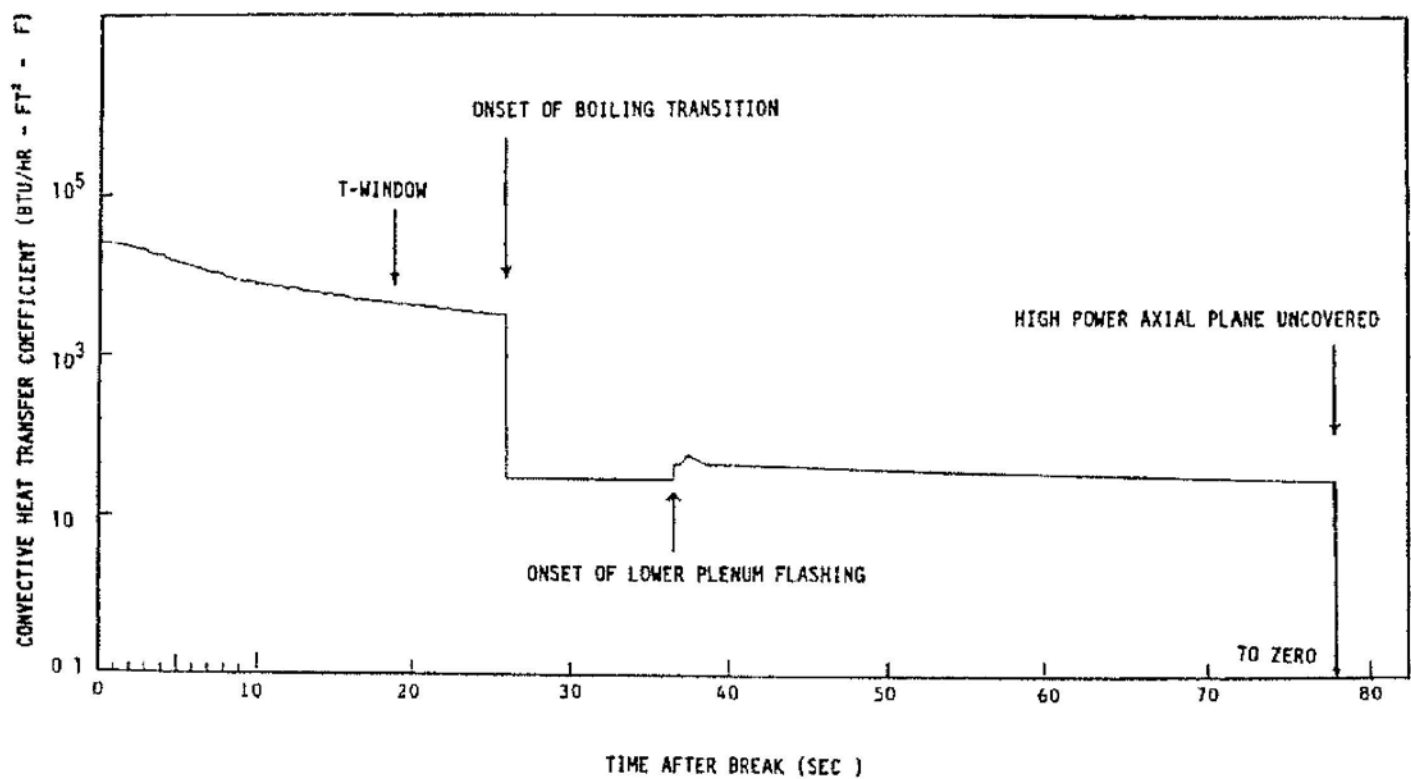


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-26

REACTOR VESSEL PRESSURE FOLLOWING A 1.0
SQ FT BREAK (LBM) RECIRCULATION SUCTION
BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

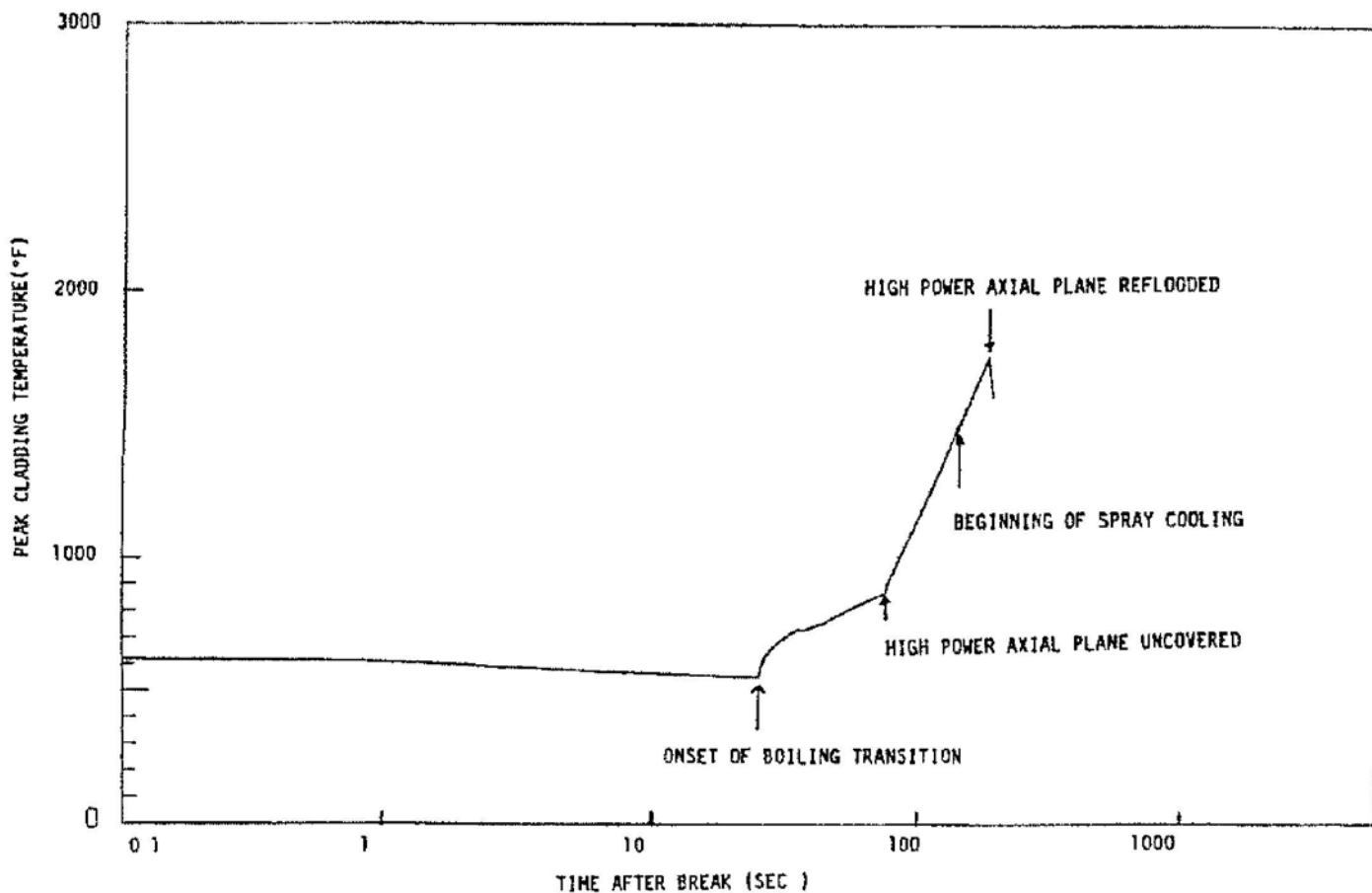


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-27

FUEL ROD CONVECTIVE HEAT TRANSFER
COEFFICIENT DURING BLOWDOWN AT THE
HIGH POWER AXIAL NODE FOLLOWING A 1.0
SQ FT BREAK (LBM) RECIRCULATION SUCTION
BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

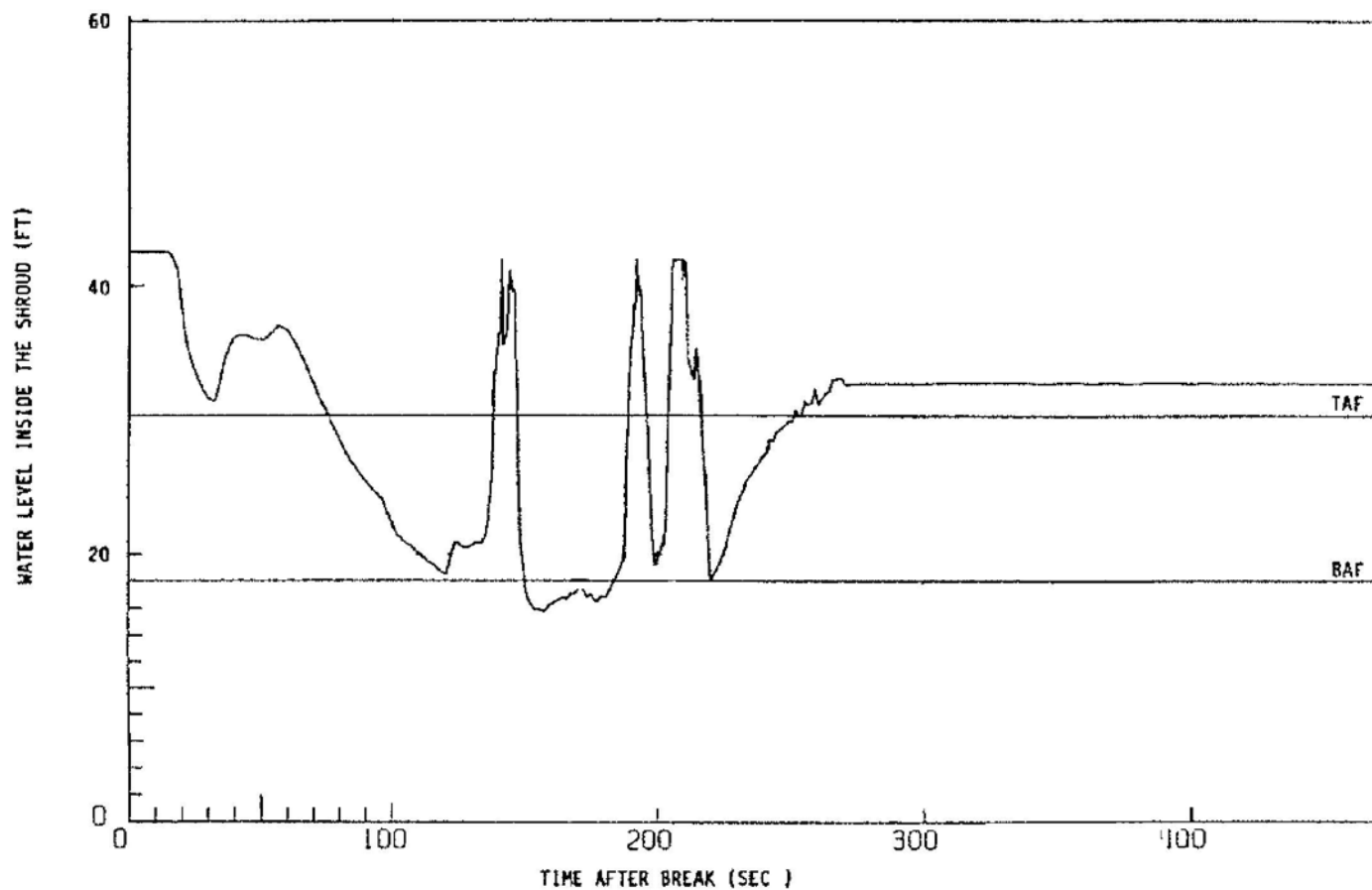


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-28

PEAK CLADDING TEMPERATURE FOLLOWING A
1.0 SQ FT BREAK (LBM) RECIRCULATION
SUCTION BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

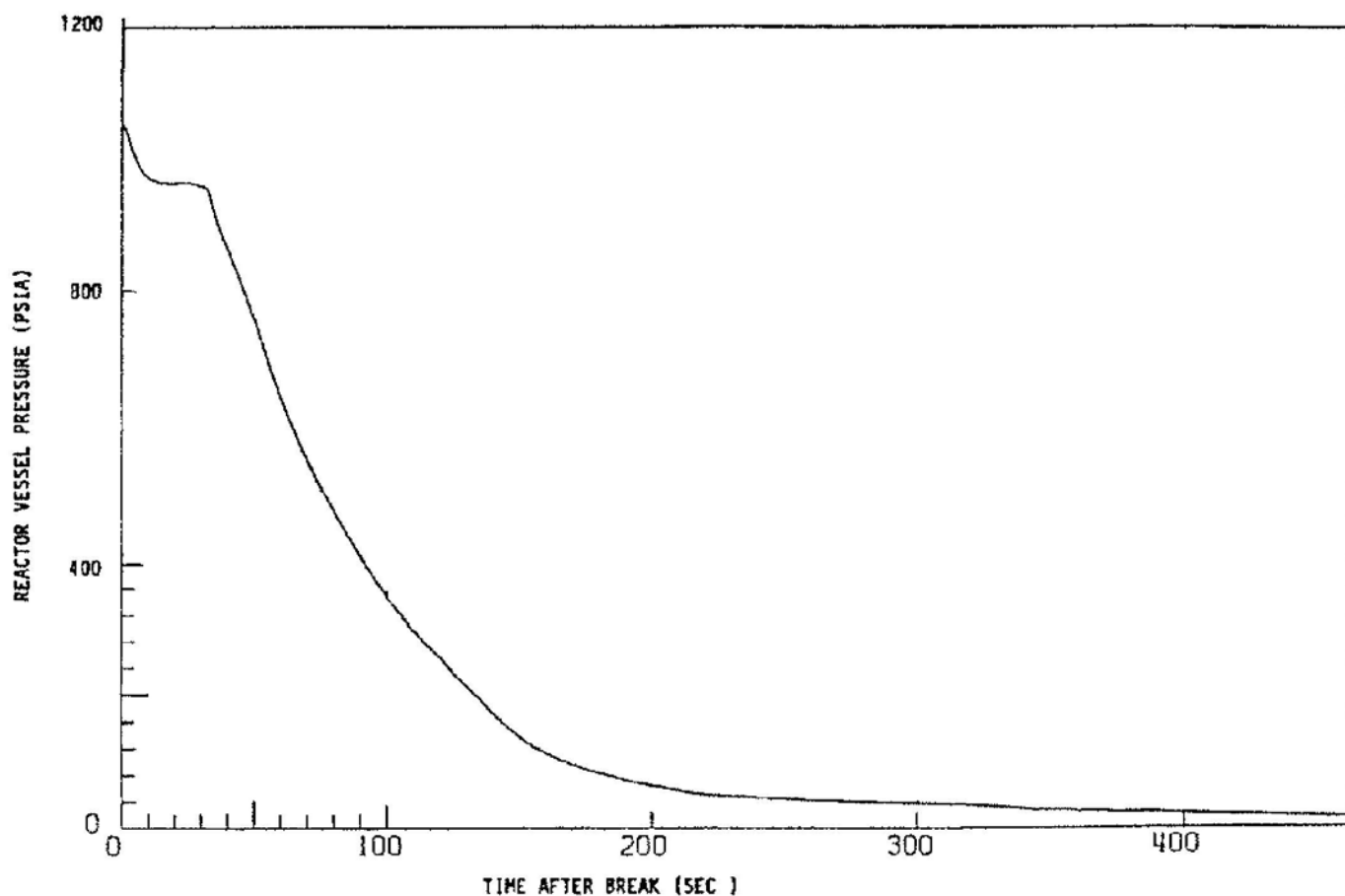


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-29

WATER LEVEL INSIDE SHROUD FOLLOWING A
1.0 SQ FT BREAK (SBM) RECIRCULATION
SUCTION BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

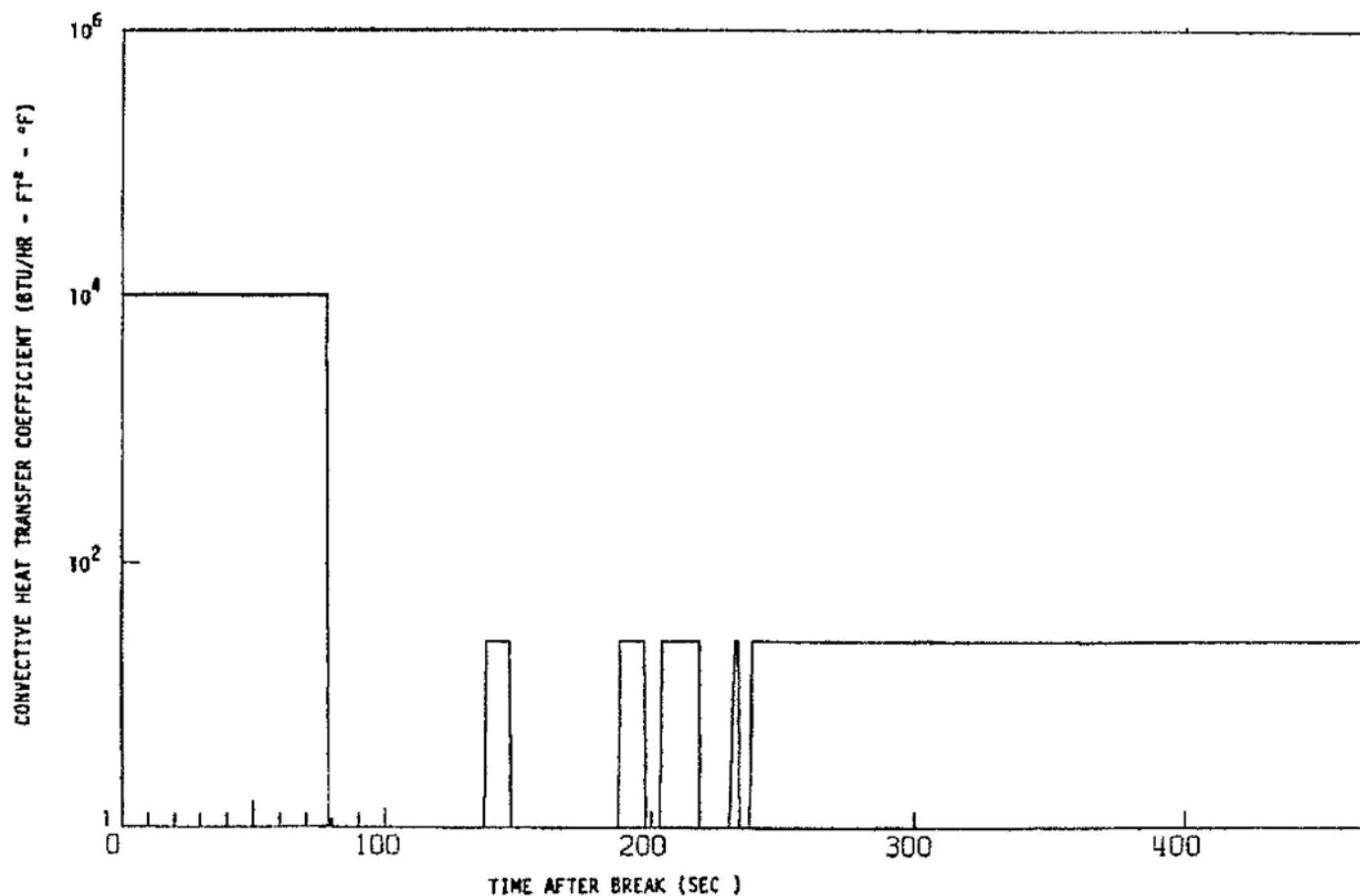


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-30

REACTOR VESSEL PRESSURE FOLLOWING A
1.0 SQ FT BREAK (SBM) RECIRCULATION
SUCTION BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

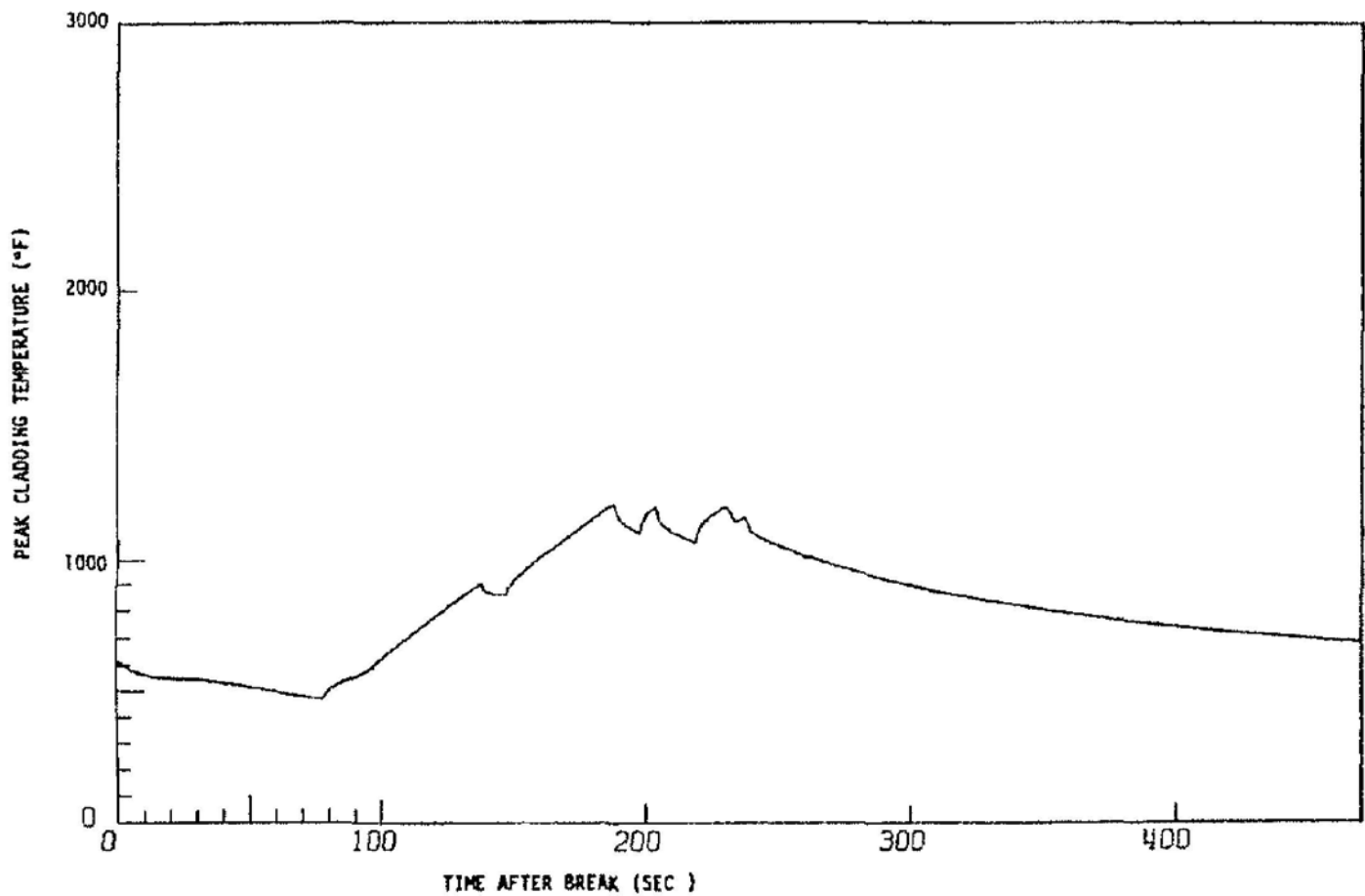


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-31

FUEL ROD CONVECTIVE HEAT TRANSFER
COEFFICIENT FOLLOWING A 1.0 SQ FT
BREAK (SBM) RECIRCULATION SUCTION
BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

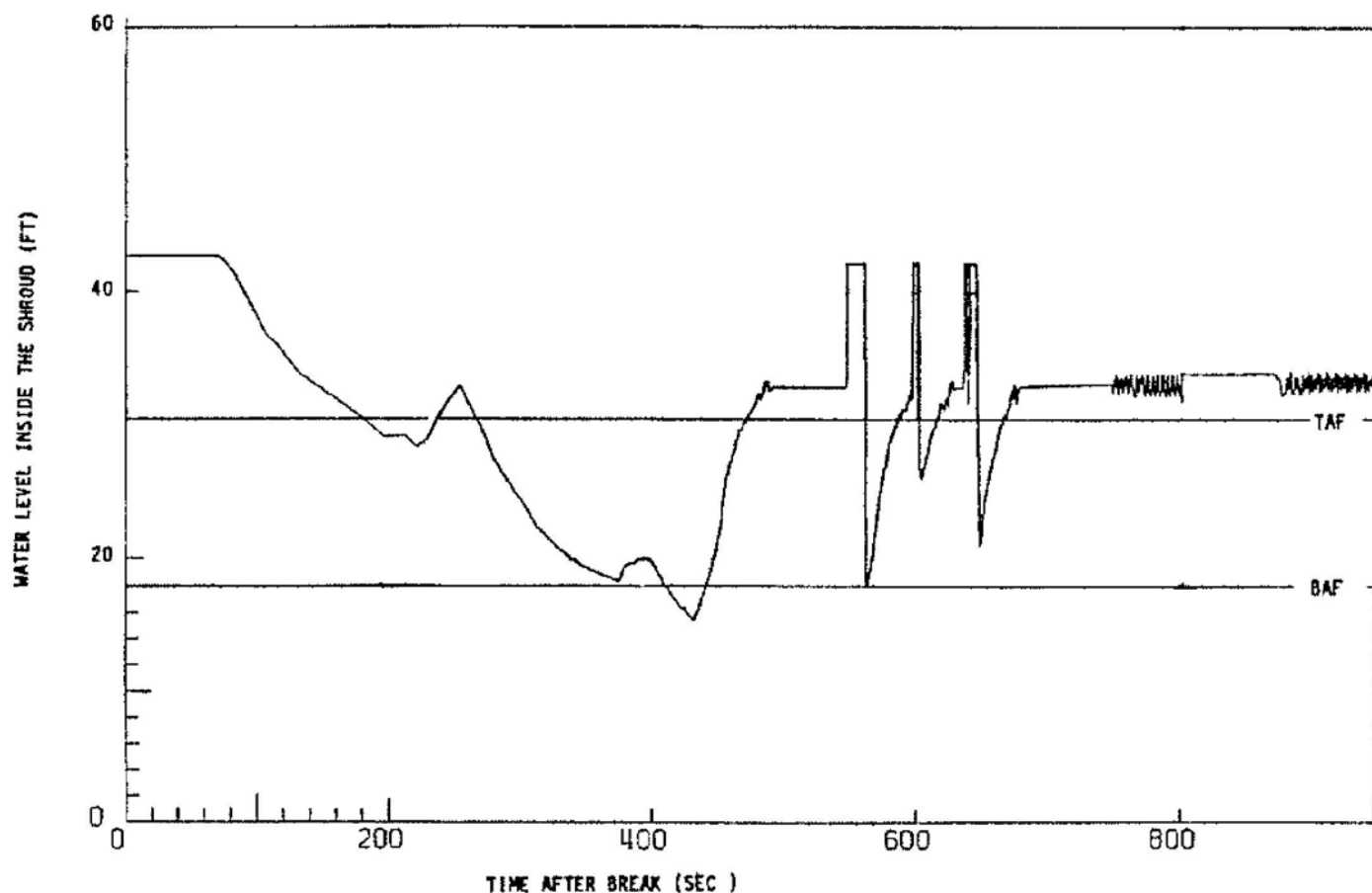


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-32

PEAK CLADDING TEMPERATURE FOLLOWING A
1.0 SQ FT BREAK (SBM) RECIRCULATION
SUCTION BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

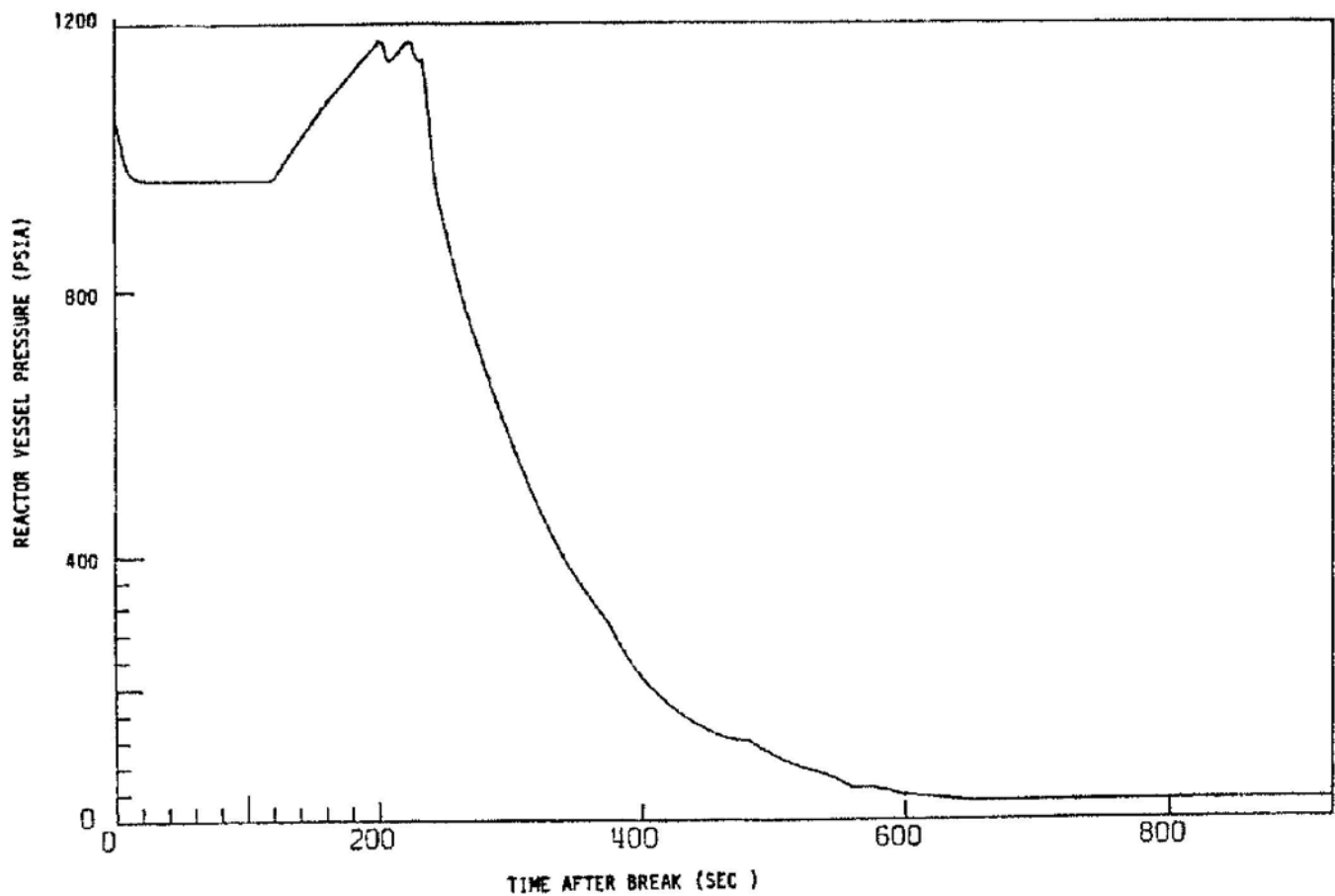


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-33

WATER LEVEL INSIDE SHROUD FOLLOWING A
0.09 SQ FT BREAK (HIGHEST TEMPERATURE
SMALL BREAK) RECIRCULATION
SUCTION BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

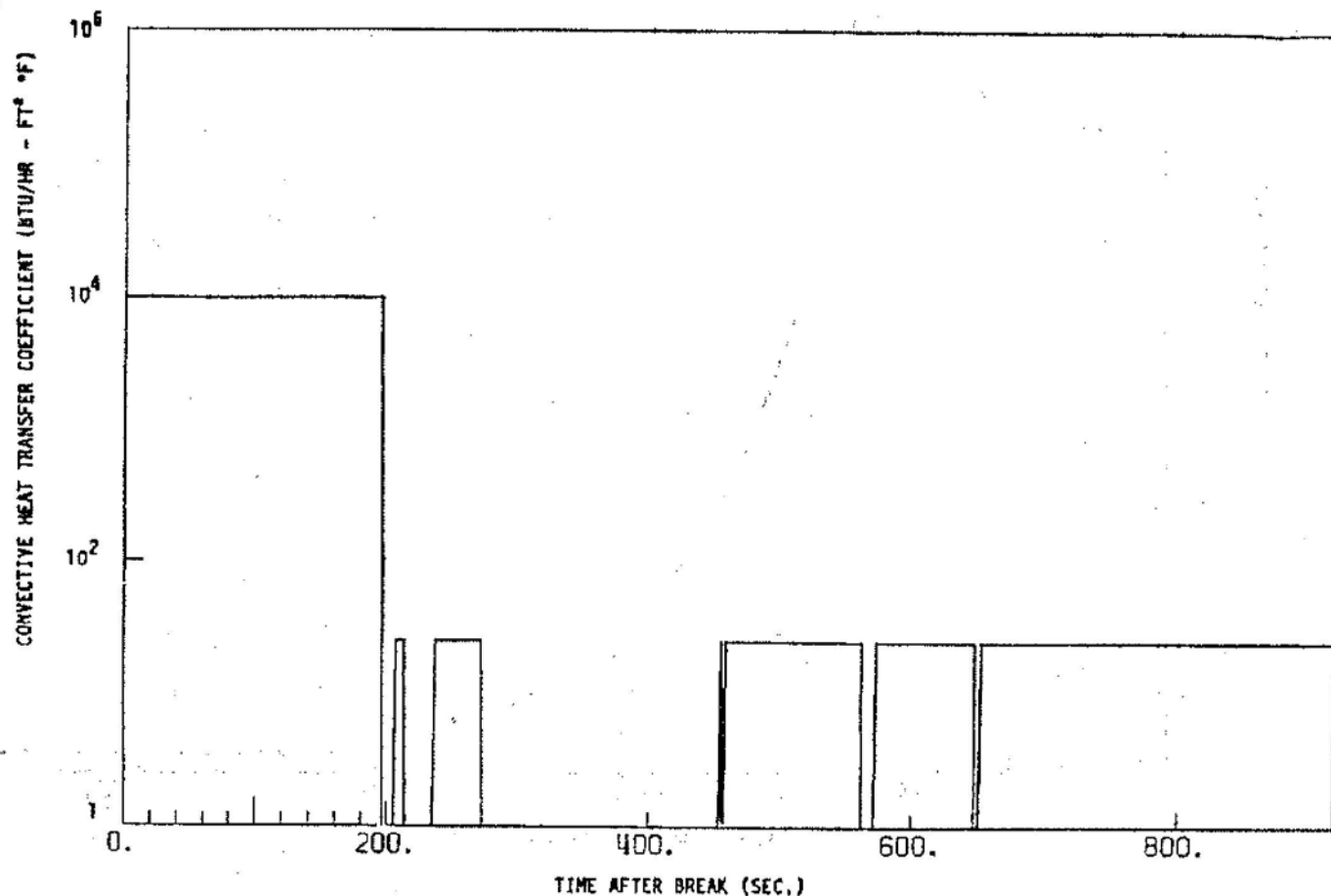


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-34

REACTOR VESSEL PRESSURE FOLLOWING A
0.09 SQ FT BREAK (HIGHEST TEMPERATURE
SMALL BREAK) RECIRCULATION
SUCTION BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

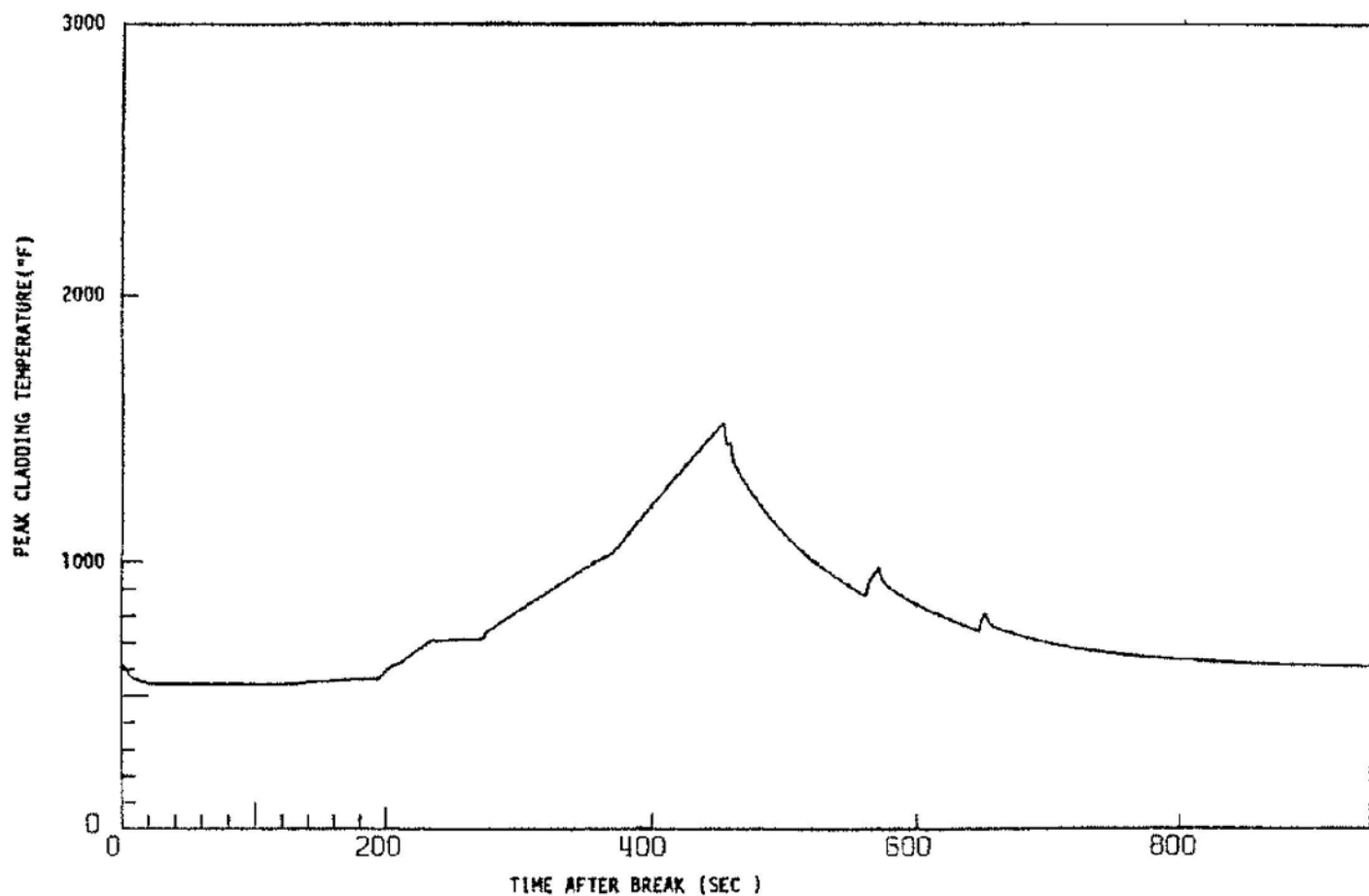


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-35

FUEL ROD CONVECTIVE HEAT TRANSFER
COEFFICIENT FOLLOWING A 0.09 SQ FT BREAK
(HIGHEST TEMPERATURE SMALL BREAK)
RECIRC. SUCTION BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT



NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-36

PEAK CLADDING TEMPERATURE FOLLOWING A
0.09 SQ FT BREAK (HIGHEST TEMPERATURE
SMALL BREAK) RECIRCULATION
SUCTION BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

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FIGURE 6.3-37

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED

FIGURE 6.3-38

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED

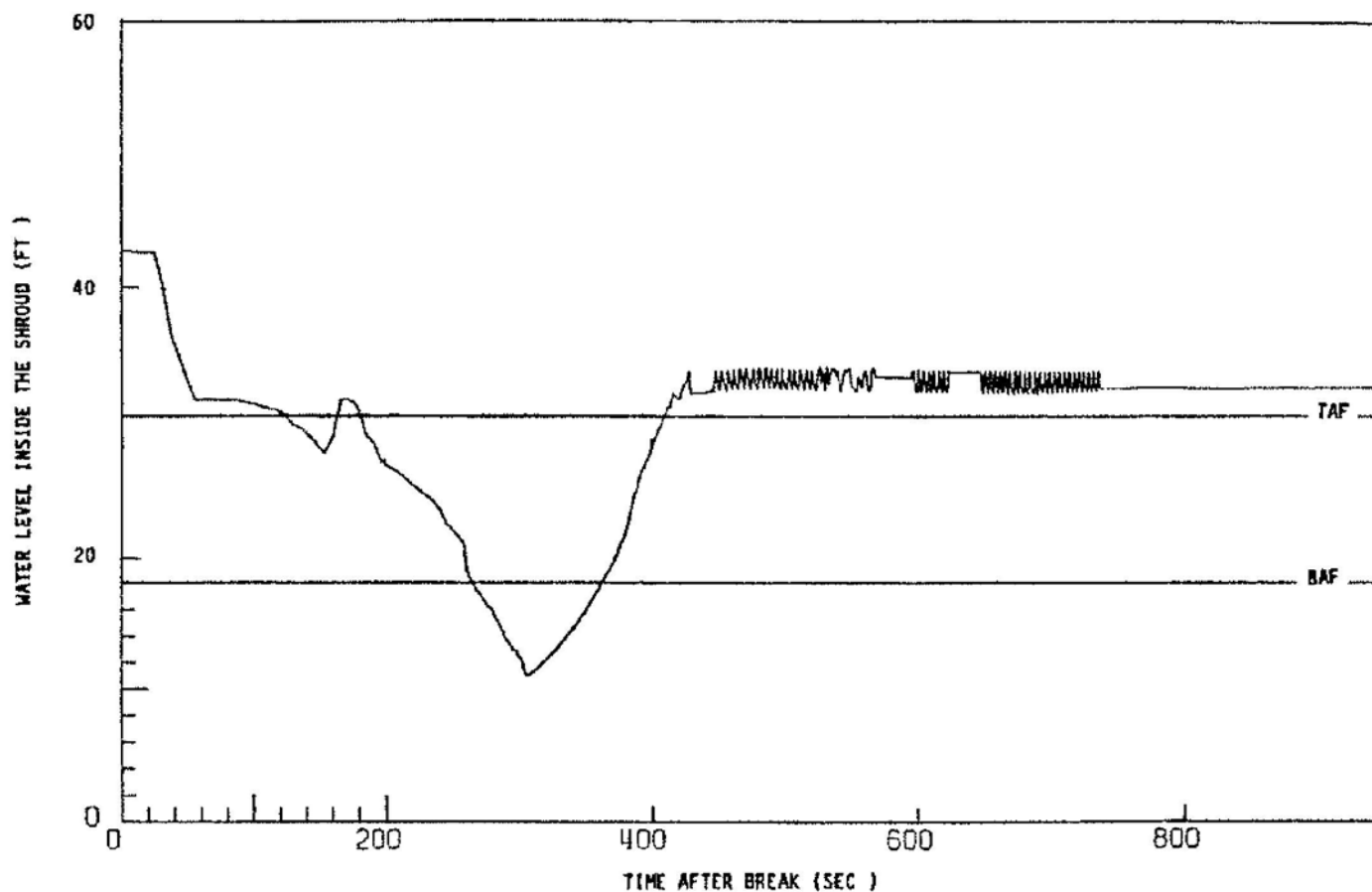
FIGURE 6.3-39

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE HAS BEEN DELETED

FIGURE 6.3-40

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

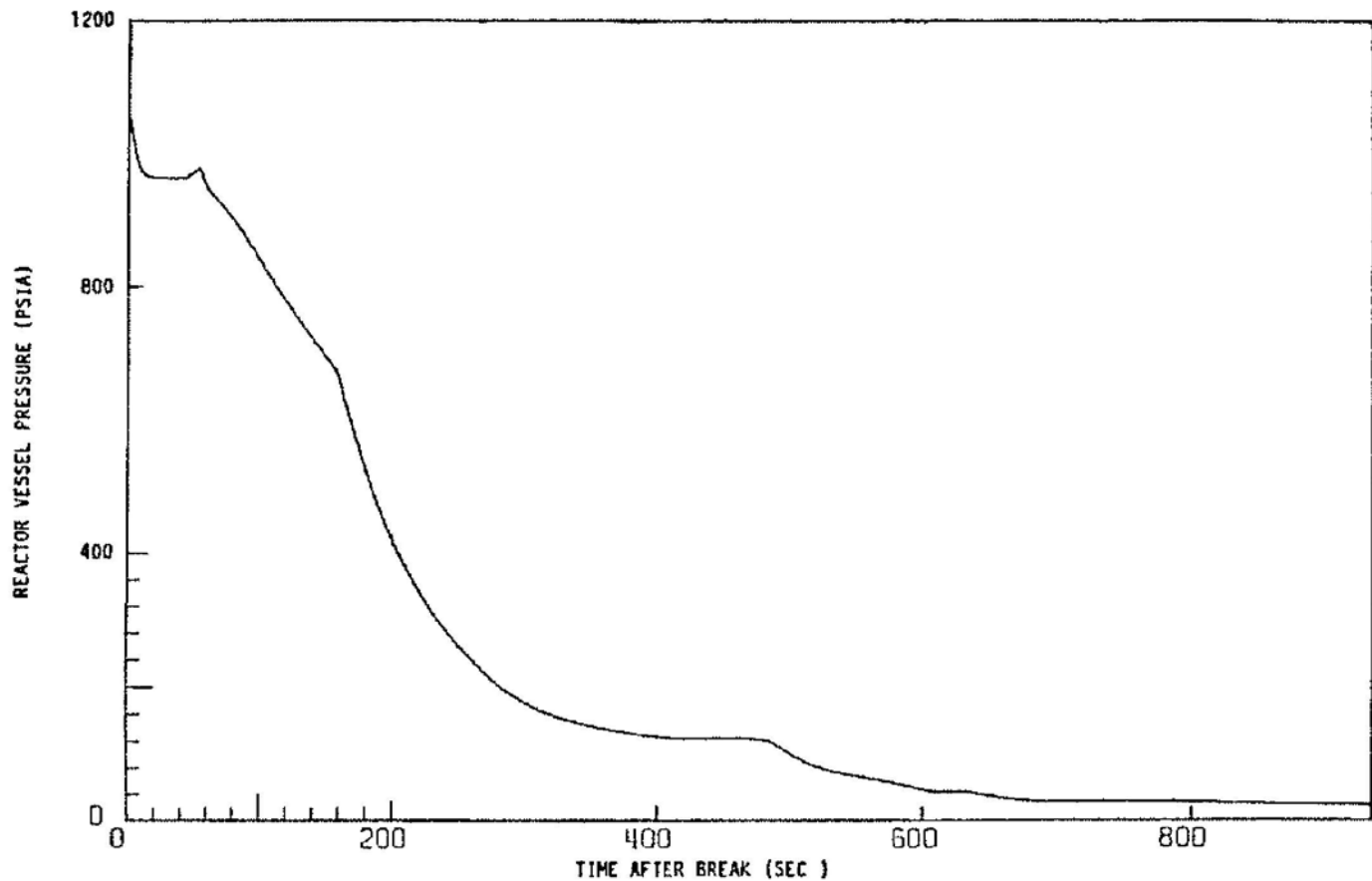


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-41

WATER LEVEL INSIDE SHROUD FOLLOWING A
MAXIMUM HPCS LINE BREAK, LPCS DIESEL
GENERATOR FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

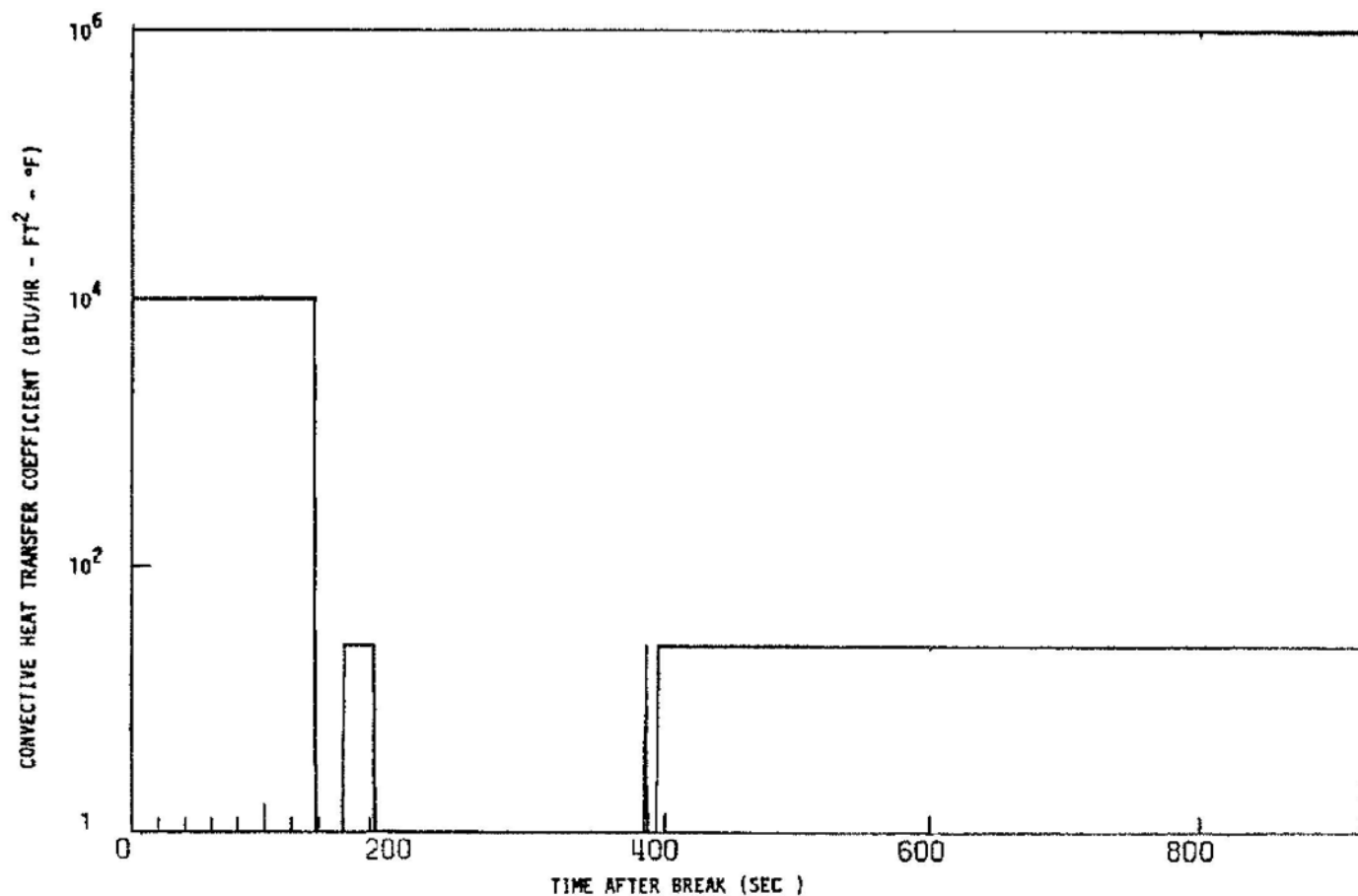


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-42

REACTOR VESSEL PRESSURE FOLLOWING A
MAXIMUM HPCS LINE BREAK, LPCS DIESEL
GENERATOR FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

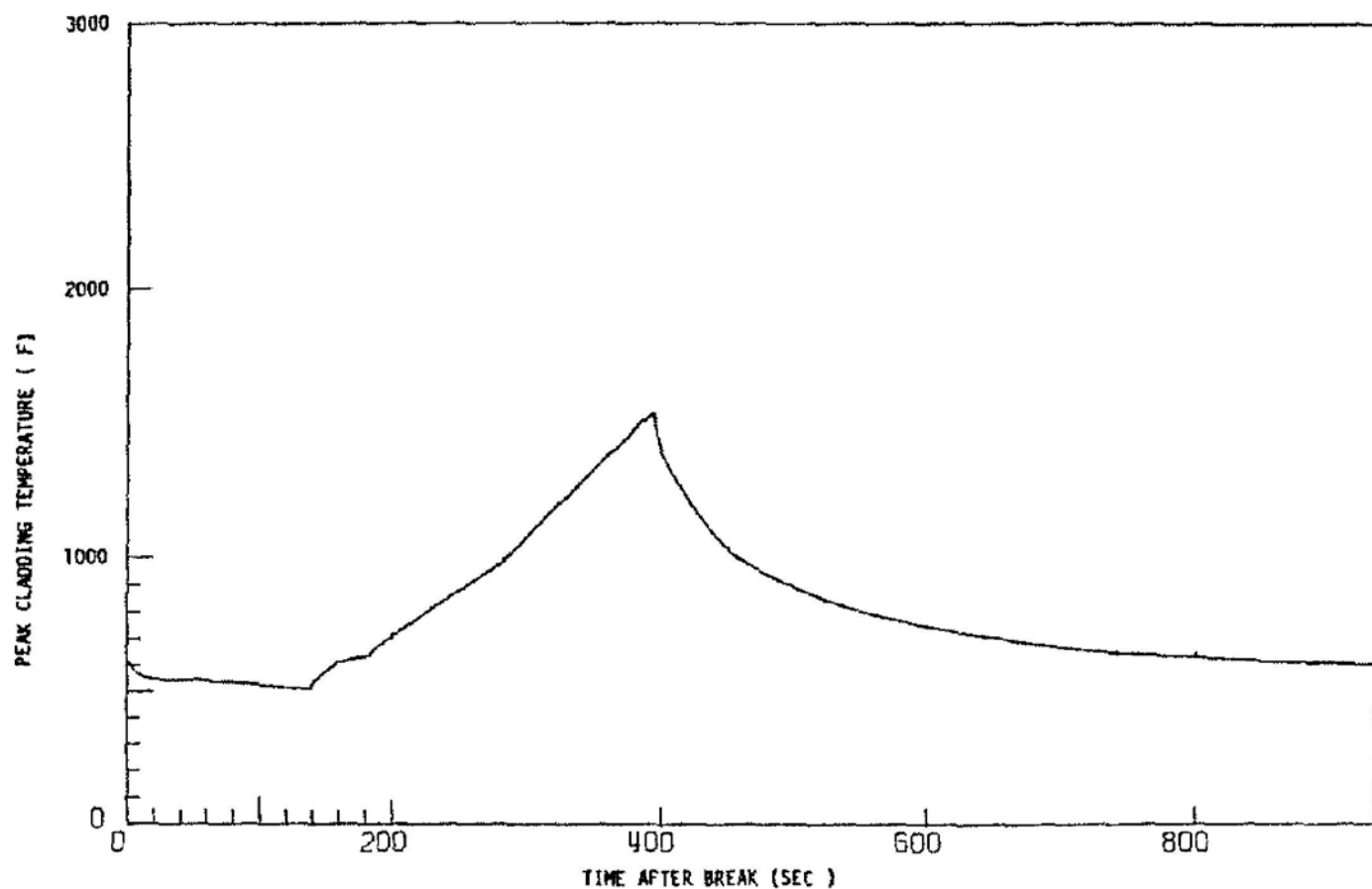


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-43

FUEL ROD CONVECTIVE HEAT TRANSFER
COEFFICIENT FOLLOWING A MAXIMUM HPCS
LINE BREAK, LPCS DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

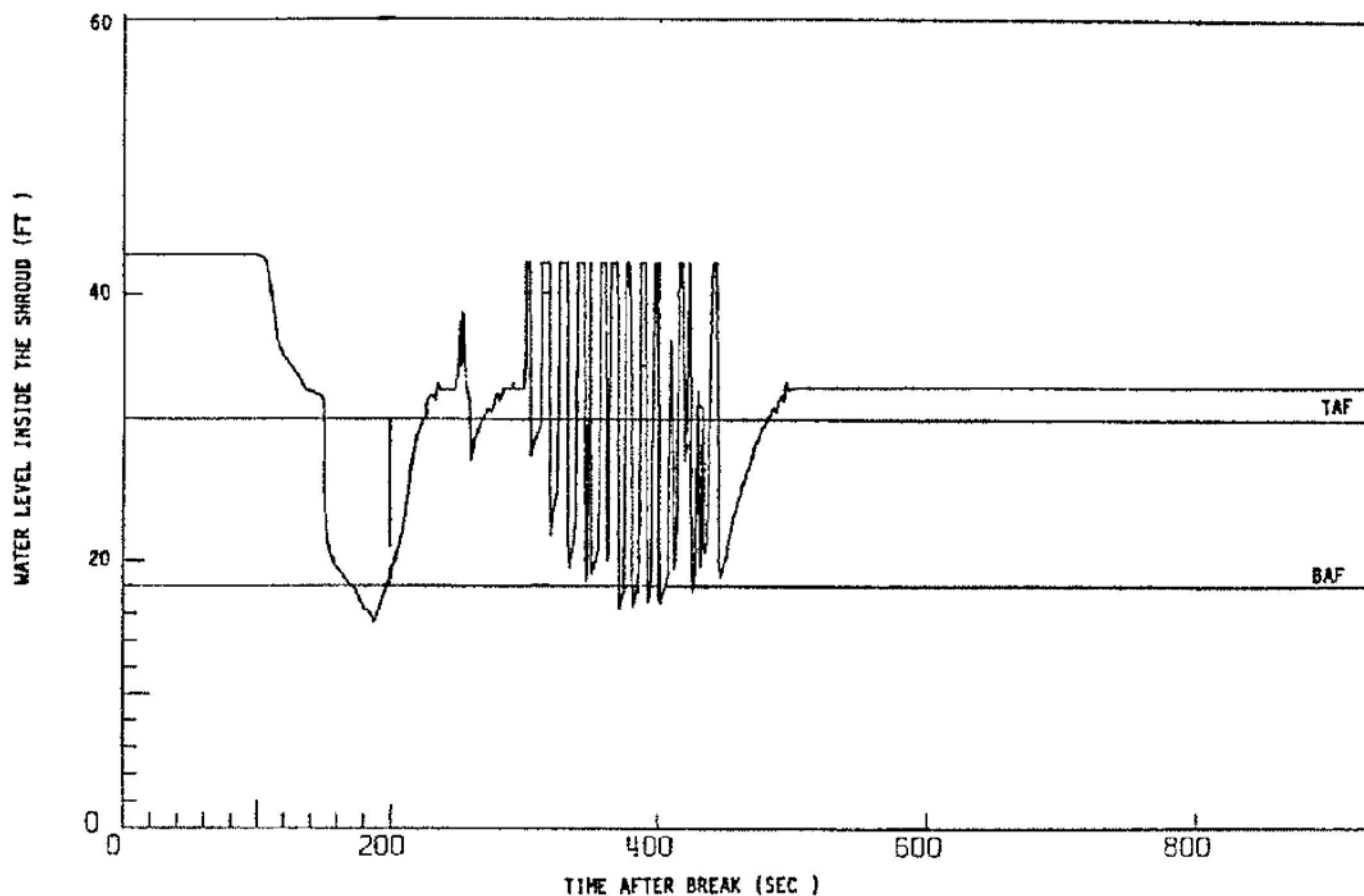


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-44

PEAK CLADDING TEMPERATURE FOLLOWING
A MAXIMUM HPCS LINE BREAK, LPCS DIESEL
GENERATOR FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

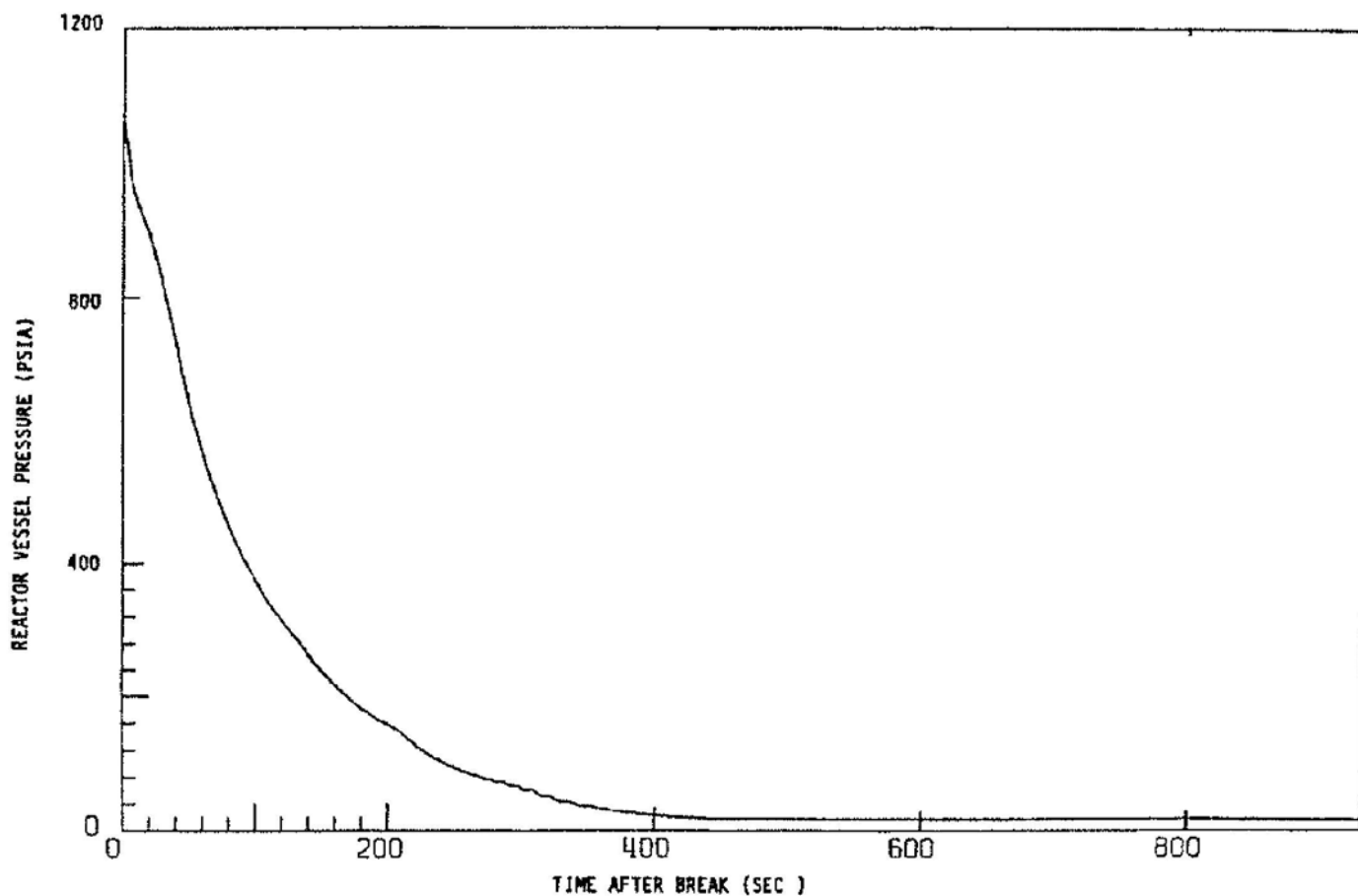


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-45

WATER LEVEL INSIDE SHROUD FOLLOWING A
MAXIMUM FEEDWATER LINE BREAK,
HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

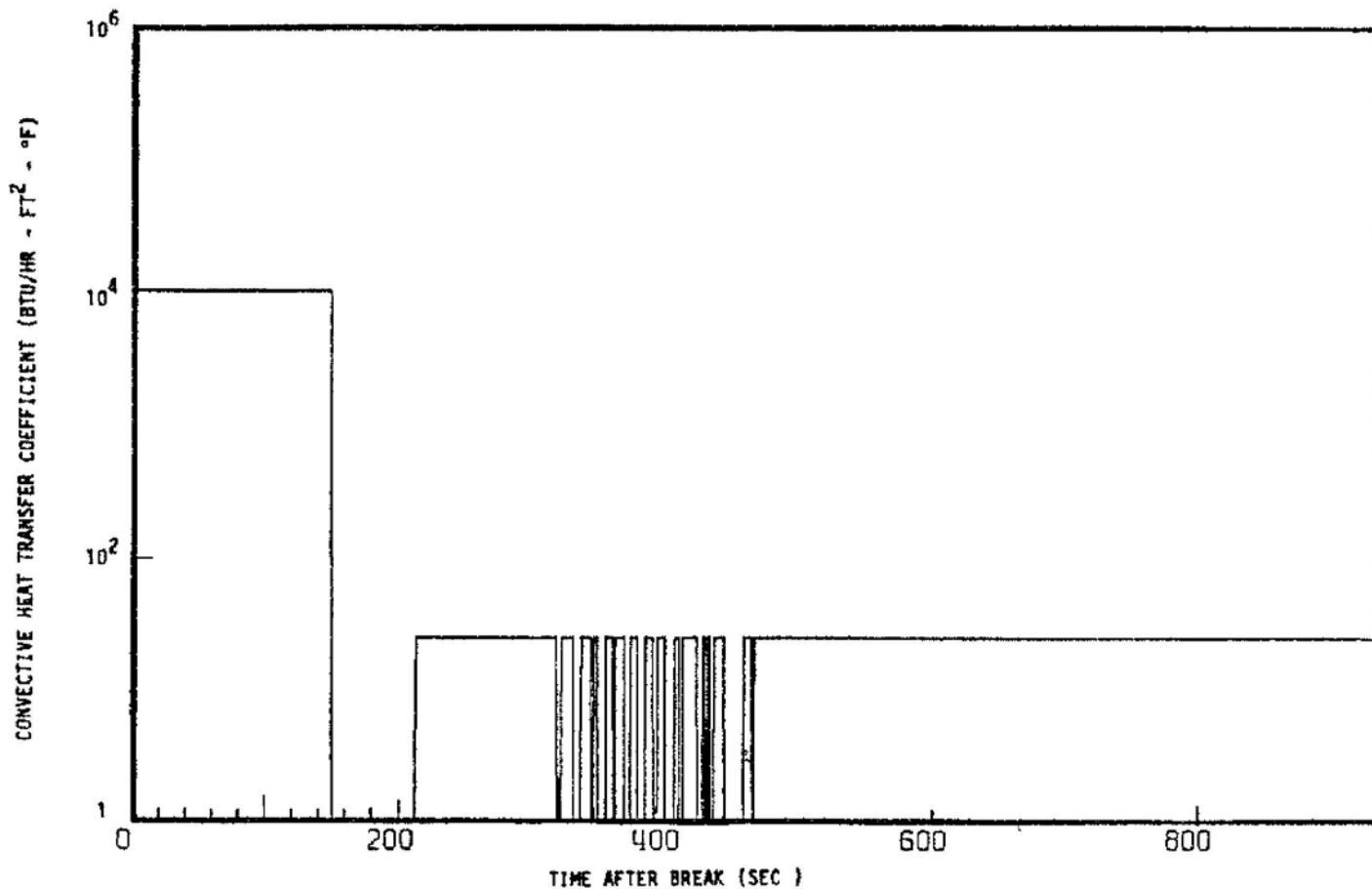


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-46

REACTOR VESSEL PRESSURE FOLLOWING A
MAXIMUM FEEDWATER LINE BREAK,
HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

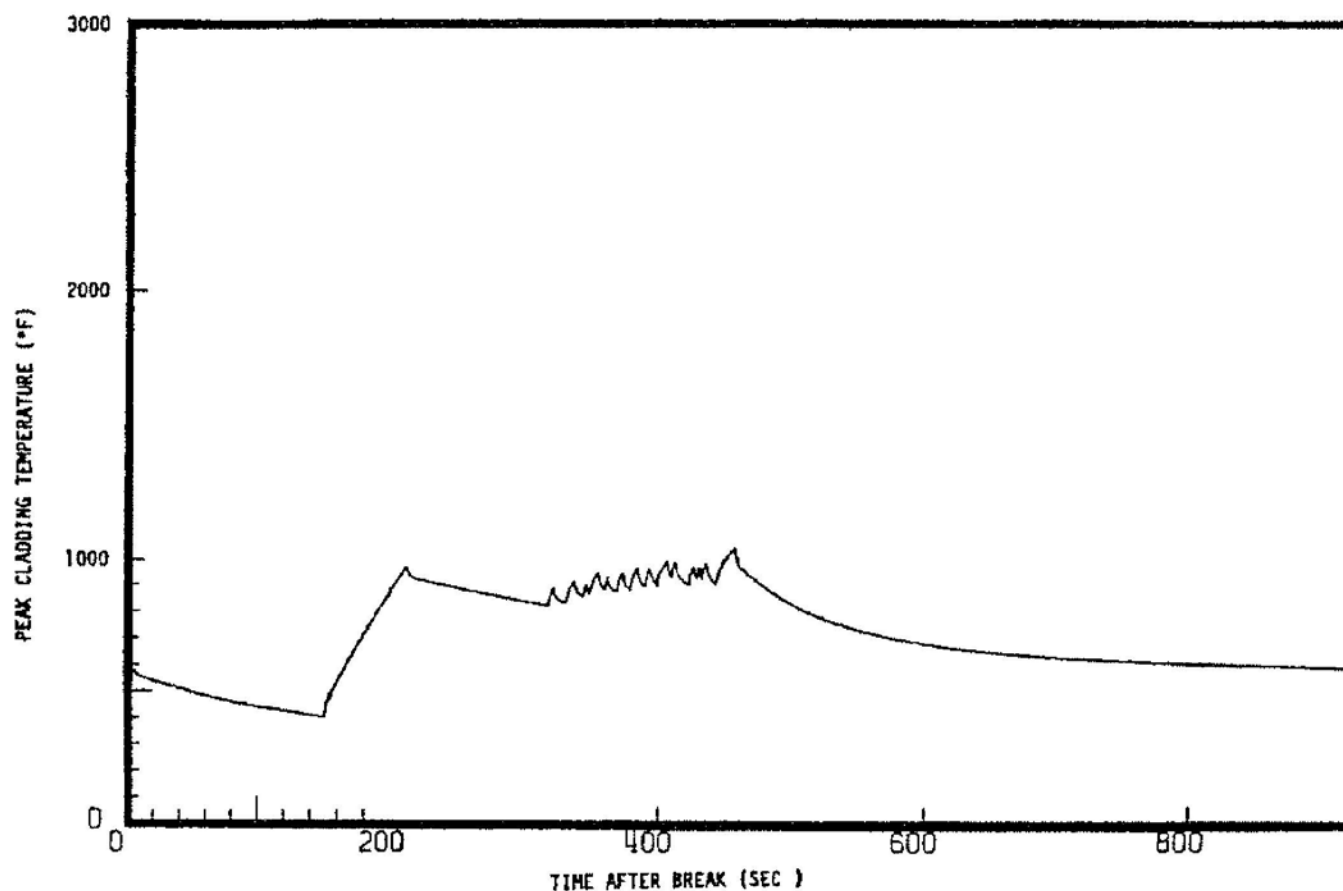


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-47

FUEL ROD CONVECTIVE HEAT TRANSFER
COEFFICIENT FOLLOWING A MAXIMUM
FEEDWATER LINE BREAK, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

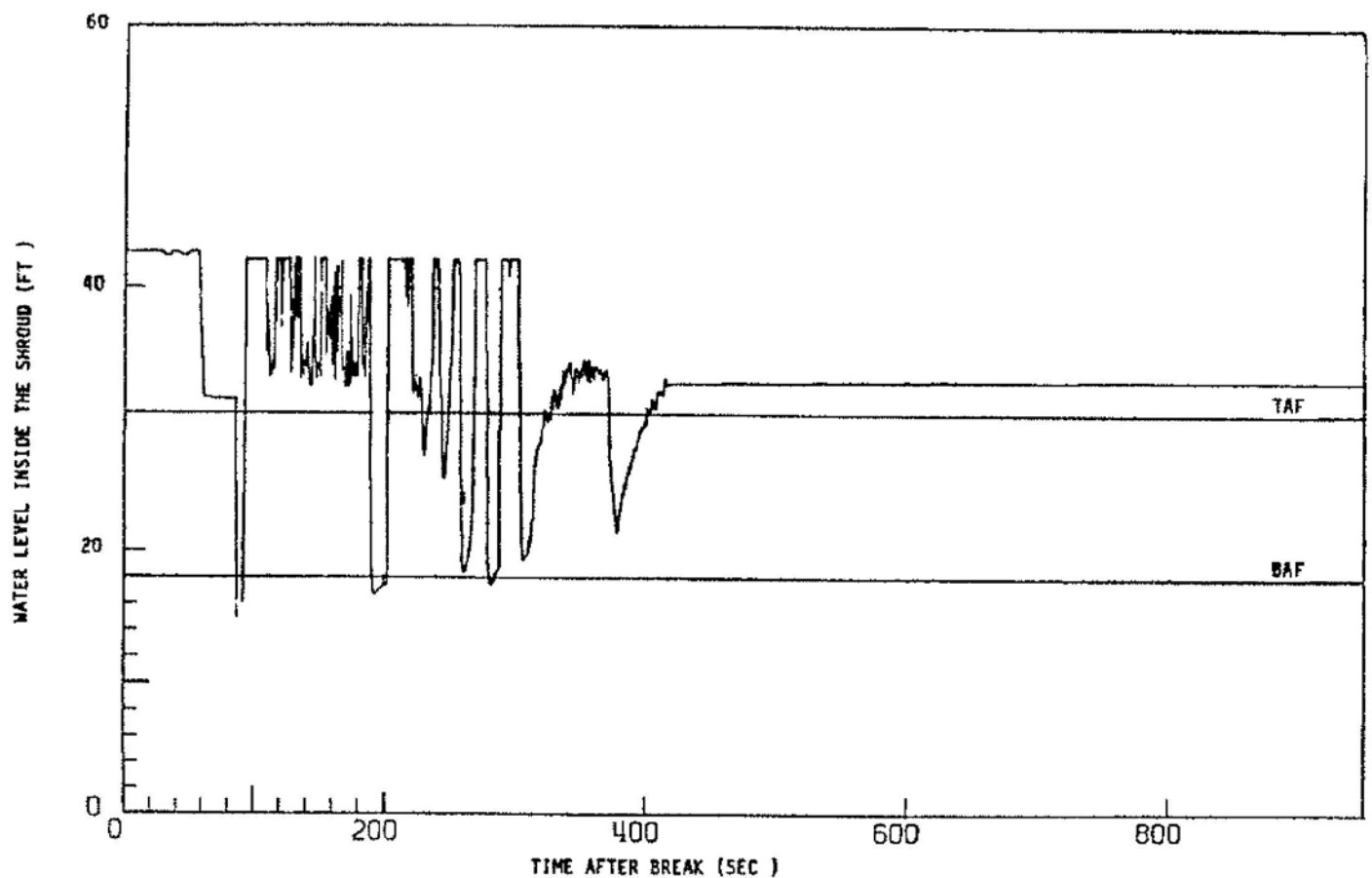


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-48

PEAK CLADDING TEMPERATURE FOLLOWING
A MAXIMUM FEEDWATER LINE BREAK,
HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

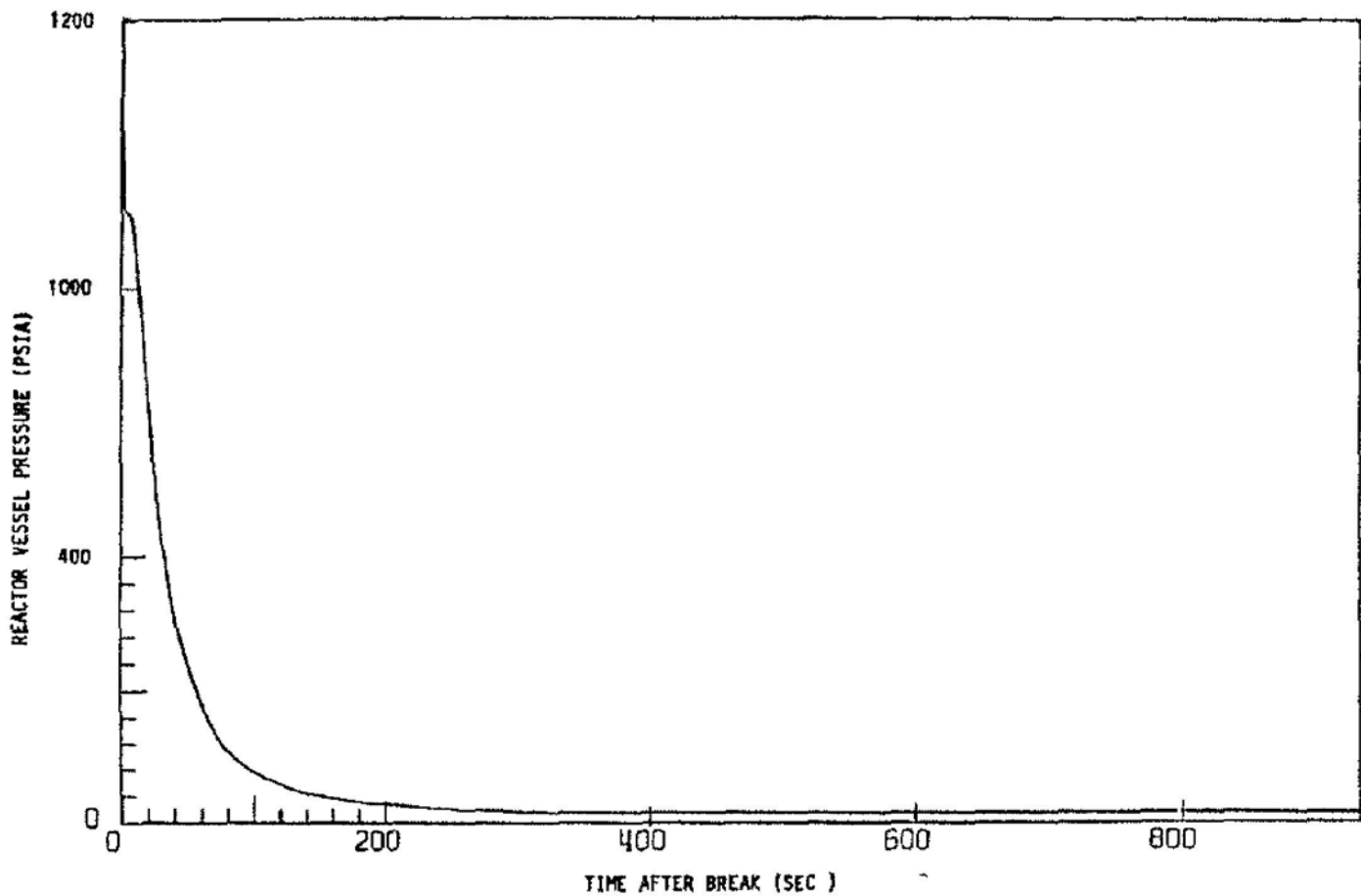


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-49

WATER LEVEL INSIDE SHROUD FOLLOWING A
MAXIMUM MAIN STEAM LINE BREAK INSIDE
CONTAINMENT LPCI DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

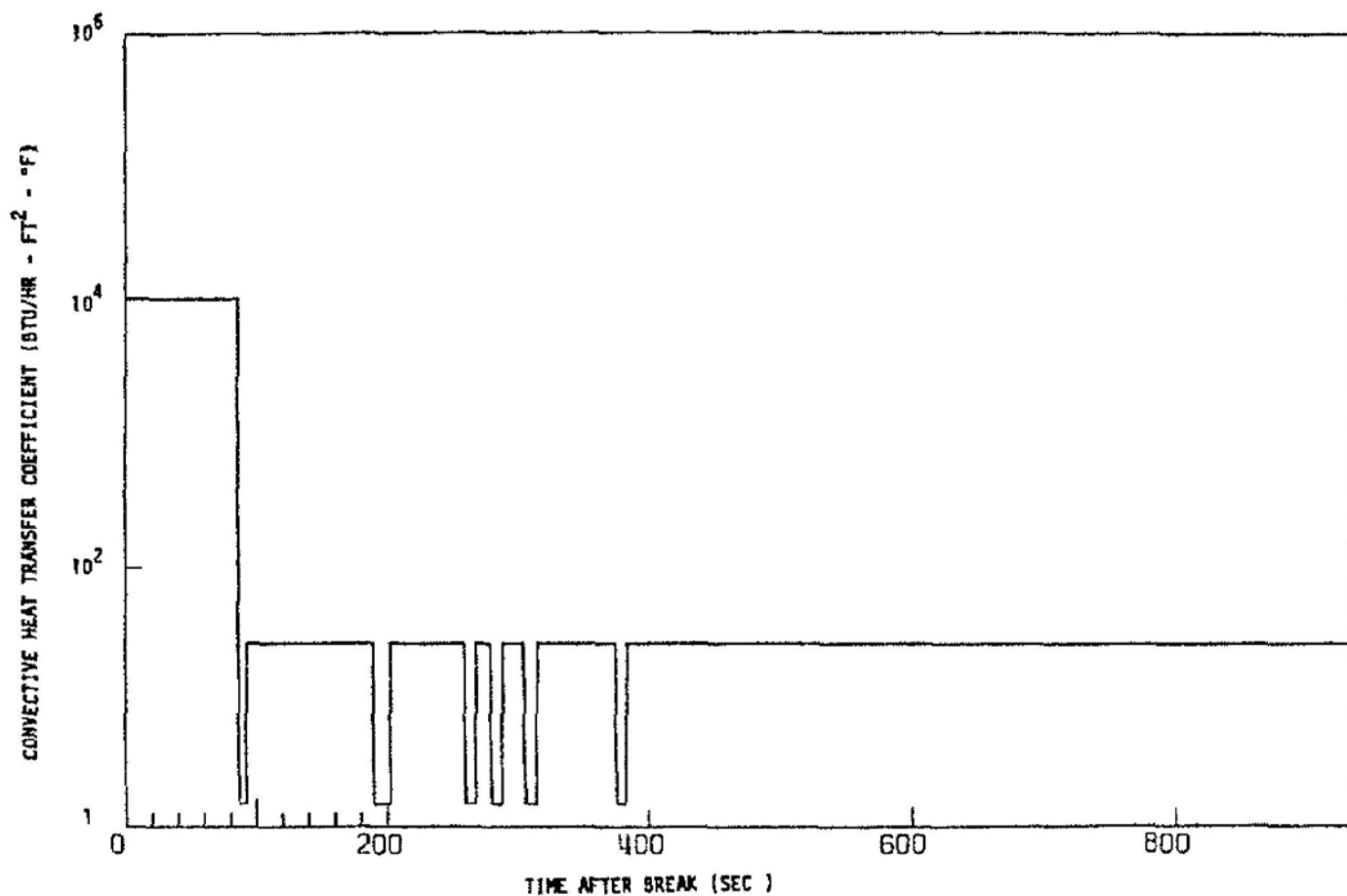


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-50

REACTOR VESSEL PRESSURE FOLLOWING A
MAXIMUM MAIN STEAM LINE BREAK INSIDE
CONTAINMENT, LPCI DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

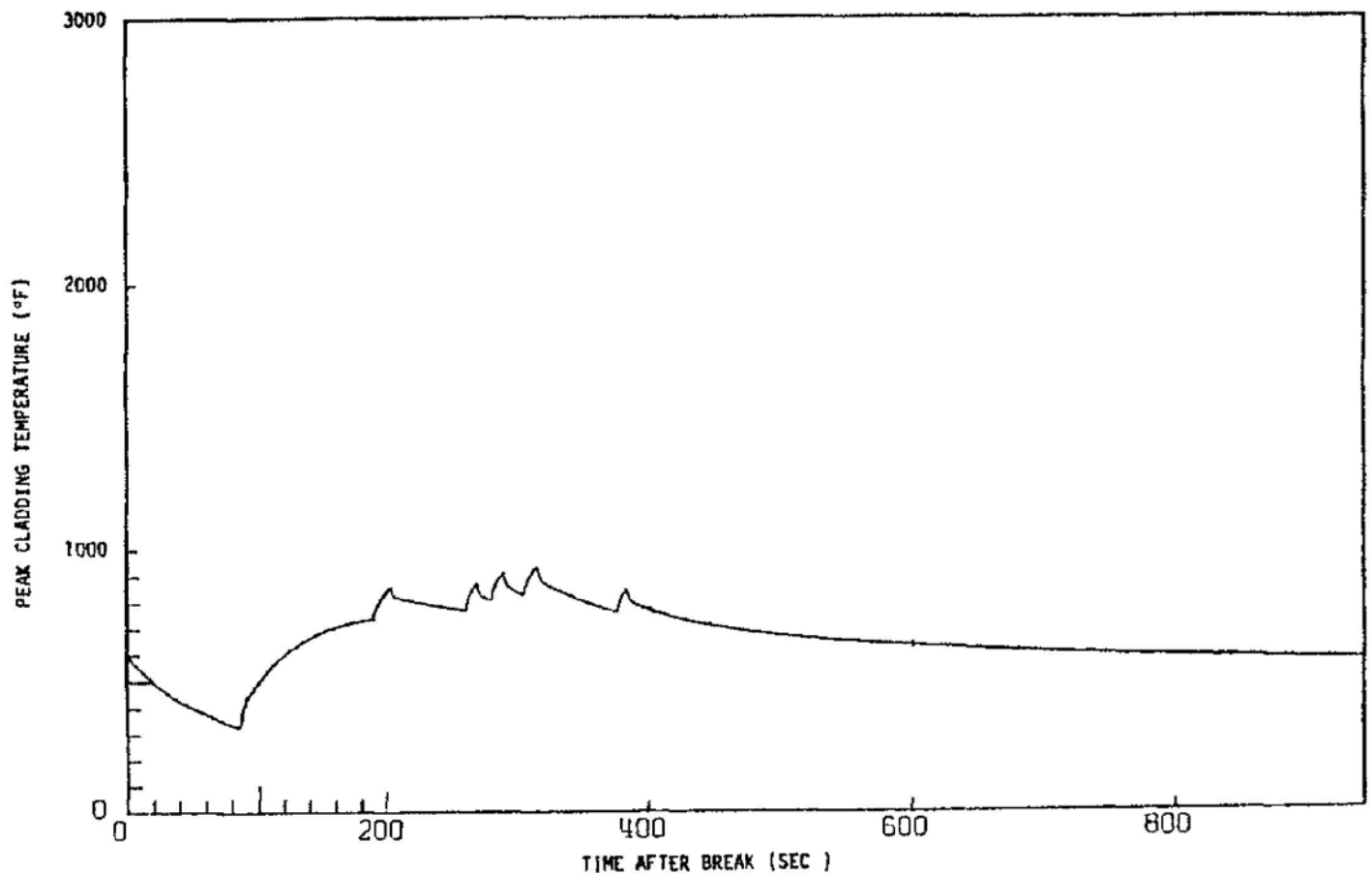


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-51

FUEL ROD CONVECTIVE HEAT TRANSFER
COEFFICIENT FOLLOWING A MAXIMUM
MAIN STEAM LINE BREAK INSIDE
CONTAINMENT, LPCI DIESEL GENERATOR
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

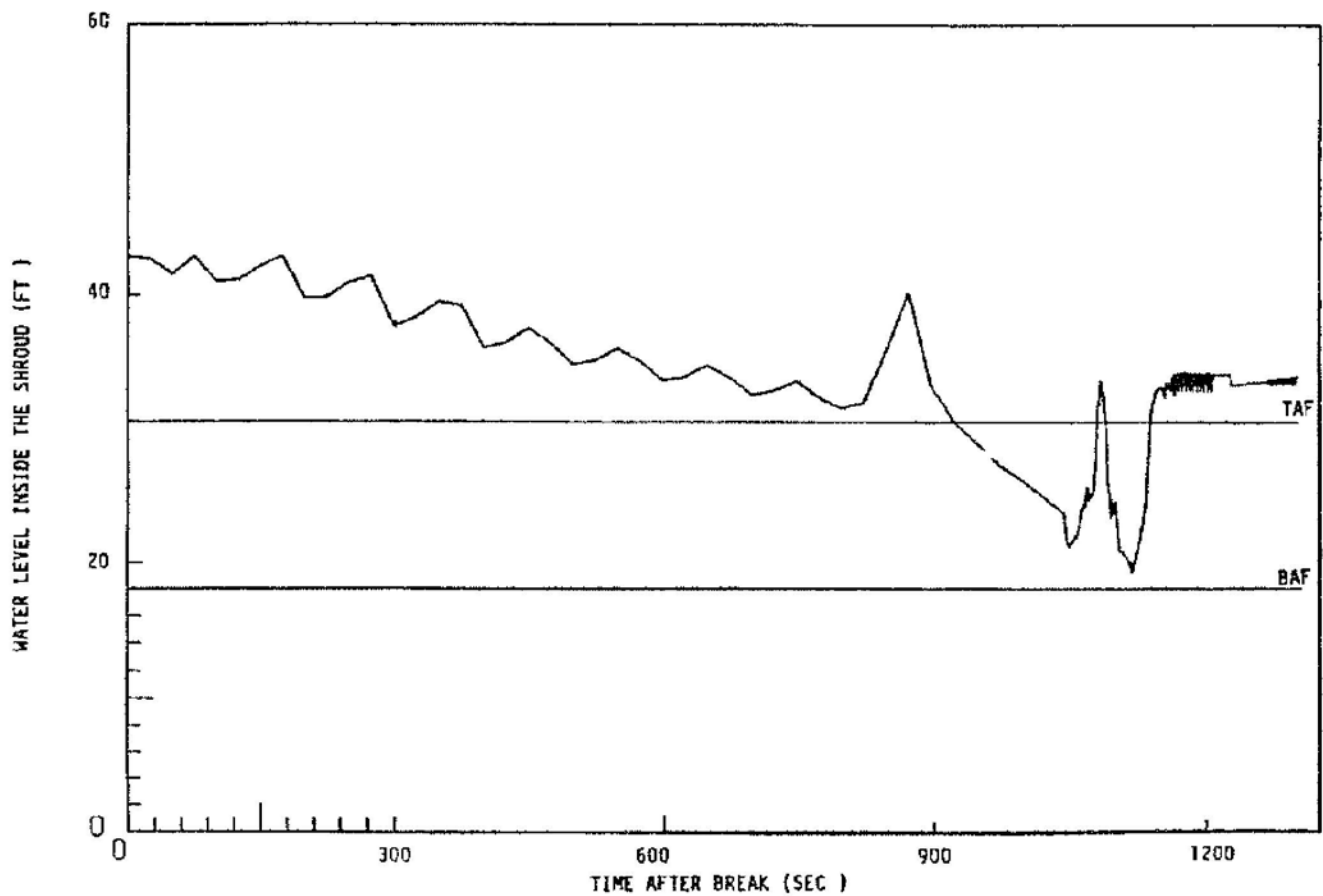


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-52

PEAK CLADDING TEMPERATURE FOLLOWING
A MAXIMUM MAIN STEAM LINE BREAK,
INSIDE CONTAINMENT LPCI DIESEL
GENERATOR FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

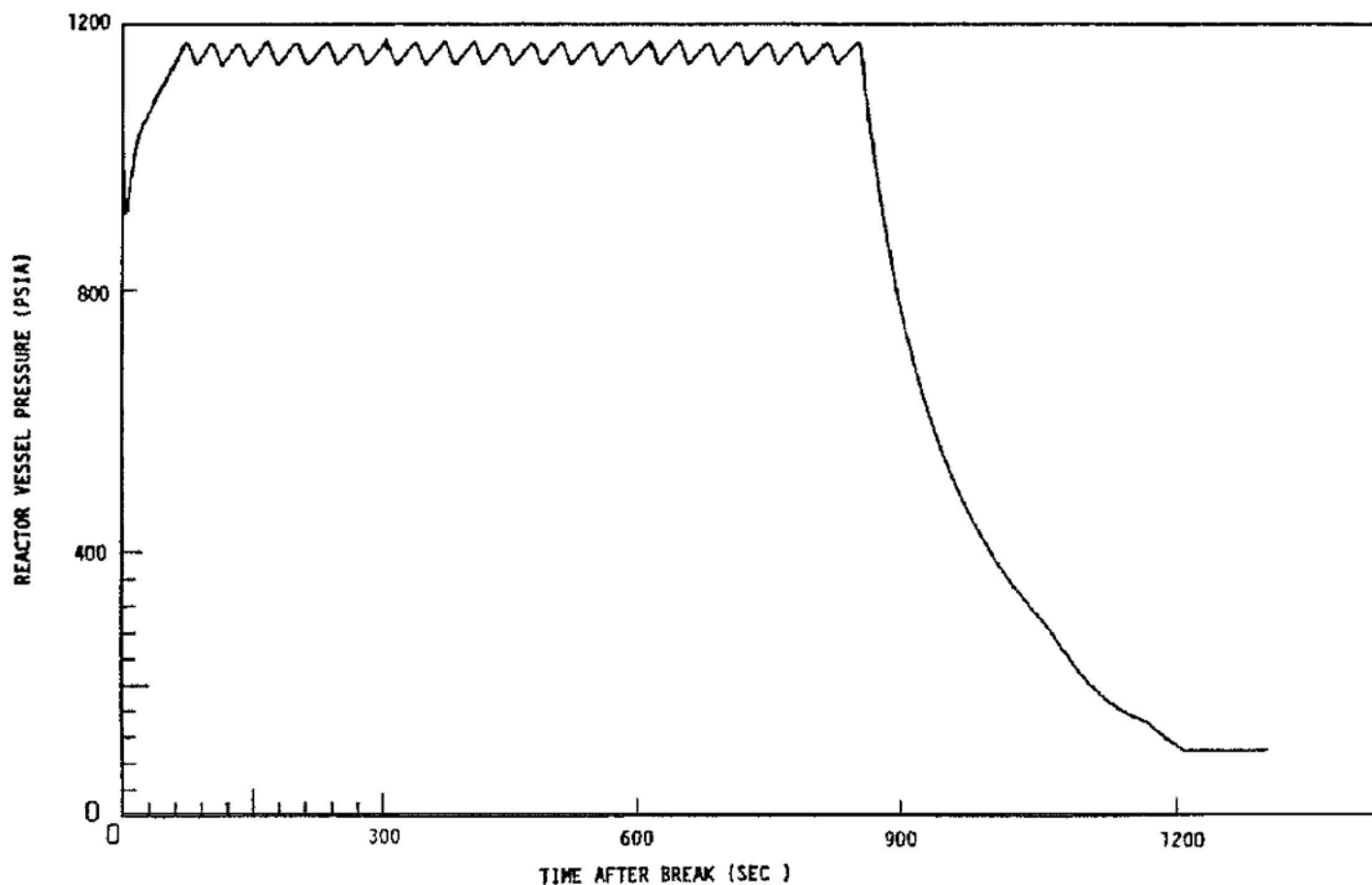


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-53

WATER LEVEL INSIDE SHROUD FOLLOWING A
MAXIMUM MAIN STEAM LINE BREAK OUTSIDE
CONTAINMENT HPCI FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

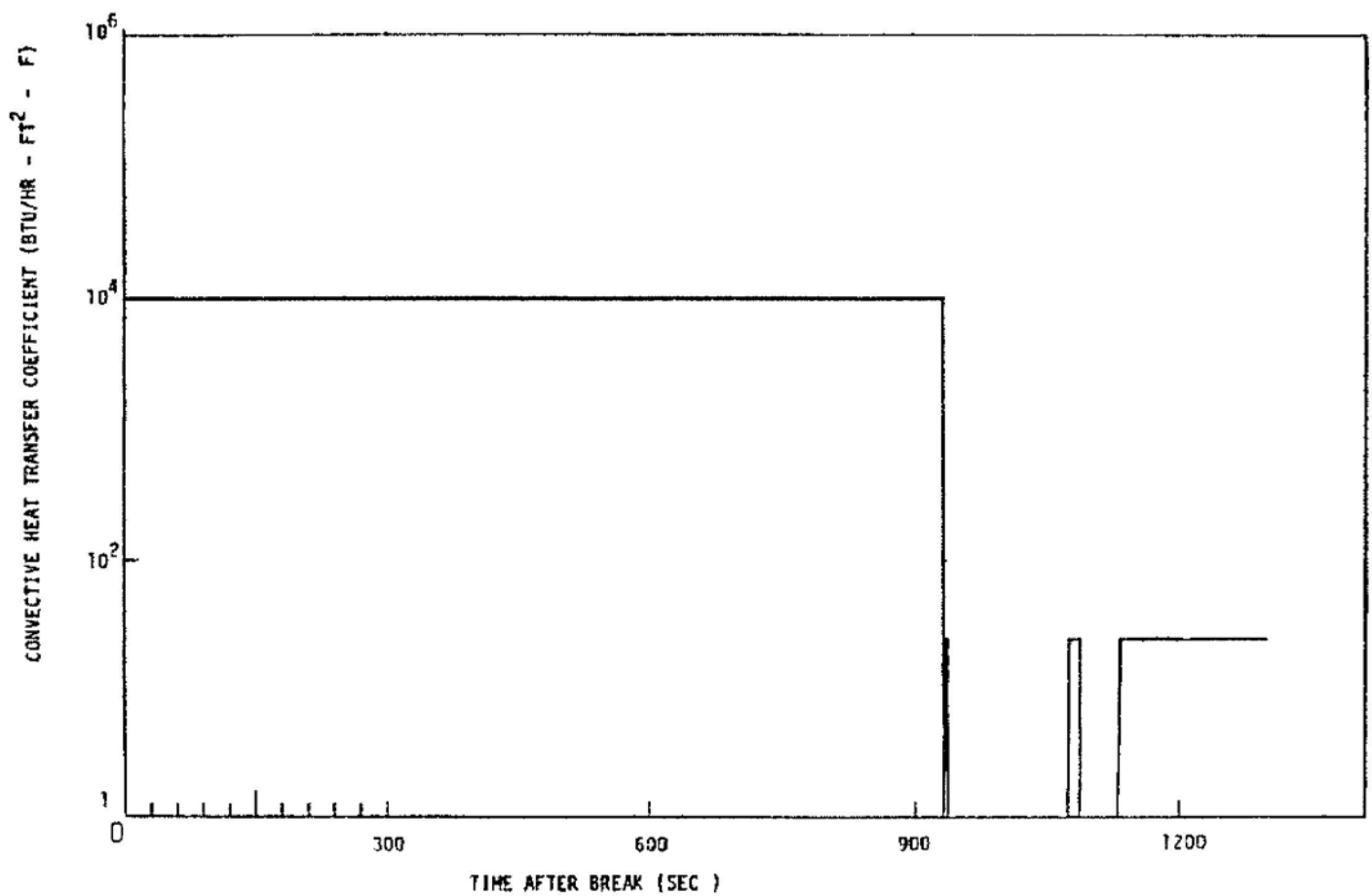


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-54

REACTOR VESSEL PRESSURE FOLLOWING A
MAXIMUM MAIN STEAM LINE BREAK OUTSIDE
CONTAINMENT, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

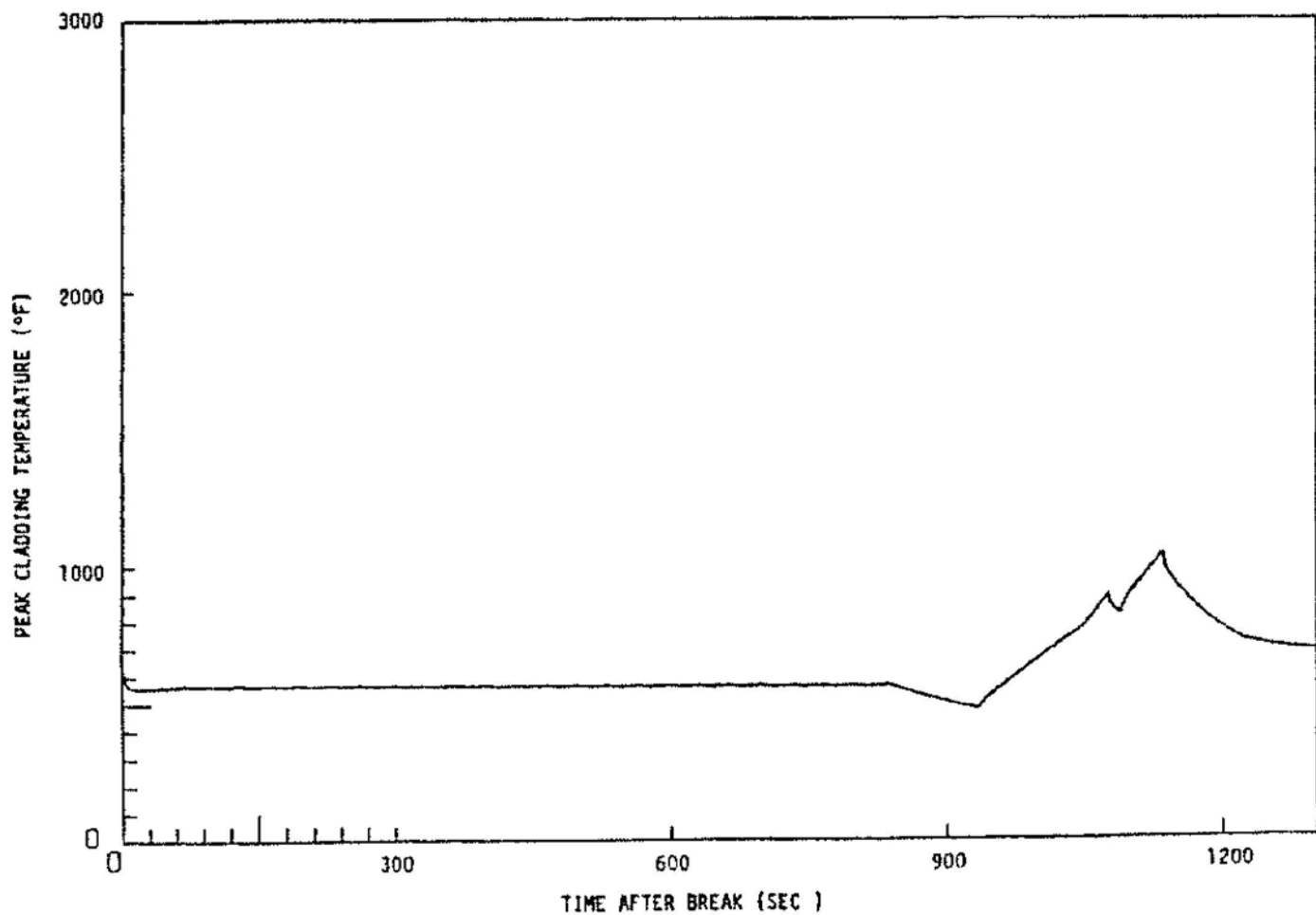


NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-55

FUEL ROD CONVECTIVE HEAT TRANSFER
COEFFICIENT FOLLOWING A MAXIMUM
MAIN STEAM LINE BREAK OUTSIDE
CONTAINMENT, HPCS FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT



NOTE: "This figure applies to the initial LOCA analysis."

FIGURE: 6.3-56

PEAK CLADDING TEMPERATURE FOLLOWING
A MAXIMUM MAIN STEAM LINE BREAK
OUTSIDE CONTAINMENT, HPCS
FAILURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

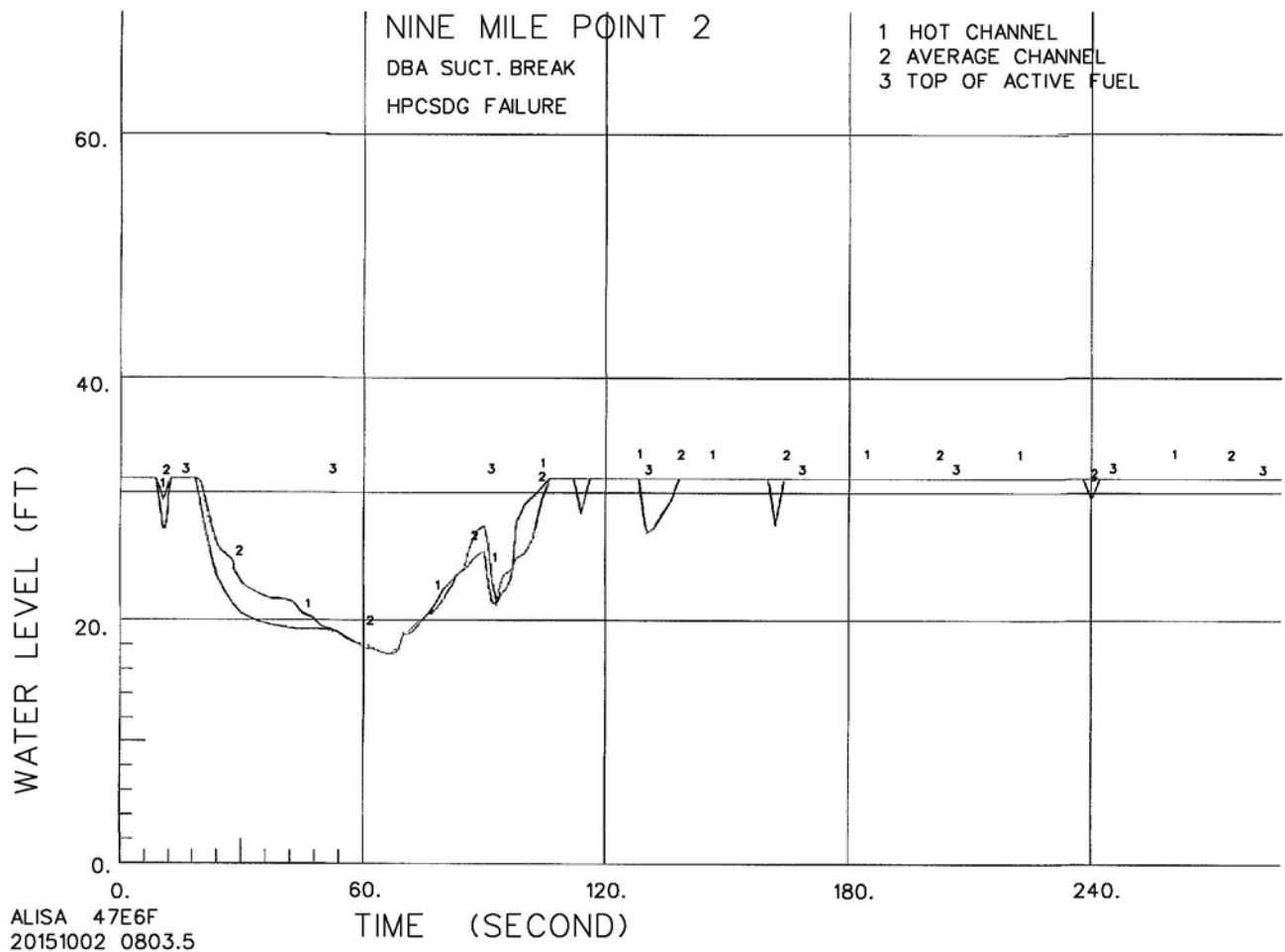


FIGURE: 6.3-57

NMP-2 DBA-HPCS DG FAILURE-APPENDIX K

HOT AND AVERAGE CHANNEL WATER LEVELS

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

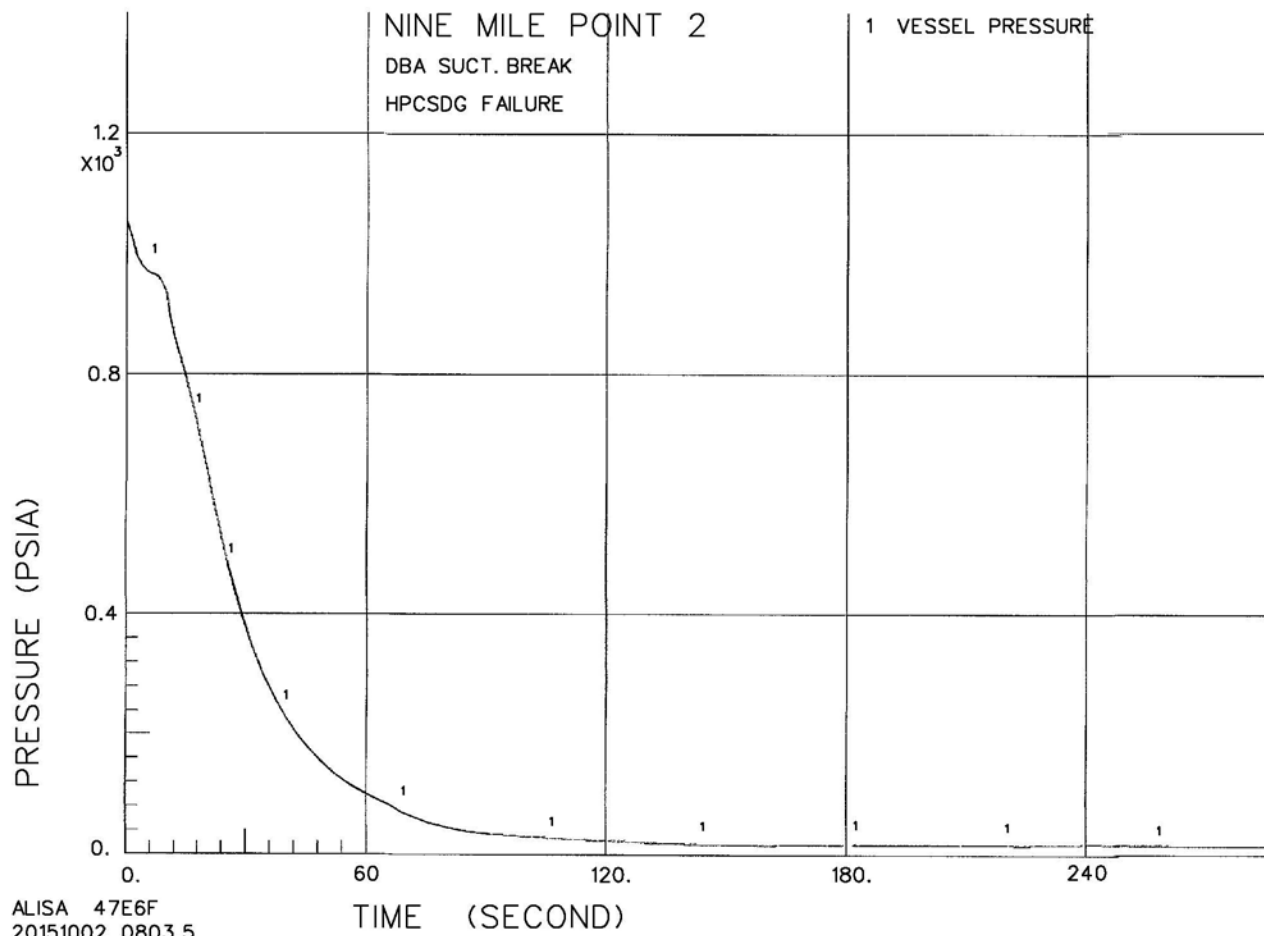


FIGURE: 6.3-58

NMP-2 DBA-HPCS DG FAILURE-APPENDIX K

REACTOR VESSEL PRESSURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

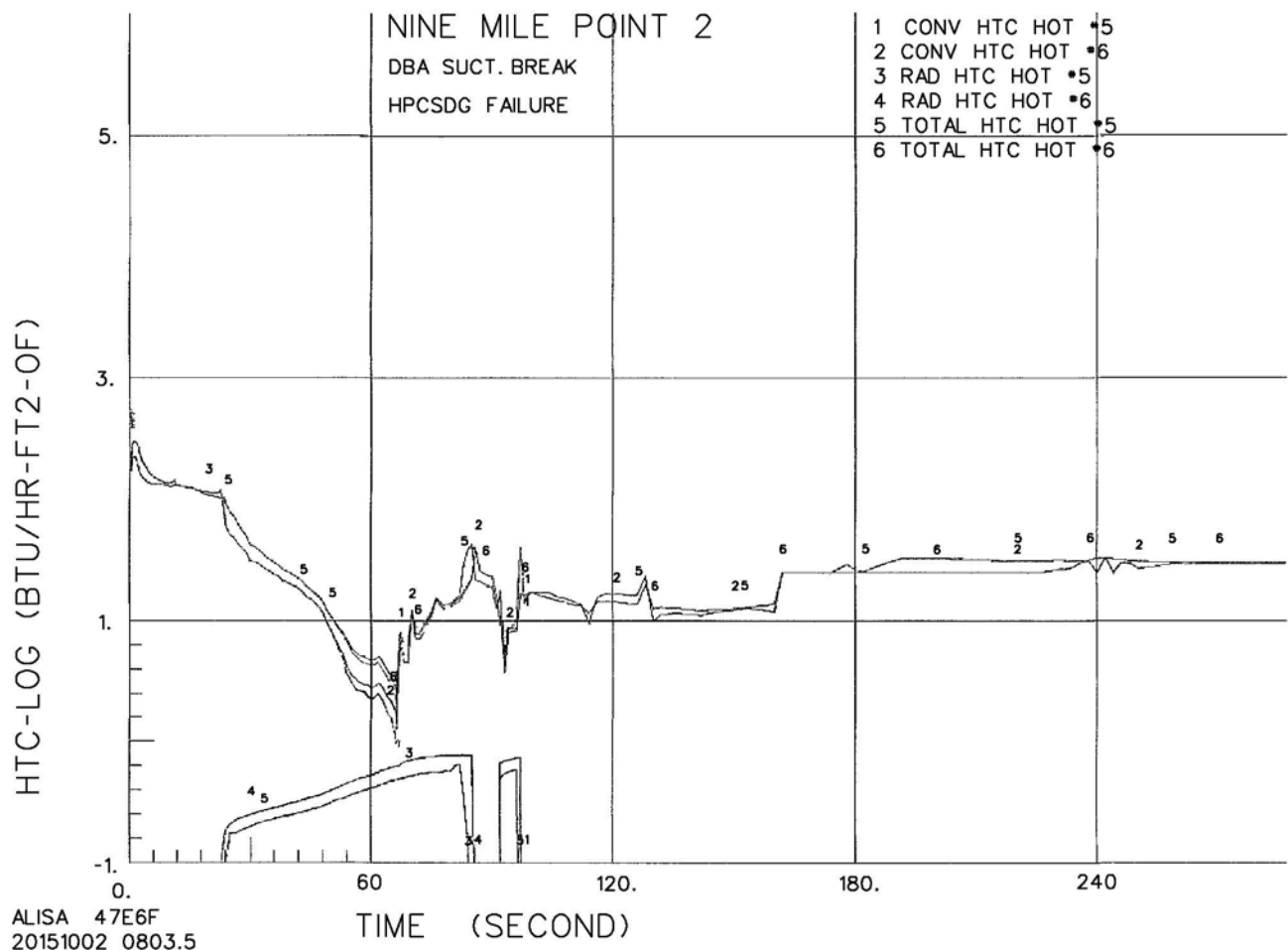


FIGURE: 6.3-59

NMP-2 DBA-HPCS DG FAILURE-APPENDIX K

HEAT TRANSFER COEFFICIENT

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

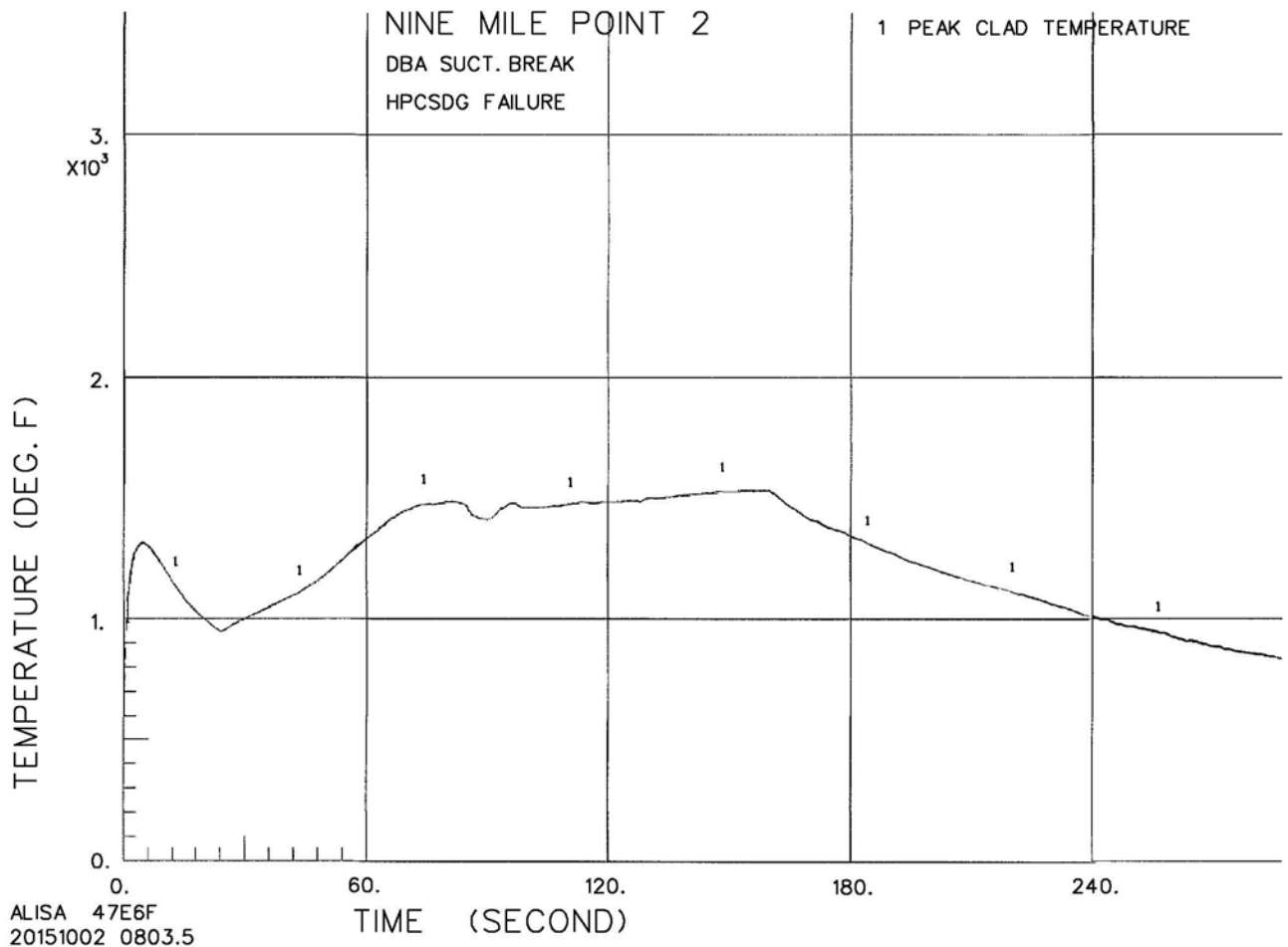


FIGURE: 6.3-60

NMP-2 DBA-HPCS DG FAILURE-APPENDIX K

PEAK CLADDING TEMPERATURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

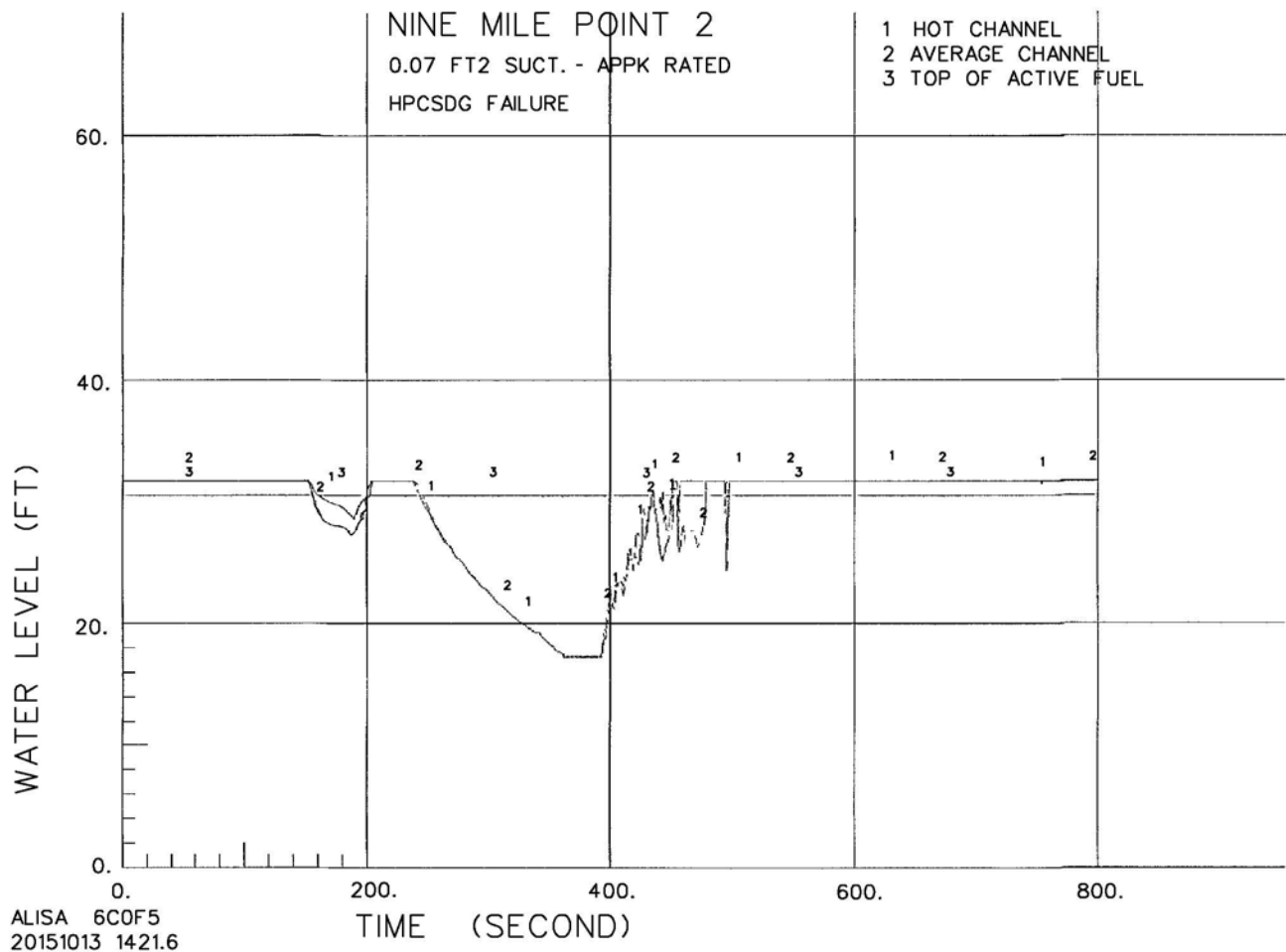


FIGURE: 6.3-61

NMP-2 0.07 FT²-HPCS DG FAILURE-APPENDIX K
HOT AND AVERAGE CHANNEL WATER LEVELS

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

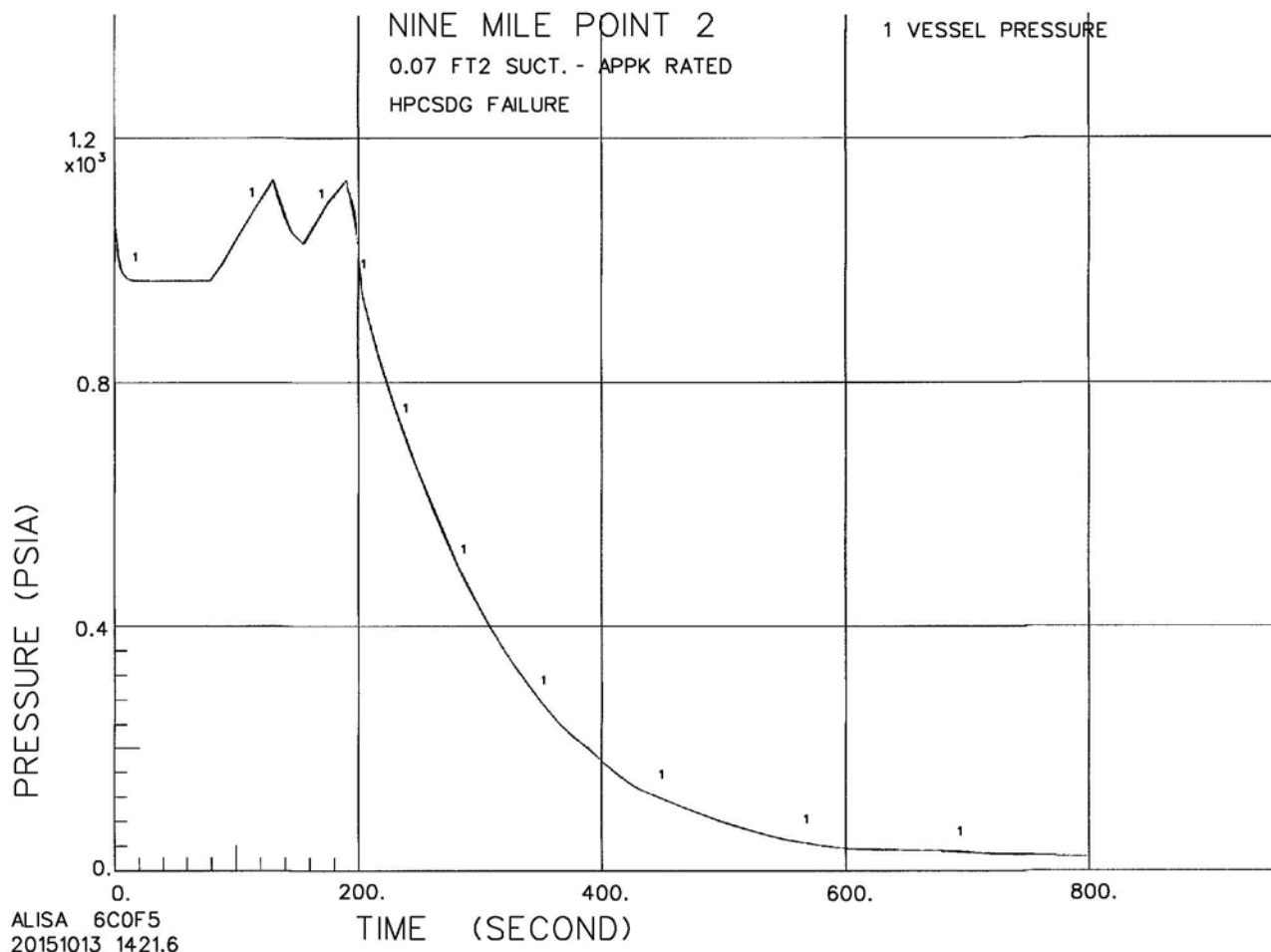


FIGURE: 6.3-62

NMP-2 0.07 FT²-HPCS DG FAILURE-APPENDIX K

REACTOR VESSEL PRESSURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

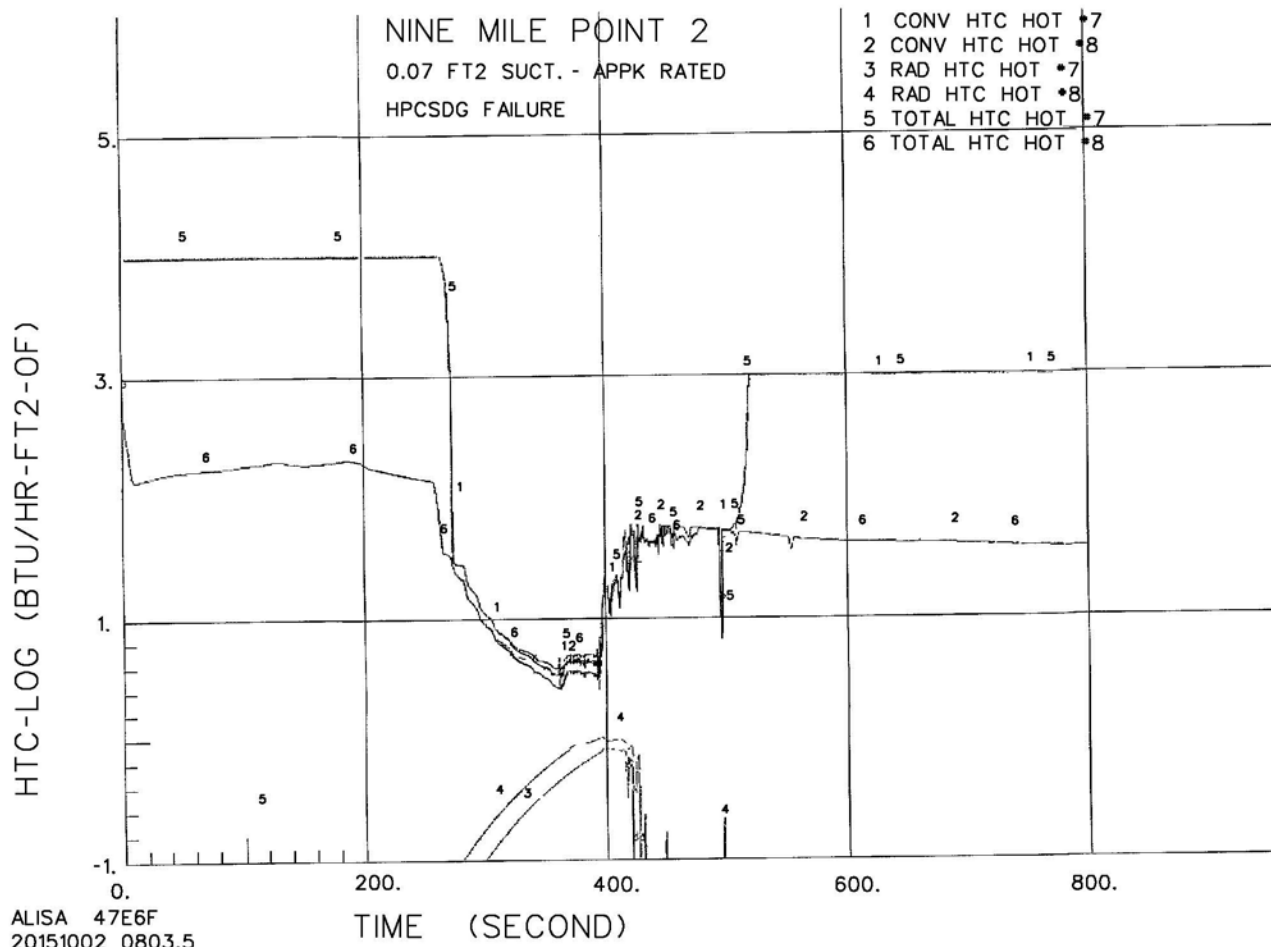


FIGURE: 6.3-63

NMP-2 0.07 FT2-HPCS DG FAILURE-APPENDIX K

HEAT TRANSFER COEFFICIENT

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT

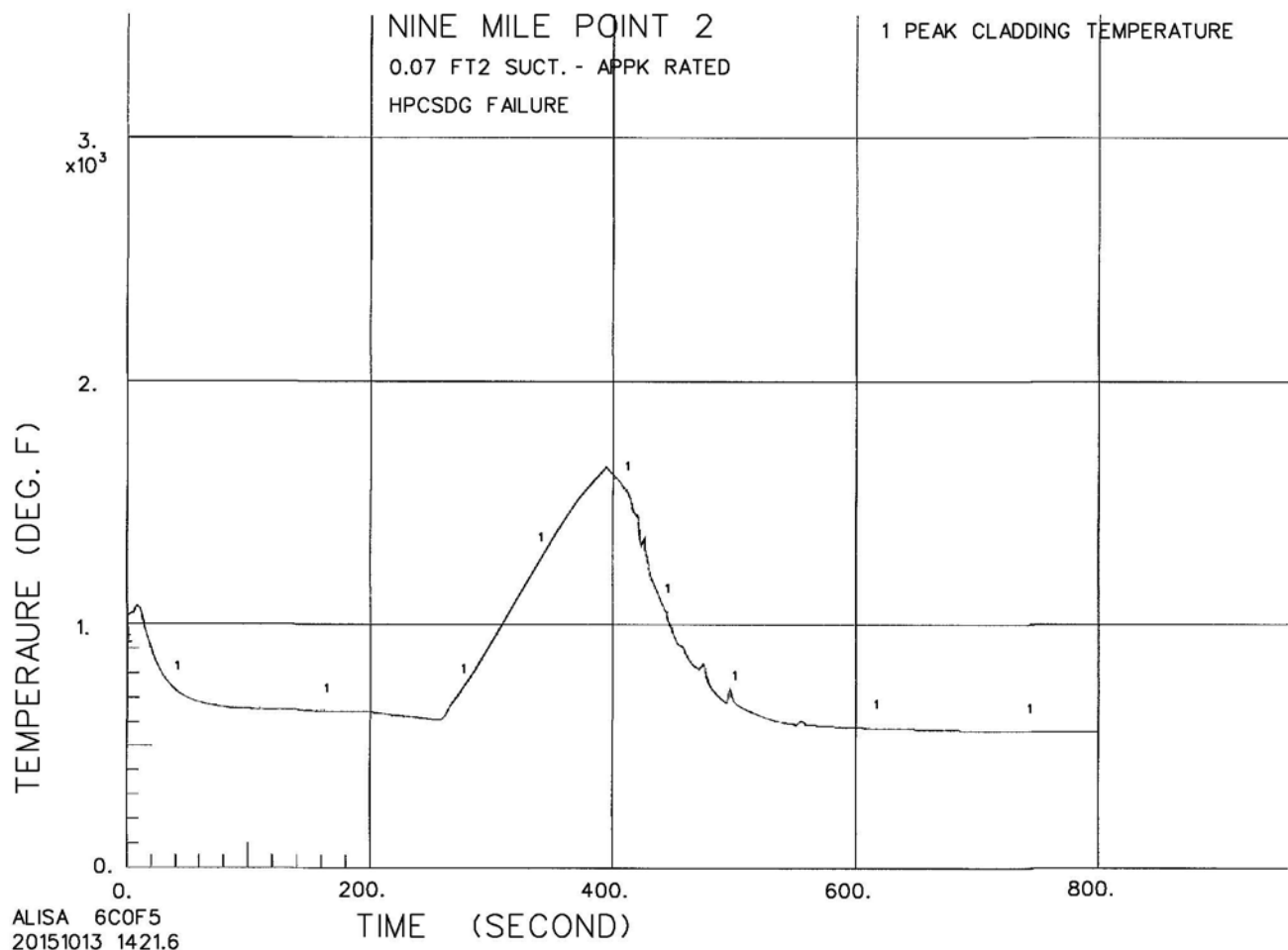
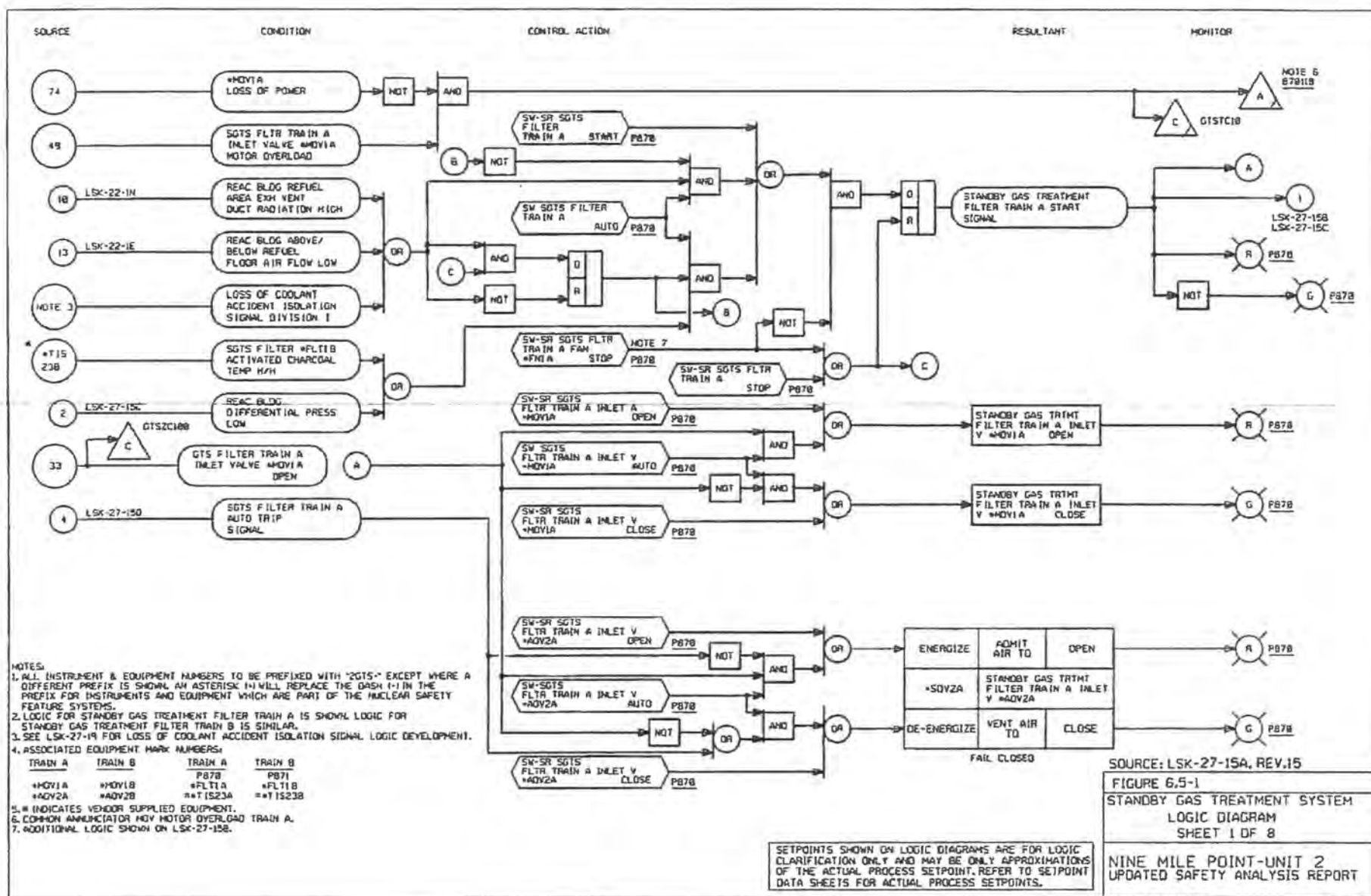


FIGURE: 6.3-64

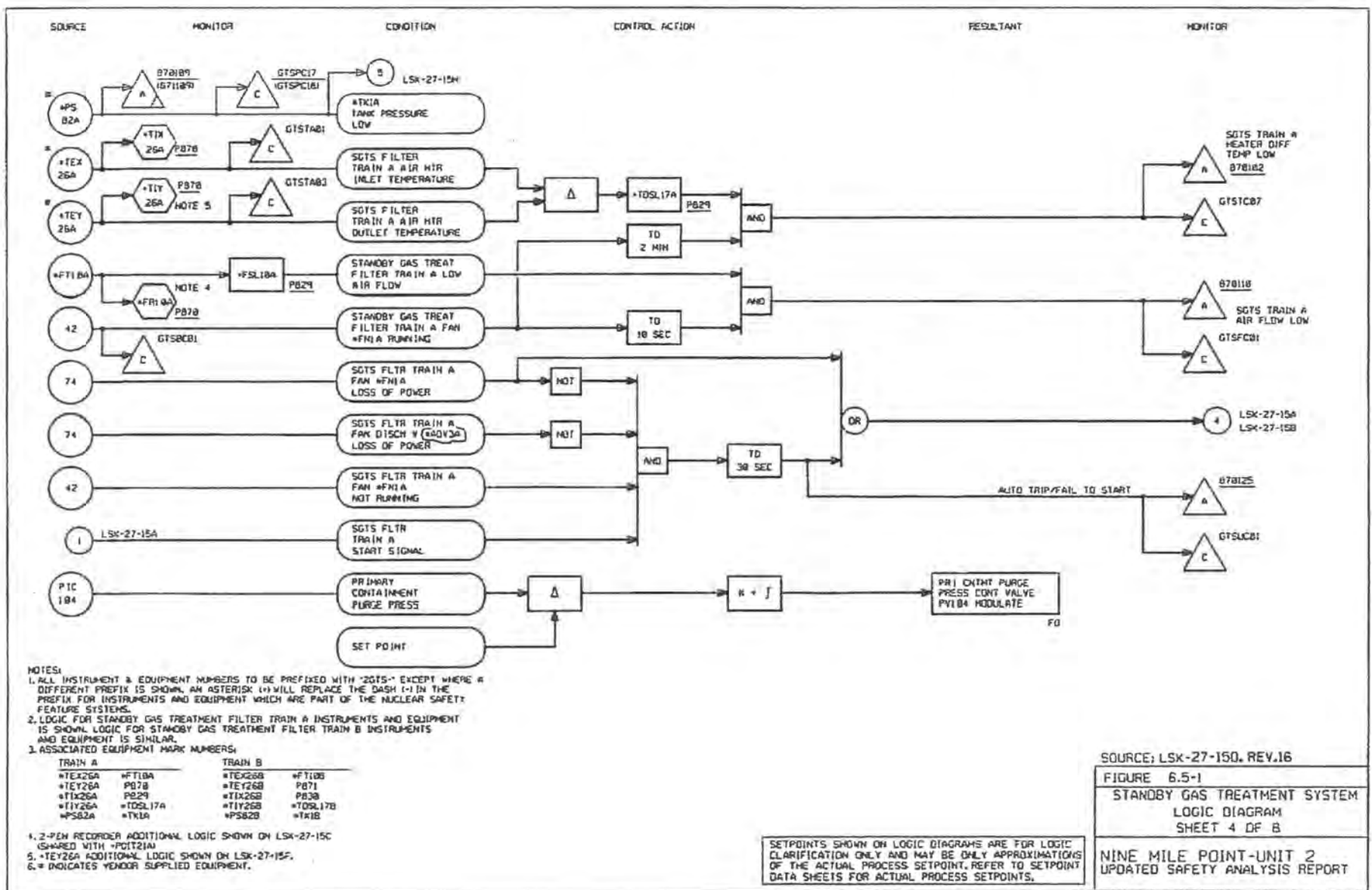
NMP-2 0.07 FT²-HPCS DG FAILURE-APPENDIX K

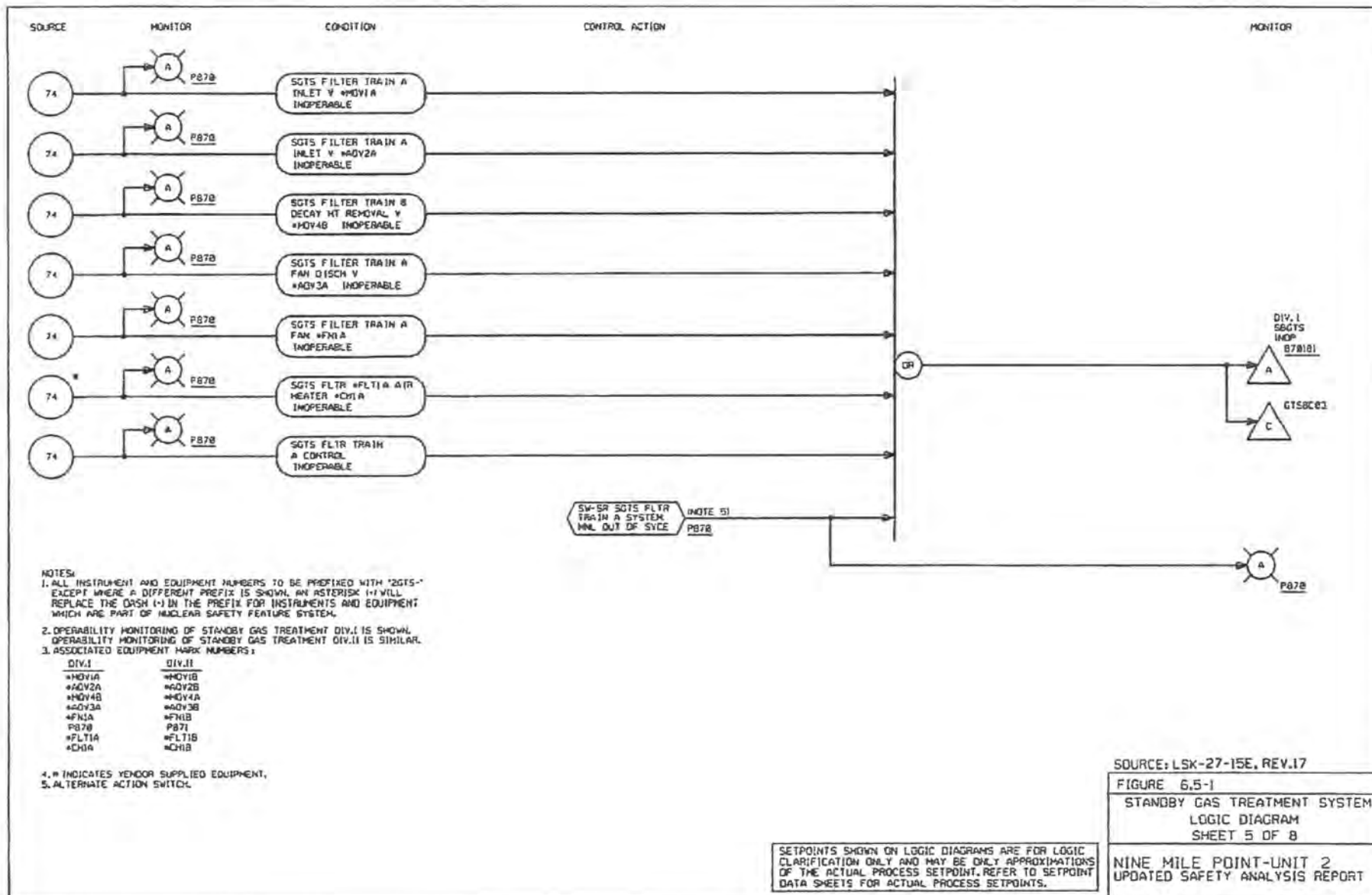
PEAK CLADDING TEMPERATURE

NINE MILE POINT
NUCLEAR STATION - UNIT 2
SCRIBA, N.Y.
UPDATED SAFETY ANALYSIS REPORT









SOURCE: LSK-27-15E, REV.17

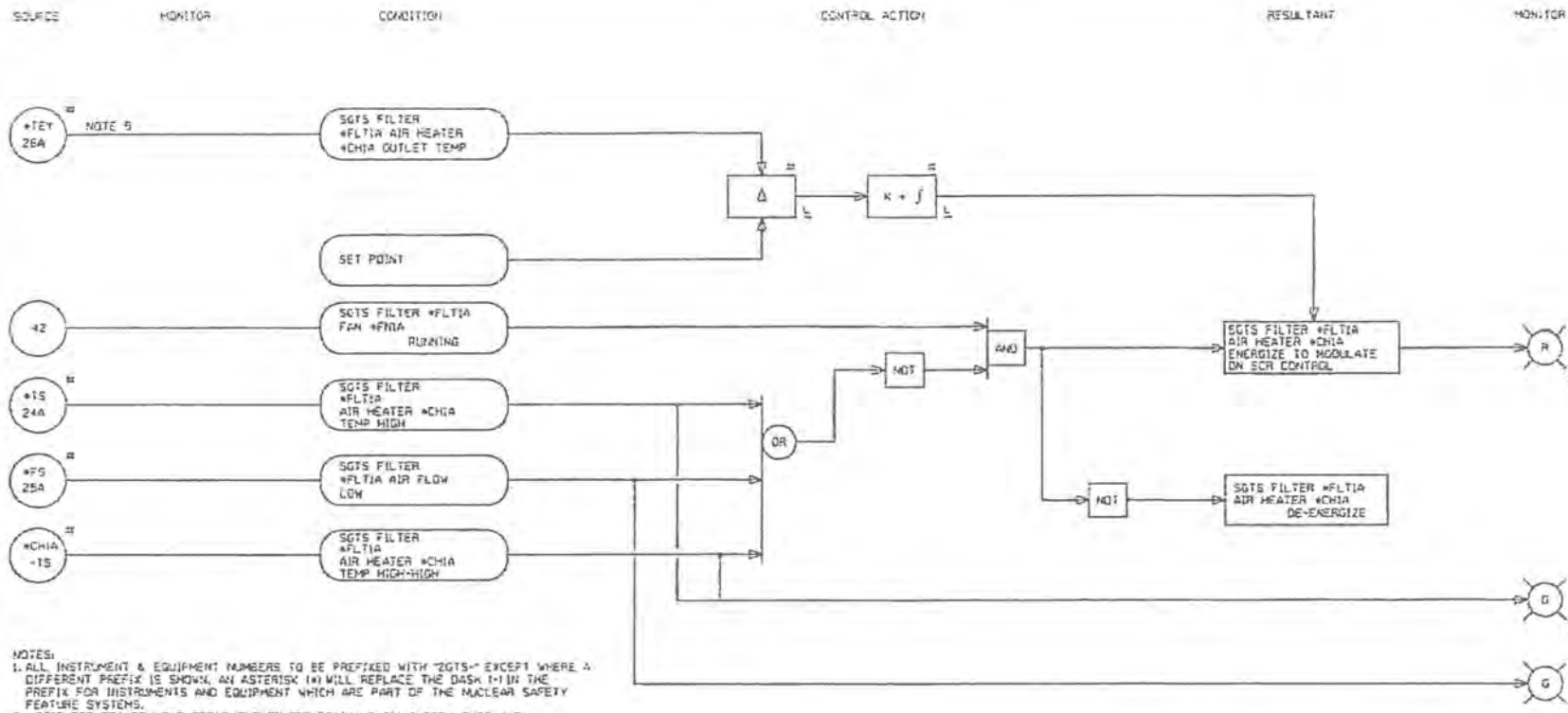
FIGURE 6.5-1

STANDBY GAS TREATMENT SYSTEM
LOGIC DIAGRAM
SHEET 5 OF 8

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 17

OCTOBER 2006



- NOTES:
1. ALL INSTRUMENT & EQUIPMENT NUMBERS TO BE PREFIXED WITH "SGTS-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR INSTRUMENTS AND EQUIPMENT WHICH ARE PART OF THE NUCLEAR SAFETY FEATURE SYSTEMS.
 2. LOGIC FOR STANDBY GAS TREATMENT FILTER TRAIN #FLTIA INSTRUMENTS AND EQUIPMENT SHOWN. LOGIC FOR STANDBY GAS TREATMENT FILTER TRAIN #FLTIB INSTRUMENTS AND EQUIPMENT IS SIMILAR.
 3. # INDICATES VENDOR SUPPLIED EQUIPMENT.
 4. ASSOCIATED EQUIPMENT MARK NUMBERS:
- | | |
|----------|----------|
| #FLTIA | #FLTIB |
| #TEY26A | #TEY26B |
| #TS24A | #TS24B |
| #FS25A | #FS25B |
| PS70 | PS71 |
| #CHIA-15 | #CHIB-15 |

≡ #TEY26A ADDITIONAL LOGIC SHOWN ON LSK-27-150.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK- 27-15F REV. 16

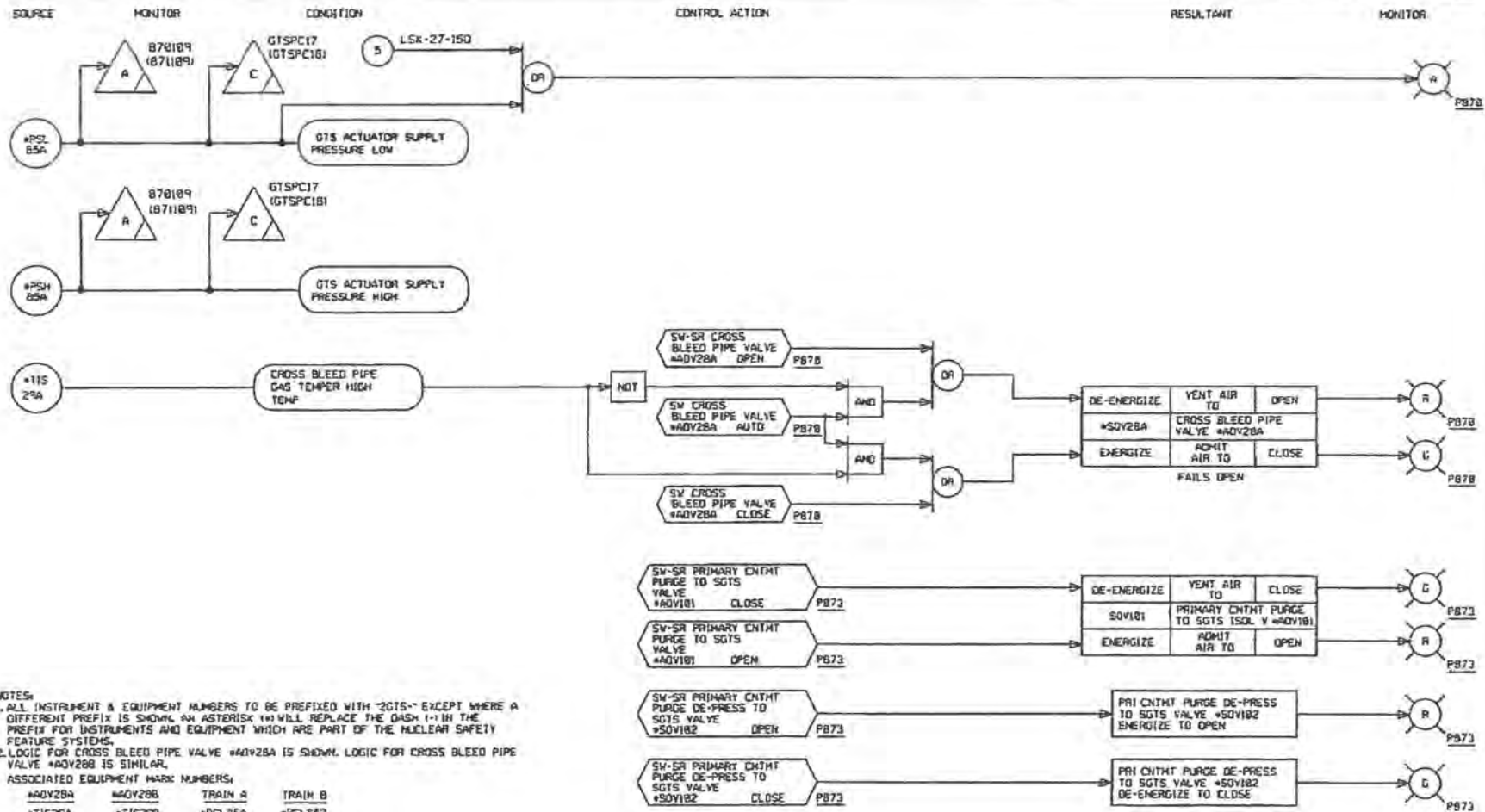
FIGURE 6.5-1

STANDBY GAS TREATMENT SYSTEM
LOGIC DIAGRAM
SHEET 6 OF 8

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

LSAR REVISION 16

OCTOBER 2004



SOURCE: LSK-27-15H, REV.17

FIGURE 6.5-1

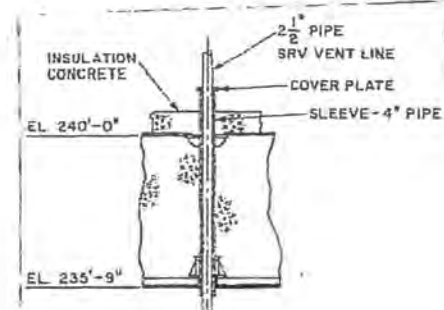
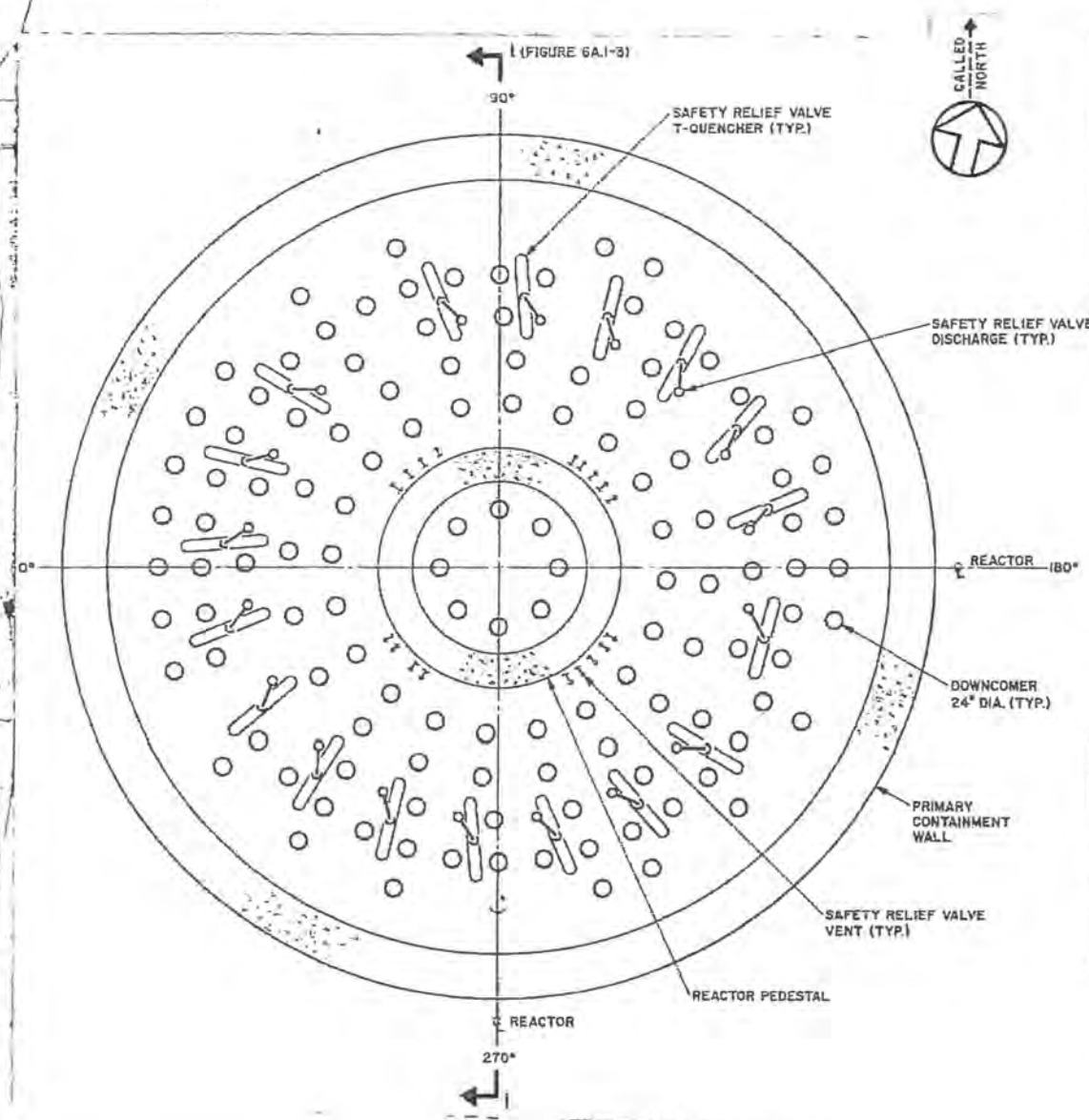
STANDBY GAS TREATMENT SYSTEM
LOGIC DIAGRAM
SHEET 8 OF 8

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

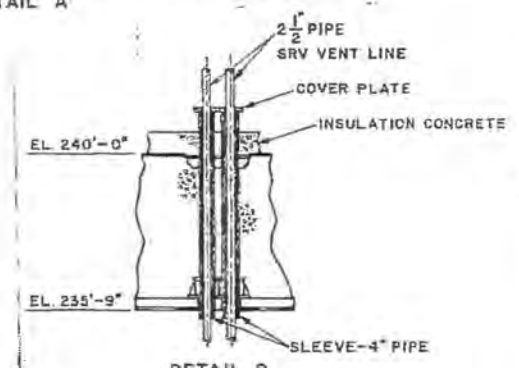
SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

USAR REVISION 17

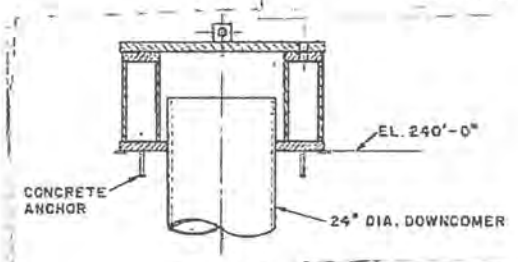
OCTOBER 2006



DETAIL A



DETAIL B

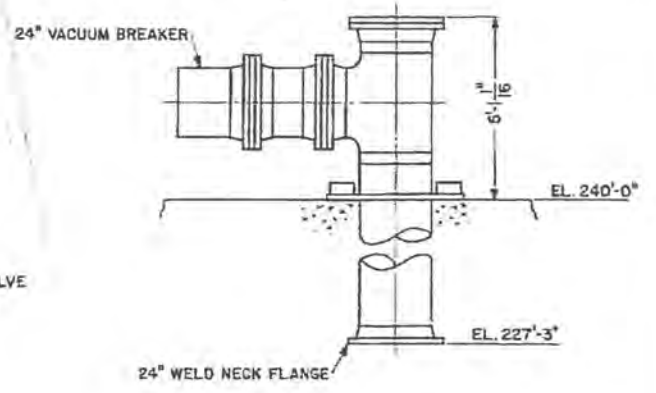
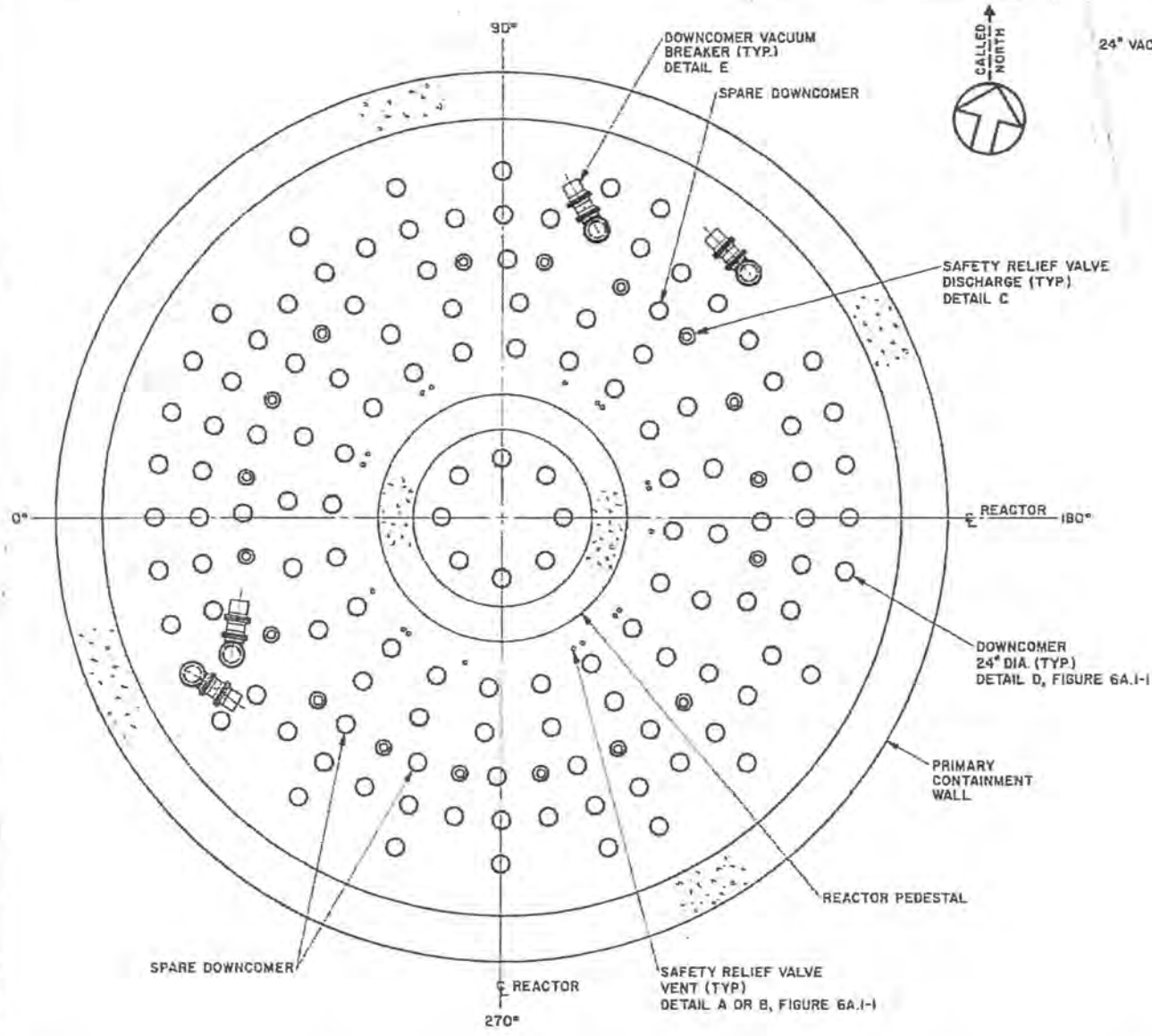


DETAIL D

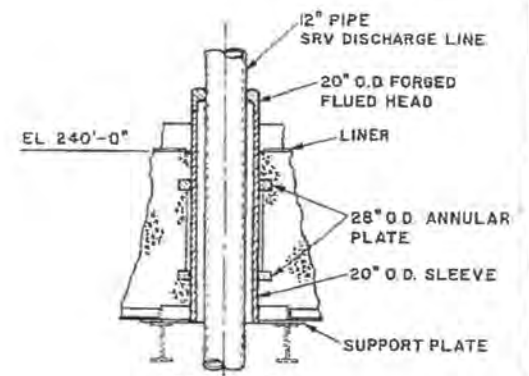
FIGURE 6A.1-1

SUPPRESSION POOL FLOOR
EL 176'-0"

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



DETAIL E

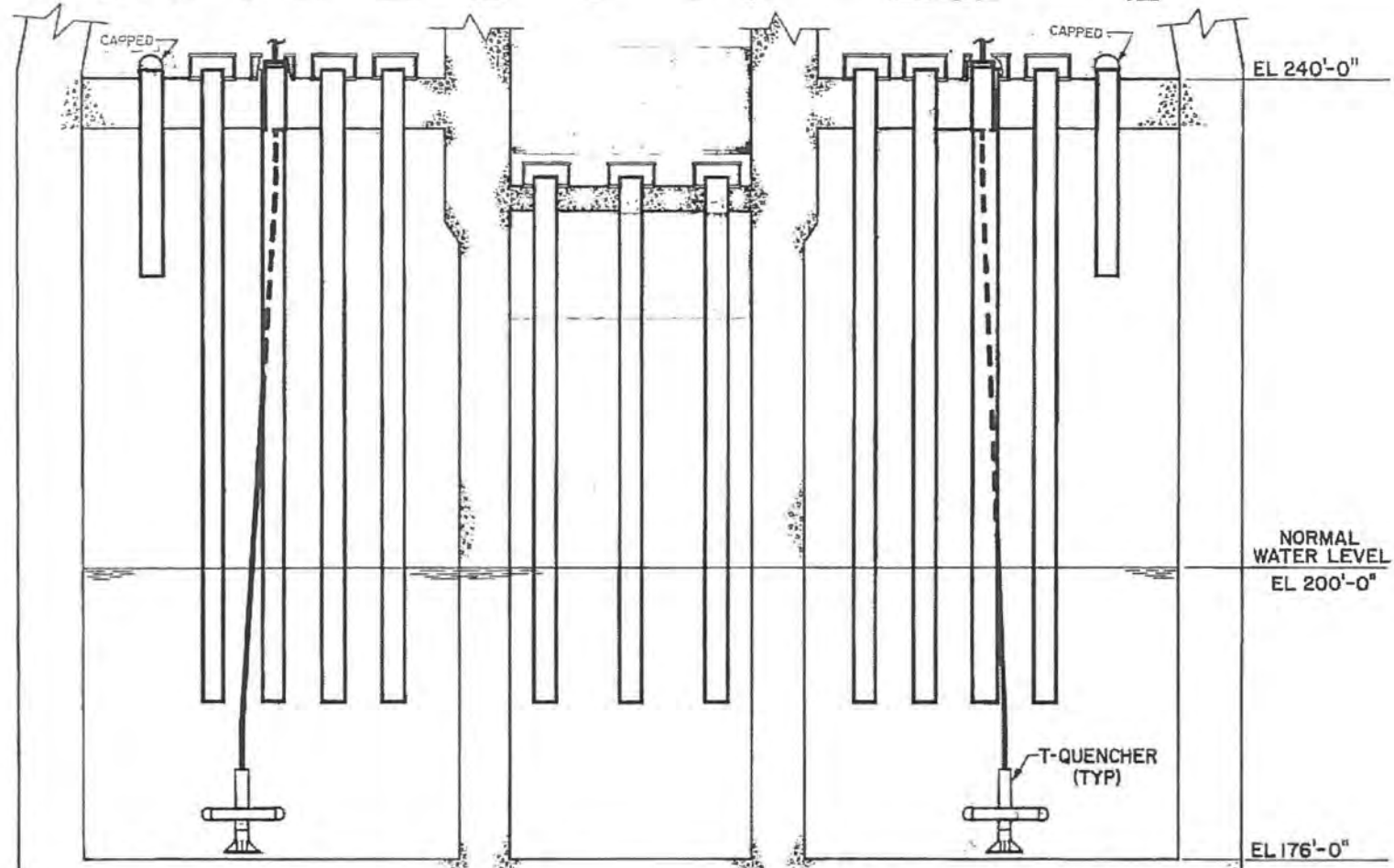


DETAIL C

FIGURE 6A.1-2

DRYWELL FLOOR
EL. 240'-0"

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



1-1
(FIGURE 6A.1-1)

SOURCE: EM-002J REV. 18

FIGURE 6A.1-3

SUPPRESSION POOL ELEVATION

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 2

OCTOBER 1990

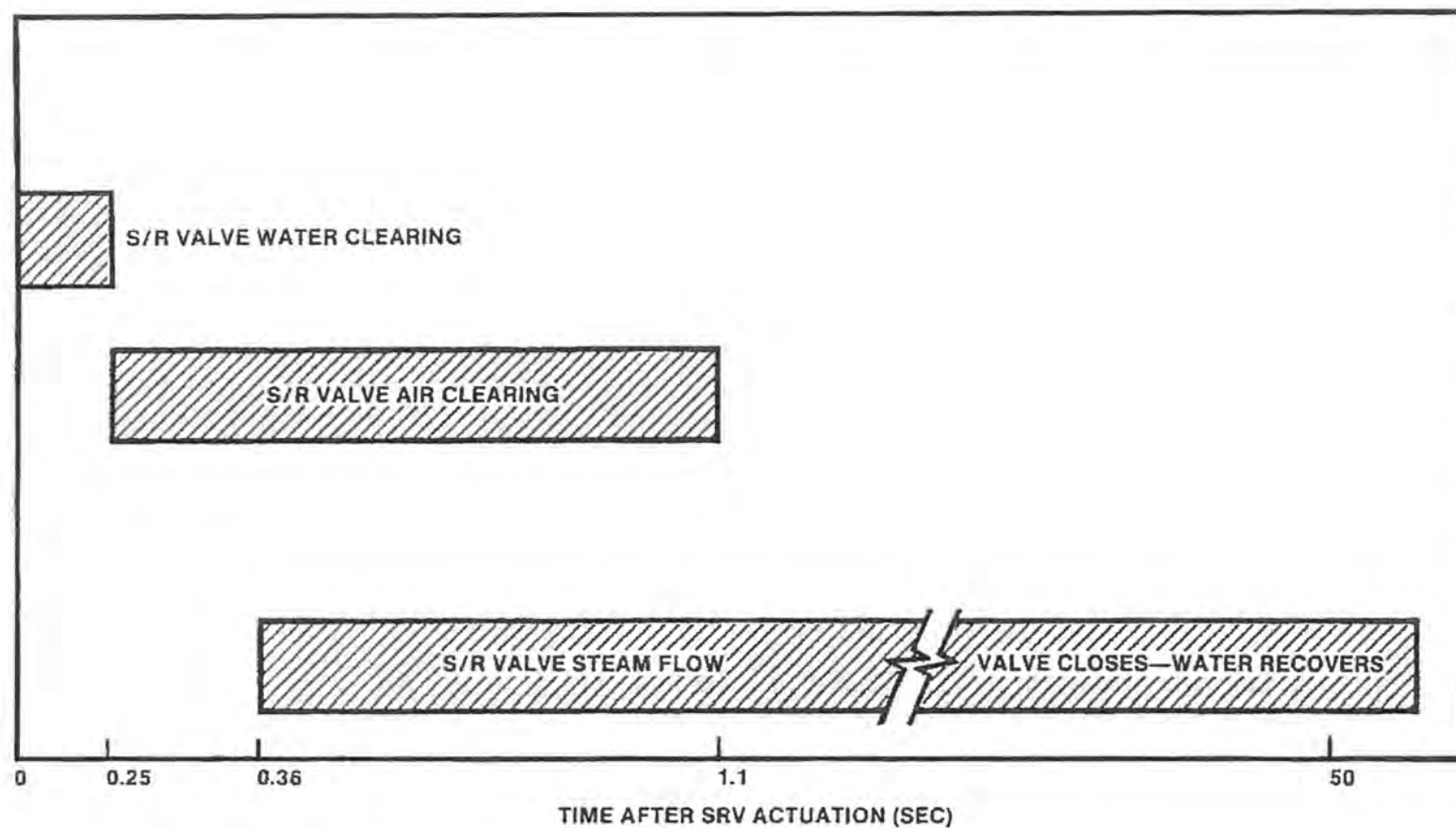


FIGURE 6A.2-1

EVENT—TIME RELATIONSHIP FOR
A TYPICAL SRV DISCHARGE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

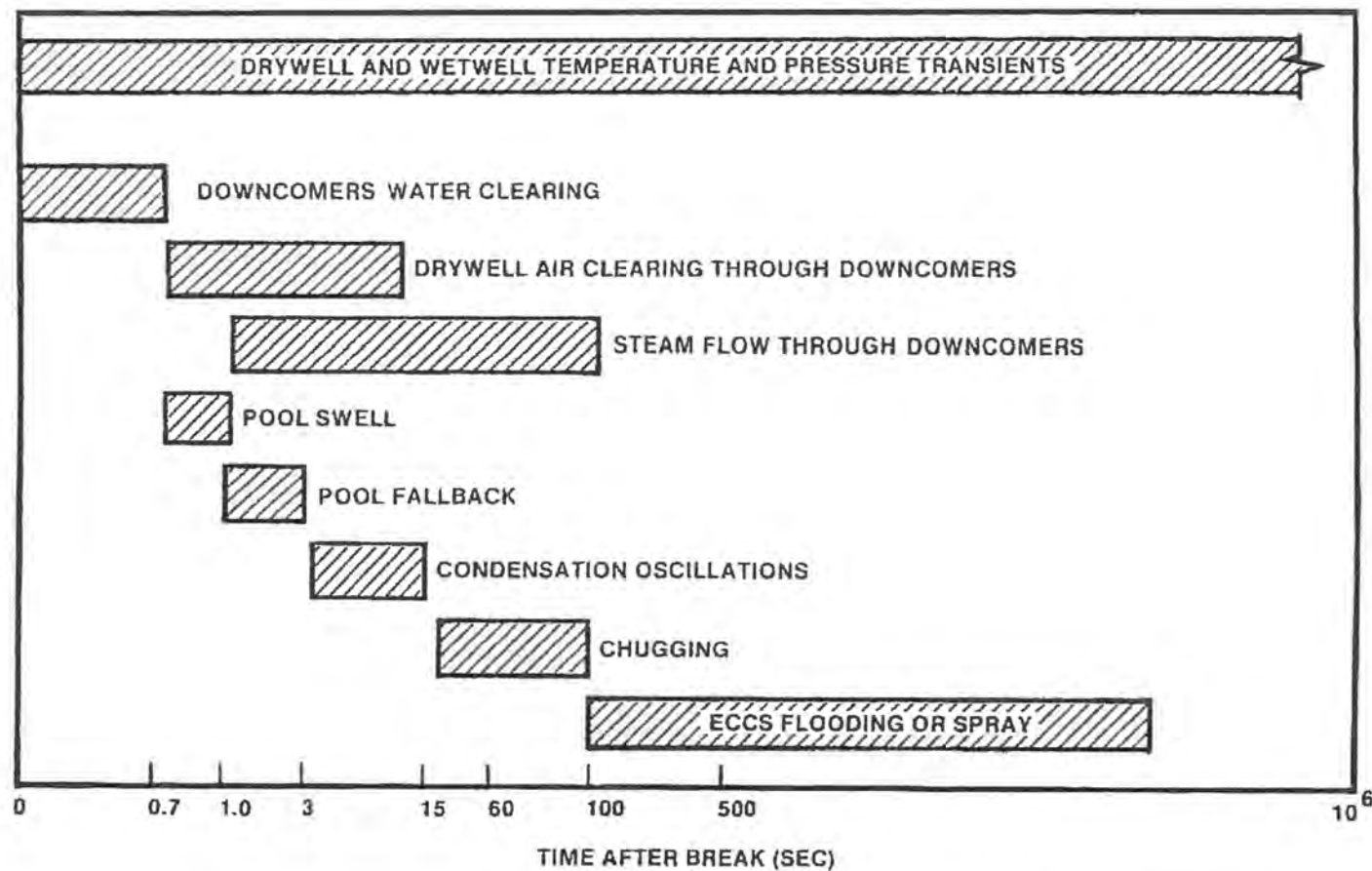


FIGURE 6A.2-2

EVENT—TIME RELATIONSHIP FOR
A TYPICAL DBA

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

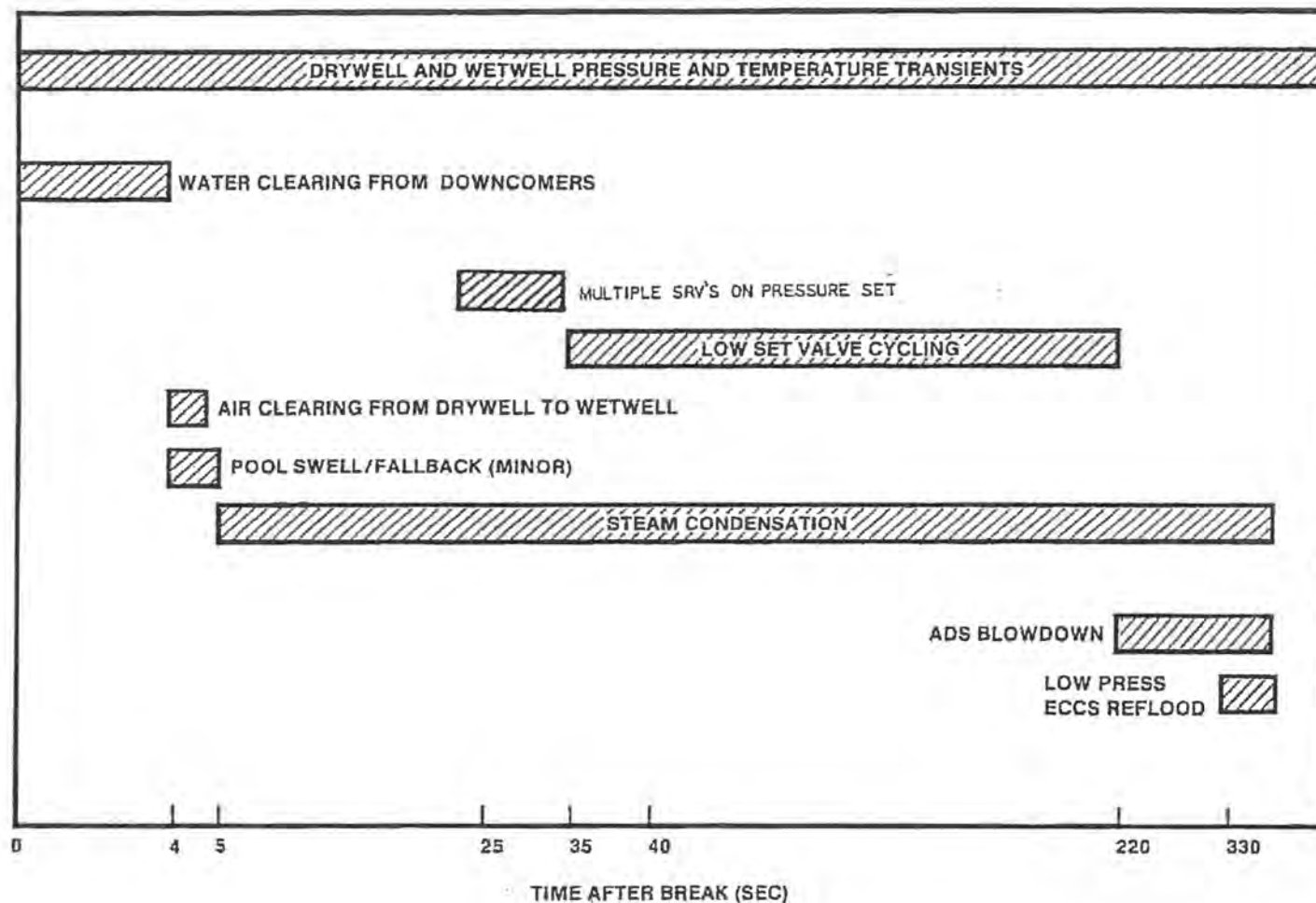


FIGURE 6A.2-3

EVENT—TIME RELATIONSHIP FOR
A TYPICAL IBA

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT—UNIT 2
UPDATED SAFETY ANALYSIS REPORT

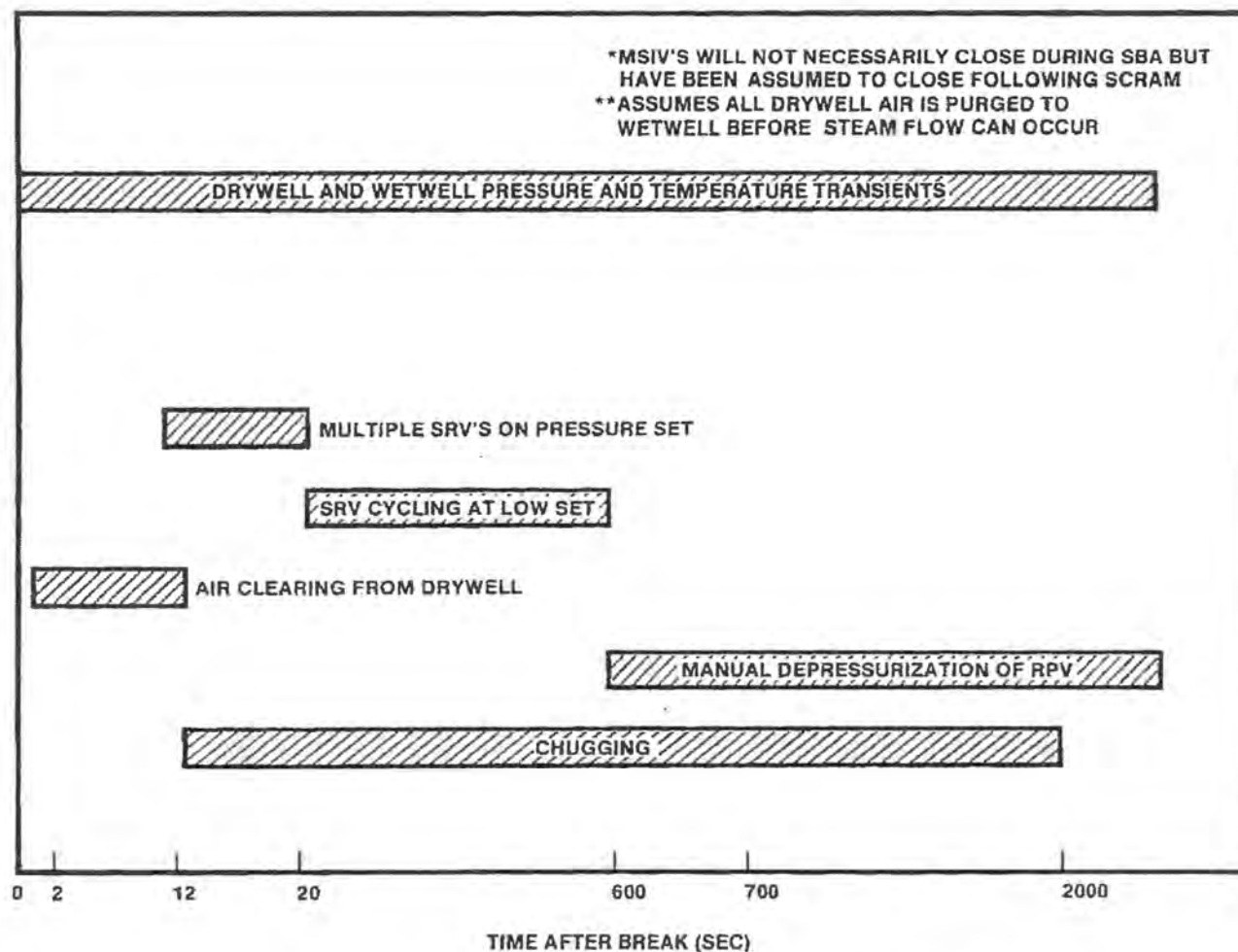


FIGURE 6A.2-4

EVENT—TIME RELATIONSHIP FOR
A TYPICAL SBA

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

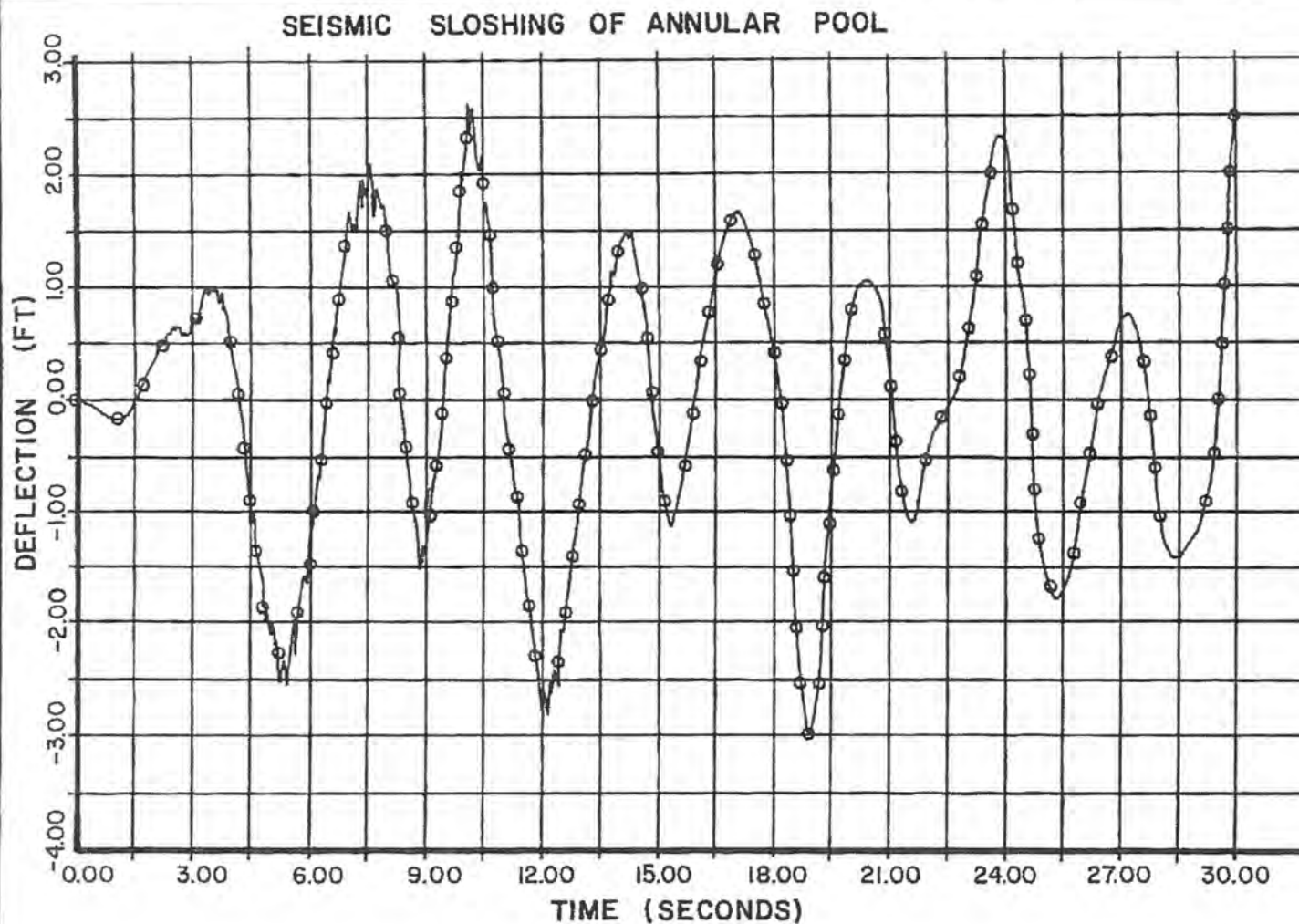
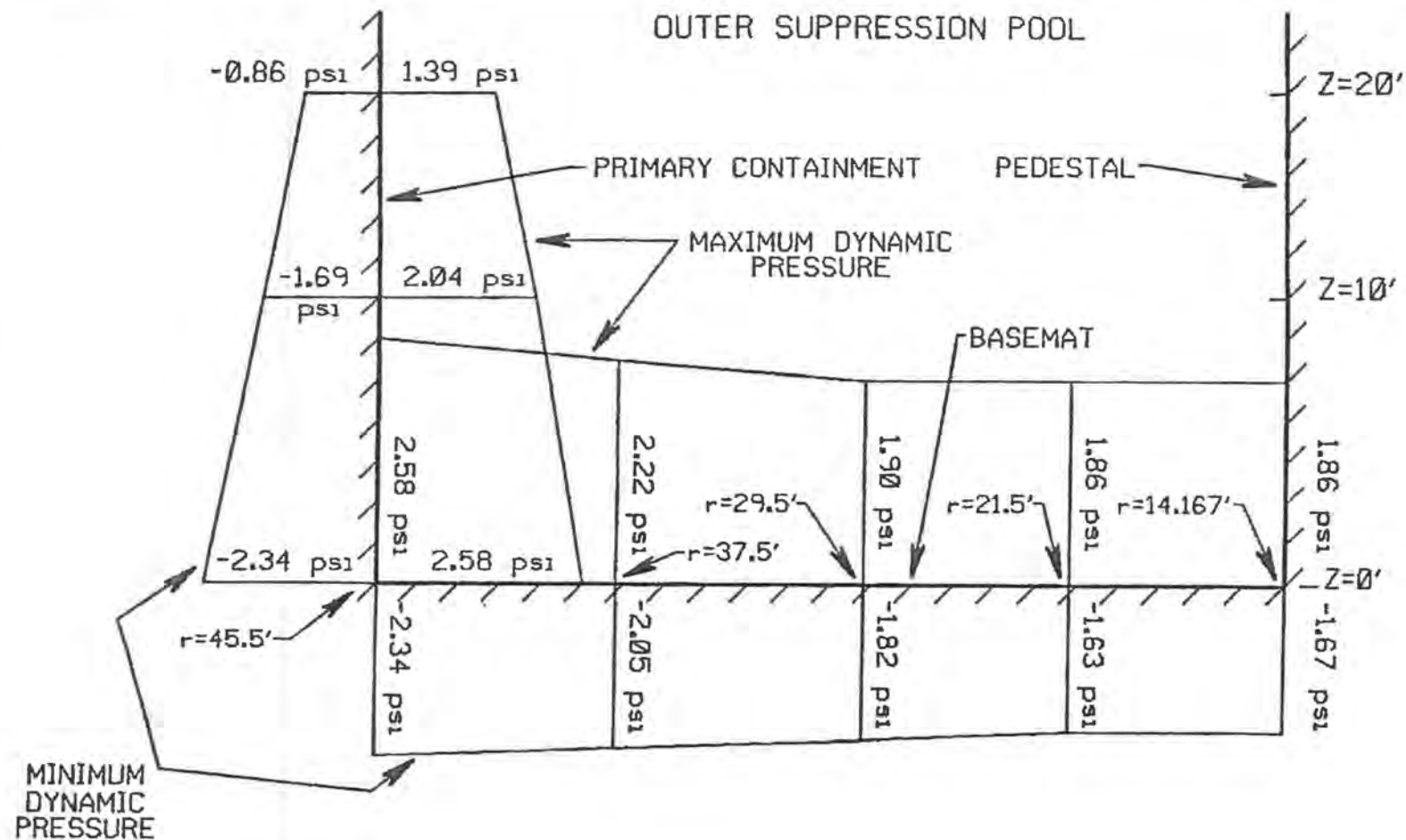


FIGURE 6A.2-5

FREE SURFACE DEFLECTION TIME HISTORY AT $r=14.167$
 $\theta=0^\circ$ FOR OUTER SUPPRESSION POOL DUE TO
 SEISMIC SLOSHING (SSE)

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 UPDATED SAFETY ANALYSIS REPORT



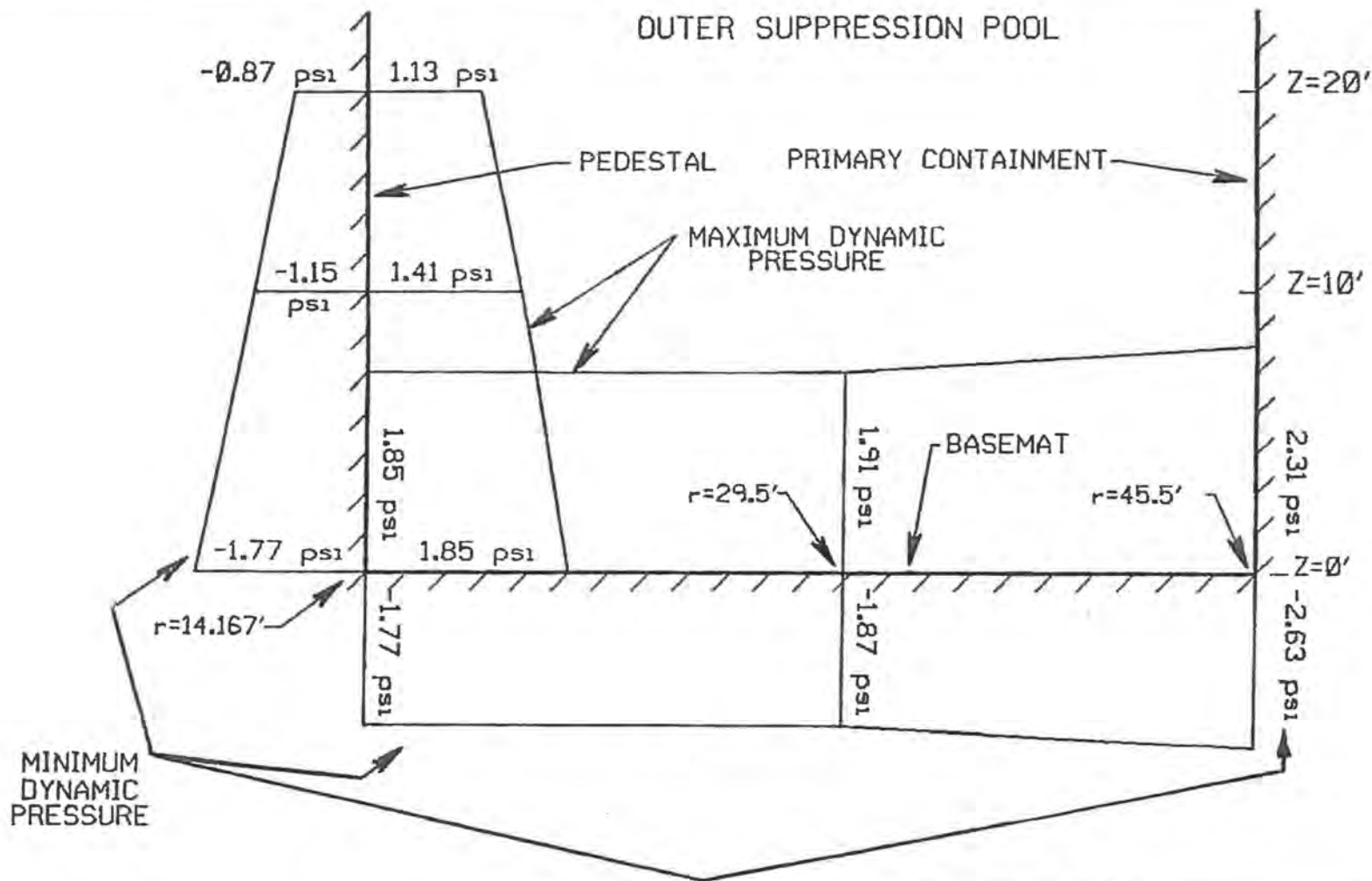
Z=HEIGHT FROM SUPPRESSION
POOL FLOOR

r=RADIUS FROM REACTOR CENTER LINE

FIGURE 6A.2-6

DYNAMIC PRESSURE CAUSED BY SSE
GROUND MOTION ON PRIMARY CONTAINMENT
WALL, PEDESTAL, AND BASEMAT
AT 0° AZIMUTH

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



MINIMUM
DYNAMIC
PRESSURE

Z=HEIGHT FROM SUPPRESSION
POOL FLOOR

r=RADIUS FROM REACTOR CENTER LINE

FIGURE 6A.2-7

DYNAMIC PRESSURE CAUSED BY SSE
GROUND MOTION ON PRIMARY CONTAINMENT
WALL, PEDESTAL, AND BASEMAT
AT 180° AZIMUTH

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

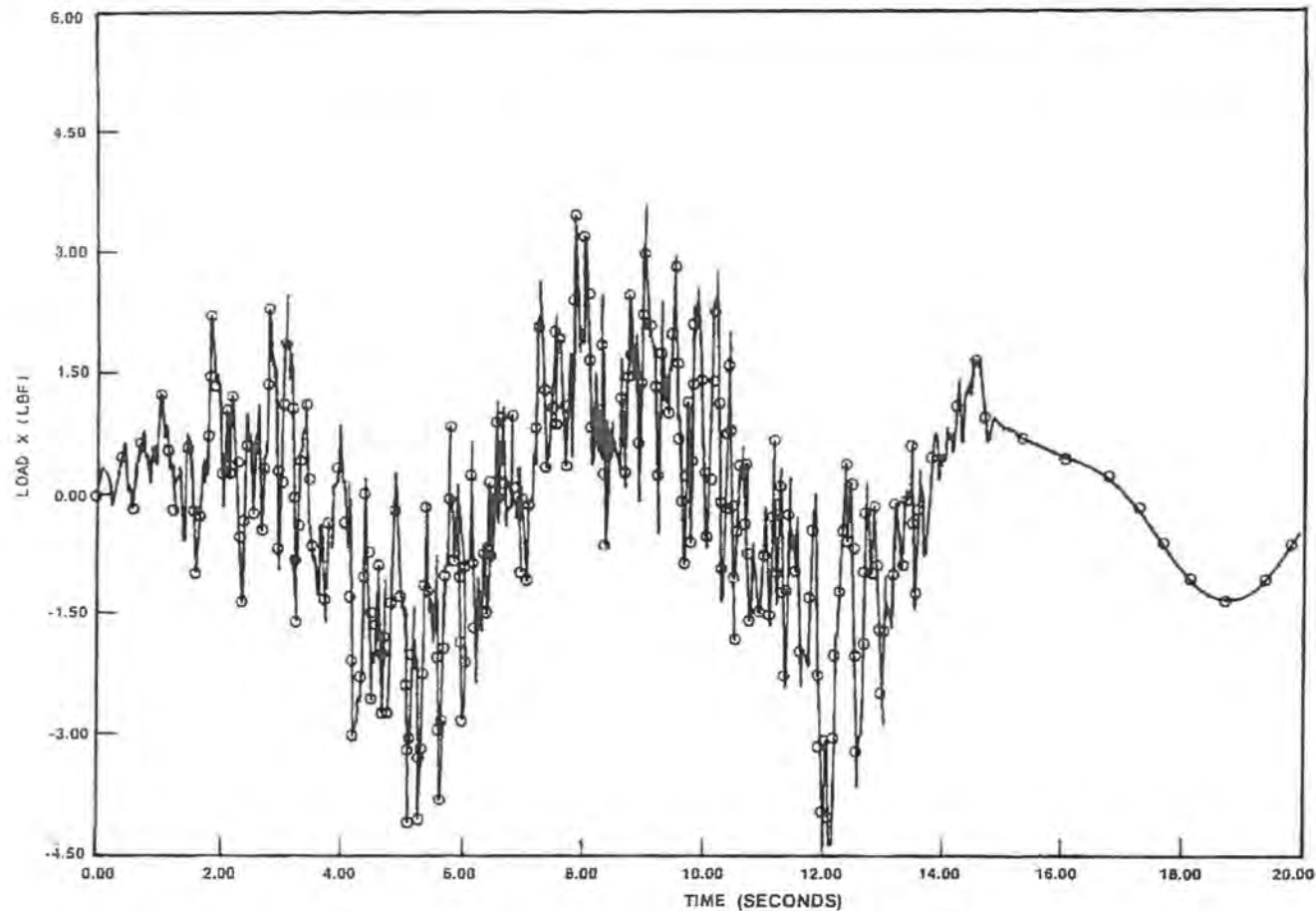


FIGURE 6A.2-8

LOAD TIME HISTORY FOR 1.25 FT. SECTION
OF SRVDL QUENCHER ARM
OBE-X DIRECTION

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

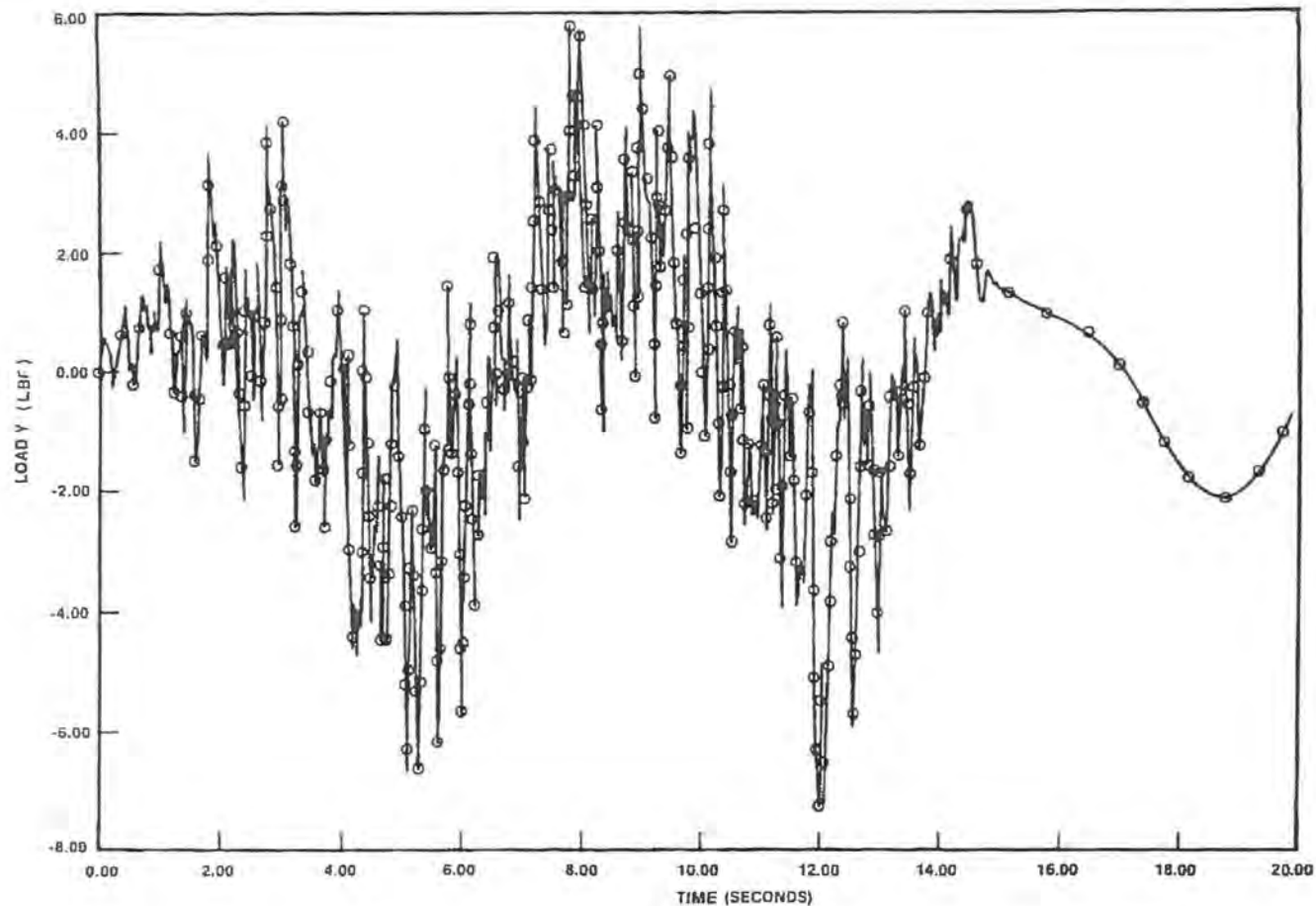


FIGURE 6A.2-9

LOAD TIME HISTORY FOR 1.25 FT. SECTION
OF SRVDL QUENCHER ARM
OBE-Y DIRECTION

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

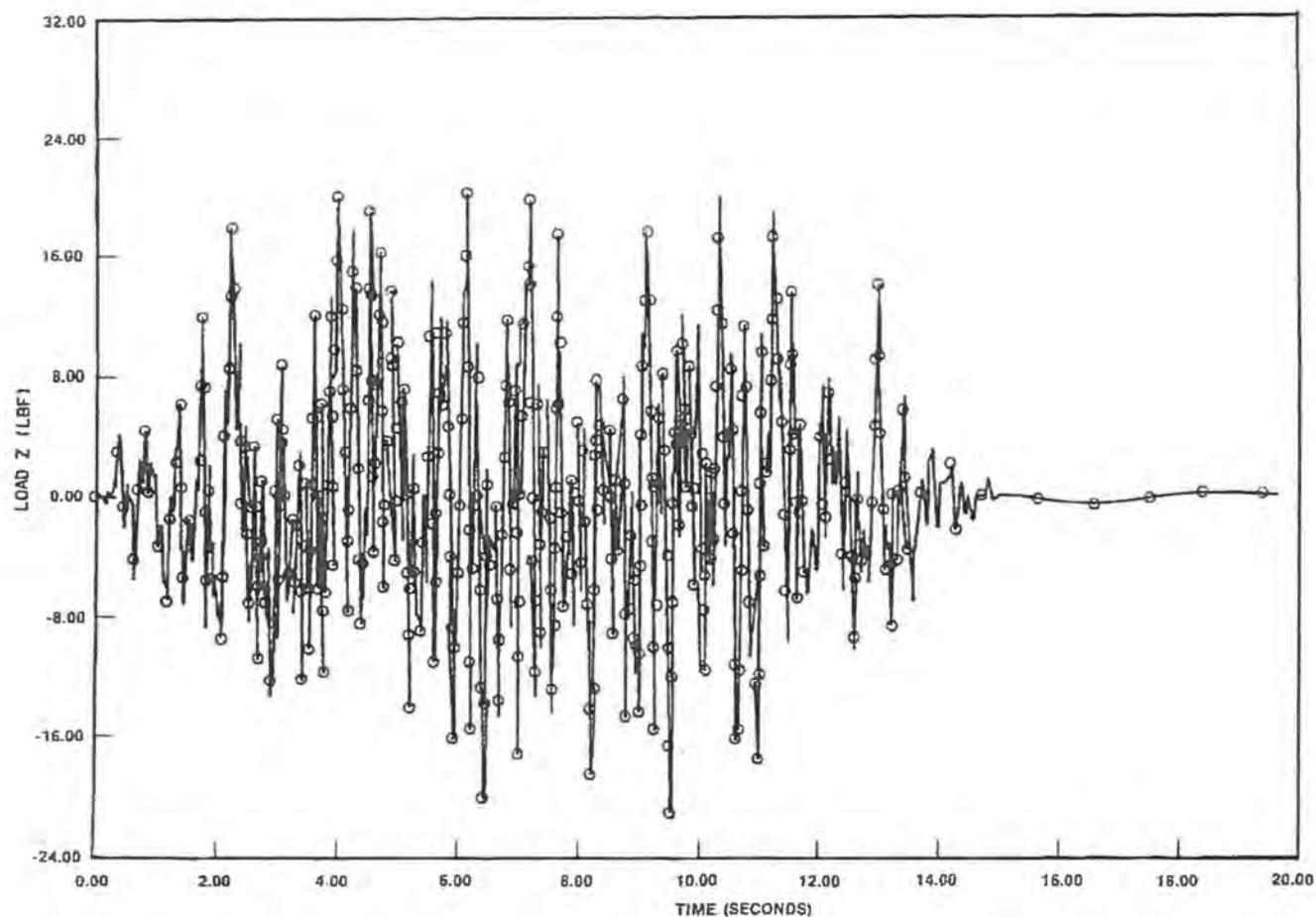
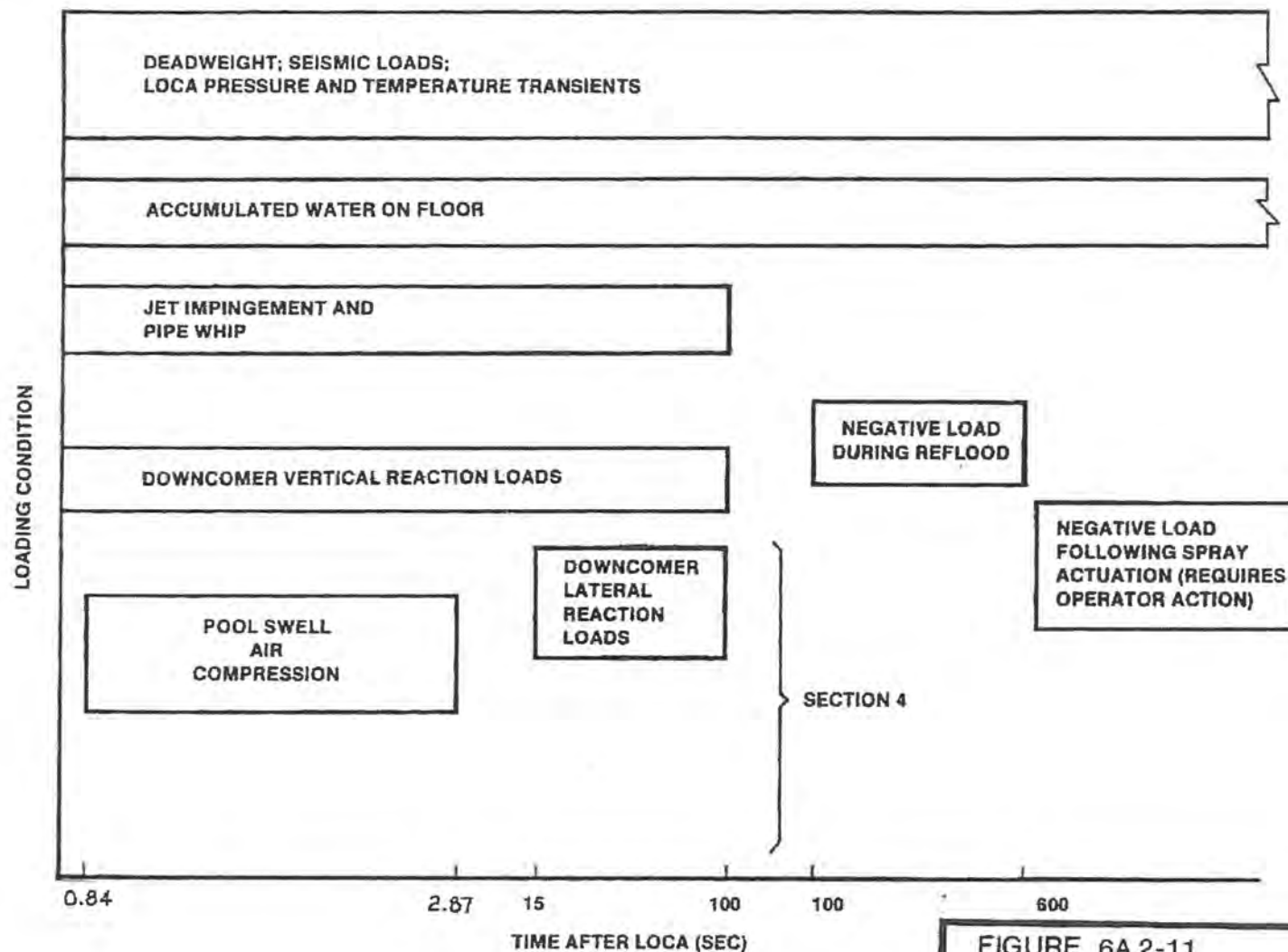


FIGURE 6A.2-10

LOAD TIME HISTORY FOR 1.25 FT. SECTION
OF SRVDL QUENCHER ARM
OBE-Z DIRECTION

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



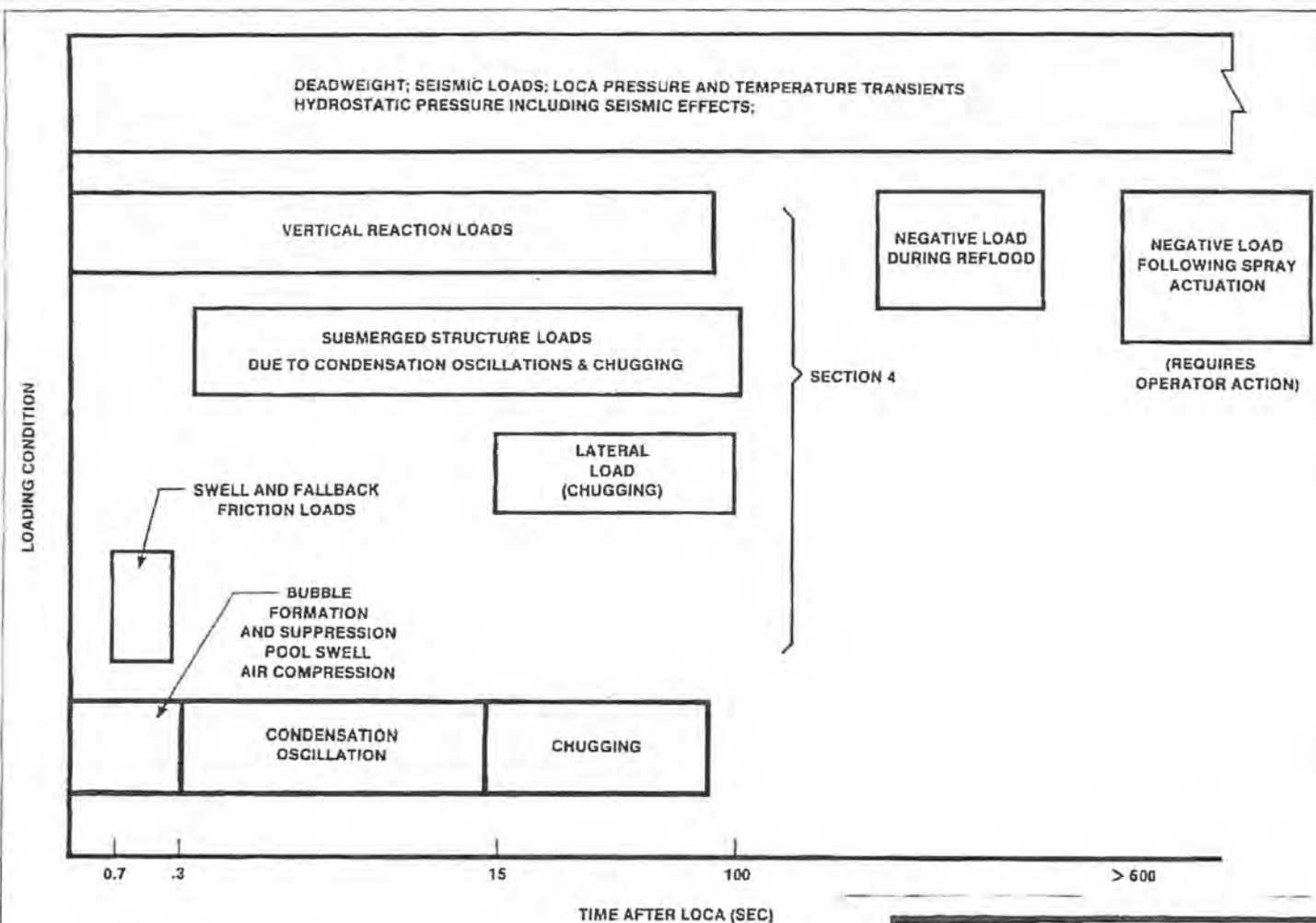
NOTE:

CONSIDERATION IS GIVEN TO REACTION LOADS ON THE DRYWELL FLOOR FROM OTHER STRUCTURES SUCH AS DRYWELL AND WETWELL, AND PEDESTAL

FIGURE 6A.2-11

LOAD COMBINATION HISTORY: STRUCTURE AFFECTED: DRYWELL FLOOR, ACCIDENT CONDITION: LARGE LINE BREAK (DBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

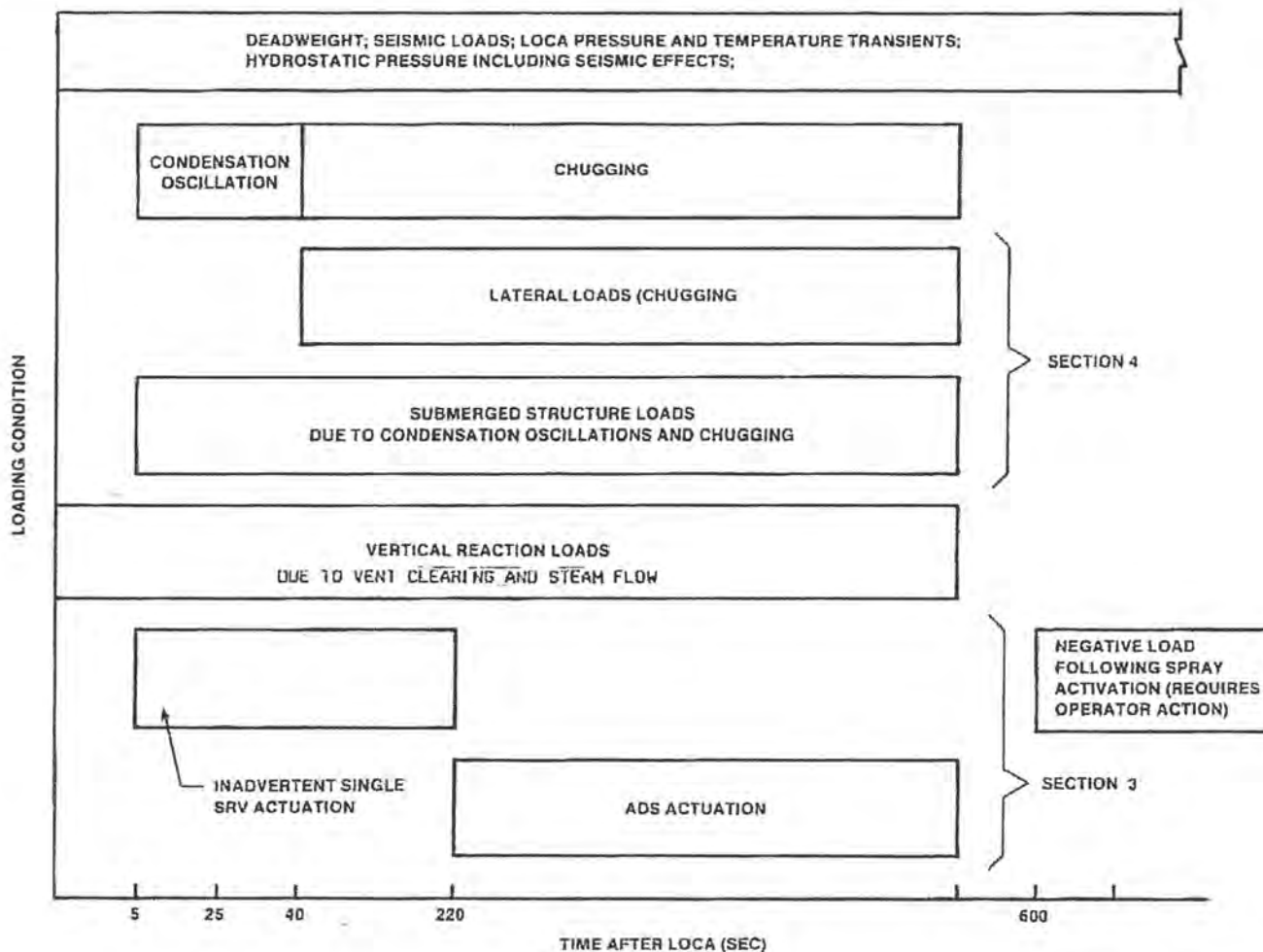


NOTE:
CONSIDERATION IS GIVEN TO REACTION LOADS ON THE DOWNCOMER
FROM OTHER STRUCTURES SUCH AS THE DRYWELL
FLOOR AND STRUCTURES ATTACHED TO THE DOWNCOMERS.

FIGURE 6A.2-12

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: DOWNCOMERS, ACCIDENT
CONDITION: LARGE LINE BREAK (DBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



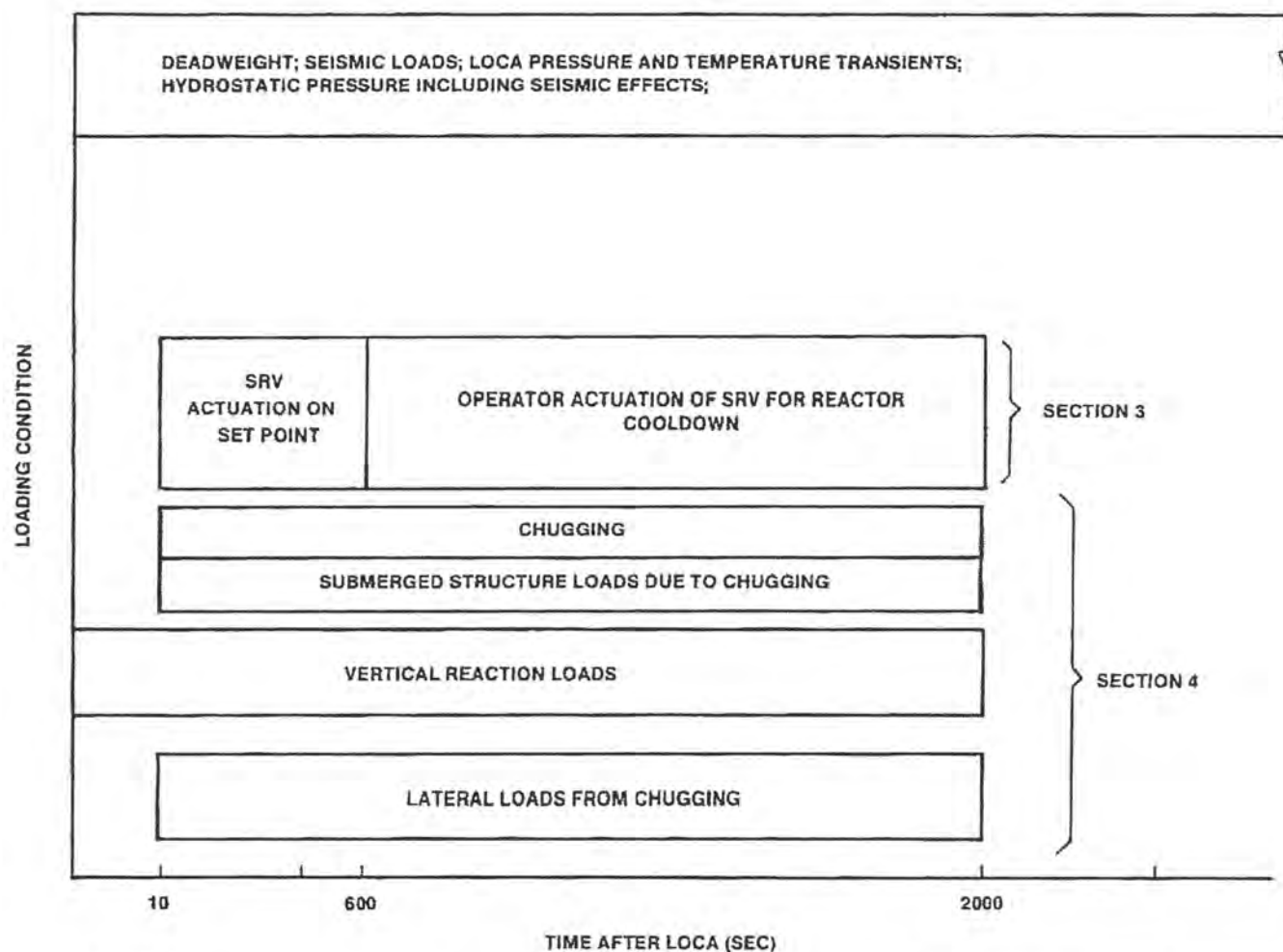
NOTES:

1. THE TIME DURATION FOR ADS ACTUATION IS TYPICALLY 2 TO 5 MINUTES.
2. CONSIDERATION IS GIVEN TO REACTION LOADS ON THE DOWNCOMER FROM OTHER STRUCTURES.
3. LOAD COMBINATION HISTORY MAY VARY SOMEWHAT WITH SIZE OF IBA. FOR EXAMPLE, SRV ACTUATION AT SET POINT MAY OCCUR DURING A SMALLER IBA.

FIGURE 6A.2-13

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: DOWNCOMERS, ACCIDENT
CONDITION: INTERMEDIATE LINE BREAK (IBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



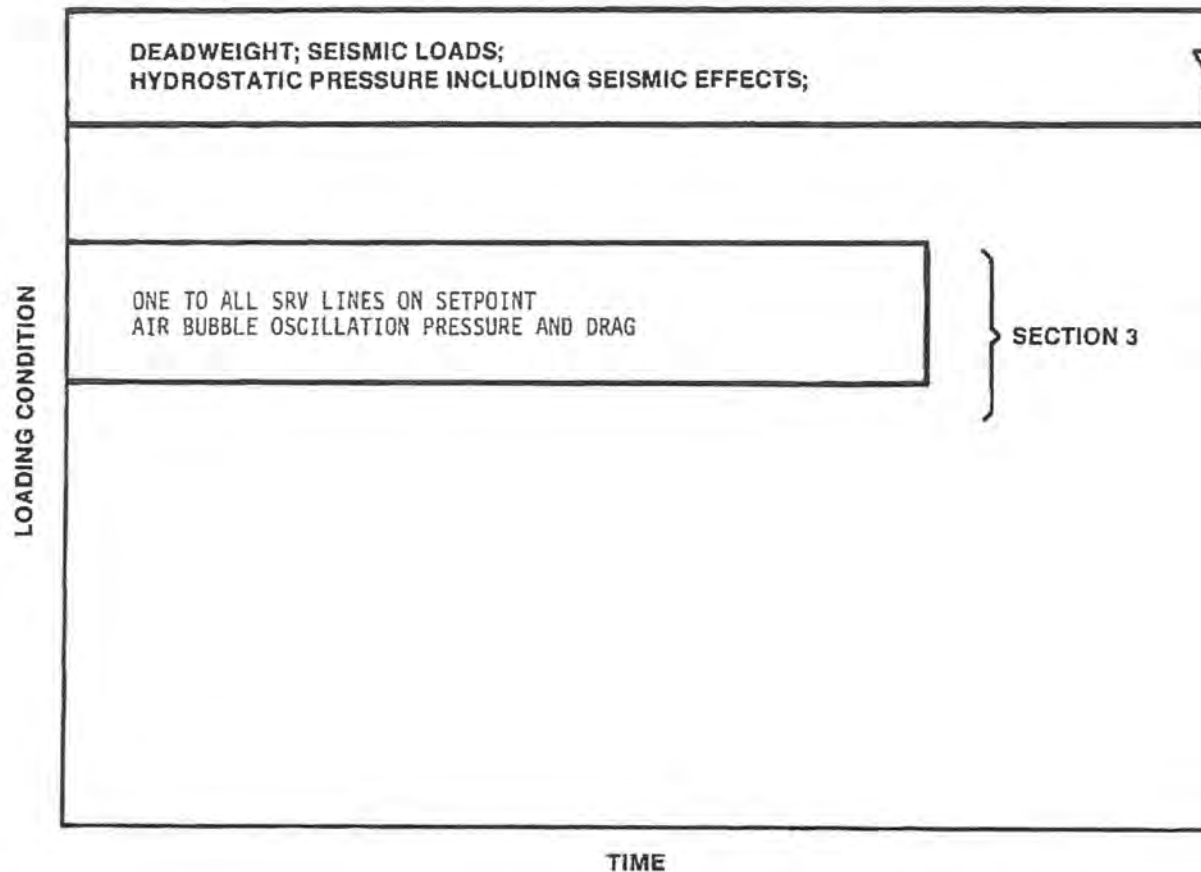
NOTES:

CONSIDERATION IS GIVEN TO
REACTION LOADS ON THE
DOWNCOMER FROM OTHER STRUCTURES

FIGURE 6A.2-14

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: DOWNCOMERS, ACCIDENT
CONDITION : SMALL LINE BREAK (SBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



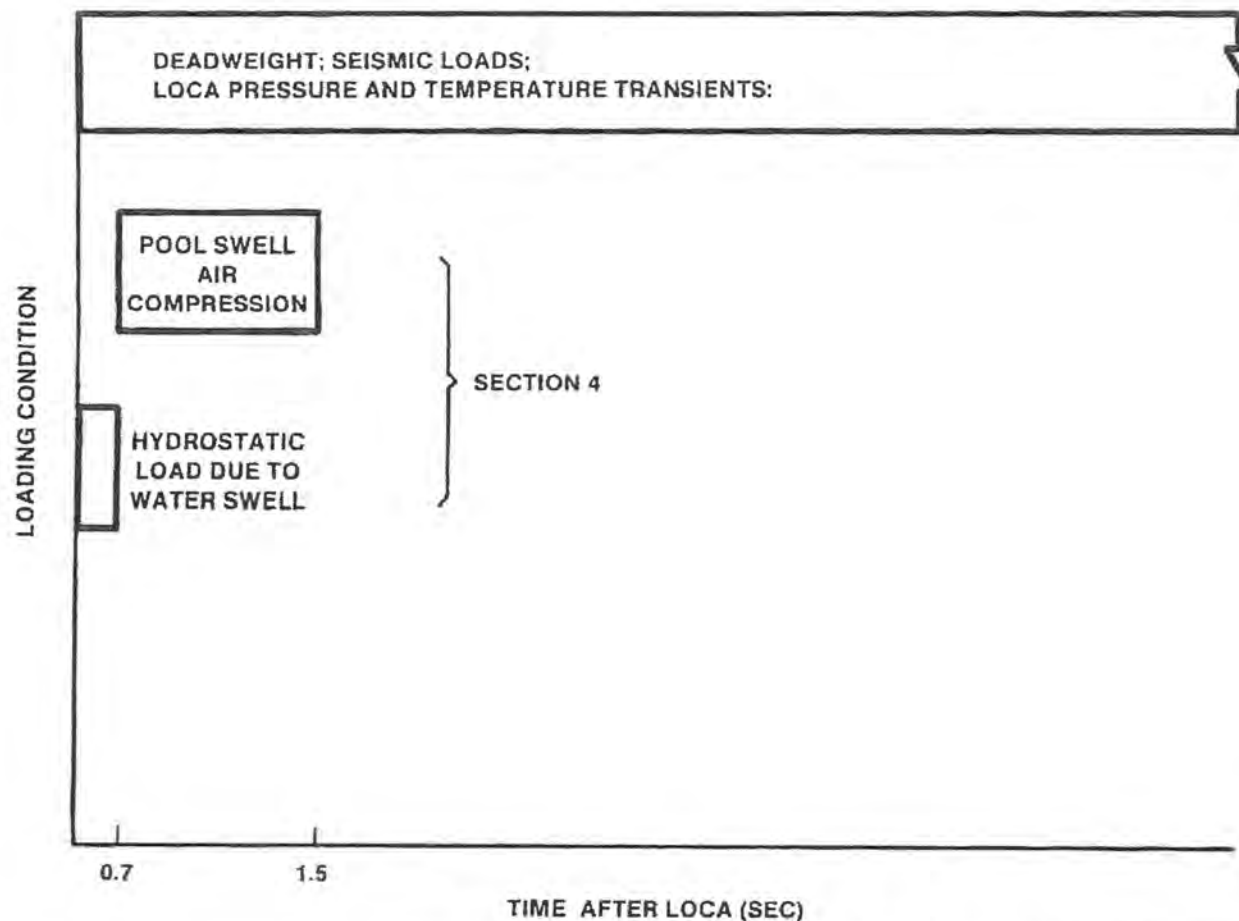
NOTE:

CONSIDERATION IS GIVEN TO
REACTION LOADS ON THE
DOWNCOMER FROM OTHER STRUCTURES

FIGURE 6A.2-15

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: DOWNCOMERS, ACCIDENT
CONDITION : NONE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

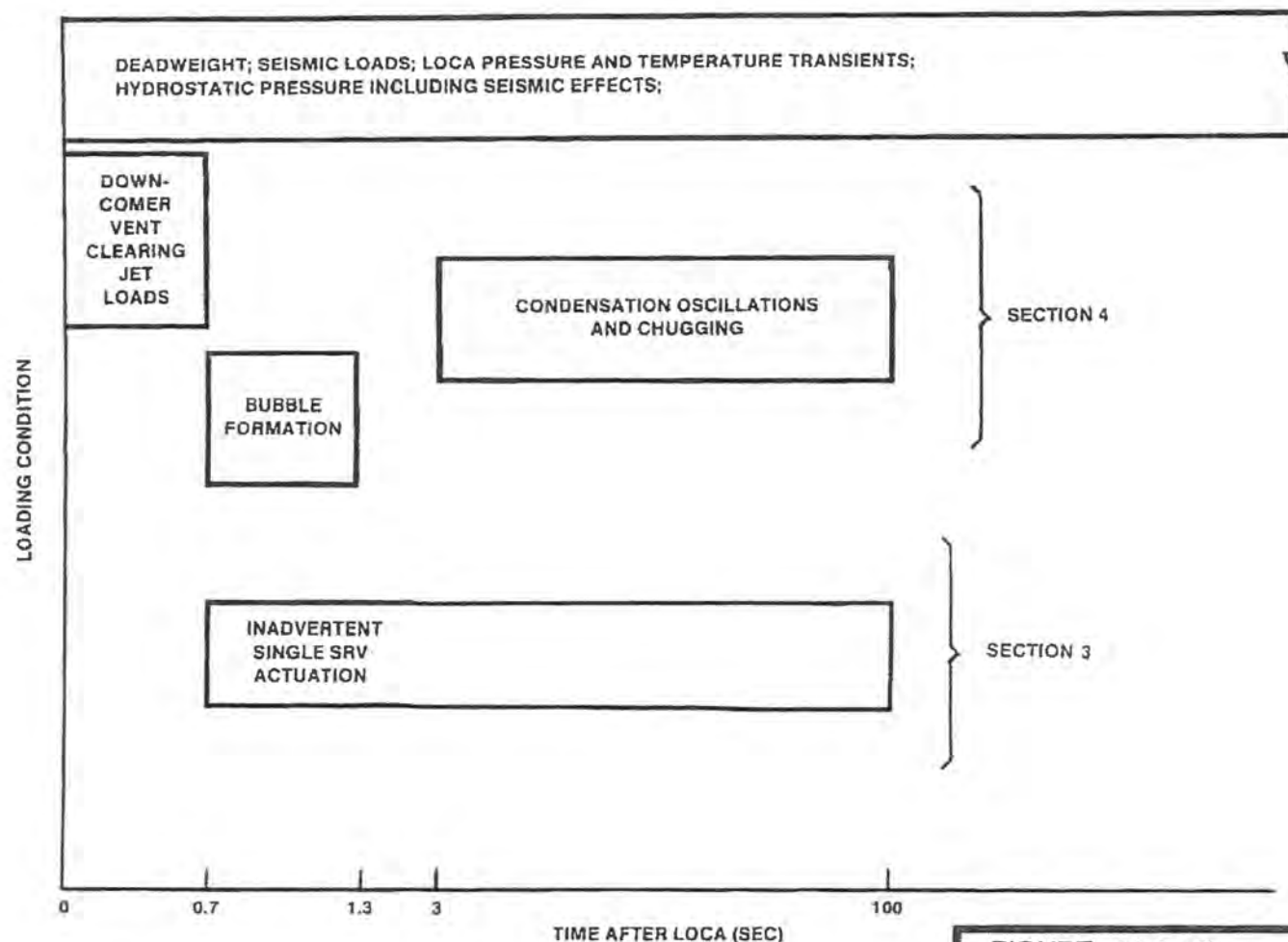


NOTE:
CONSIDERATION IS GIVEN TO REACTION
LOADS ON THE WETWELL WALLS FROM
ATTACHED STRUCTURES

FIGURE 6A.2-16

LOAD COMBINATION HISTORY
STRUCTURE AFFECTED: SUPPRESSION
CHAMBER WALLS ABOVE THE WATER LEVEL
ACCIDENT CONDITION: LARGE LINE BREAK (DBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

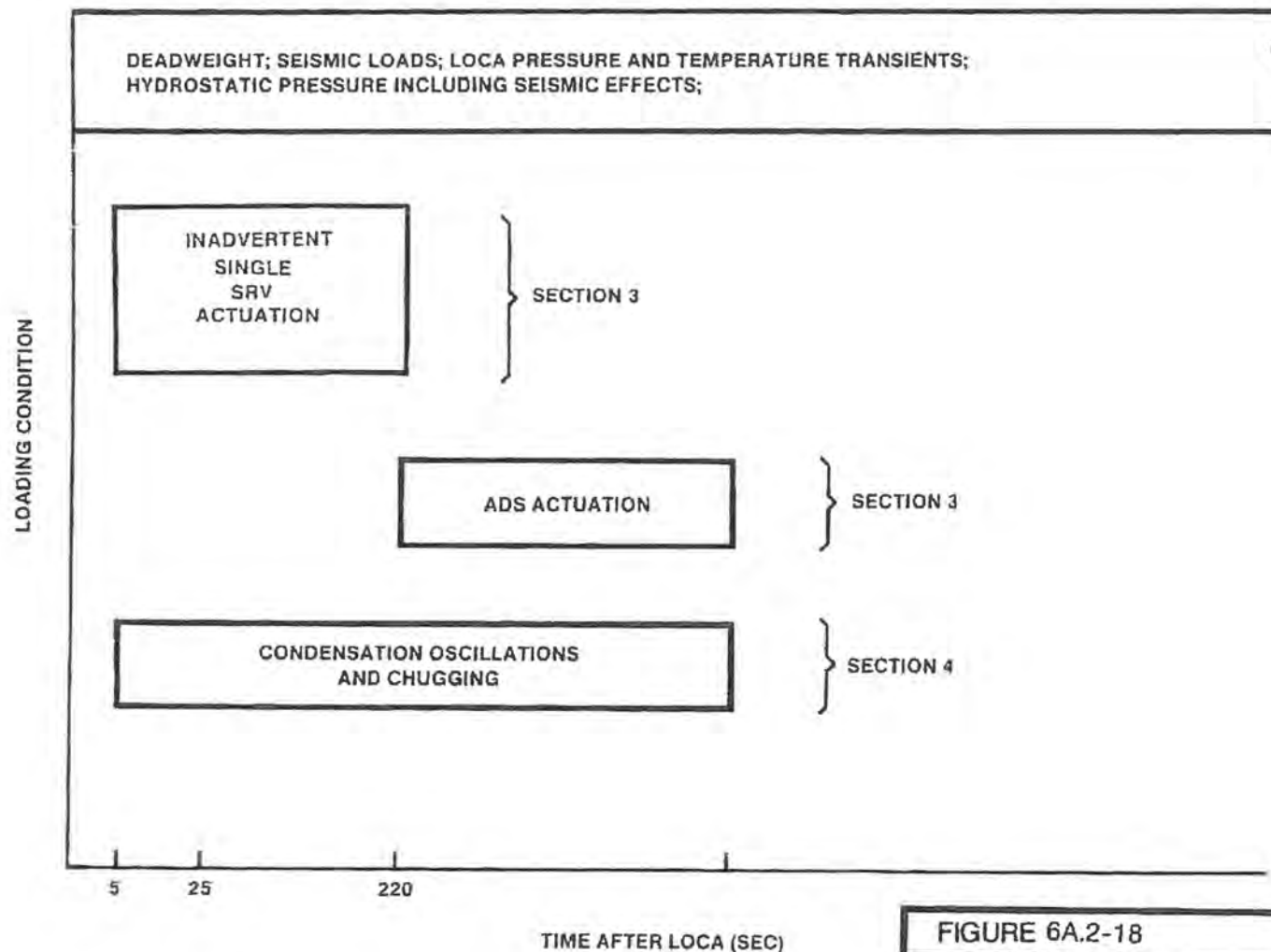


NOTE:
CONSIDERATION IS GIVEN TO REACTION
LOADS ON THE WETWELL WALLS
FROM ATTACHED STRUCTURES

FIGURE 6A.2-17

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: SUBMERGED SUPPRESSION
CHAMBER, ACCIDENT CONDITION: LARGE
LINE BREAK (DBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



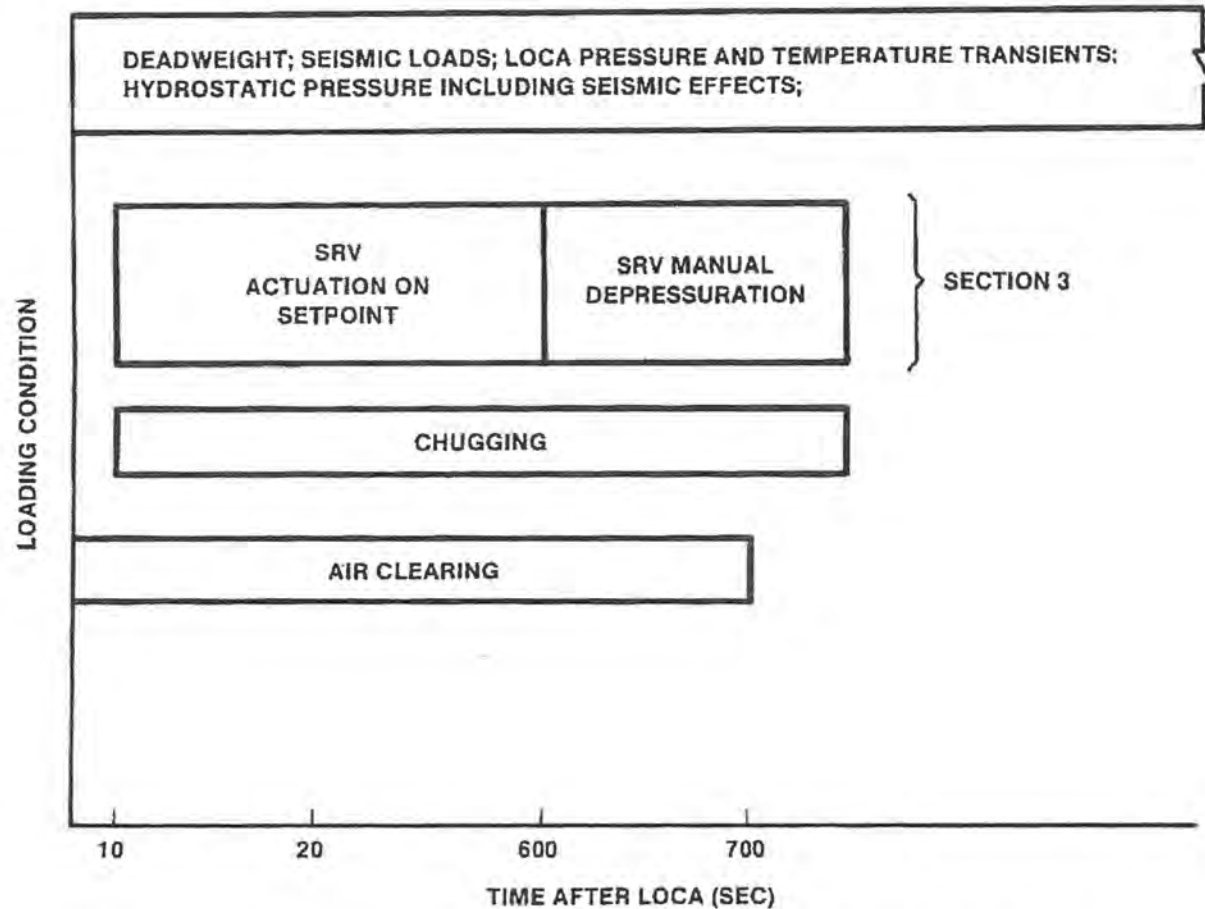
NOTES:

1. T IS BREAK AREA DEPENDENT, BUT IS TYPICALLY IN THE ORDER OF 2 TO 5 MINUTES.
2. CONSIDERATION IS GIVEN TO REACTION LOADS ON THE WETWALL WALLS FROM ATTACHED STRUCTURES.
3. LOAD COMBINATION HISTORY MAY VARY SOMEWHAT WITH SIZE OF IBA. FOR EXAMPLE, SRV ACTUATION AT SET POINT MAY OCCUR DURING A SMALLER IBA.

FIGURE 6A.2-18

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: SUBMERGED SUPPRESSION
CHAMBER ACCIDENT CONDITION:
INTERMEDIATE LINE BREAK

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

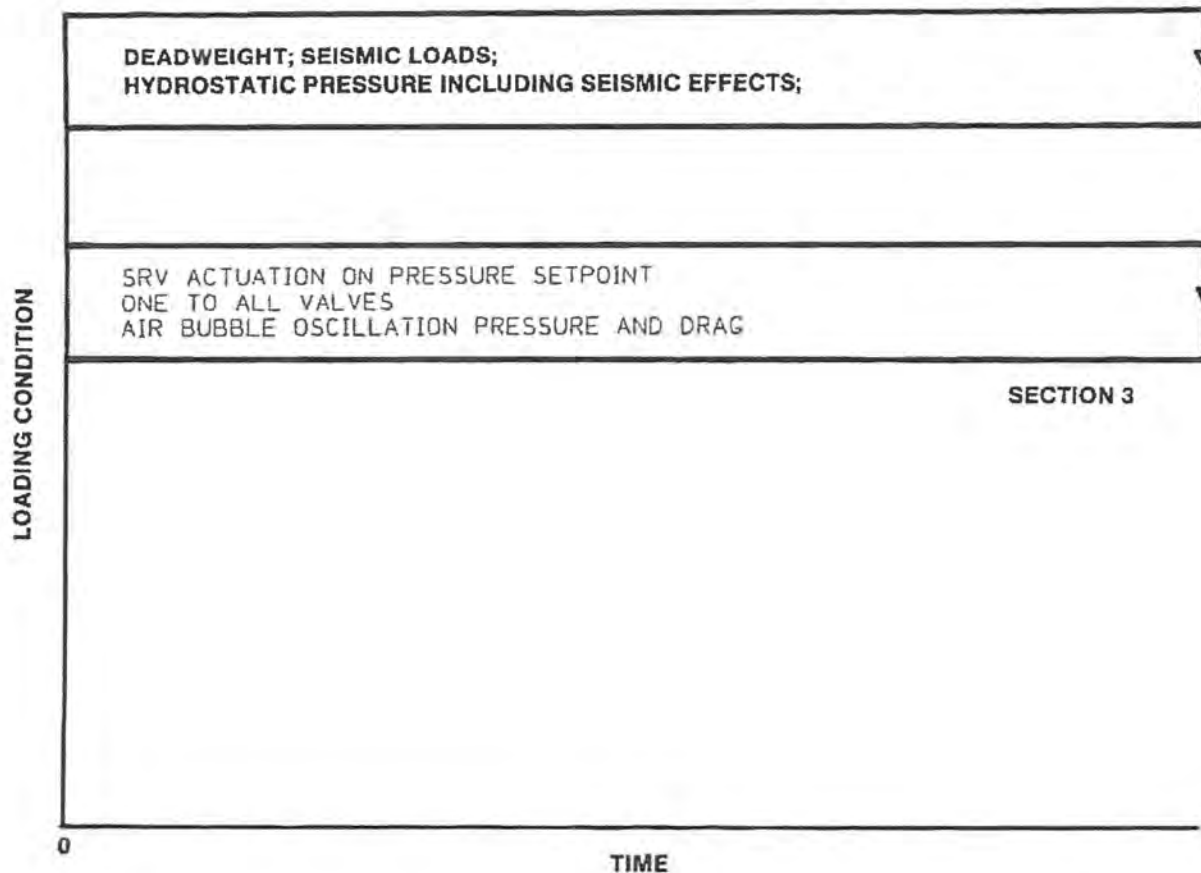


NOTE:
CONSIDERATION IS GIVEN TO REACTION
LOADS ON THE WETWELL WALLS
FROM ATTACHED STRUCTURES

FIGURE 6A.2-19

LOAD COMBINATION HISTORY
STRUCTURE AFFECTED: SUBMERGED
SUPPRESSION CHAMBER, ACCIDENT
CONDITION: SMALL LINE BREAK (SBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



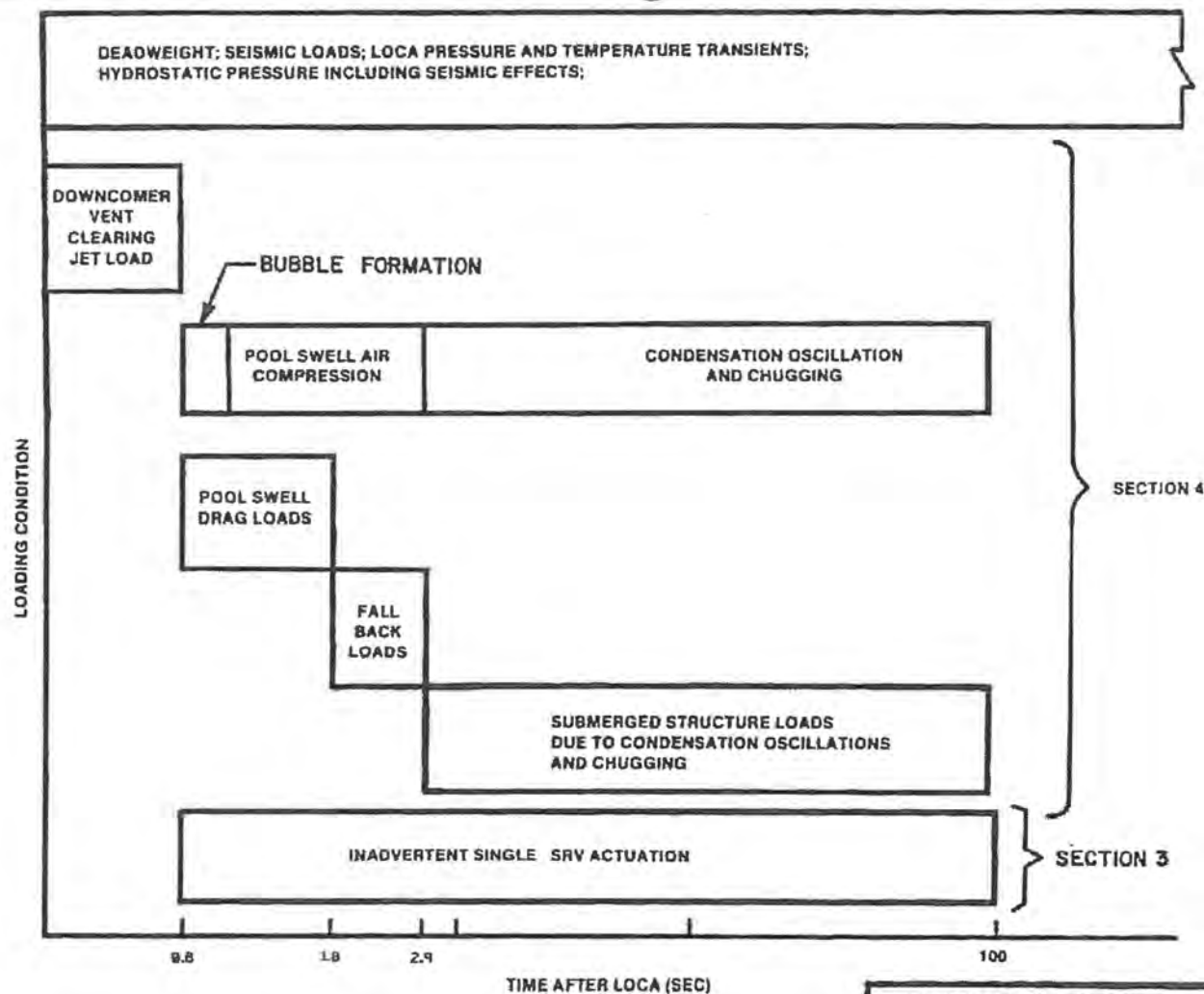
NOTE:

CONSIDERATION IS GIVEN TO REACTION
LOADS ON THE WETWELL WALLS
FROM ATTACHED STRUCTURES

FIGURE 6A.2-20

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: SUBMERGED SUPPRESSION
CHAMBER, ACCIDENT CONDITION: NONE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



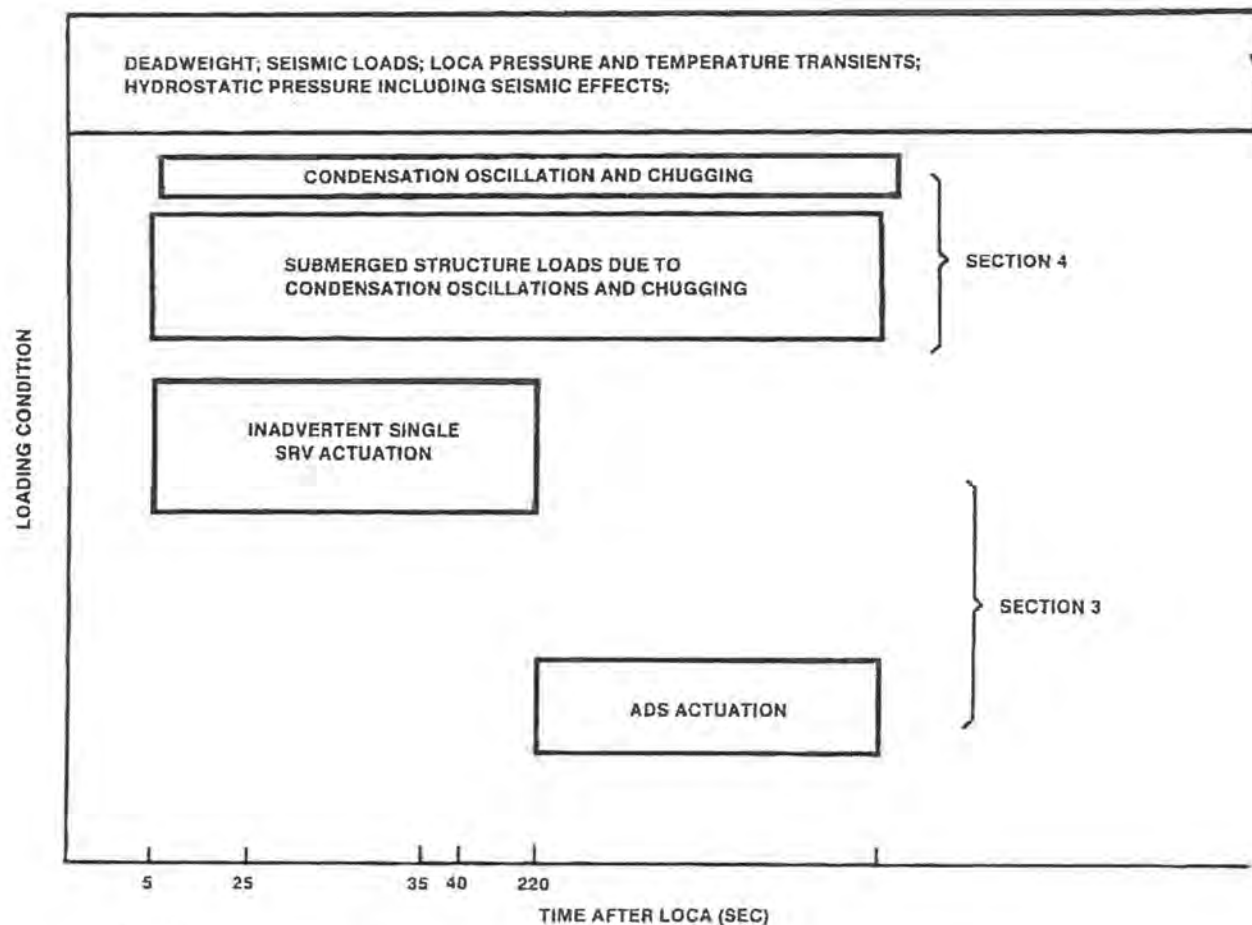
NOTE:
[CONSIDERATION IS GIVEN TO REACTION
LOADS ON SUBMERGED STRUCTURES FROM
OTHER ATTACHED STRUCTURES

FIGURE 6A.2-21

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: SMALL SUBMERGED STRUCTURES
AND PIPING, ACCIDENT CONDITION:
LARGE LINE BREAK (DBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

SOURCE: CALCULATION 12177-ES-122



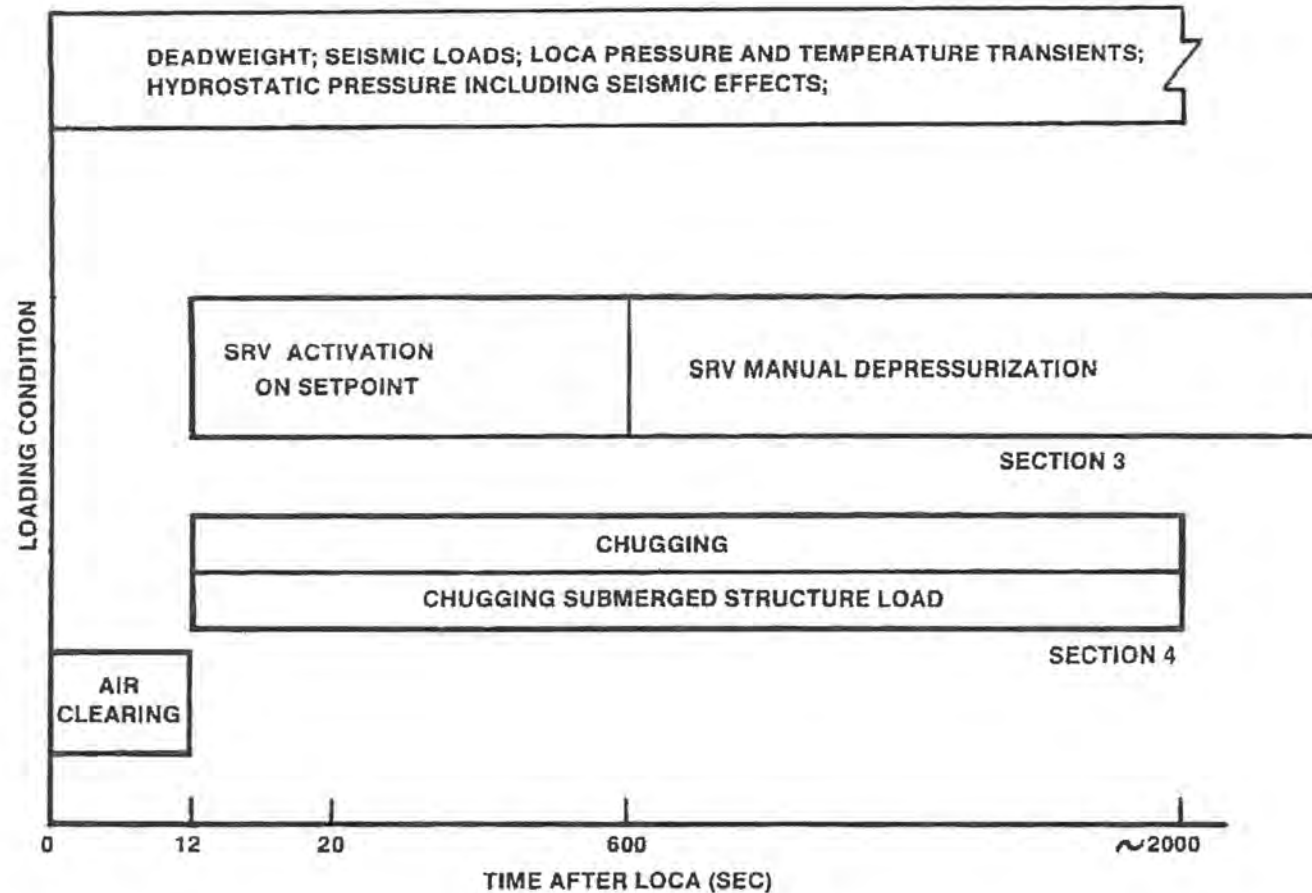
NOTES:

1. T IS BREAK AREA, DEPENDENT,
BUT IS TYPICALLY IN THE ORDER
OF 2 TO 5 MINUTES
2. CONSIDERATION IS GIVEN TO REACTION
LOADS ON SUBMERGED STRUCTURES FROM
OTHER ATTACHED STRUCTURES
3. LOAD COMBINATION HISTORY MAY VARY
SOMEWHAT WITH SIZE OF IBA. FOR
EXAMPLE, SRV ACTUATION AT SET
POINT MAY OCCUR DURING A SMALLER IBA.

FIGURE 6A.2-22

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: SMALL SUBMERGED STRUCTURES
AND PIPING, ACCIDENT CONDITION,
INTERMEDIATE LINE BREAK (IBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

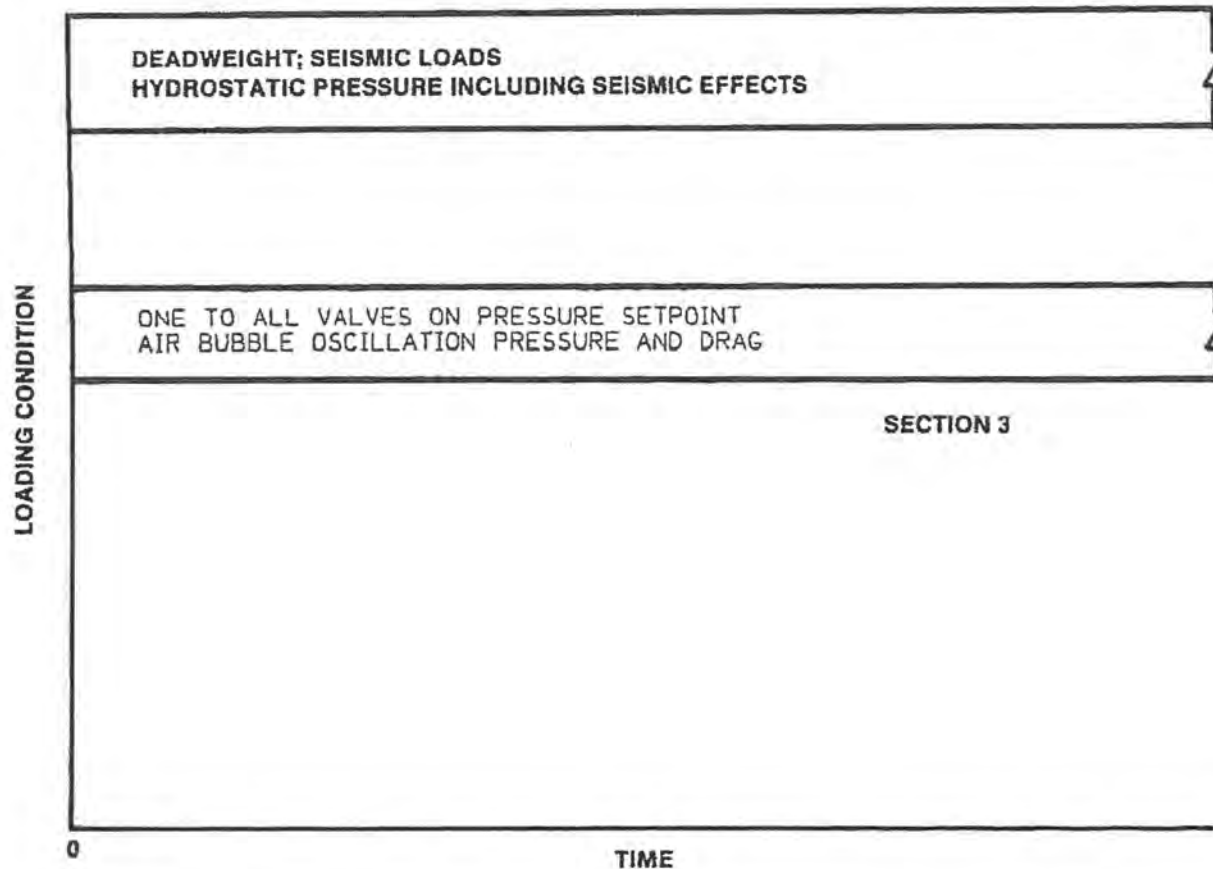


NOTE:
CONSIDERATION IS GIVEN TO REACTION
LOADS ON SUBMERGED STRUCTURES FROM
OTHER ATTACHED STRUCTURES

FIGURE 6A.2-23

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: SMALL SUBMERGED STRUCTURES
AND PIPING, ACCIDENT CONDITION:
SMALL LINE BREAK (SBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



NOTE:

CONSIDERATION IS GIVEN TO REACTION
LOADS ON SUBMERGED STRUCTURES FROM
OTHER ATTACHED STRUCTURES

FIGURE 6A.2-24

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: SMALL SUBMERGED STRUCTURES
AND PIPING, ACCIDENT CONDITION: NONE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

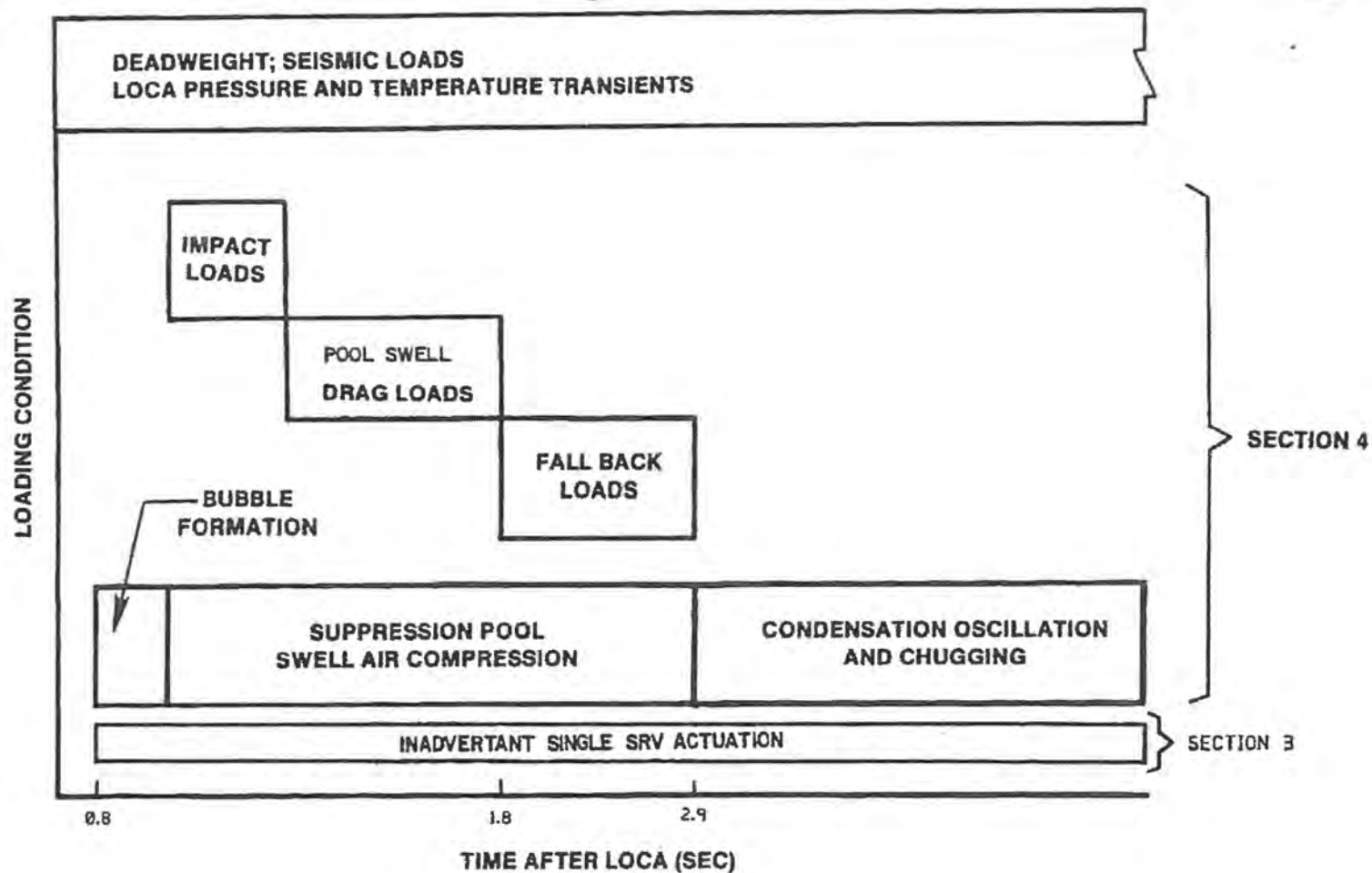


FIGURE 6A.2-25

**LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: SMALL STRUCTURES ABOVE
POOL AND BELOW BREAKTHROUGH, ACCIDENT
CONDITION: LARGE LINE BREAK (DBA)**

**NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT**

SOURCE: CALCULATION 12177-ES-122

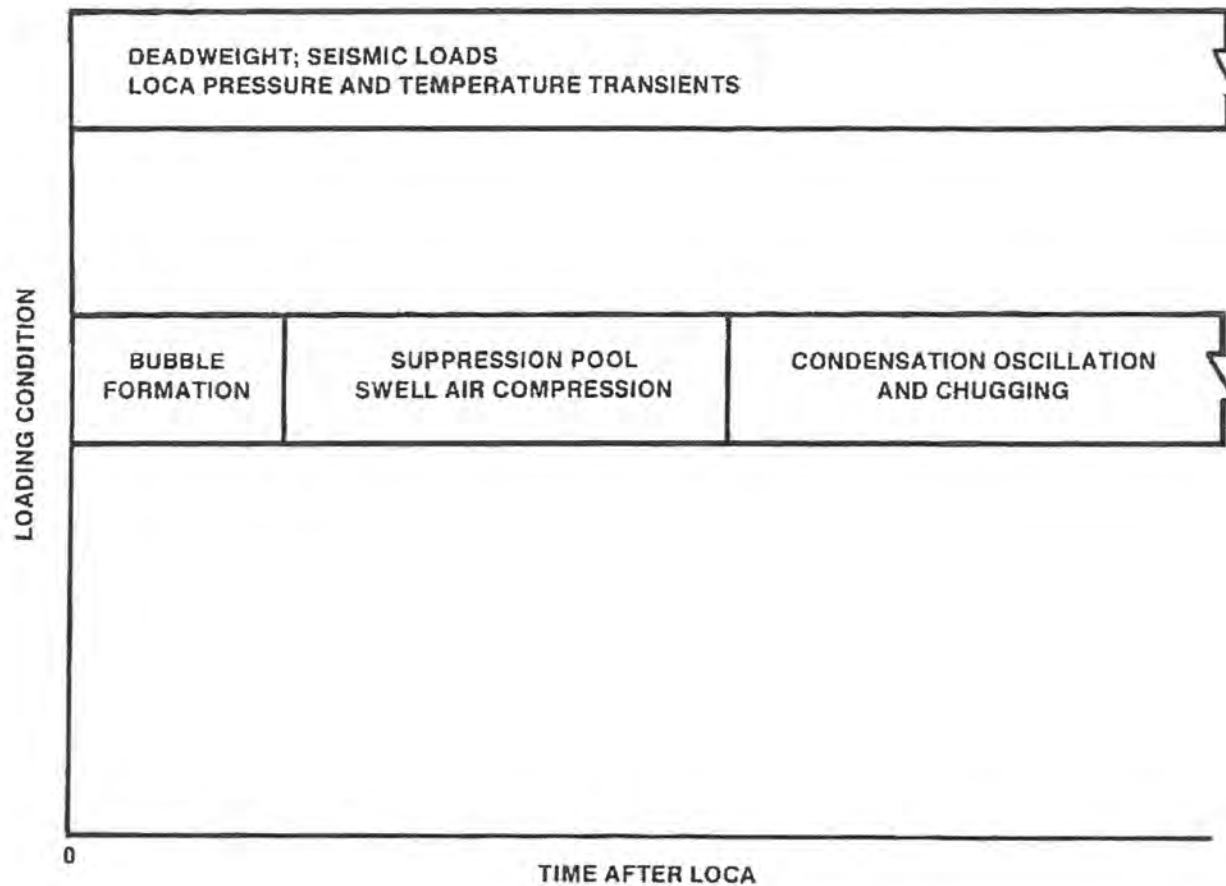
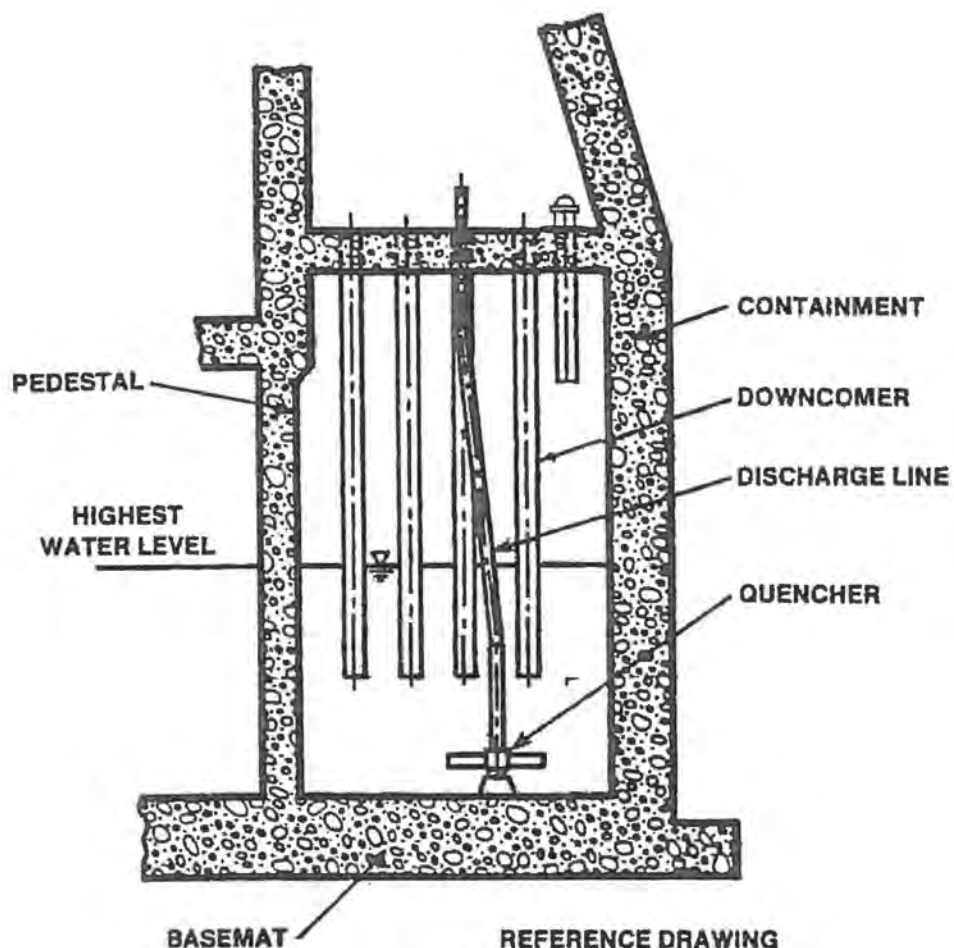


FIGURE 6A.2-26

LOAD COMBINATION HISTORY, STRUCTURE
AFFECTED: SMALL STRUCTURES ABOVE
BREAKTHROUGH, ACCIDENT CONDITION:
LARGE LINE BREAK (DBA)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



REFERENCE DRAWING
STONE & WEBSTER
12177-EM-2J-18

FIGURE 6A.3-1

UNIT 2 SUPPRESSION CHAMBER

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

SPRING SET PRESSURE
PSIG

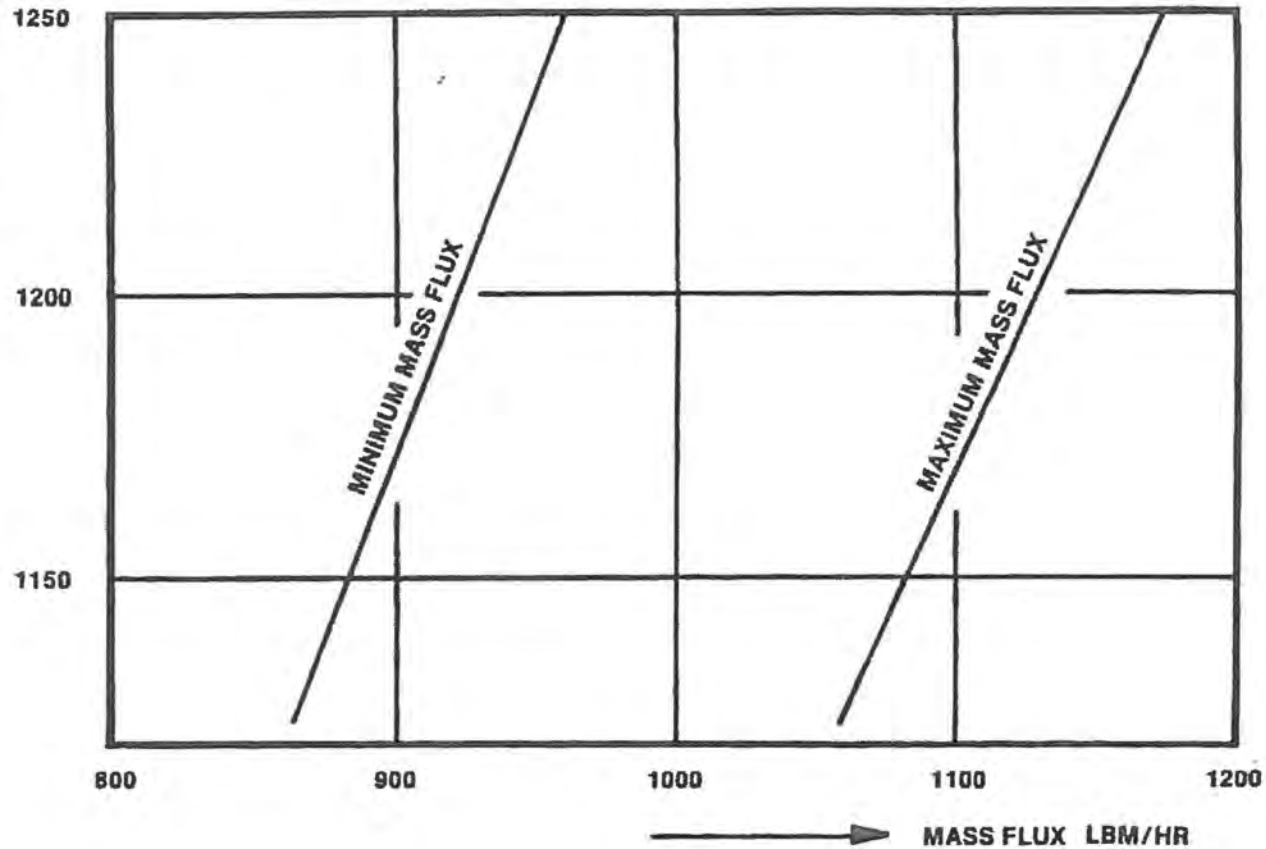


FIGURE 6A.3-2

UNIT 2
SRV-MASS FLOW RATES

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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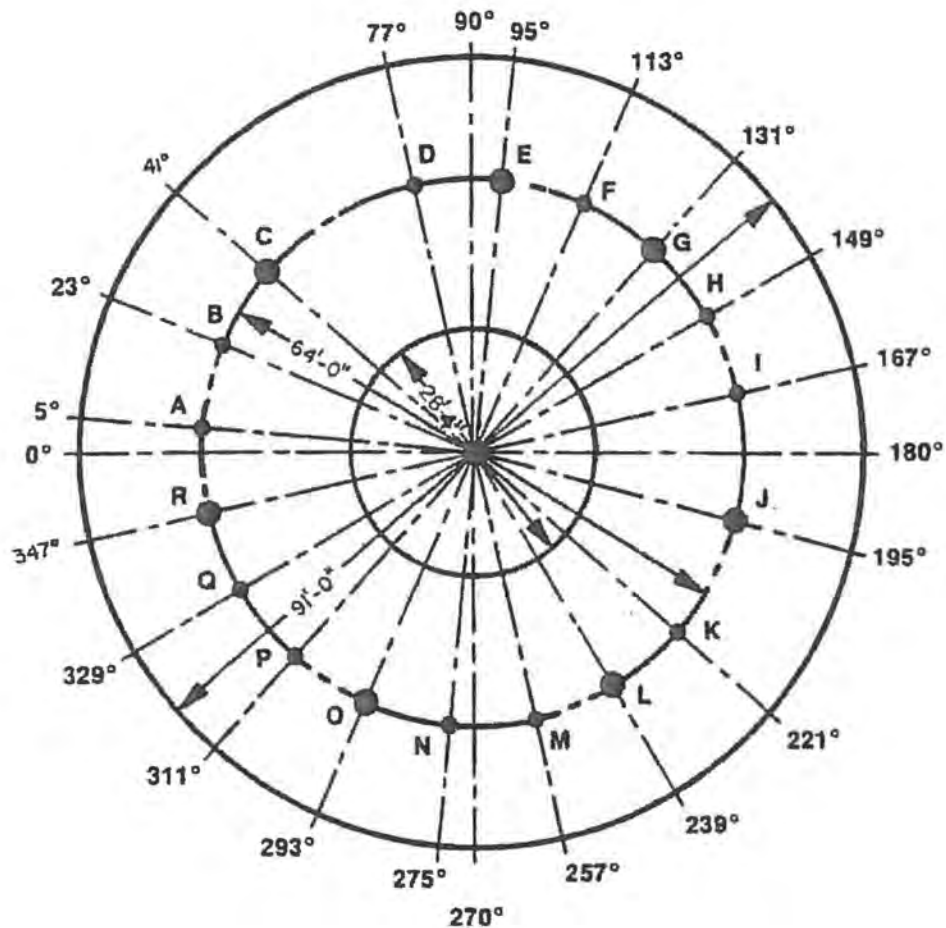


FIGURE 6A.3-3

POSITION OF THE QUENCHERS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

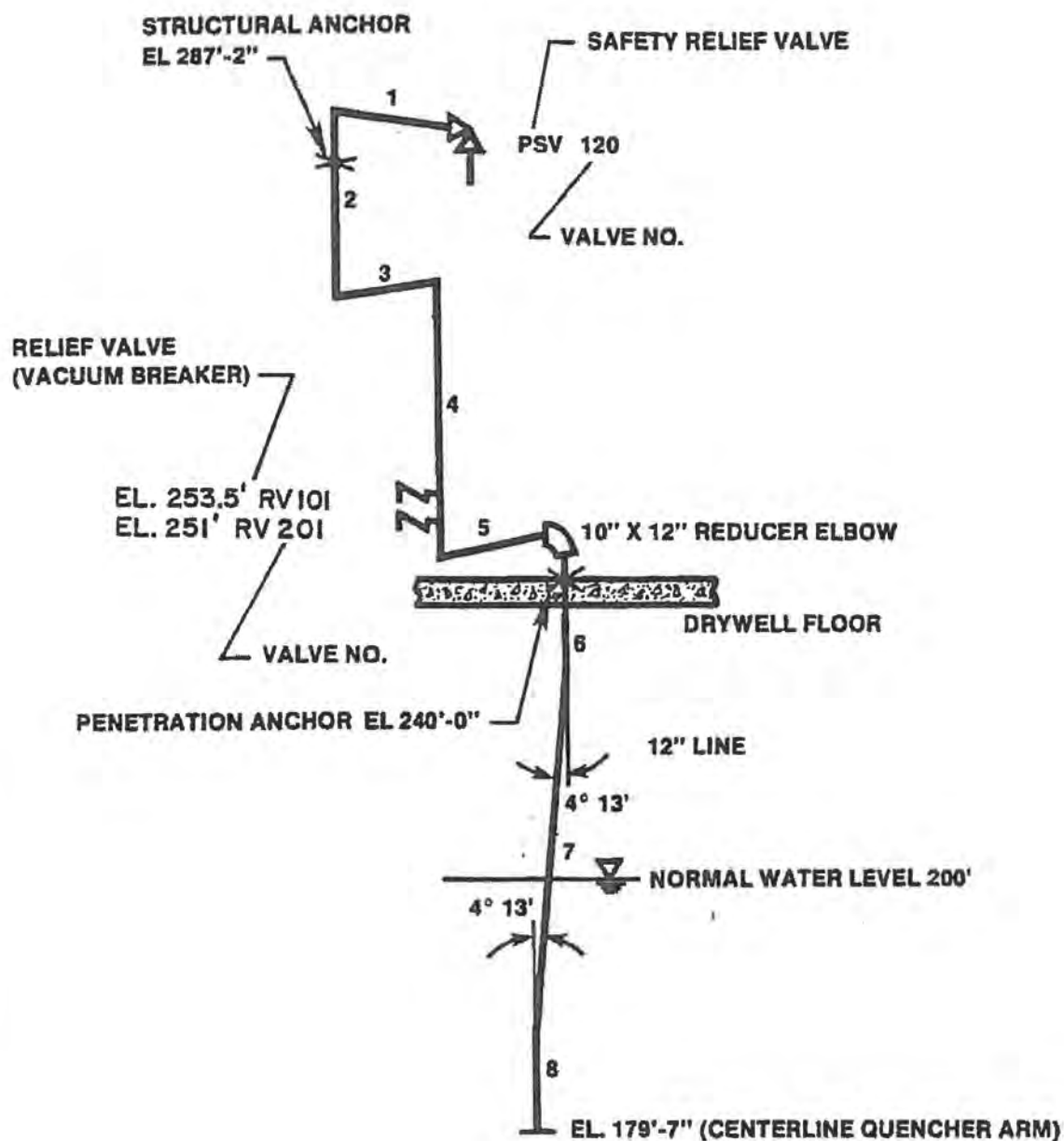


FIGURE 6A.3-4

SHORTEST SRV DISCHARGE LINE
GEOMETRY

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

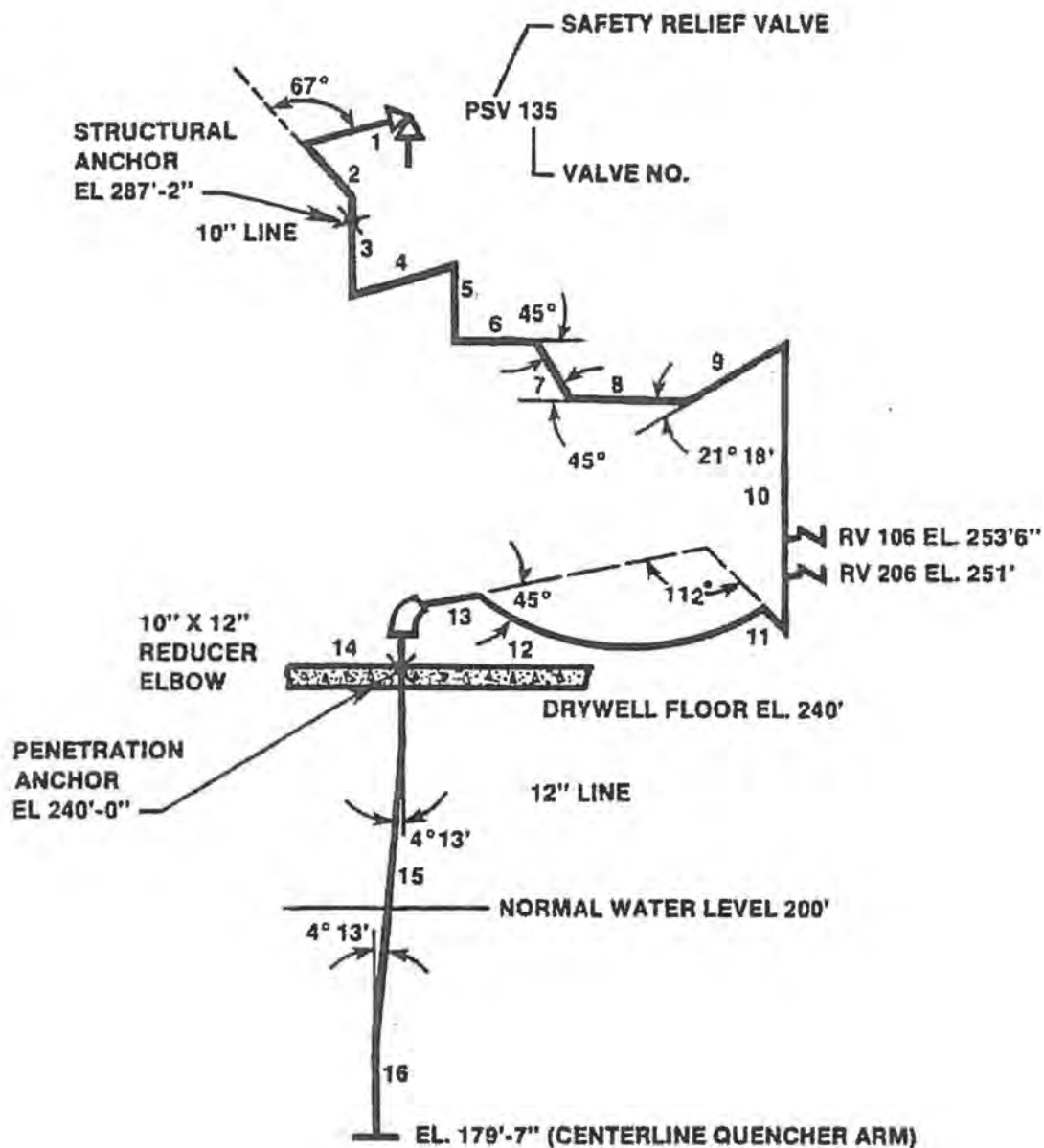
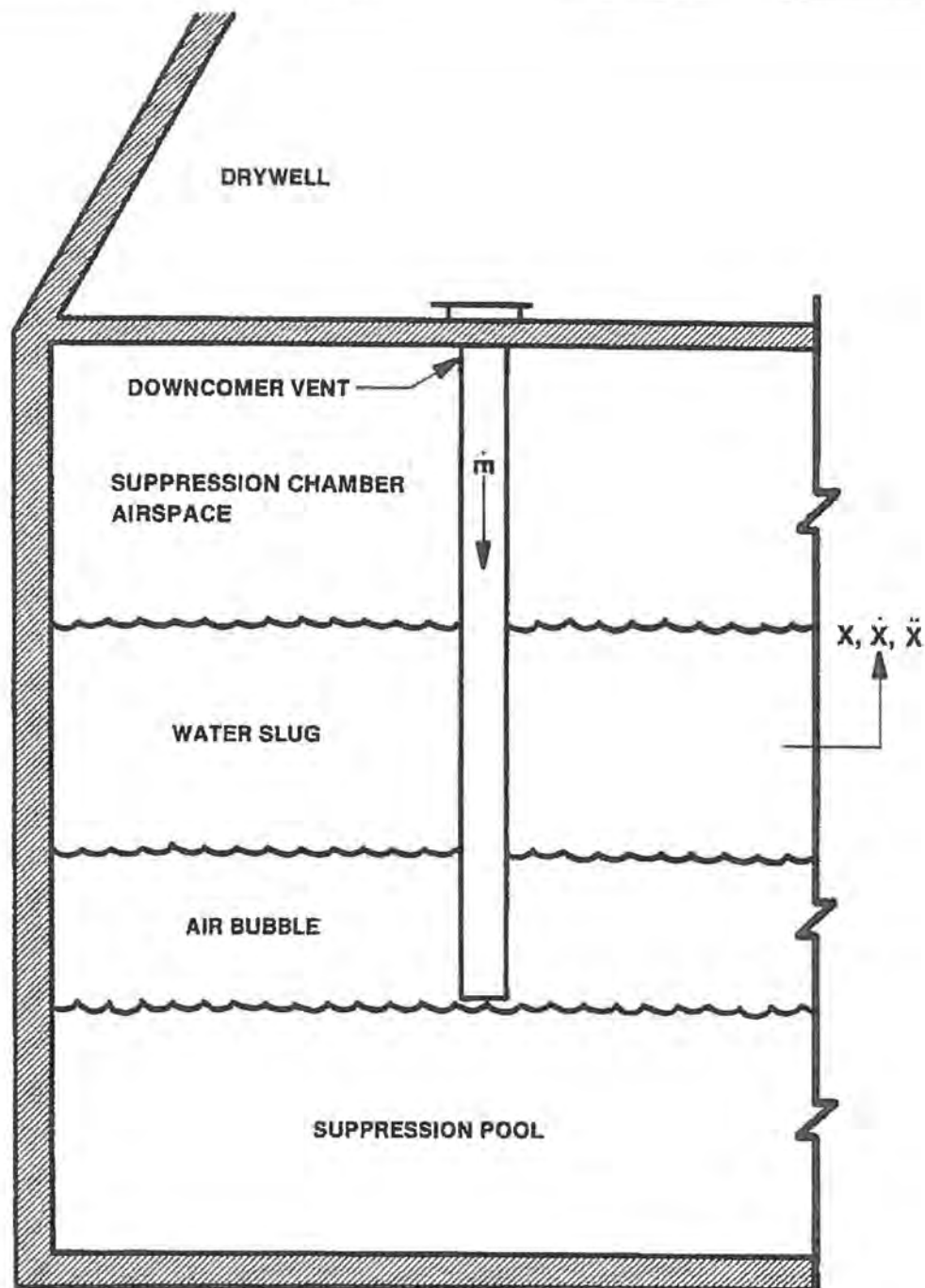


FIGURE 6A.3-5

LONGEST SRV DISCHARGE LINE
GEOMETRY

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



X — POOL DISPLACEMENT

\dot{X} — POOL VELOCITY

\ddot{X} — POOL ACCELERATION

\dot{m} — BLOWDOWN MASS FLOW RATE

FIGURE 6A.4-1

SCHEMATIC REPRESENTATION OF
SUPPRESSION POOL SWELL
ANALYTICAL MODEL

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

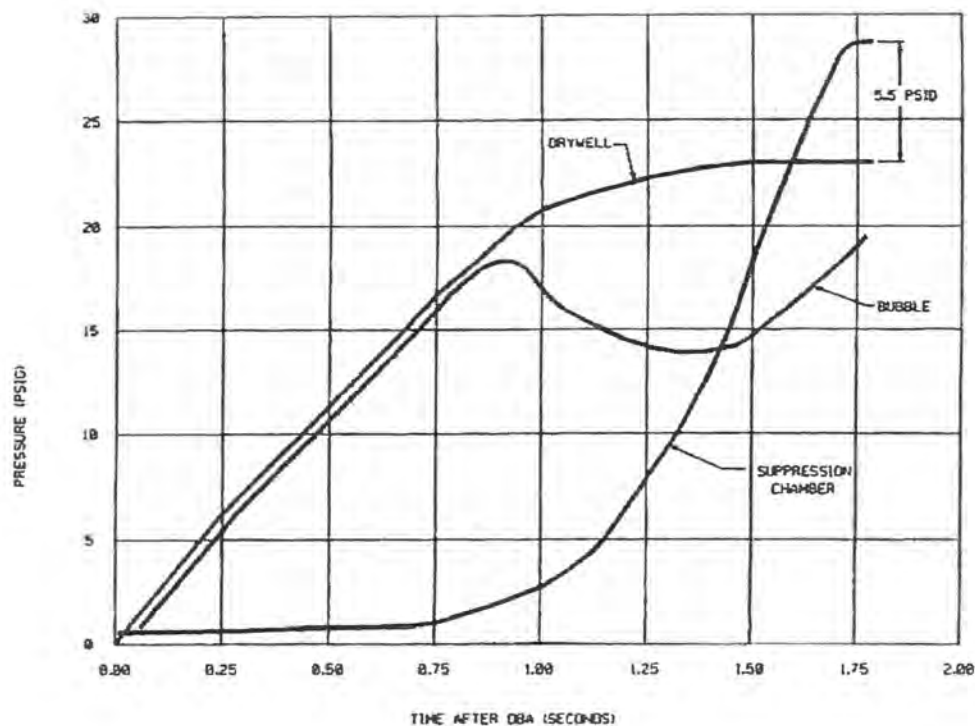


FIGURE 6A.4-2

PRIMARY CONTAINMENT PRESSURE
DURING SUPPRESSION POOL SWELL
FOLLOWING DBA

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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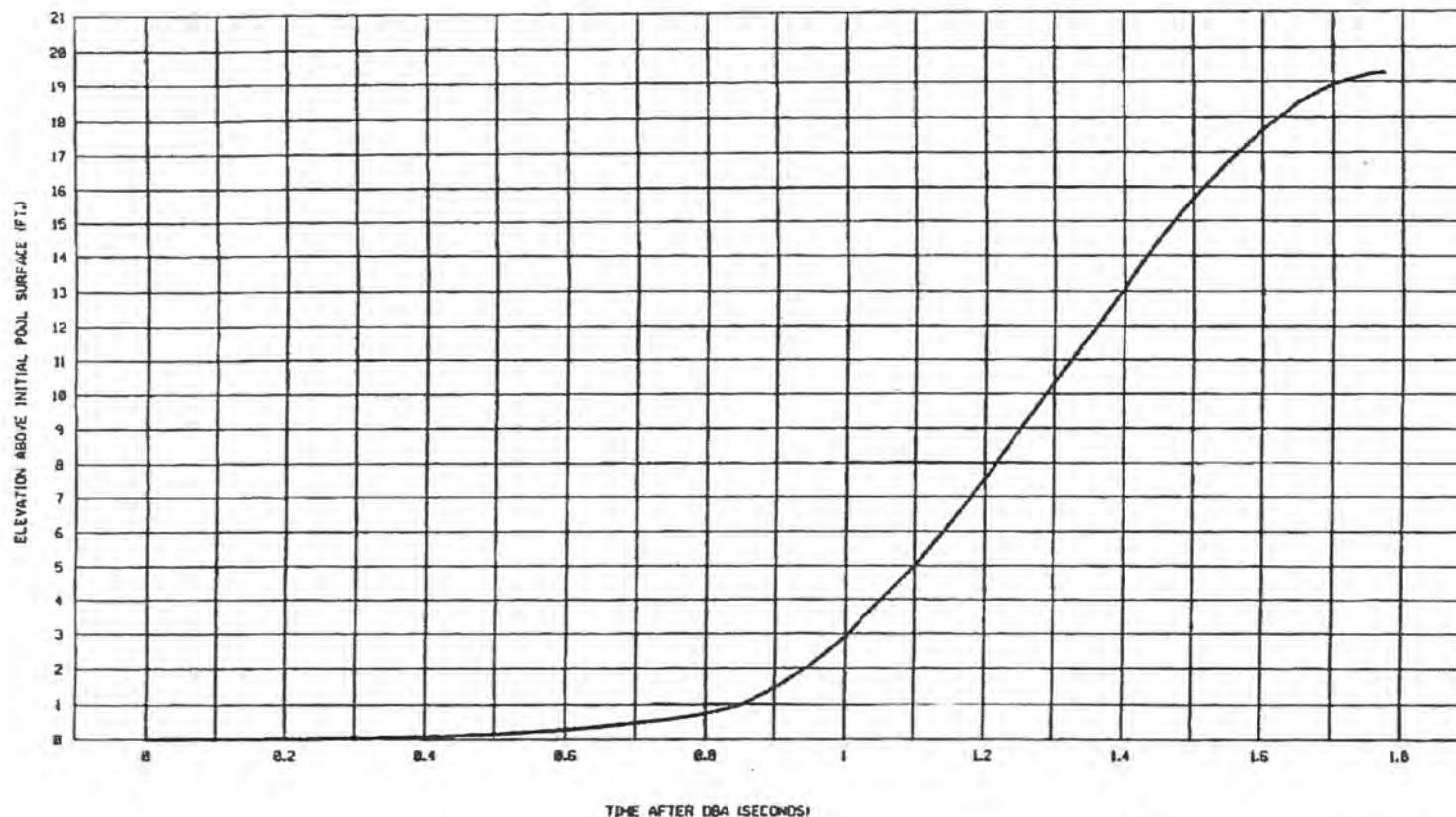


FIGURE 6A.4-3

SUPPRESSION POOL SURFACE ELEVATION
FOLLOWING DBA

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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SOURCE: CALCULATION 12177-ES-122

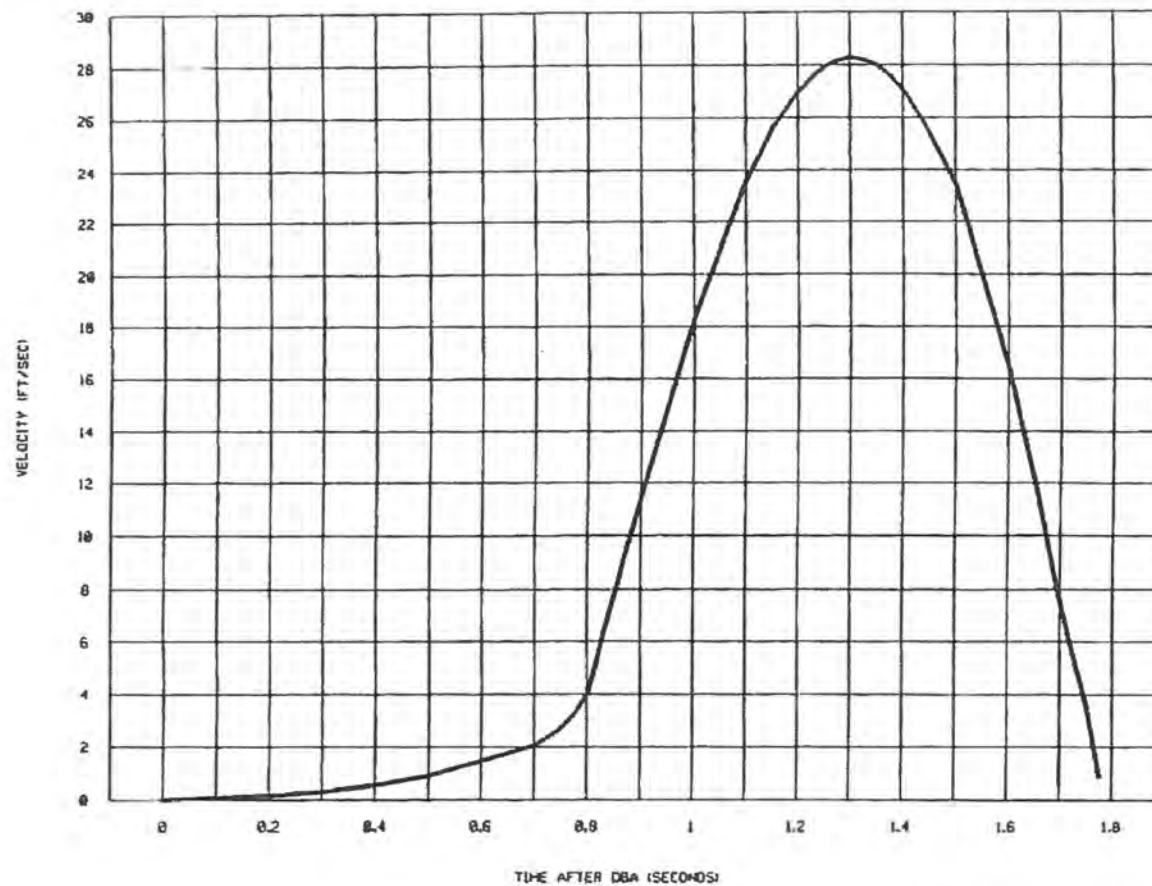


FIGURE 6A.4-4

SUPPRESSION POOL SURFACE VELOCITY
FOLLOWING DBA

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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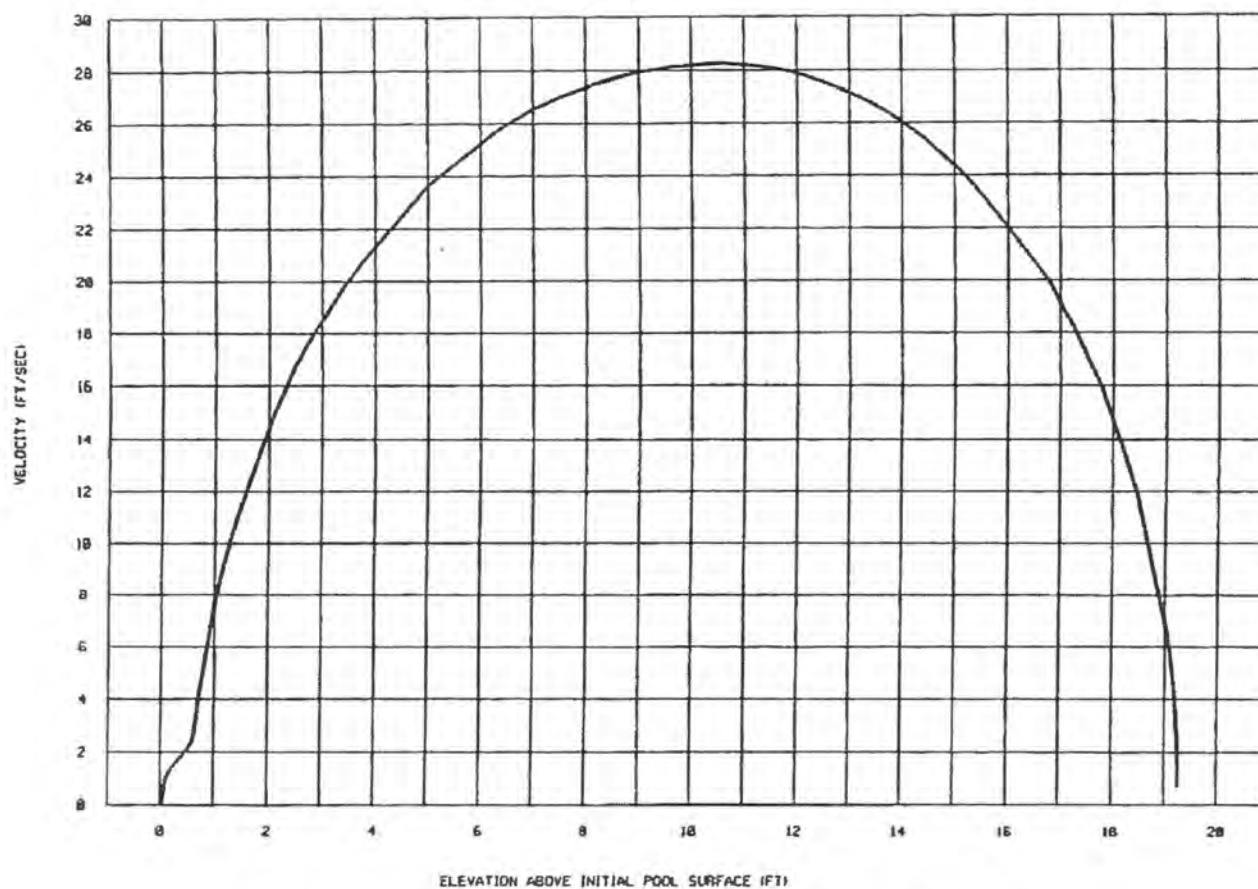


FIGURE 6A.4-5

SUPPRESSION POOL SURFACE VELOCITY VS.
ELEVATION FOLLOWING DBA

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

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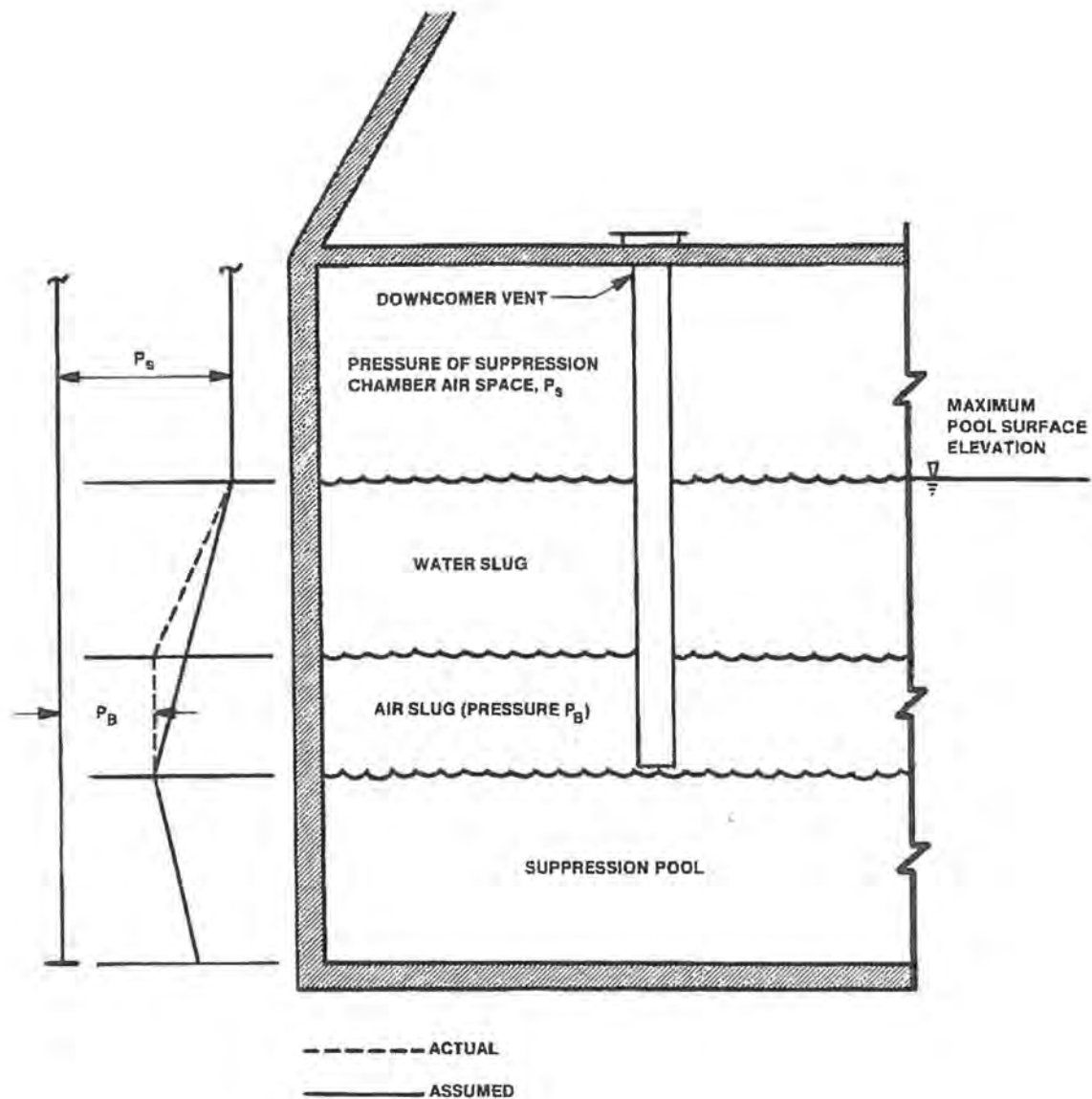
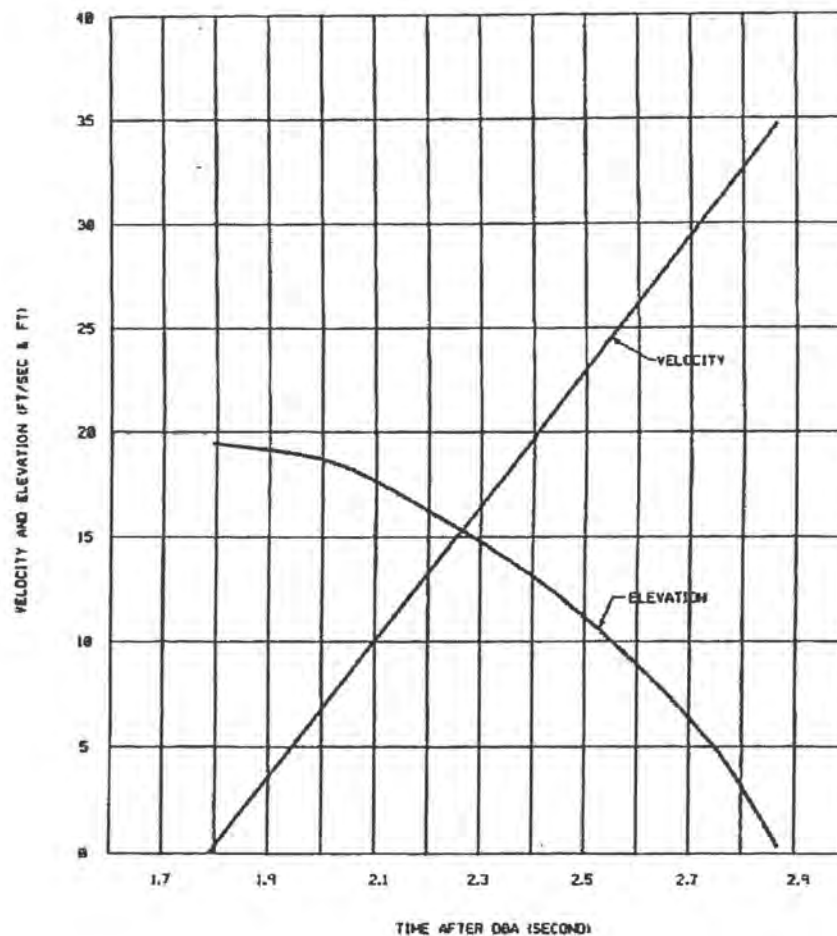


FIGURE 6A.4-6

ASSUMED PRESSURE DISTRIBUTION FOR
SUPPRESSION POOL BOUNDARY LOADS
DURING SUPPRESSION POOL SWELL

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



THIS DRAWING CREATED ELECTRONICALLY

SOURCE: CALCULATION 12177-ES-122

FIGURE 6A.4-7

SUPPRESSION POOL FALLBACK VELOCITY
AND ELEVATION FOLLOWING DBA

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE
HAS BEEN DELETED

FIGURE 6A.4-8

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE
HAS BEEN DELETED

FIGURE 6A.4-9

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
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FIGURE 6A.4-10

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

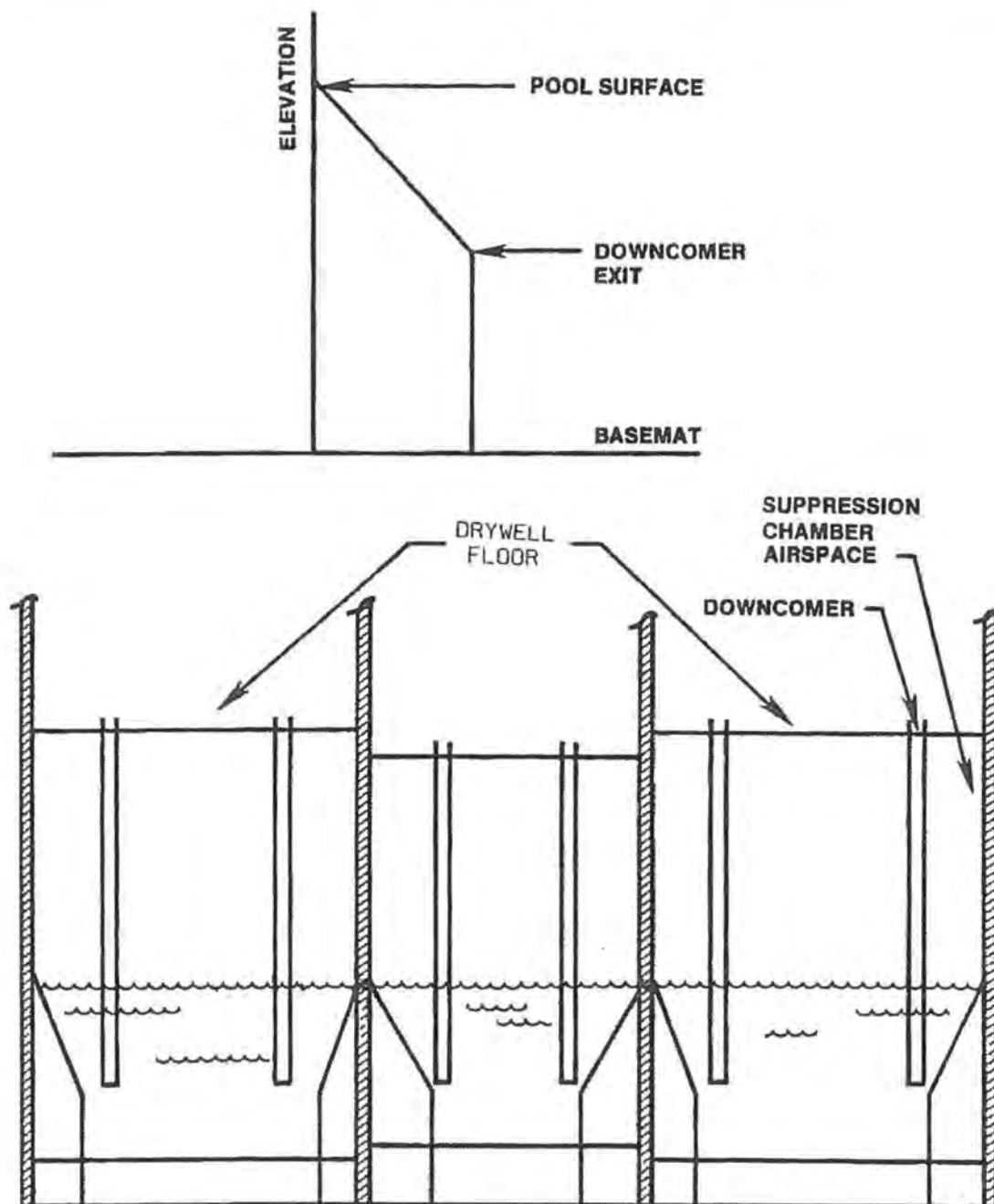


FIGURE 6A.4-11

SPATIAL DISTRIBUTION OF CO LOAD

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE
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FIGURE 6A.4-12

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

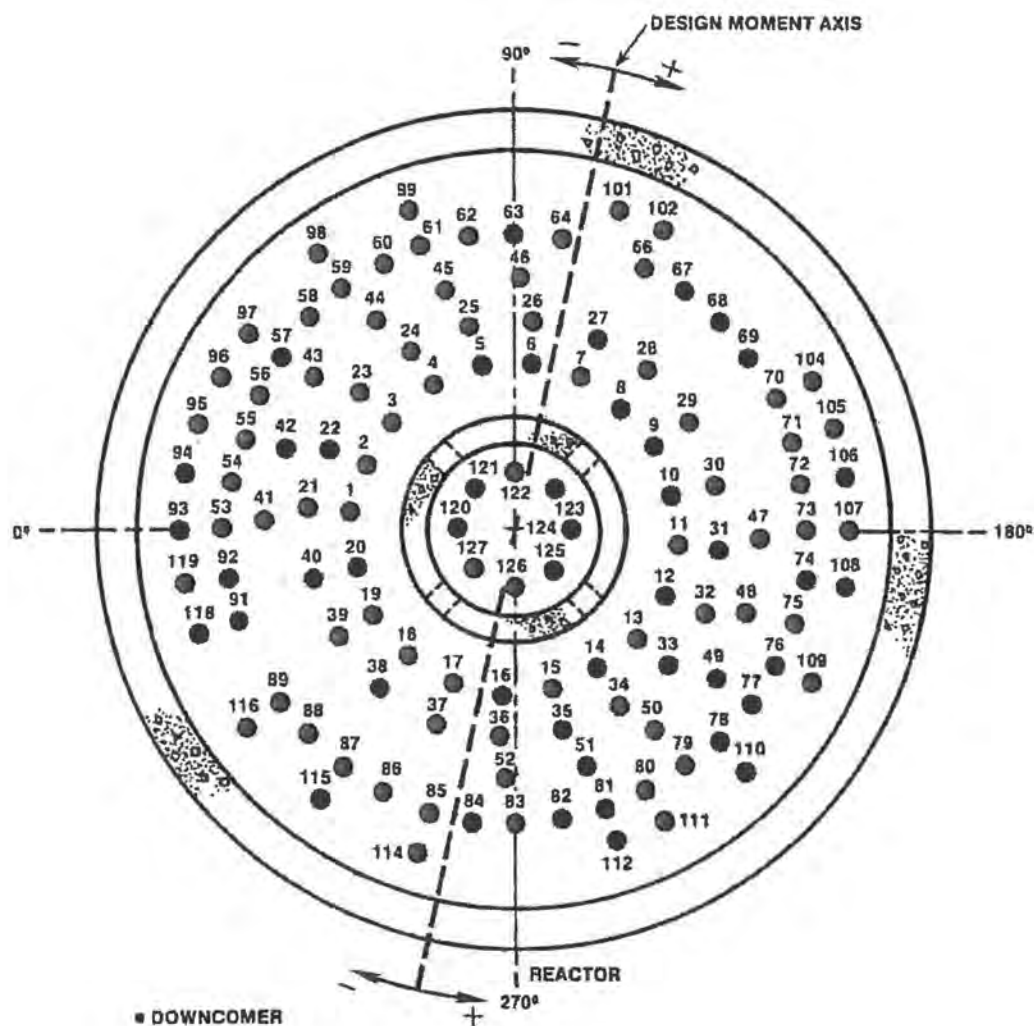


FIGURE 6A.4-13

DOWNCOMER INDEXING WITH
ASYMMETRIC AXIS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

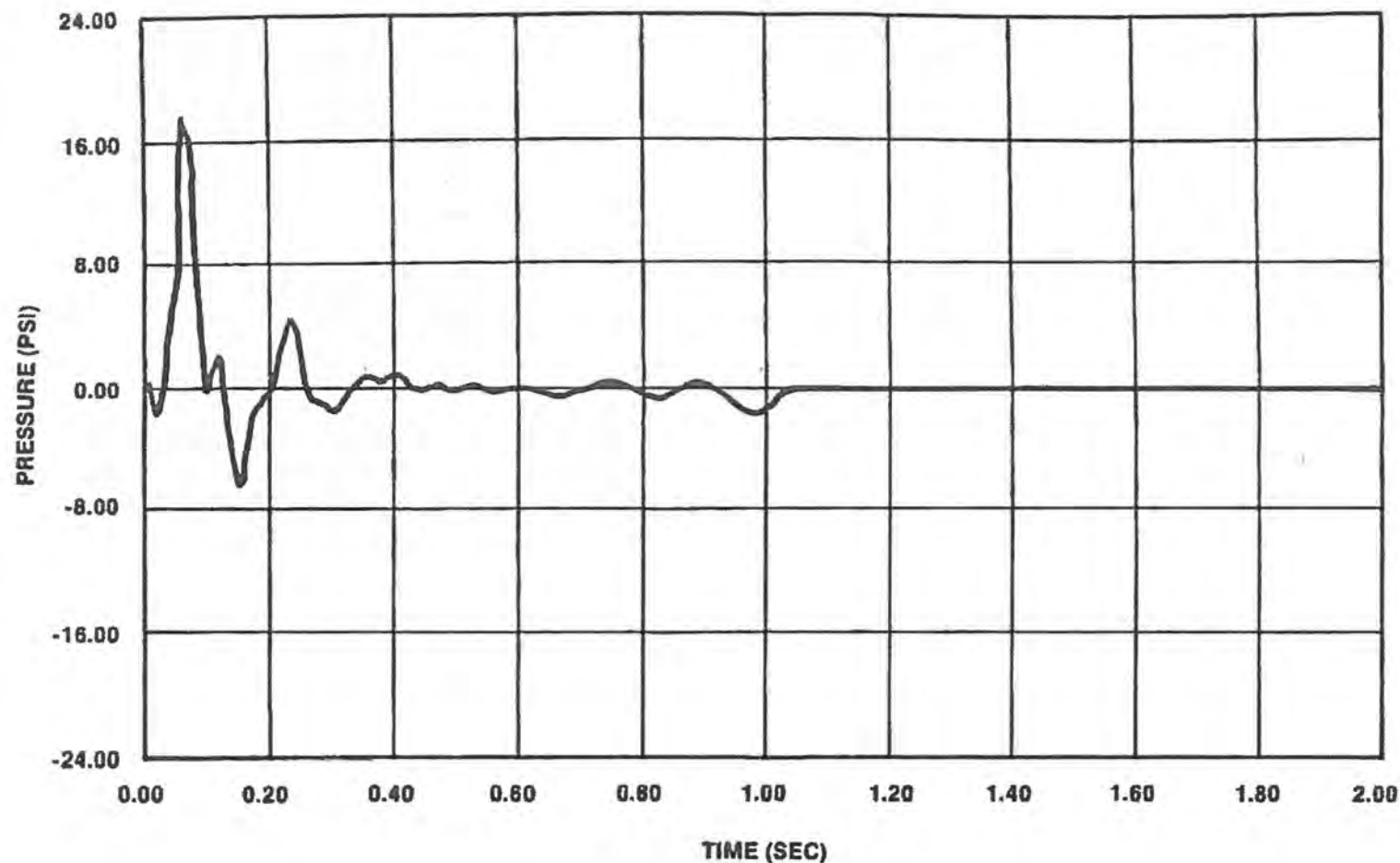
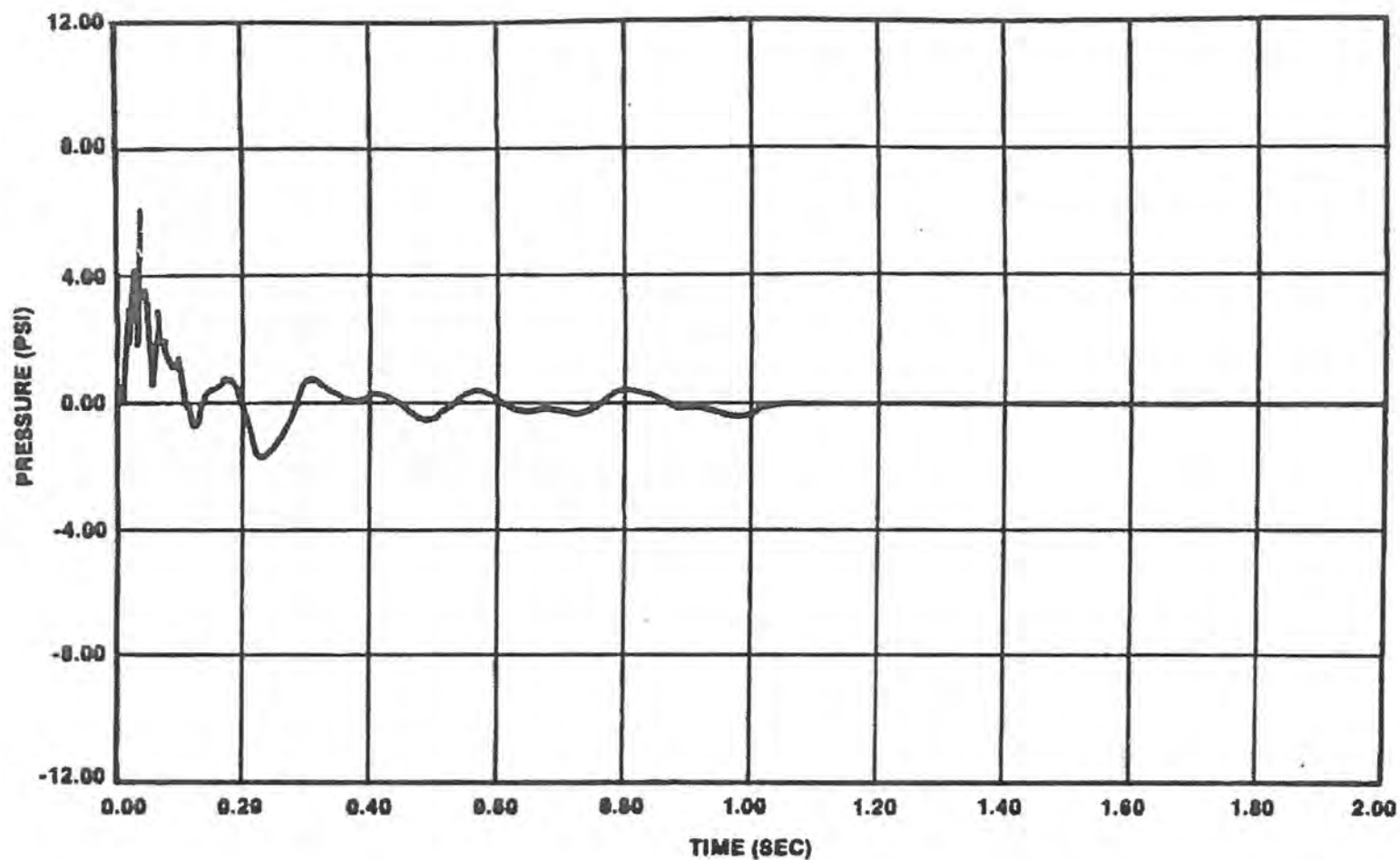


FIGURE 6A.4-14

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE CORNER OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE801-SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

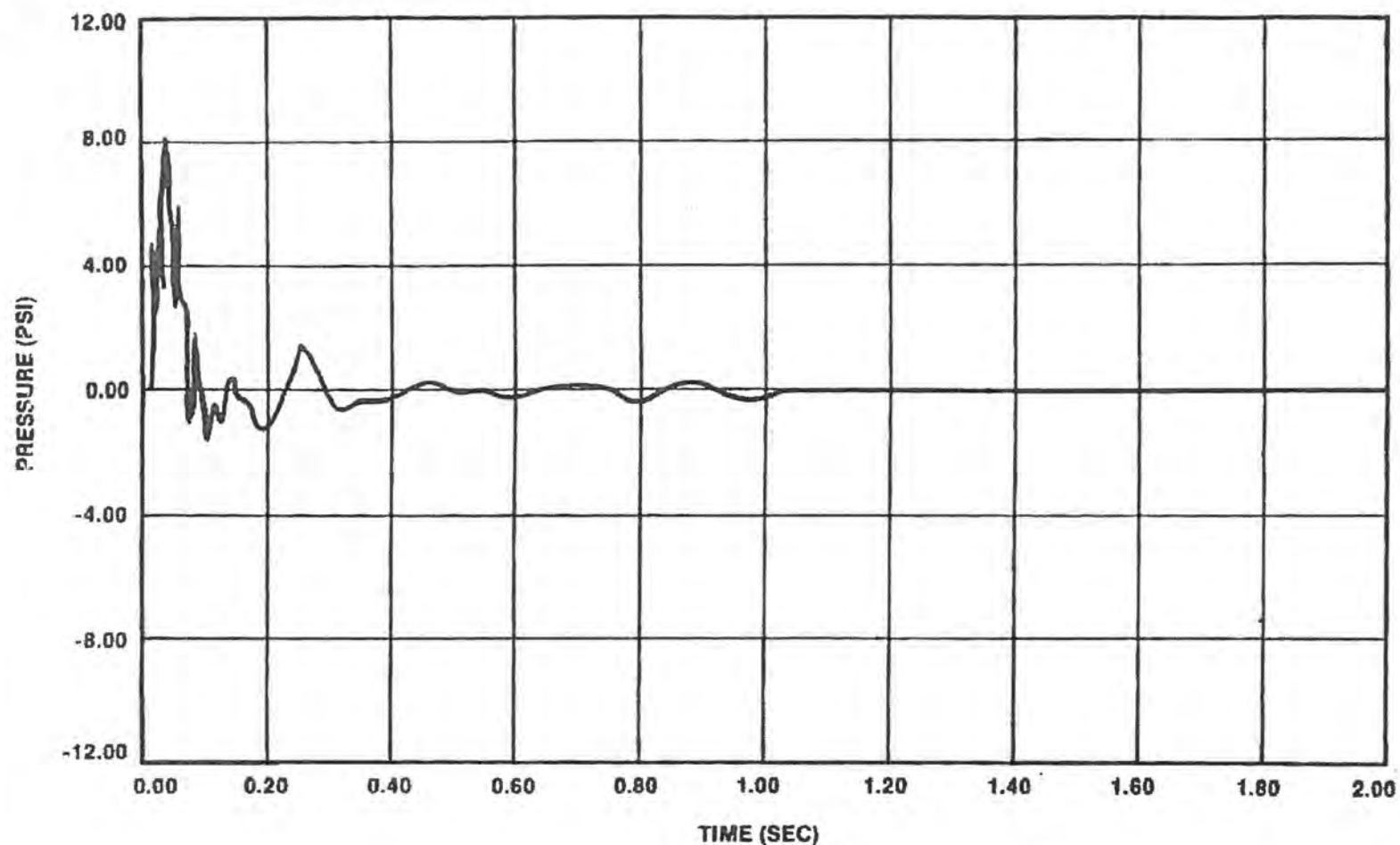


MAX PRESS = 6.221 PSI
AT TIME = 0.036 SEC

FIGURE 6A.4-15

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT
AND PEDESTAL WALL AND 9 DEGREE
AZIMUTH, GE802- SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



MAX PRESS = 8.047 PSI
AT TIME = 0.040 SEC

FIGURE 6A.4-16

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GEB03-SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

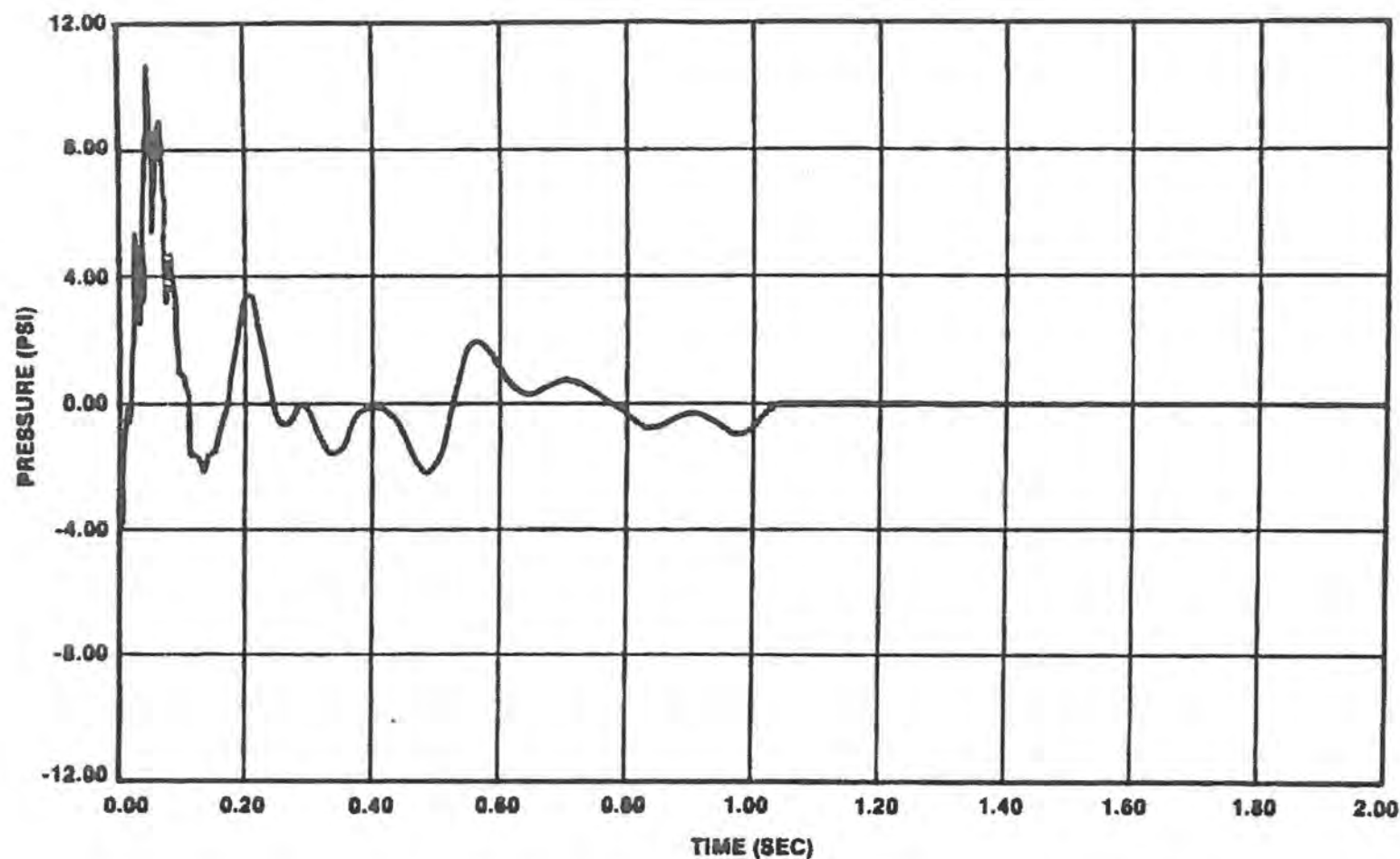


FIGURE 6A.4-17

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE804-SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

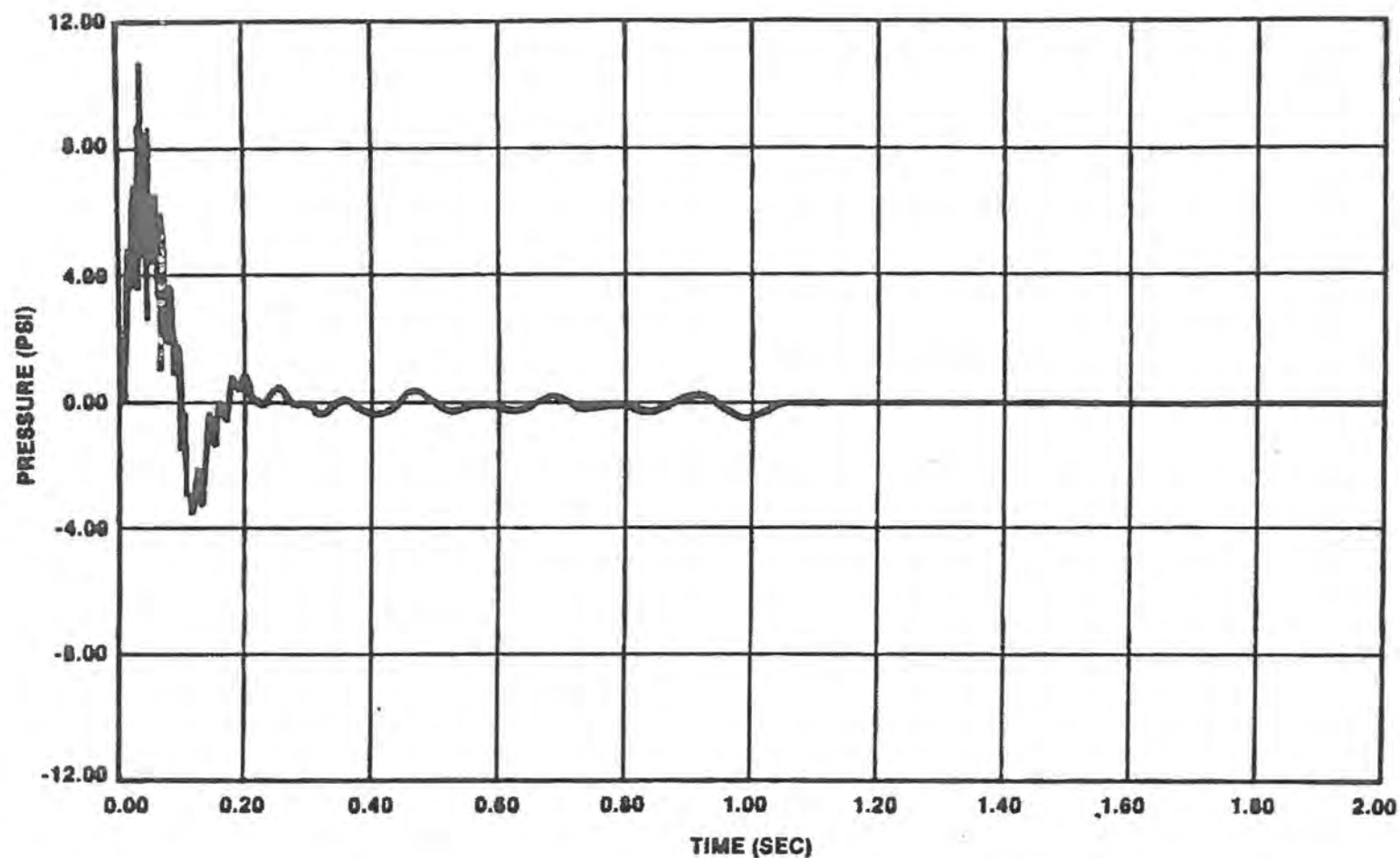


FIGURE 6A.4-18

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE005-SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

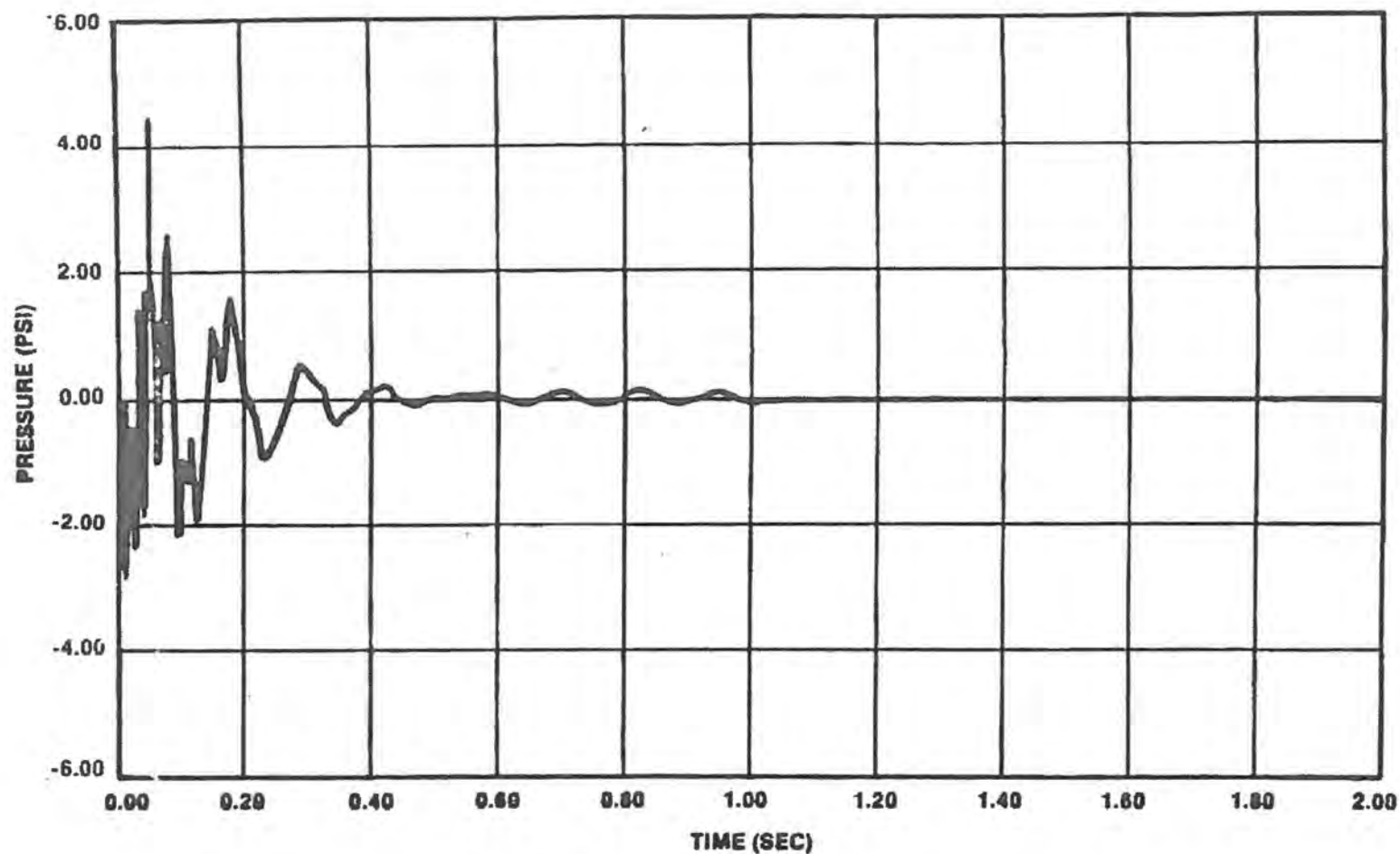
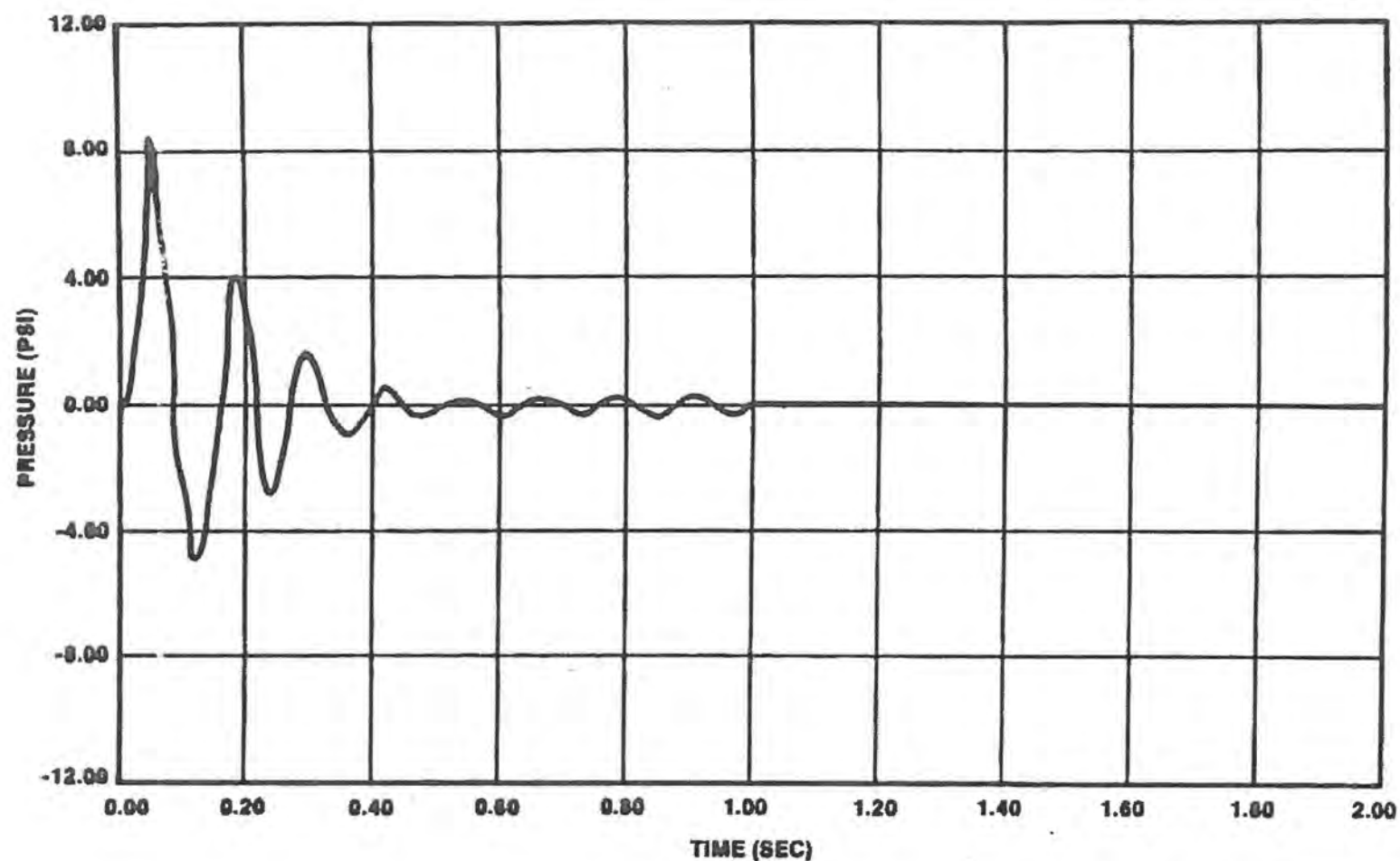


FIGURE 6A.4-19

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE806-SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

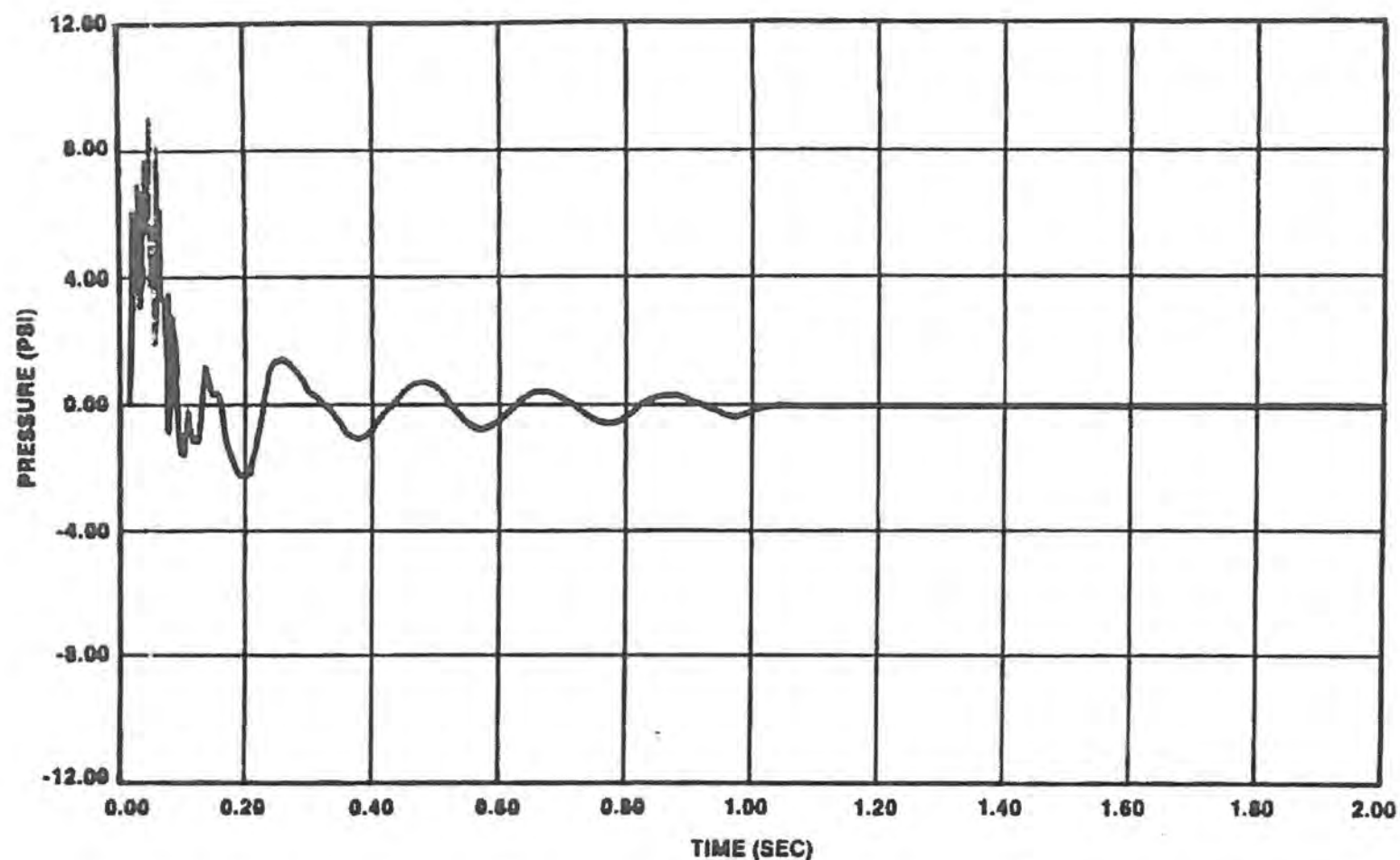


MAX PRESS = 8.892 PSI
AT TIME = 0.048 SEC

FIGURE 6A.4-20

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE807-SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

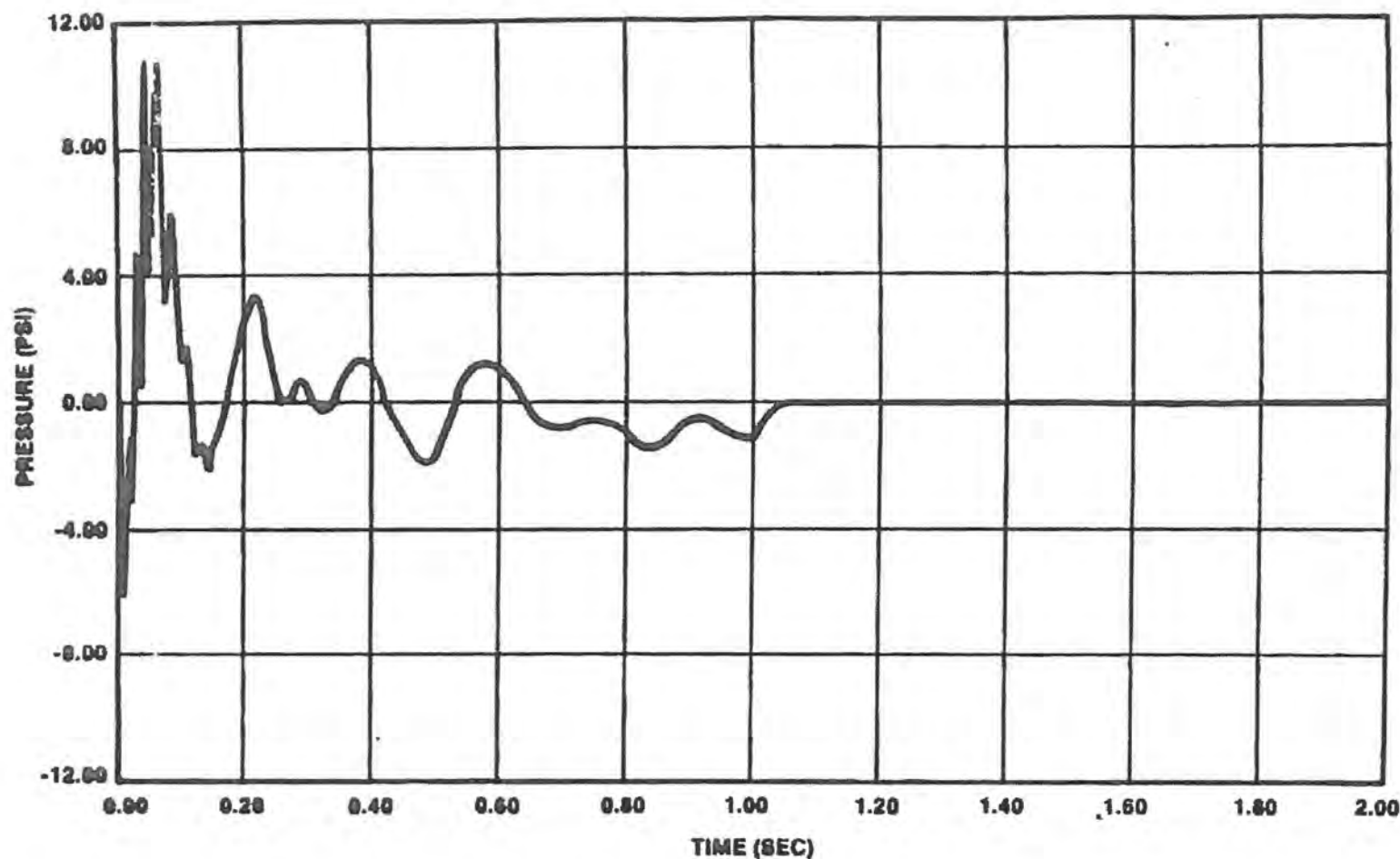


MAX PRESS = 9.621 PSI
AT TIME = SEC

FIGURE 6A.4-21

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE808-SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



MAX PRESS = 10.790 PSI
AT TIME = 0.048 SEC

FIGURE 6A.4-22

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE809-SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

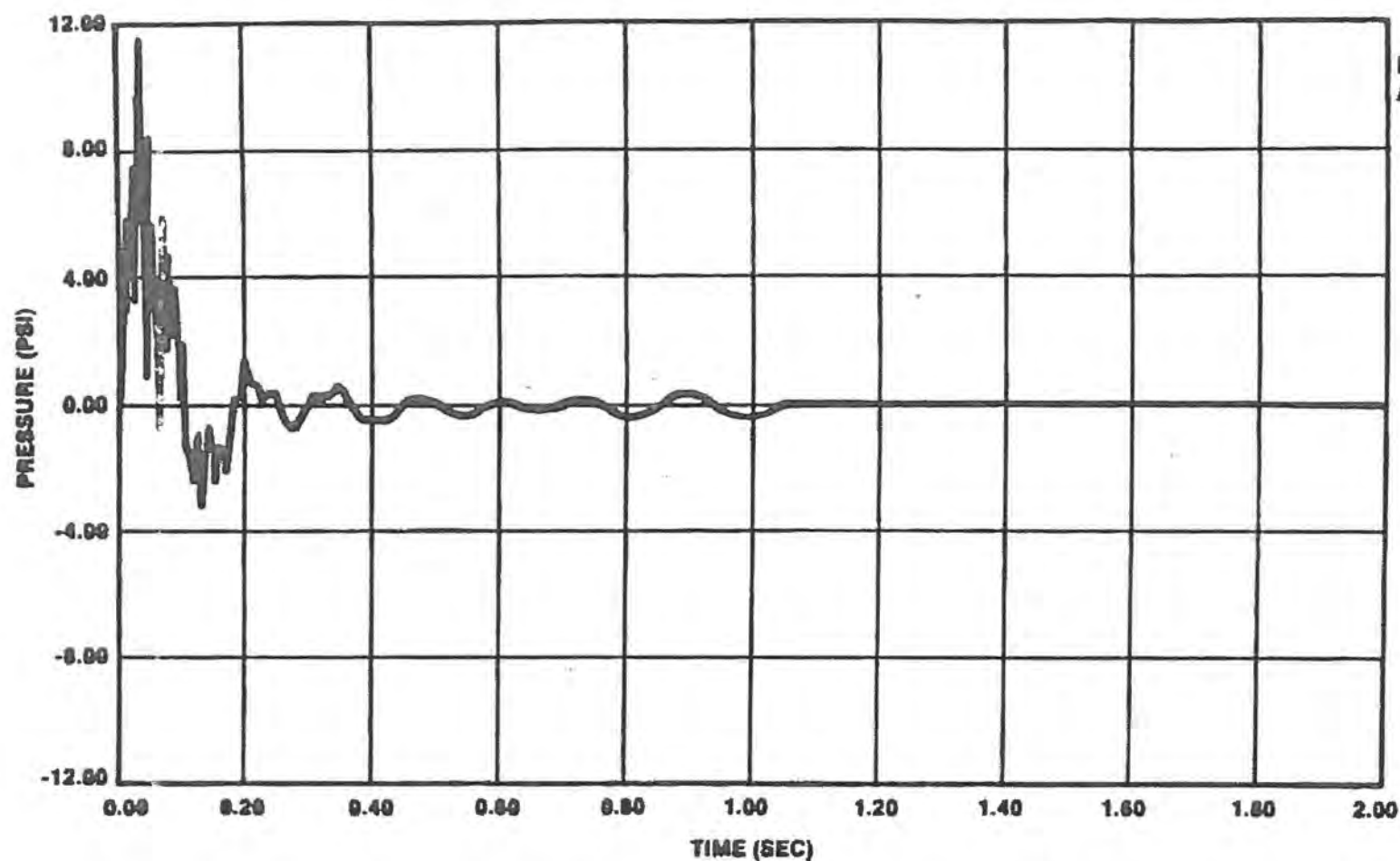


FIGURE 6A.4-23

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE810-SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

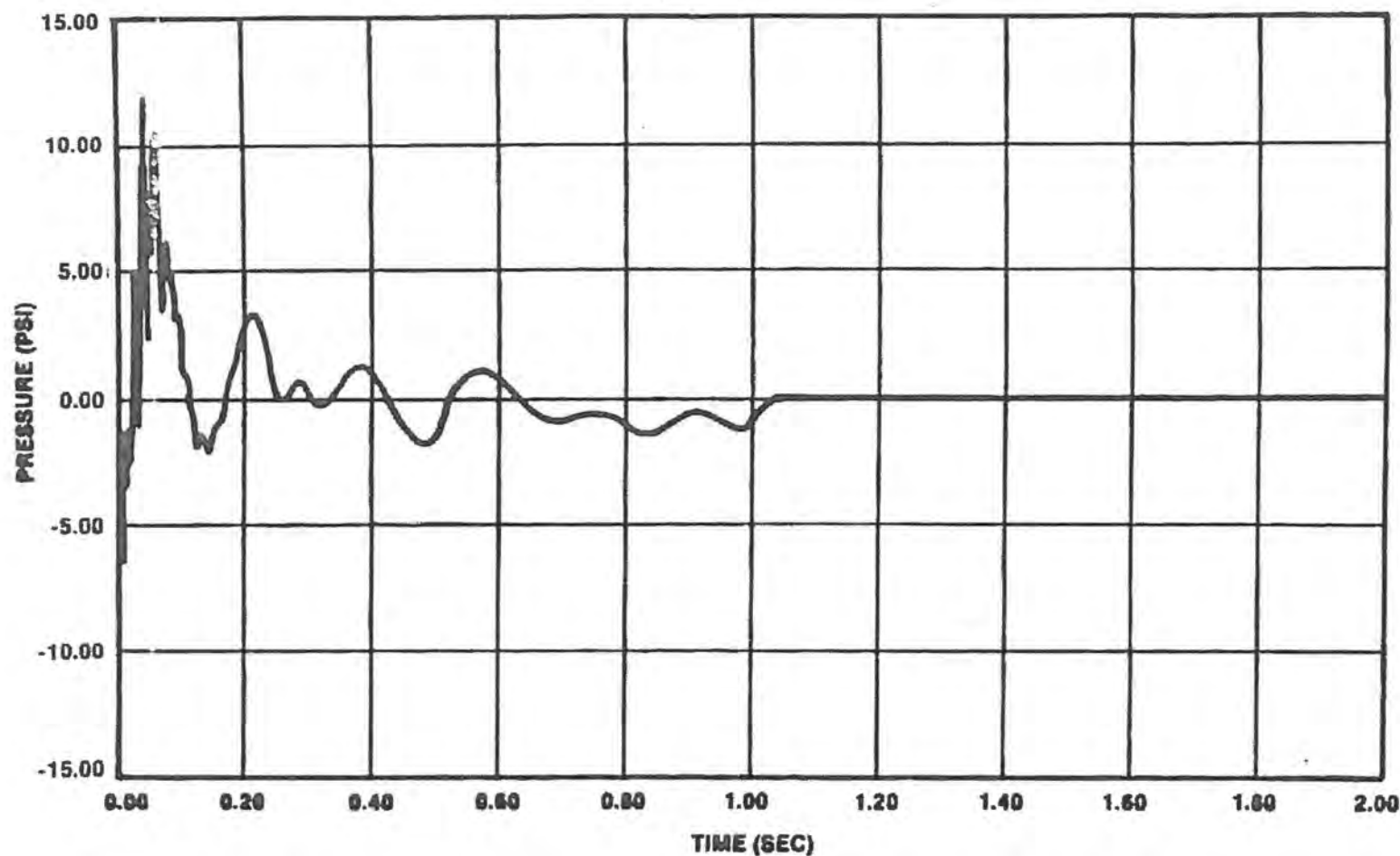


FIGURE 6A.4-24

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE811-SYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

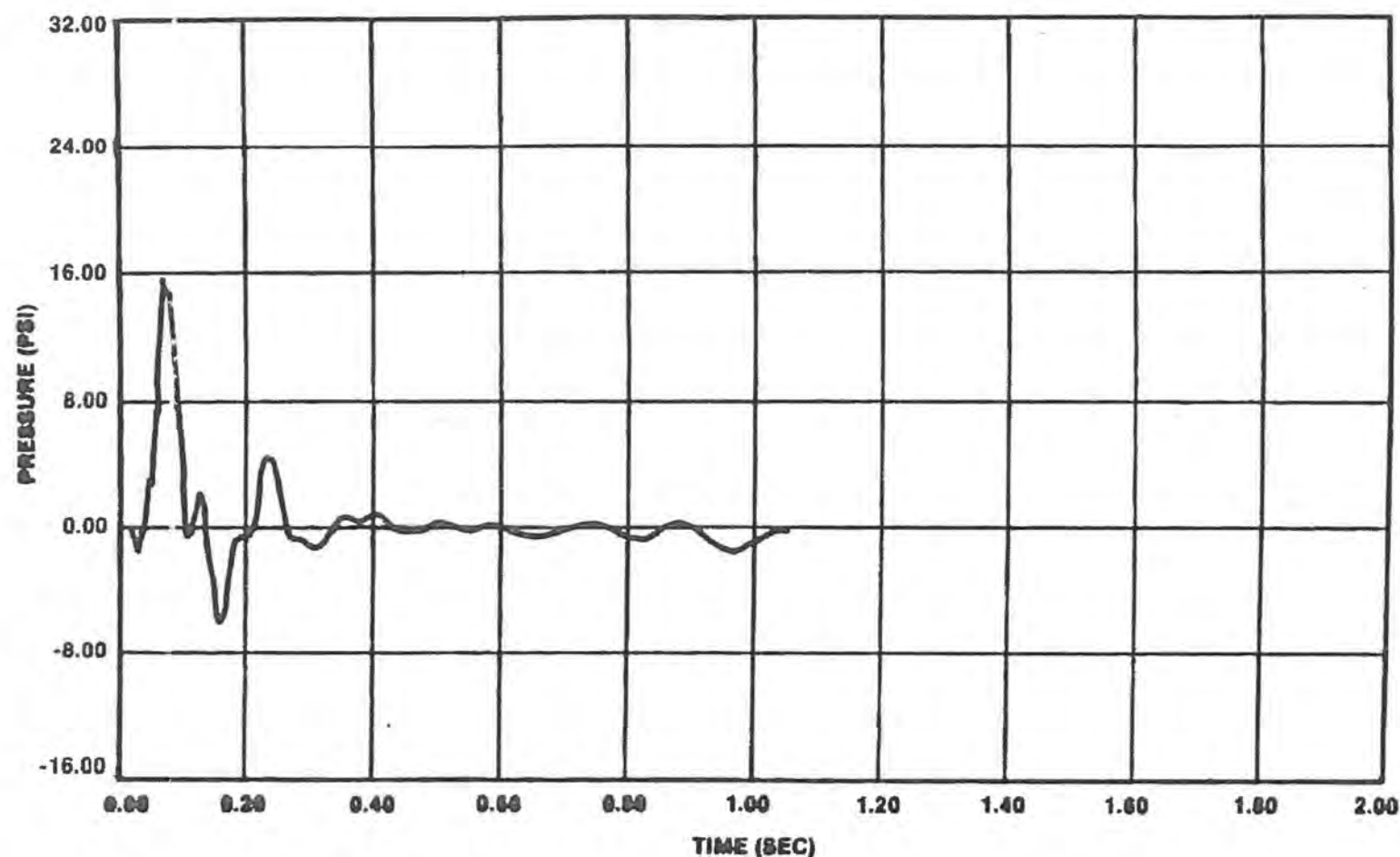
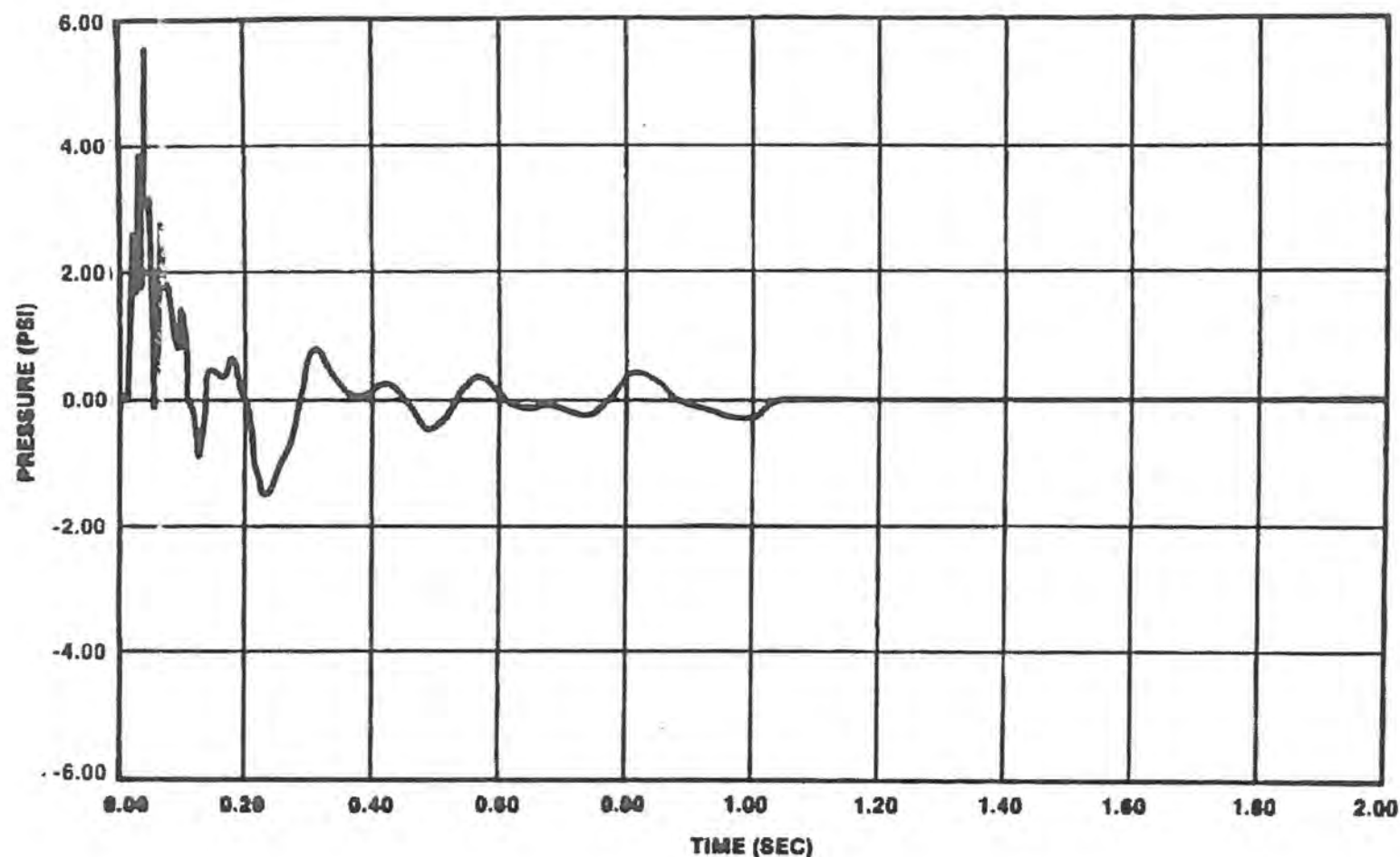


FIGURE 6A.4-25

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE801-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



MAX PRESS = 5.586 PSI
AT TIME = 0.036 SEC

FIGURE 6A.4-26

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE802-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

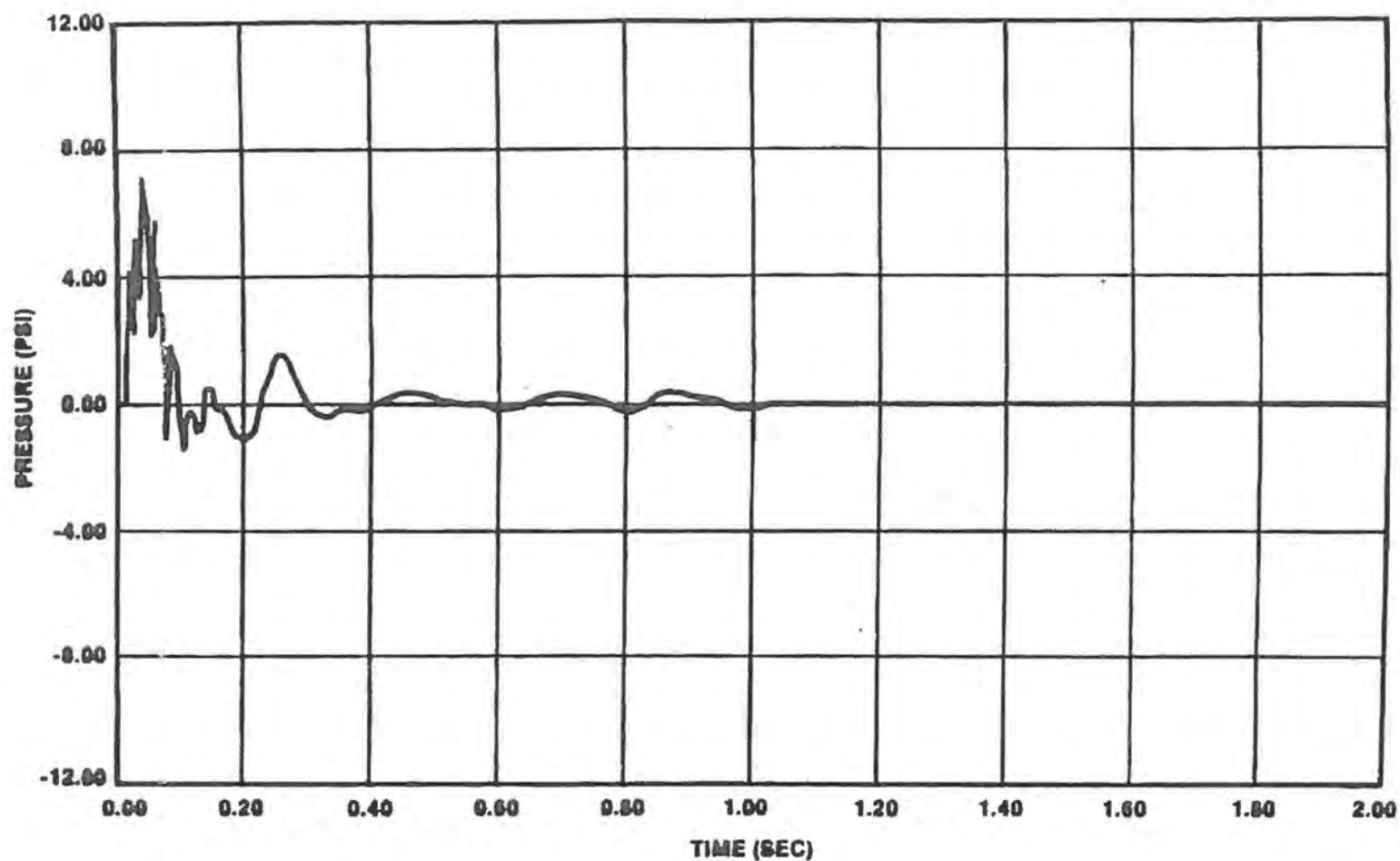
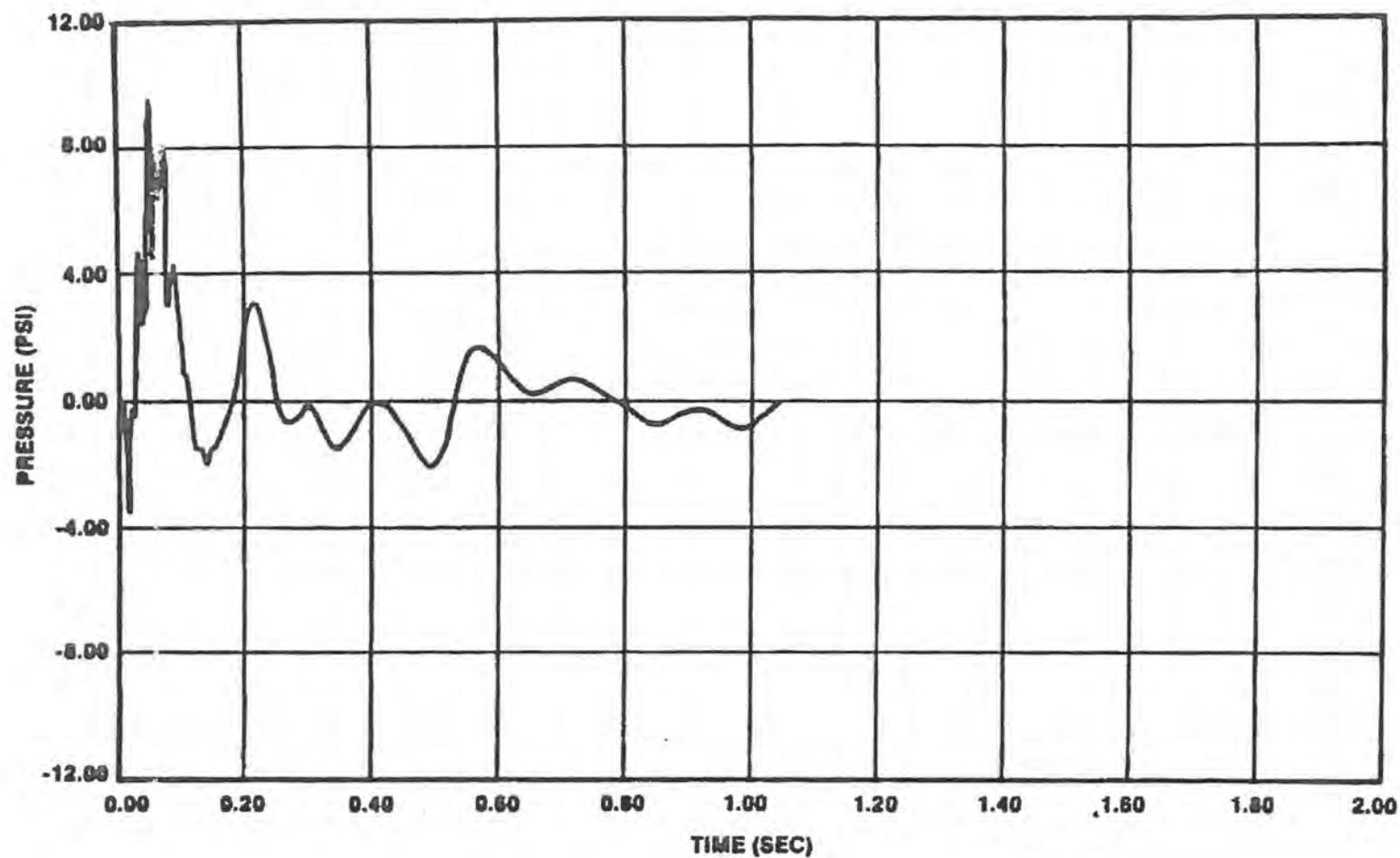


FIGURE 6A.4-27

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE803-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



MAX PRESS = 9.489 PSI
AT TIME = 0.046 SEC

FIGURE 6A.4-28

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE804-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

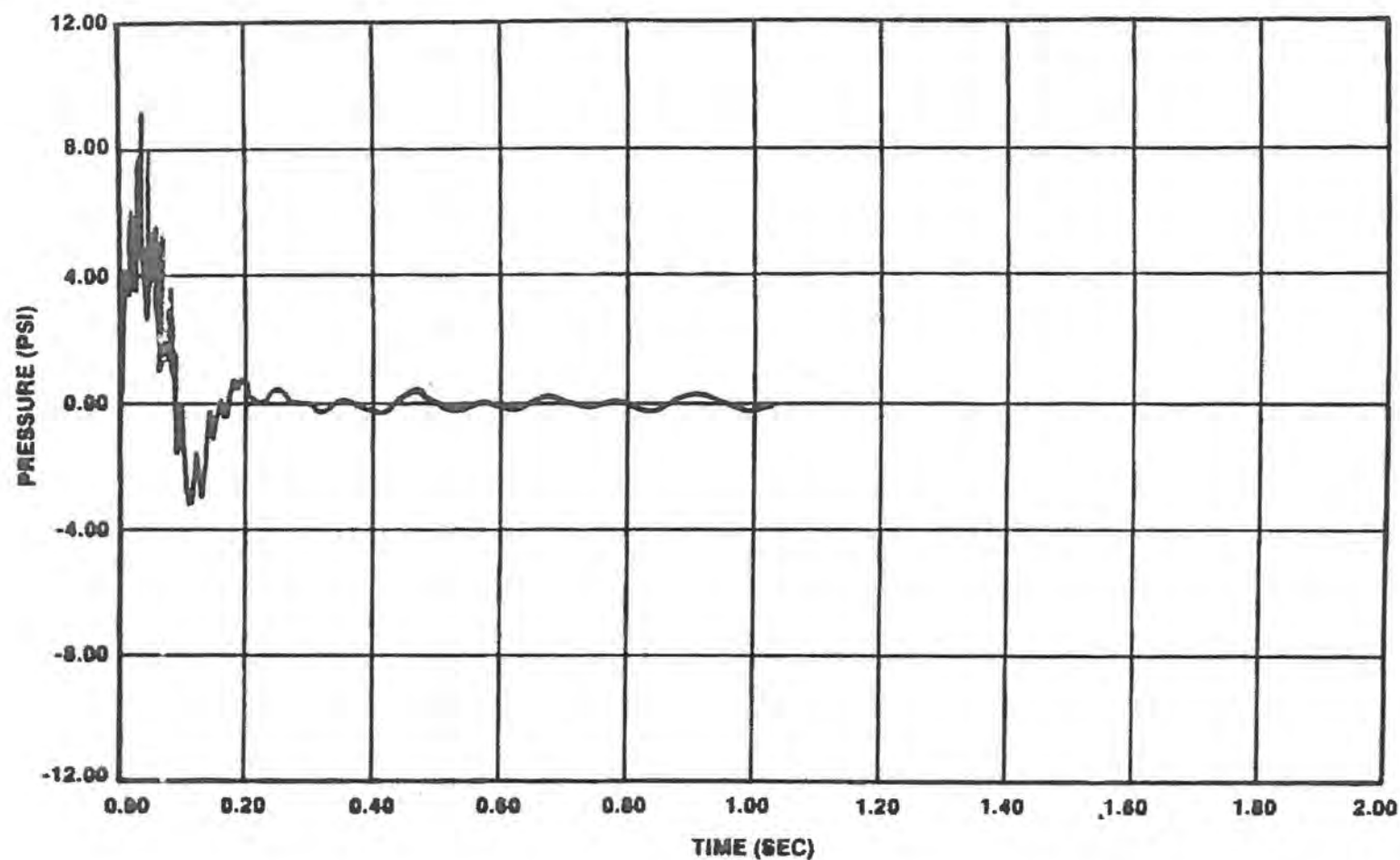


FIGURE 6A.4-29

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GEB05-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

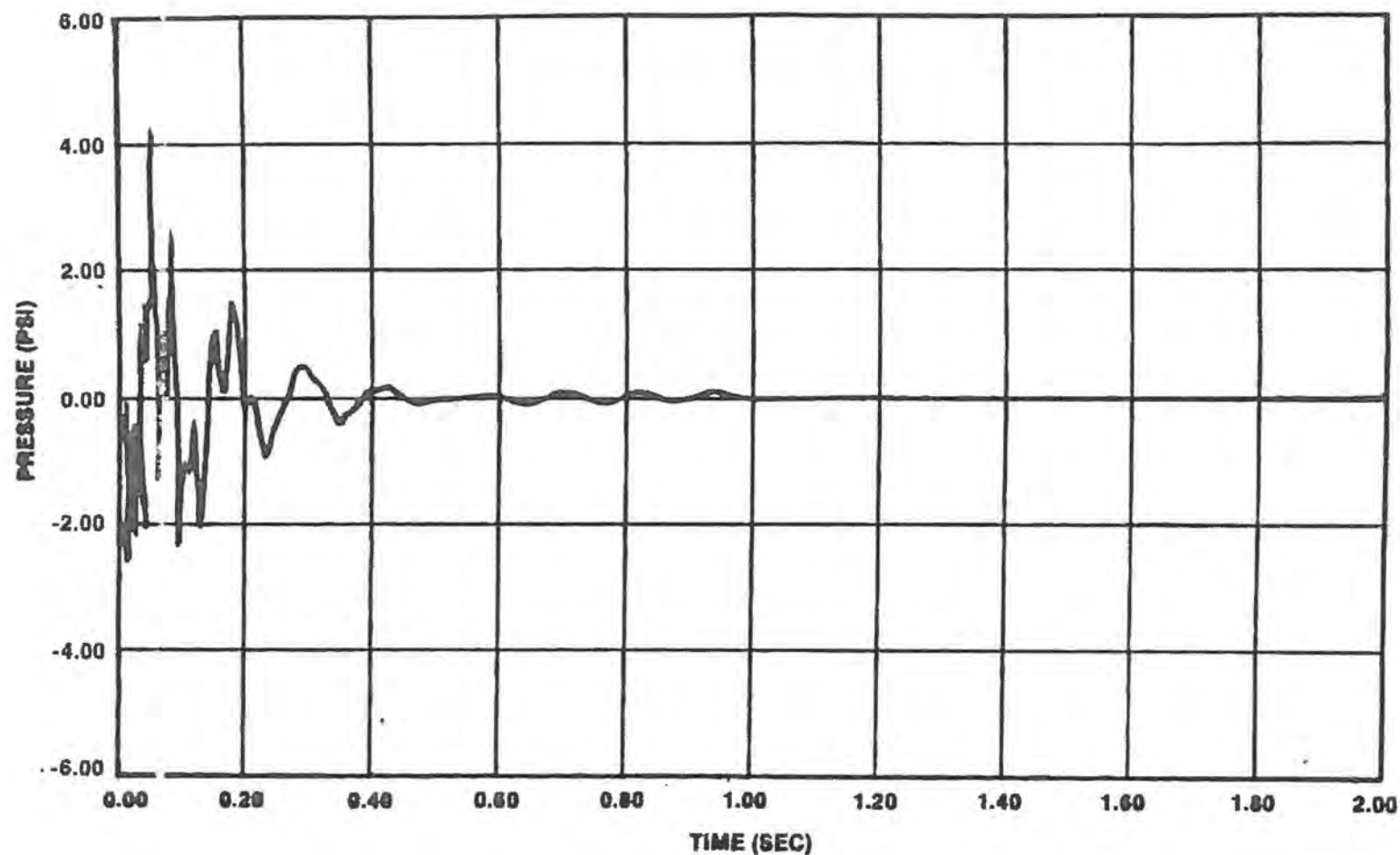
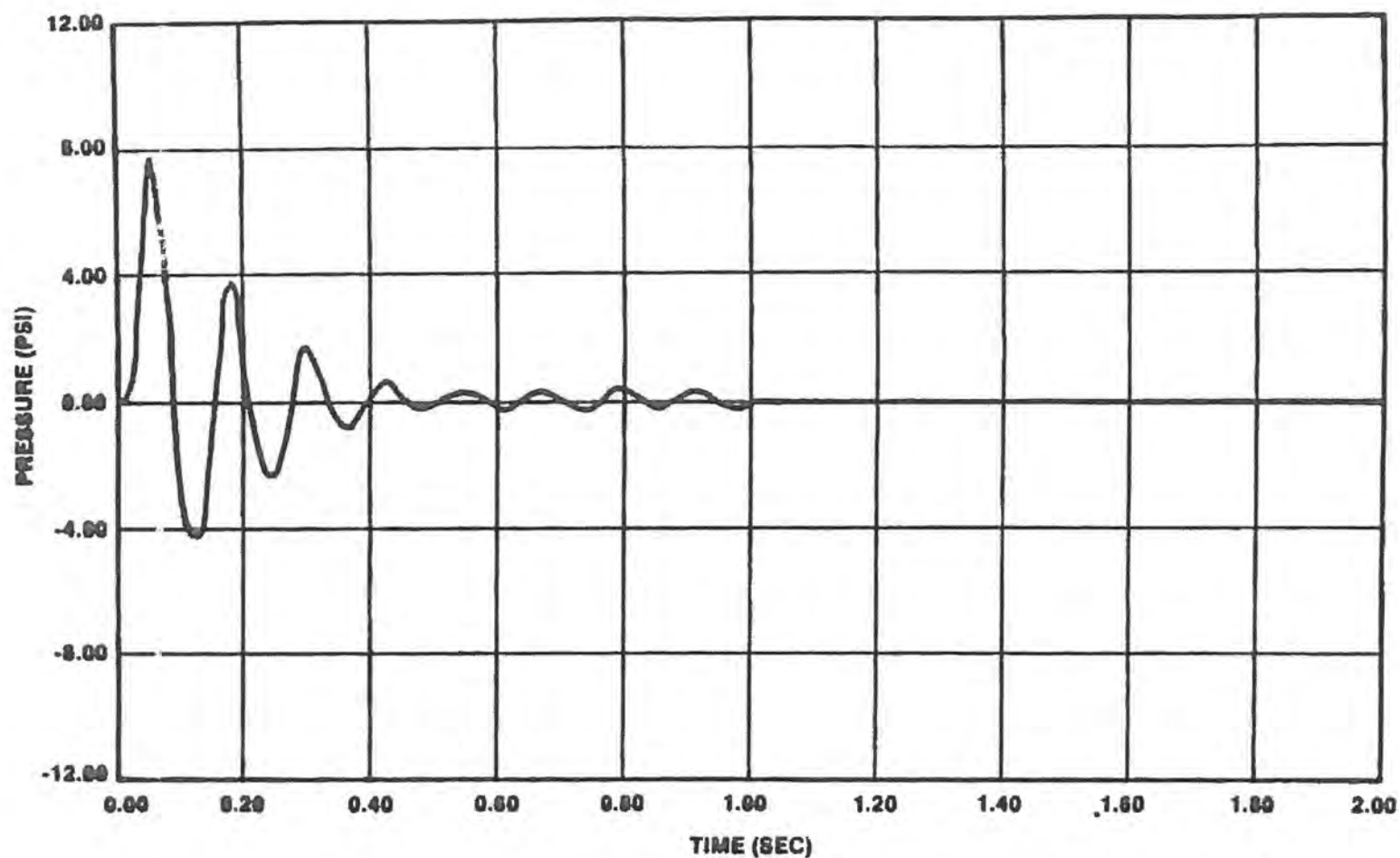


FIGURE 6A.4-30

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE806-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



MAX PRESS = 7.950 PSI
AT TIME = 0.048 SEC

FIGURE 6A.4-31

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE807-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

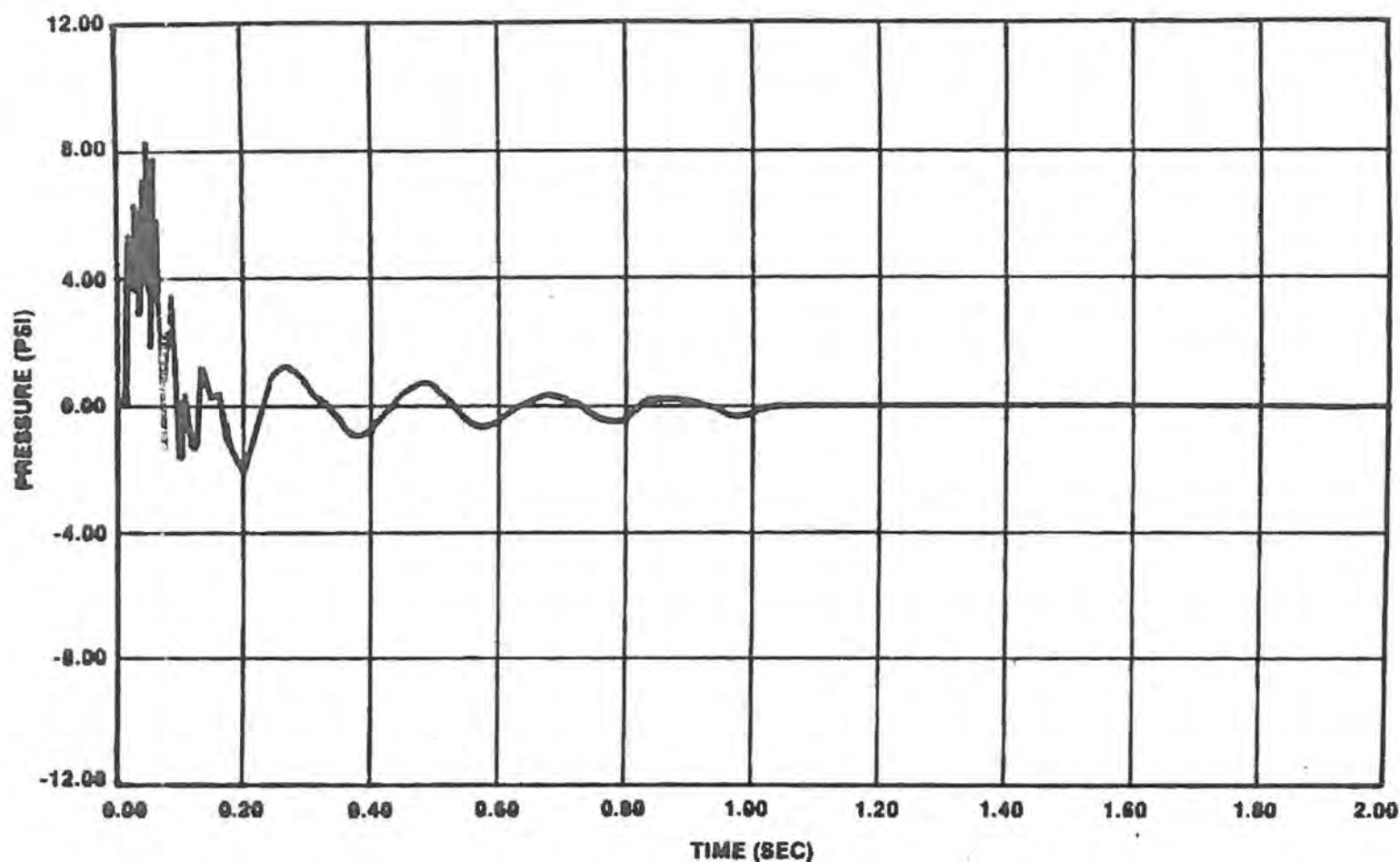


FIGURE 6A.4-32

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE008-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

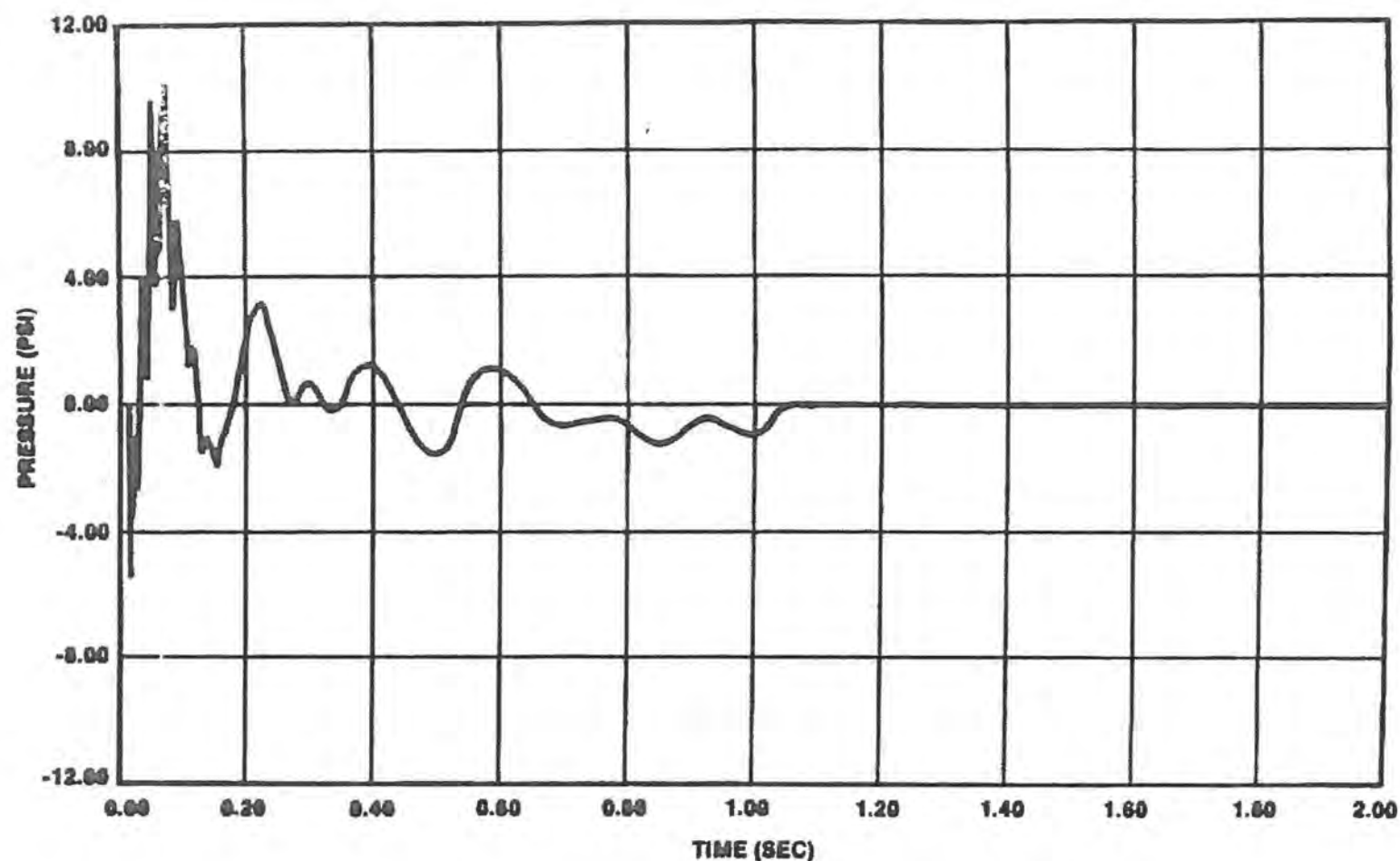
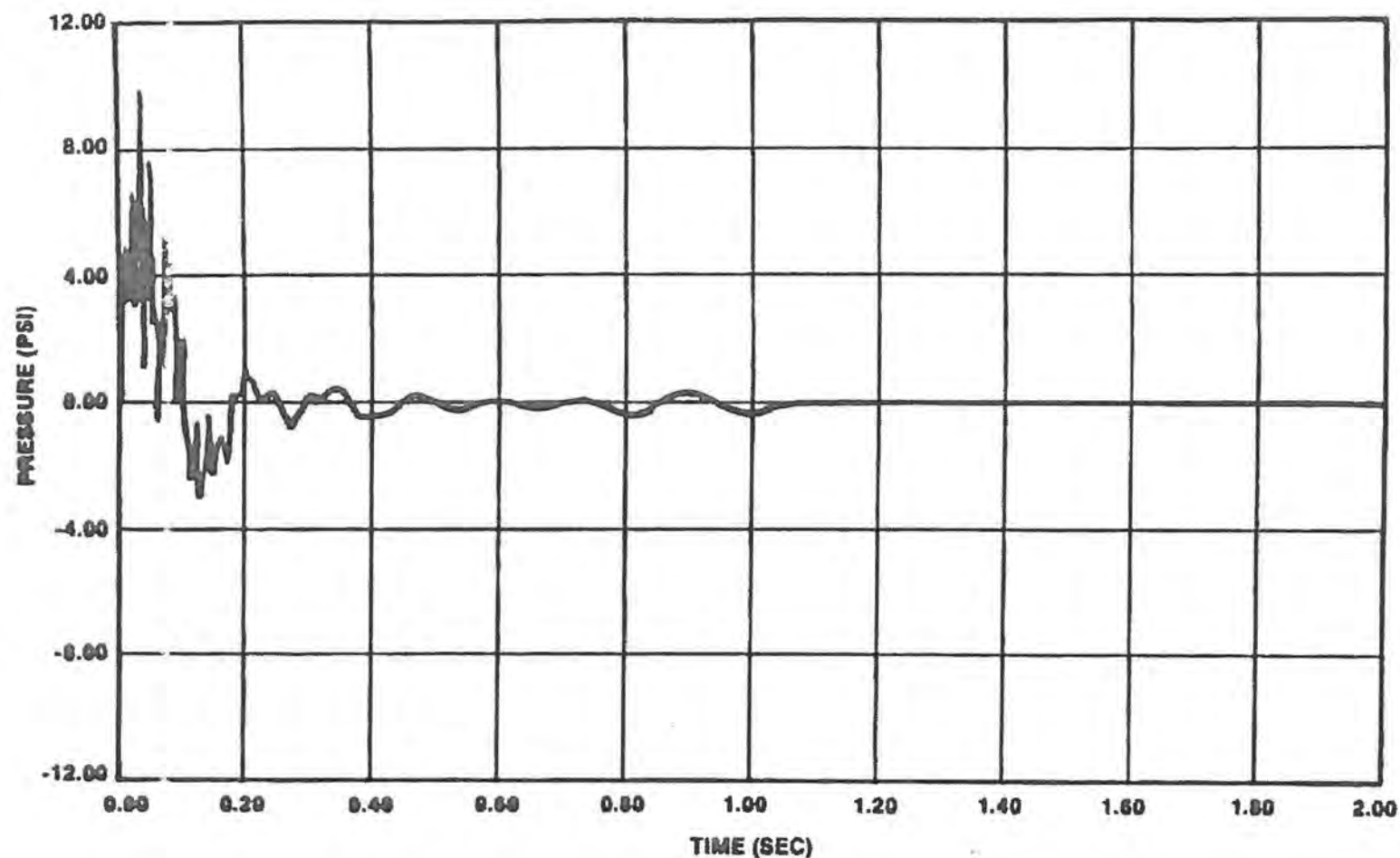


FIGURE 6A.4-33

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE809-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



MAX PRESS = 9.916 PSI
AT TIME = 0.036 SEC

FIGURE 6A.4-34

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GE810-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

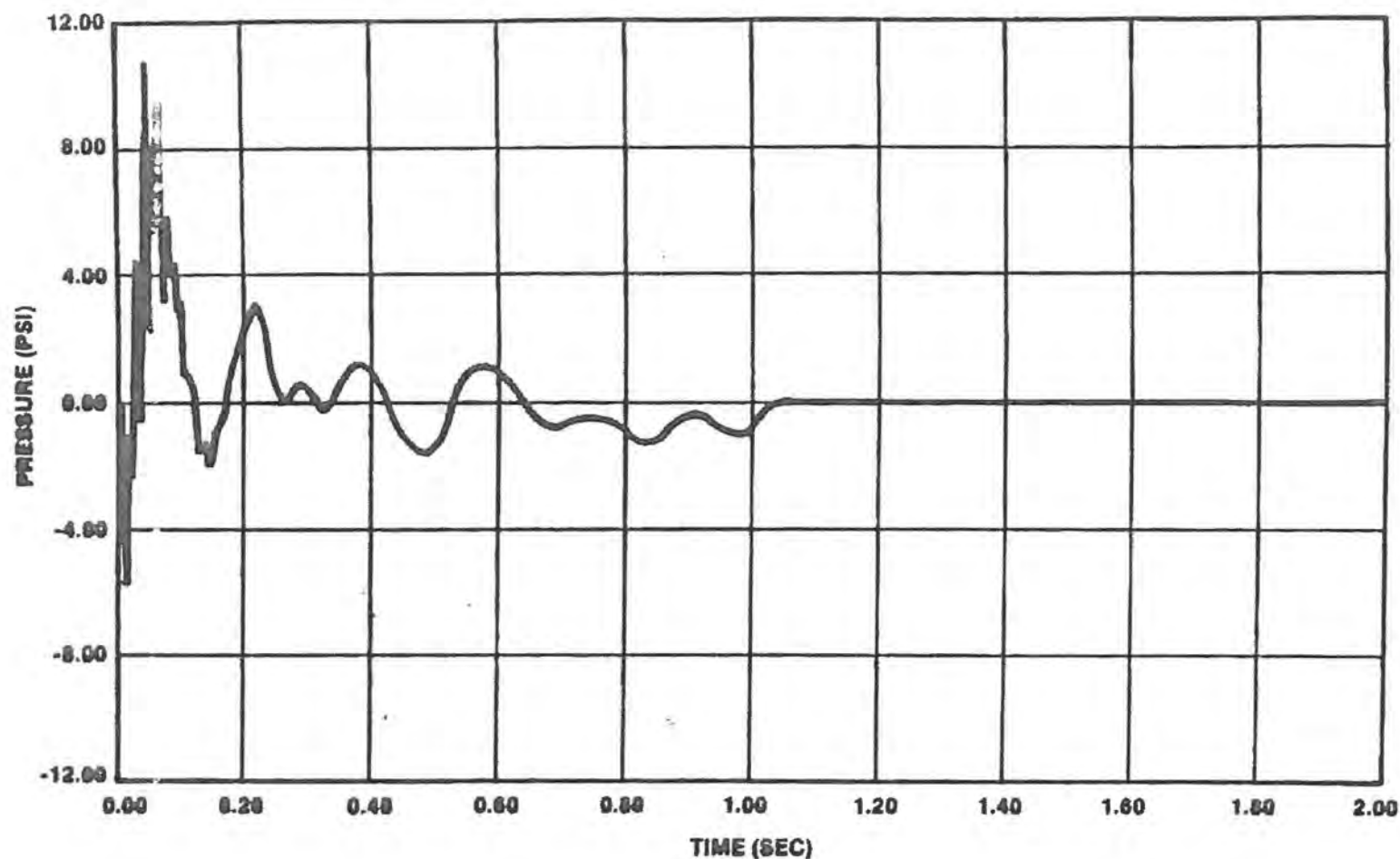
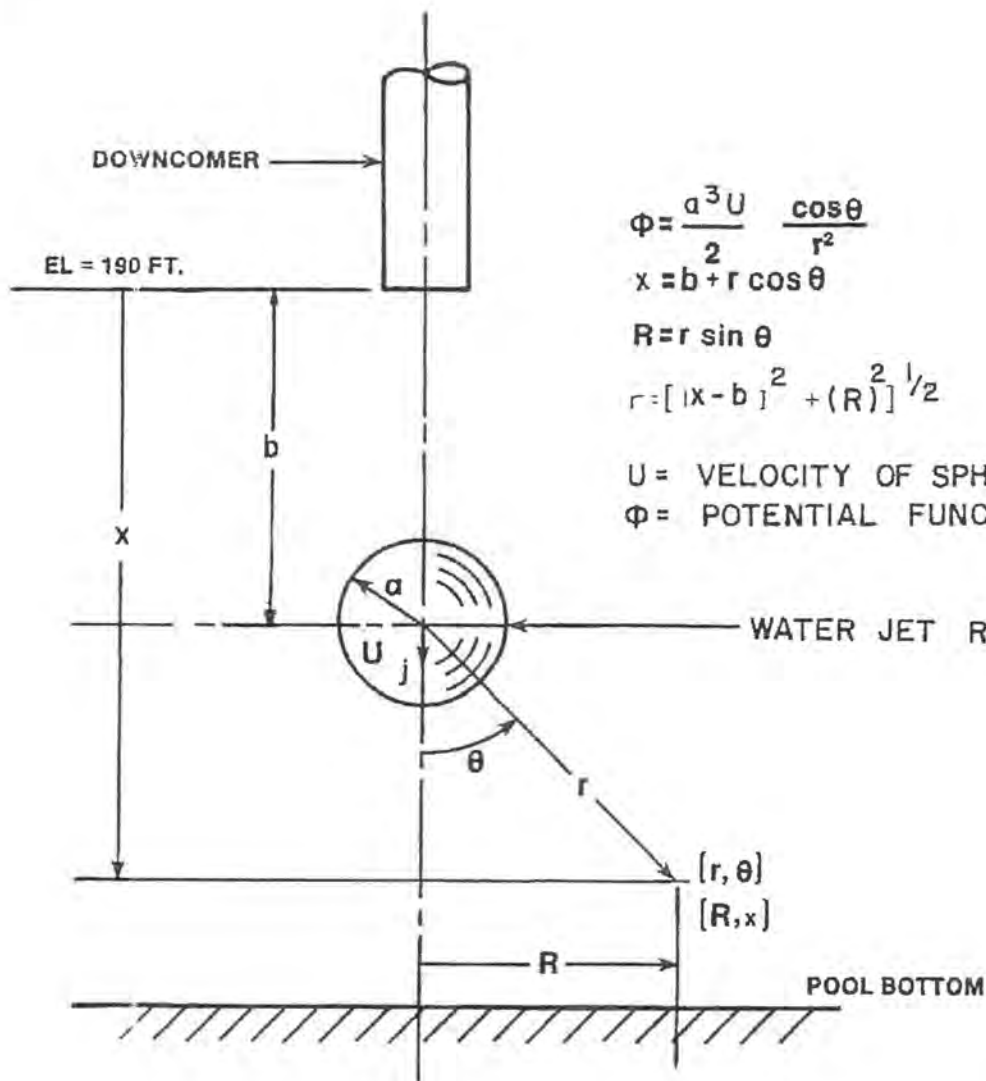


FIGURE 6A.4-35

UNIT 2 CHUGGING WALL PRESSURE TIME
HISTORY AT THE JUNCTION OF BASEMAT AND
PEDESTAL WALL AND 9 DEGREE AZIMUTH
GEB11-ASYMMETRIC LOAD CASE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



$$\phi = \frac{a^3 U}{2} \frac{\cos \theta}{r^2}$$

$$x = b + r \cos \theta$$

$$R = r \sin \theta$$

$$r = [(x - b)^2 + (R)^2]^{1/2}$$

U = VELOCITY OF SPHERE, FT./SEC

φ = POTENTIAL FUNCTION, FT.² / SEC

WATER JET REPRESENTED BY A SPHERE

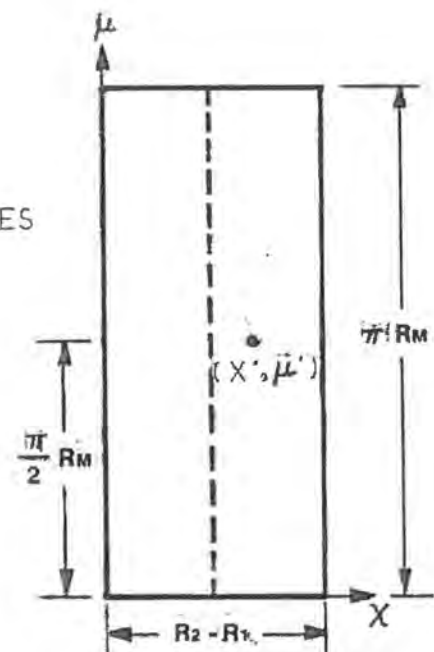
FIGURE 6A.4-36

DOWNCOMER WATER JET
MODEL

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



NOTE: THE OUTER (OR ANNULAR) POOL IS APPROXIMATED BY UNWRAPPING ONE-HALF OF THE ANNULAR POOL AND TRANSFORMING IT INTO A RECTANGULAR BOX.



NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

DRAWING ANGLE

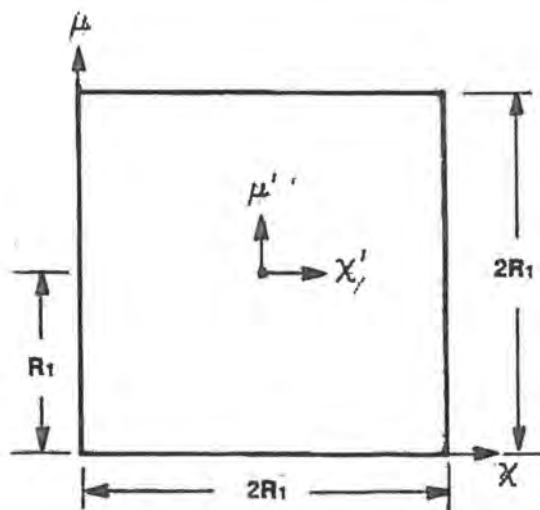
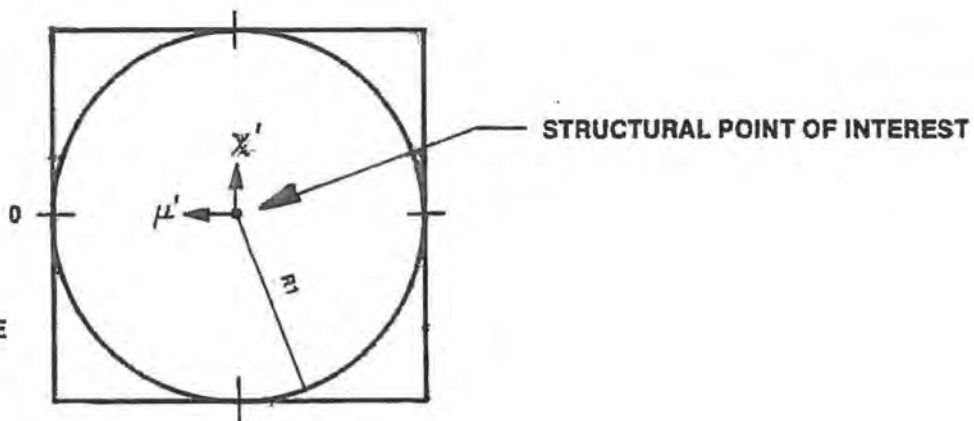
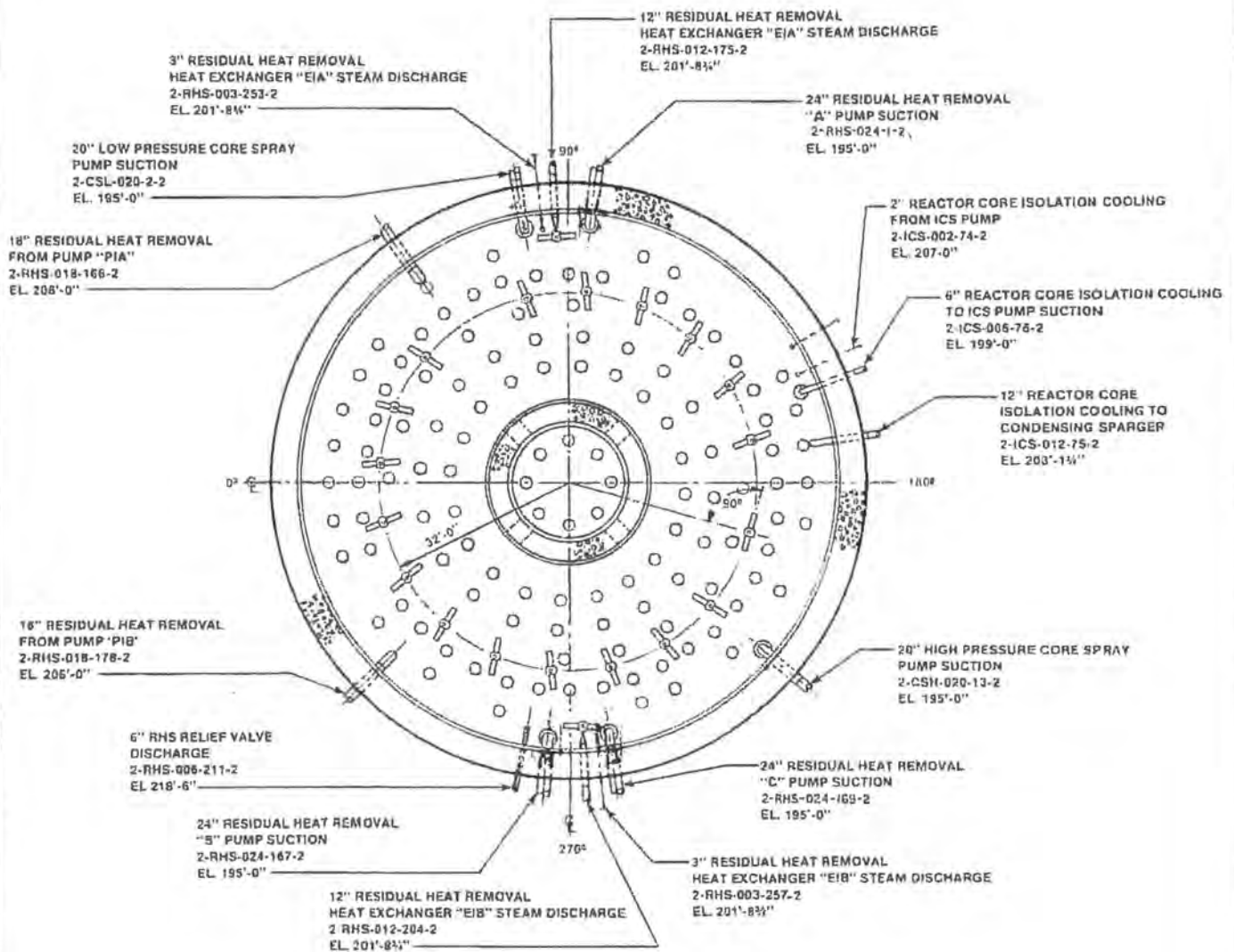


FIGURE 6A.4-38

RECTANGULAR BOX APPROXIMATION
FOR INNER POOL

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



NORMAL POOL LEVEL	EL. 200'
RHS DISCHARGE	EL. 198'
RHS SUCTION (TOP)	EL. 189'-8"
CSH SUCTION (TOP)	EL. 189'-8"
CSL SUCTION (TOP)	EL. 188'-2"
POOL BOTTOM	EL. 170'

SOURCE: EM-002A REV. 20

FIGURE 6A.4-39

SUPPRESSION POOL PIPING SUMMARY
COMPOSITE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

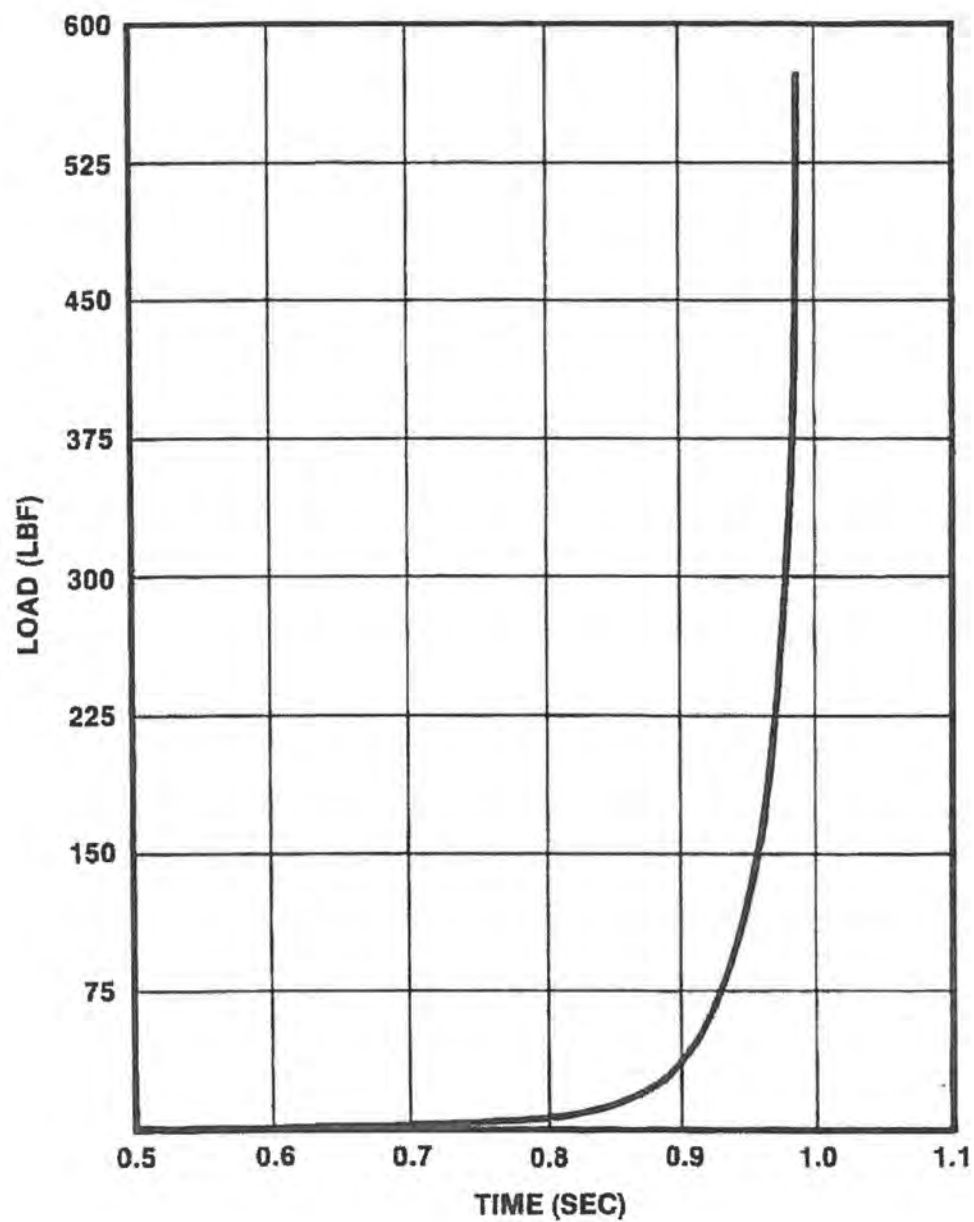


FIGURE 6A.4-40

WATER JET TIME HISTORY-ONE QUENCHER
ARM SEGMENT IN X-Y PLANE (HORIZONTAL)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

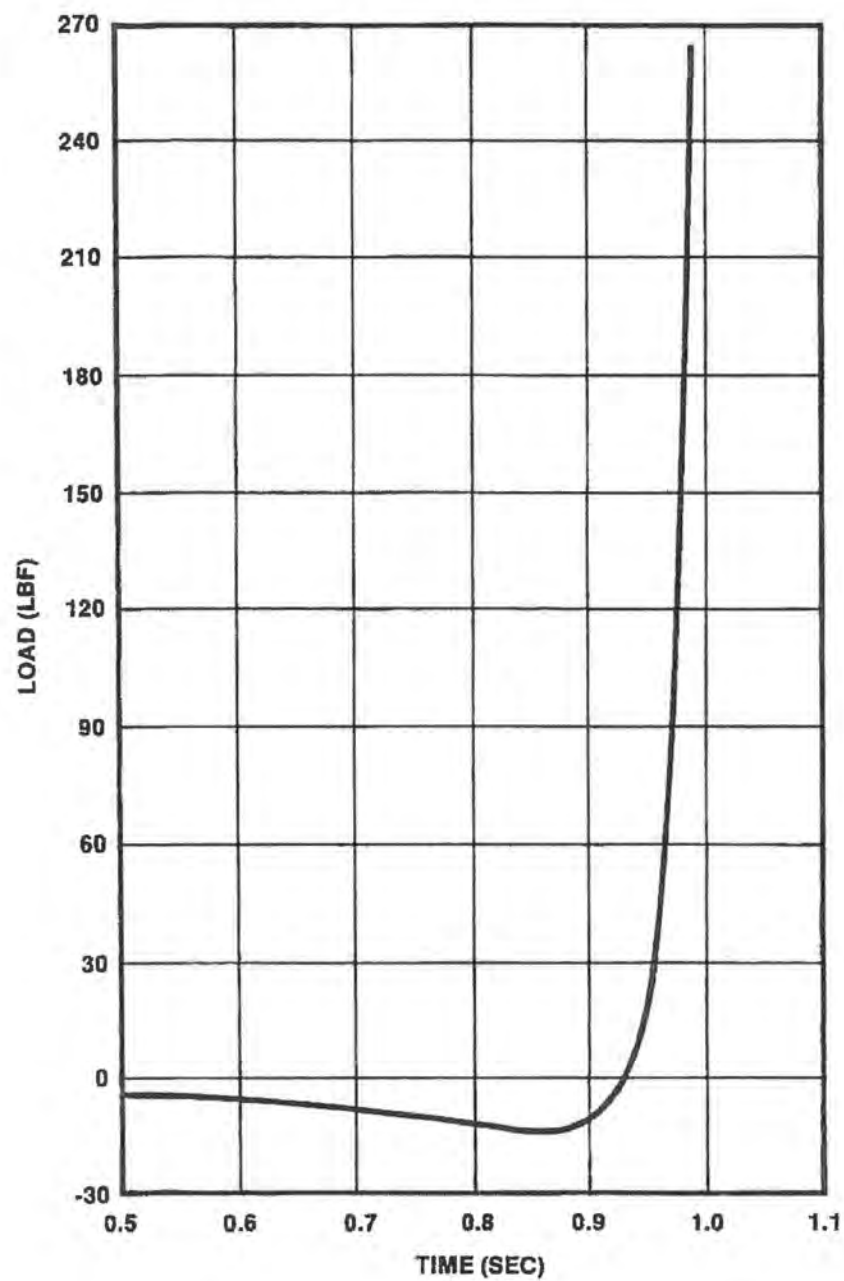


FIGURE 6A.4-41

WATER JET TIME HISTORY-ONE QUENCHER
ARM SEGMENT IN Z PLANE (VERTICAL)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

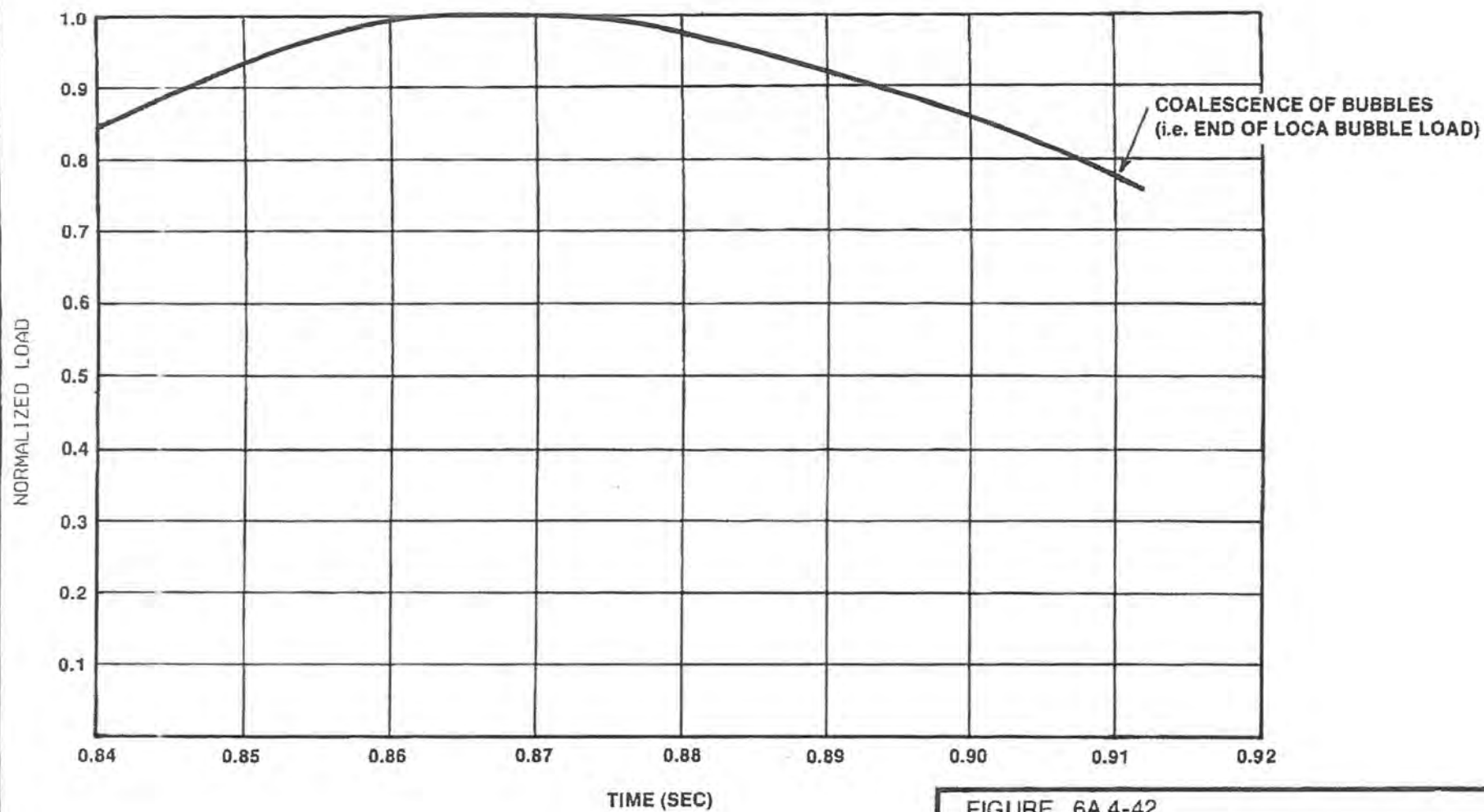


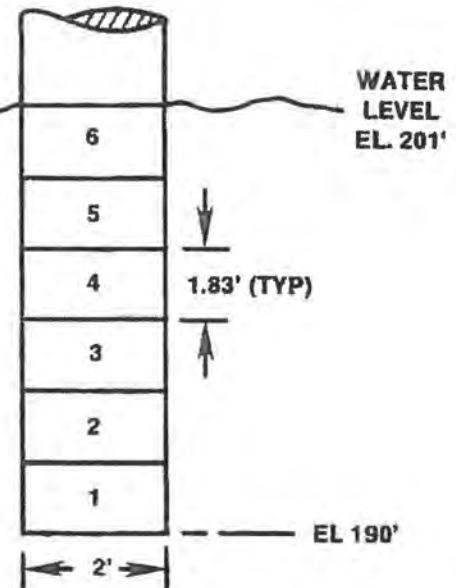
FIGURE 6A.4-42

LOCA AIR BUBBLE NORMALIZED LOAD TIME
HISTORY FOR A DOWNCOMER SEGMENT

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

DRAGS AT TIME = 0.870 SECONDS

SEGMENT NO.	STANDARD DRAG (LBF)			
	X	Y	Z	RESULTANT
1	0.55	-2.23	0.0	2.30
2	0.32	-1.27	0.0	1.31
3	0.16	-0.63	0.0	0.65
4	0.07	-0.28	0.0	0.29
5	0.02	-0.09	0.0	0.09
6	0.00	-0.01	0.0	0.01
TOTAL	1.14	-4.51	0.0	4.65



SEGMENT NO.	ACCELERATION DRAG (LBF)			
	X	Y	Z	RESULTANT
1	132.08	-532.66	0.0	548.79
2	101.34	-400.89	0.0	413.50
3	73.55	-283.21	0.0	292.60
4	50.06	-187.75	0.0	194.31
5	29.17	-107.28	0.0	111.17
6	9.59	-34.90	0.0	36.20
TOTAL	395.80	-1546.69	0.0	1596.58

SEGMENT NO.	TOTAL DRAG (LBF)			
	X	Y	Z	RESULTANT
1	132.64	-534.90	0.0	551.09
2	101.66	-402.16	0.0	414.81
3	73.71	-283.84	0.0	293.26
4	50.13	-188.03	0.0	194.60
5	29.20	-107.37	0.0	111.27
6	9.60	-34.91	0.0	36.21
TOTAL	396.94	-1551.20	0.0	1601.23

POOL BOTTOM
EL 176'

FIGURE 6A.4-43

LOAD DISTRIBUTION ON DOWNCOMER
DUE TO LOCA AIR BUBBLE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

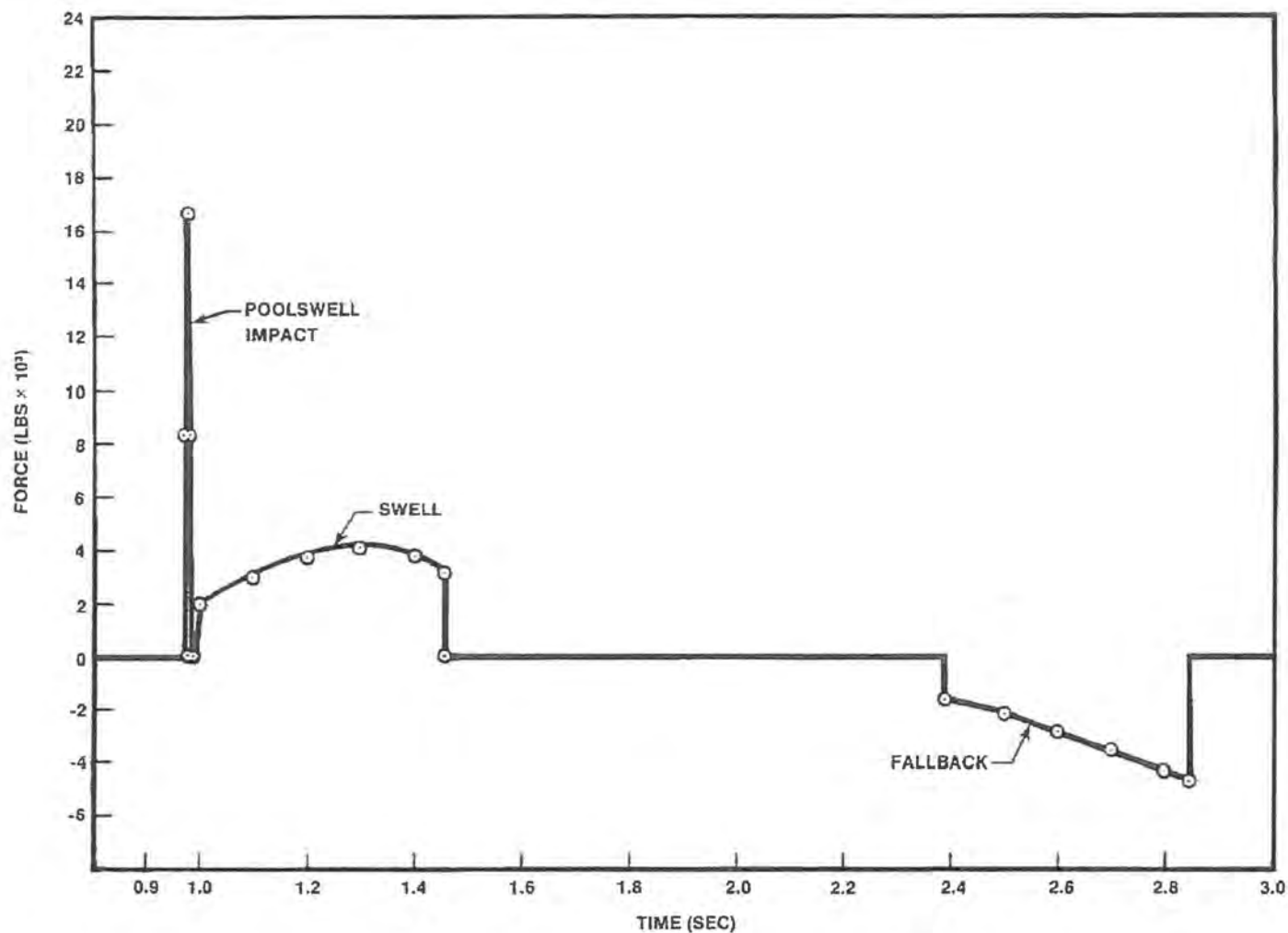


FIGURE 6A.4-44

VERTICAL LOAD ON LINE 2 ICS-012-75-2
DUE TO POOL SWELL AND FALLBACK

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

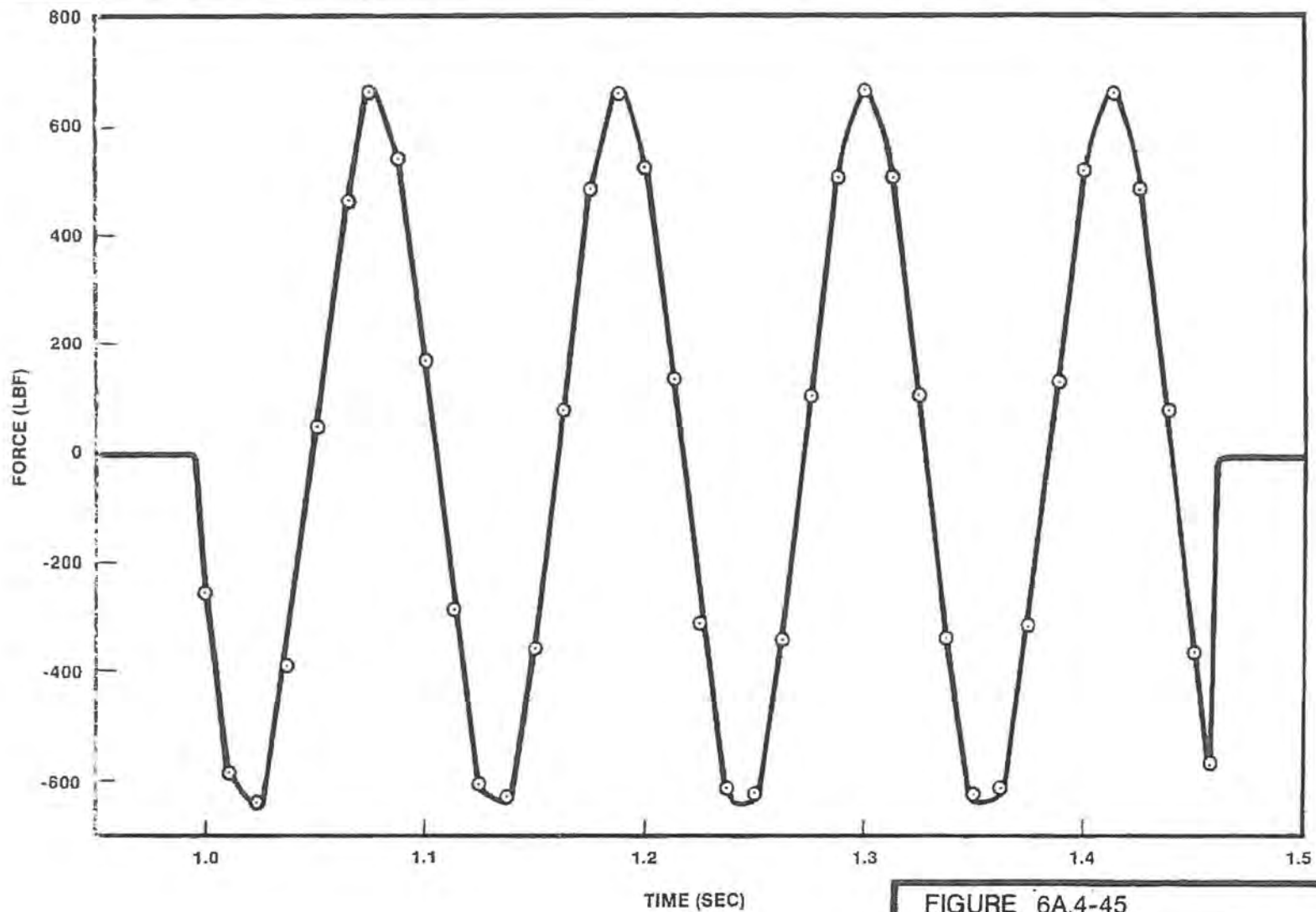


FIGURE 6A.4-45

HORIZONTAL LOAD ON LINE 2 ICS-012-75-2

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

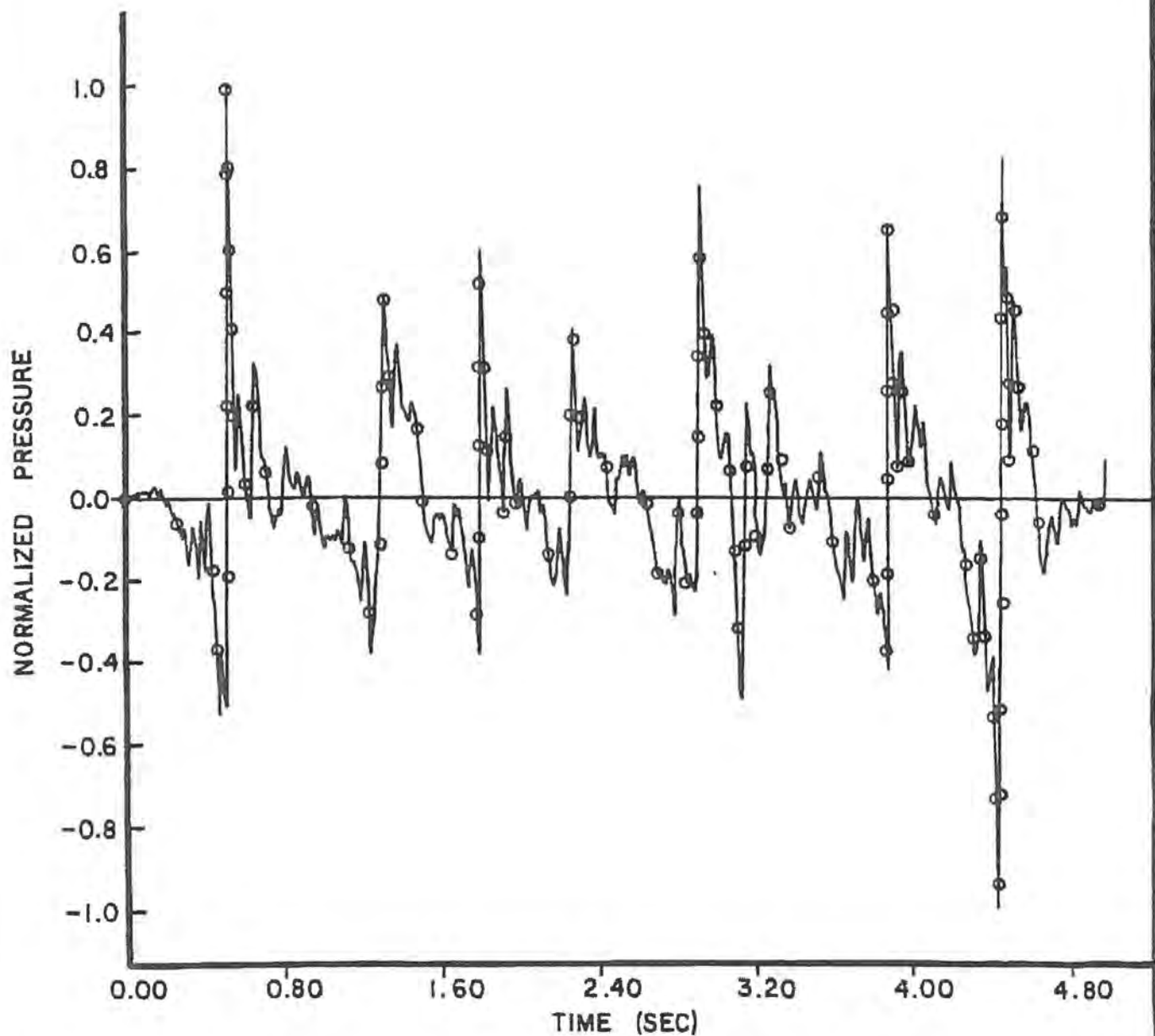
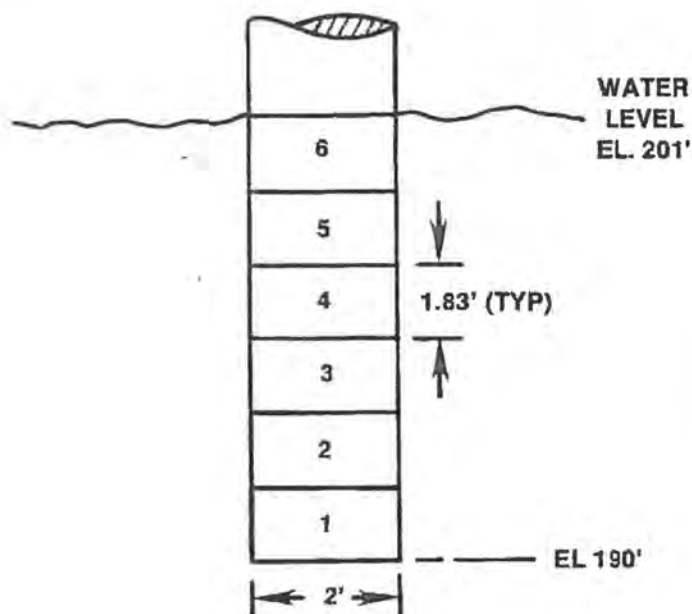


FIGURE 6A.4-46

CO LOAD TIME HISTORY FOR DOWNCOMER 43
(4TCO RUN 12)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



SEGMENT NO.	TOTAL DRAG (LBF)			
	X	Y	Z	RESULTANT
1	392.22	1024.76	0.0	1097.25
2	303.41	774.29	0.0	831.62
3	221.18	550.95	0.0	593.69
4	150.35	367.66	0.0	397.21
5	87.35	211.14	0.0	228.50
6	28.66	68.89	0.0	74.61
TOTAL	1183.17	2997.69	0.0	3222.88

POOL BOTTOM .

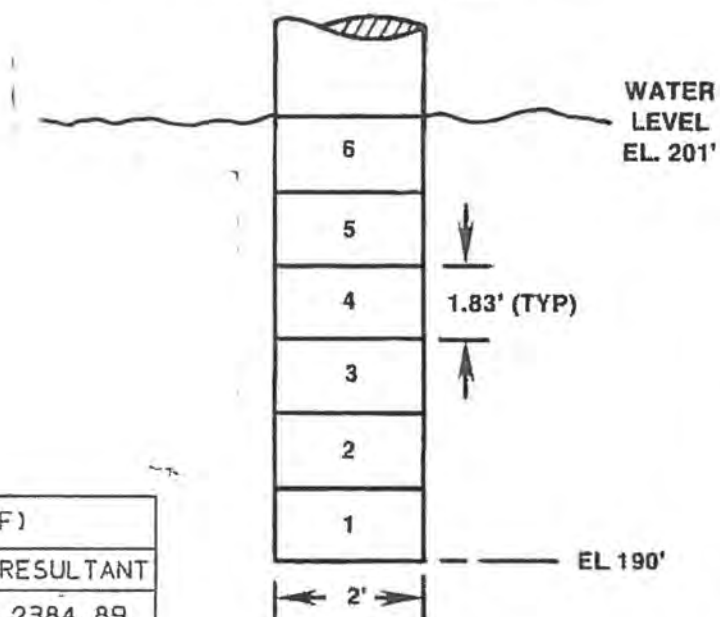
EL 176'

FIGURE 6A.4-47

(PEAK LOAD DISTRIBUTION ON DOWNCOMER)
4TCO RUN12, 17-21 SEC

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

SEGMENT NO.	TOTAL DRAG (LBF)			
	X	Y	Z	RESULTANT
1	1491.19	0.0	-1861.20	2384.89
2	1407.93	0.0	-1487.45	2048.11
3	803.86	0.0	-1064.22	1333.70
4	735.95	0.0	-711.08	1023.35
5	467.93	0.0	-446.23	646.59
6	409.44	0.0	-146.13	182.57
TOTAL	5316.30	0.0	-5716.31	7619.21



POOL BOTTOM
EL 176'

FIGURE 6A.4-48

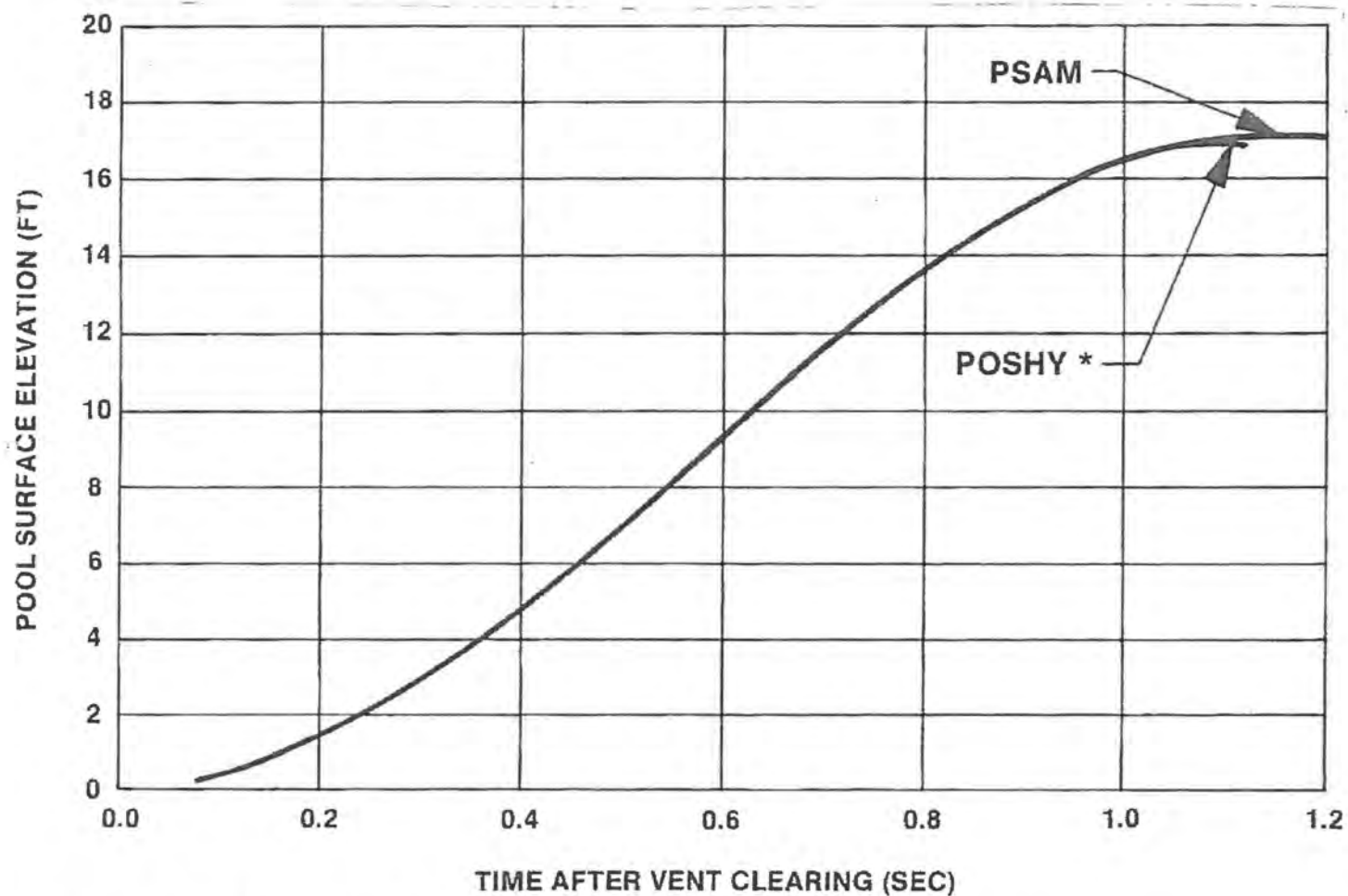
PEAK LOAD FOR CHUGGING
ON DOWNCOMER FOR SOURCE GE801

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

THIS FIGURE
HAS BEEN DELETED

FIGURE 6A.4-49

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

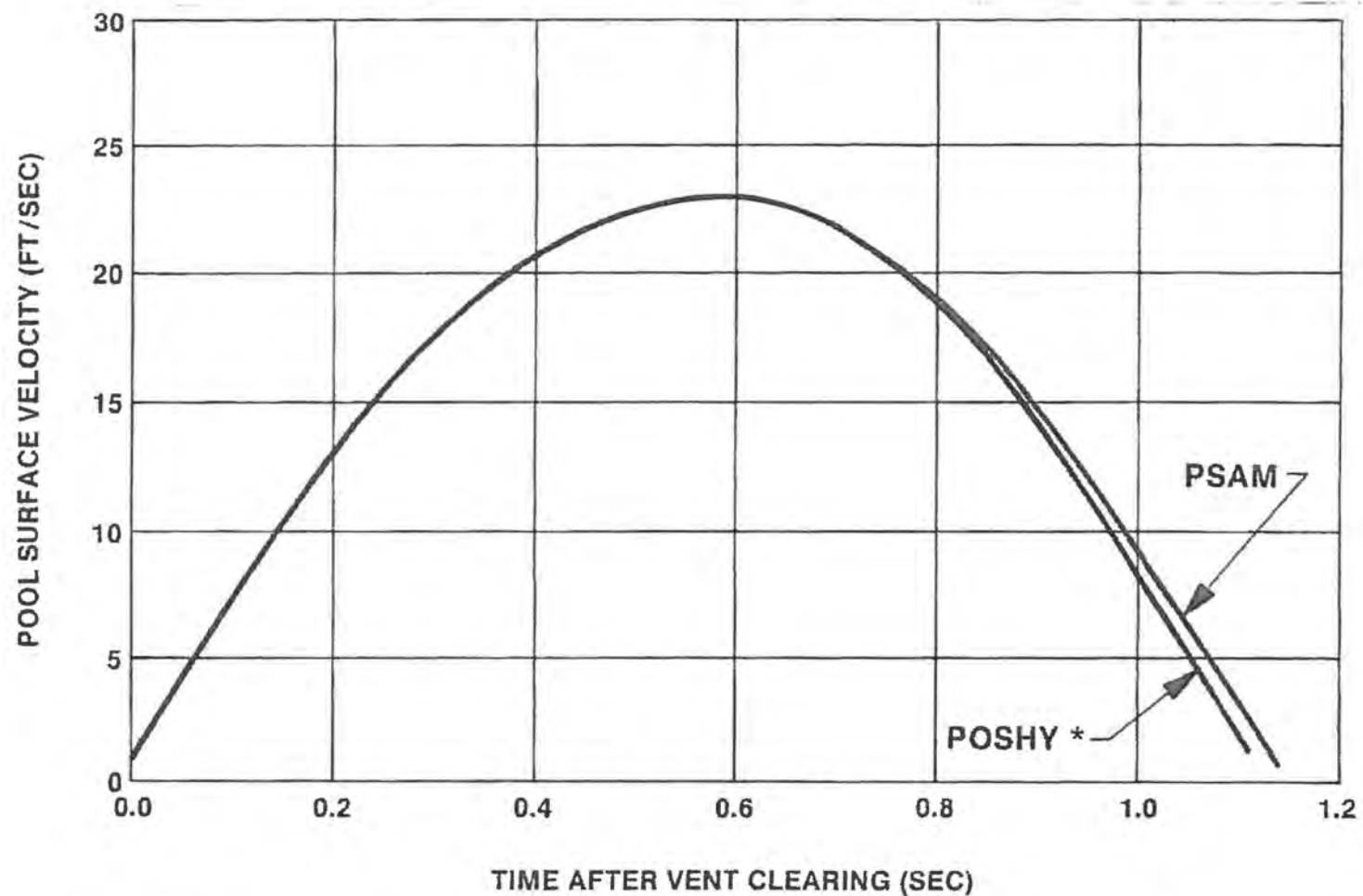


*SWEC EQUIVALENT OF MARK II PSAM

FIGURE 6A.4-50

POOL SURFACE ELEVATION VS TIME
COMPARISON OF POSHY & PSAM

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

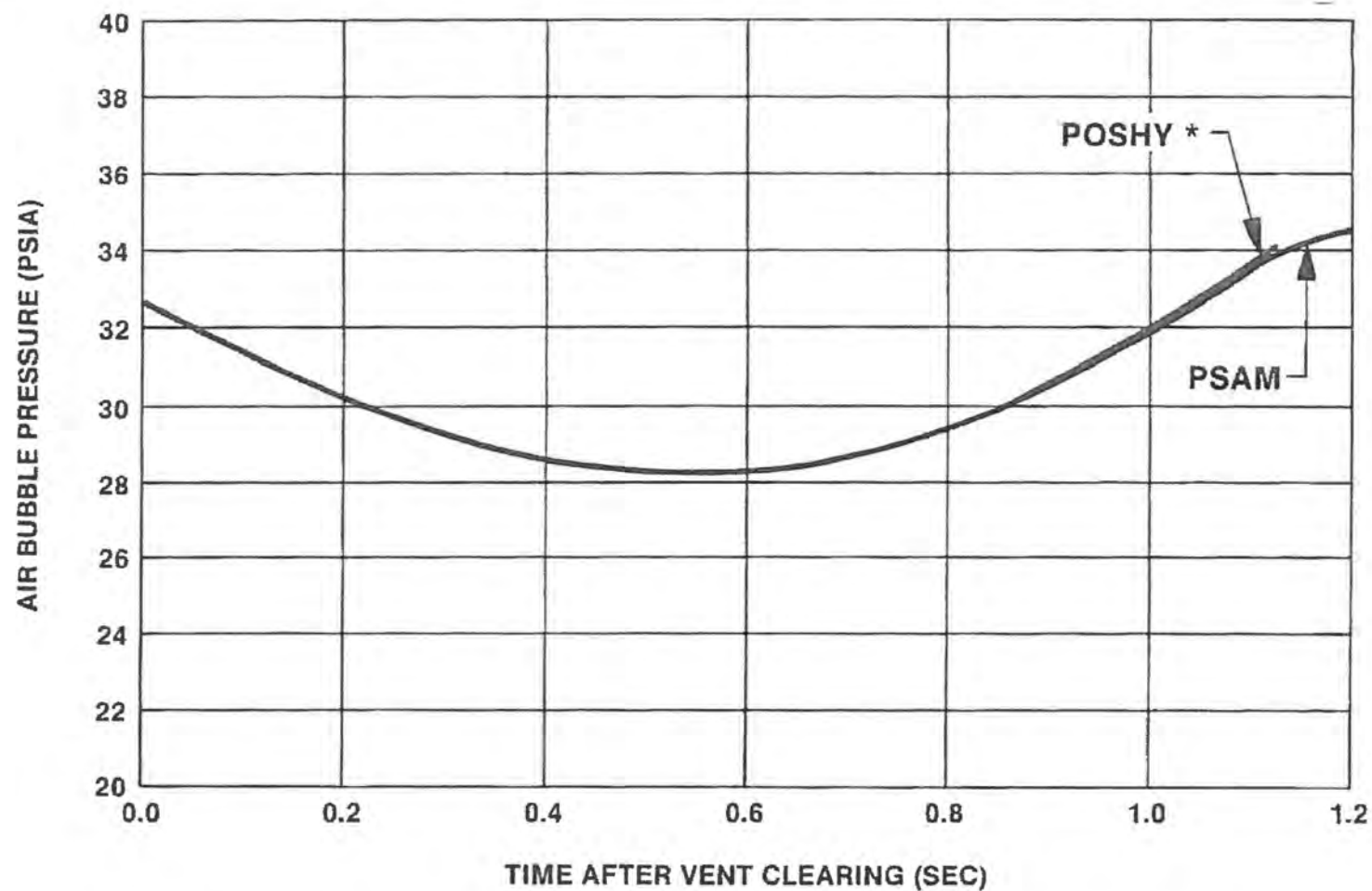


*SWEC EQUIVALENT OF MARK II PSAM

FIGURE 6A.4-51

POOL SURFACE VELOCITY VS TIME
COMPARISON OF POSHY & PSAM

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

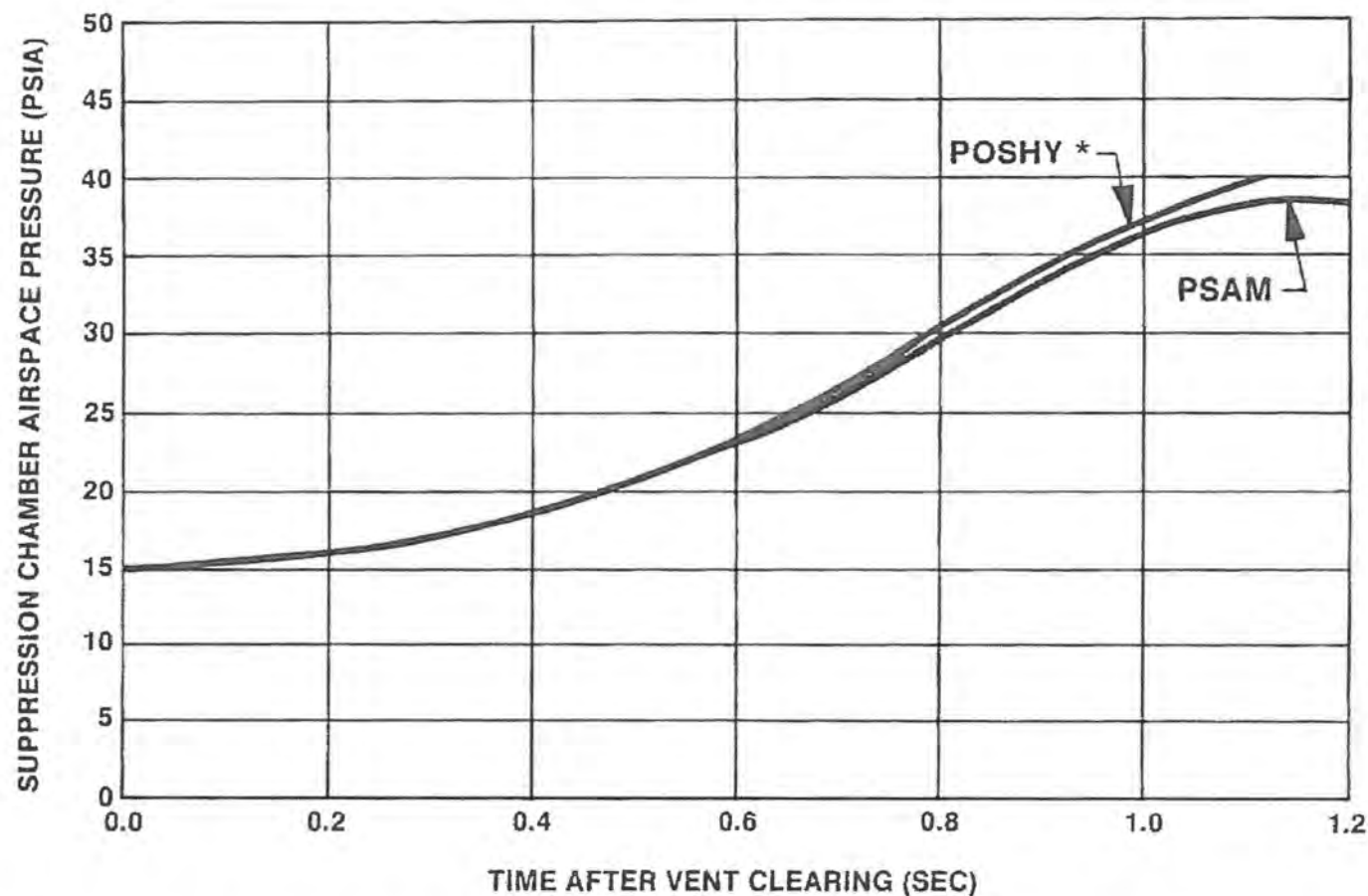


*SWEC EQUIVALENT OF MARK II PSAM

FIGURE 6A.4-52

AIR BUBBLE PRESSURE VS TIME
COMPARISON OF POSHY & PSAM

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

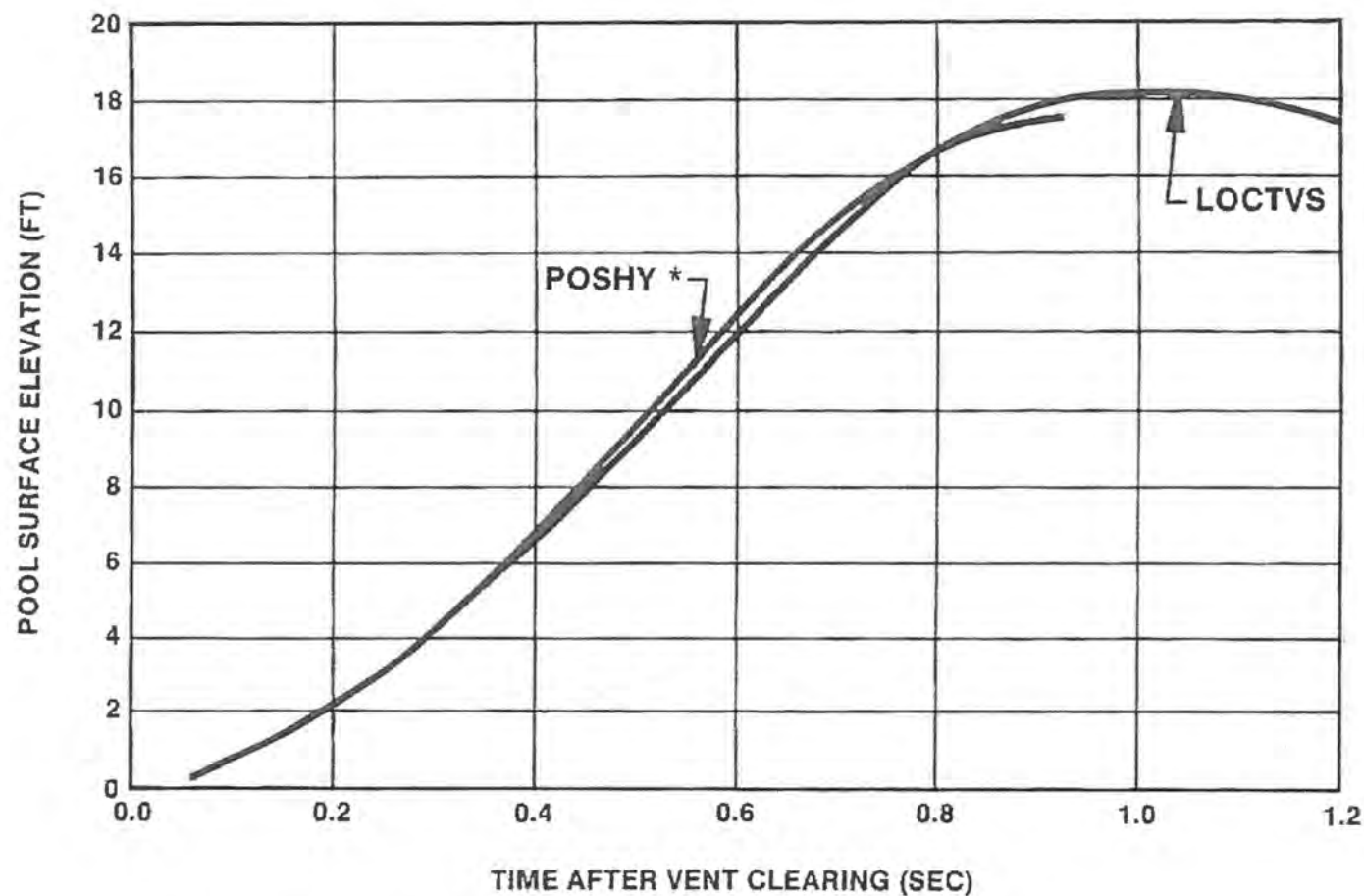


*SWEC EQUIVALENT OF MARK II PSAM

FIGURE 6A.4-53

SUPPRESSION CHAMBER AIRSPACE
PRESSURE VS TIME
COMPARISON OF POSHY & PSAM

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

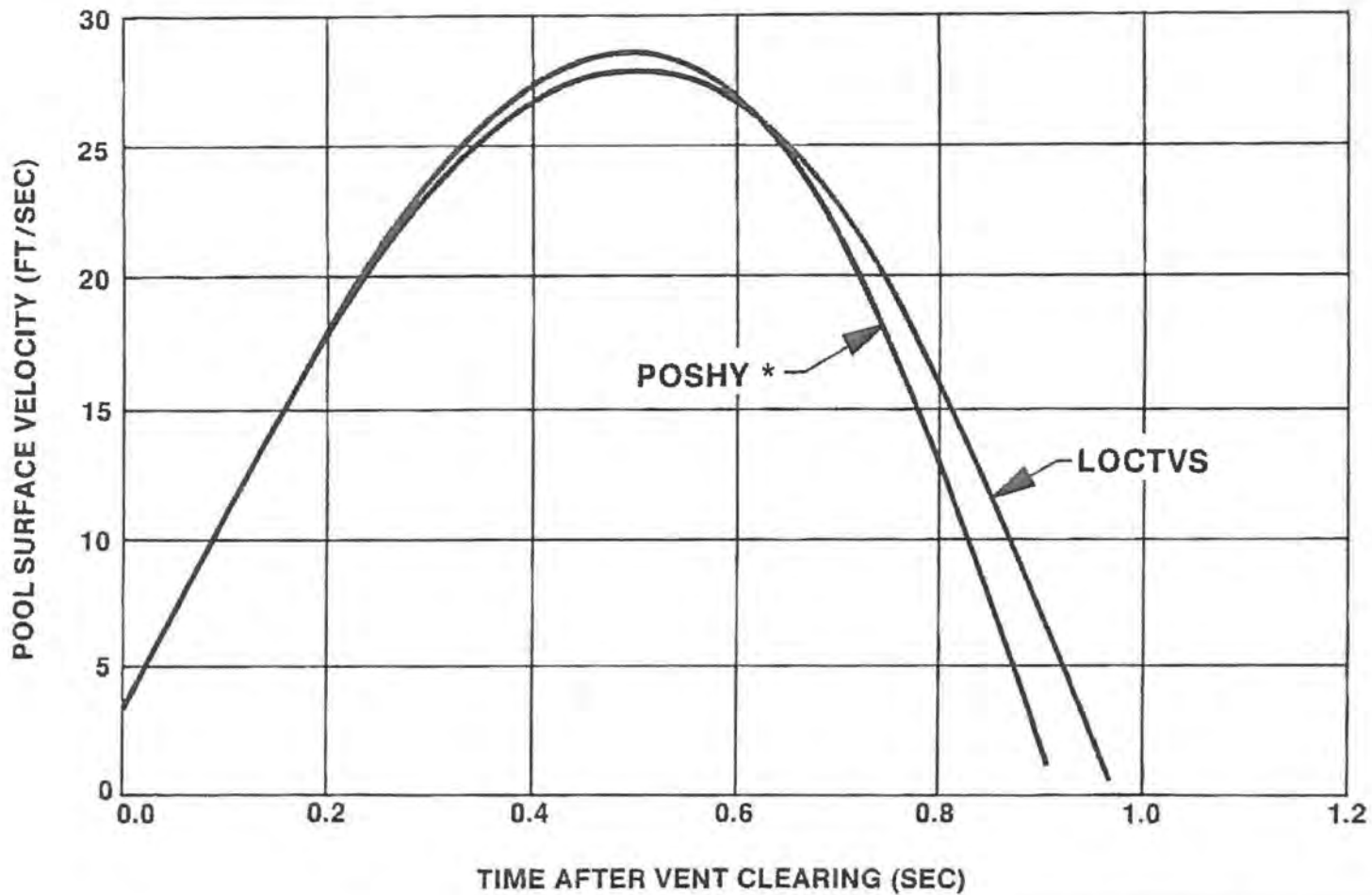


*SWEC EQUIVALENT OF MARK II PSAM

FIGURE 6A.4-54

POOL SURFACE ELEVATION VS TIME
COMPARISON OF LOCTVS & POSHY

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

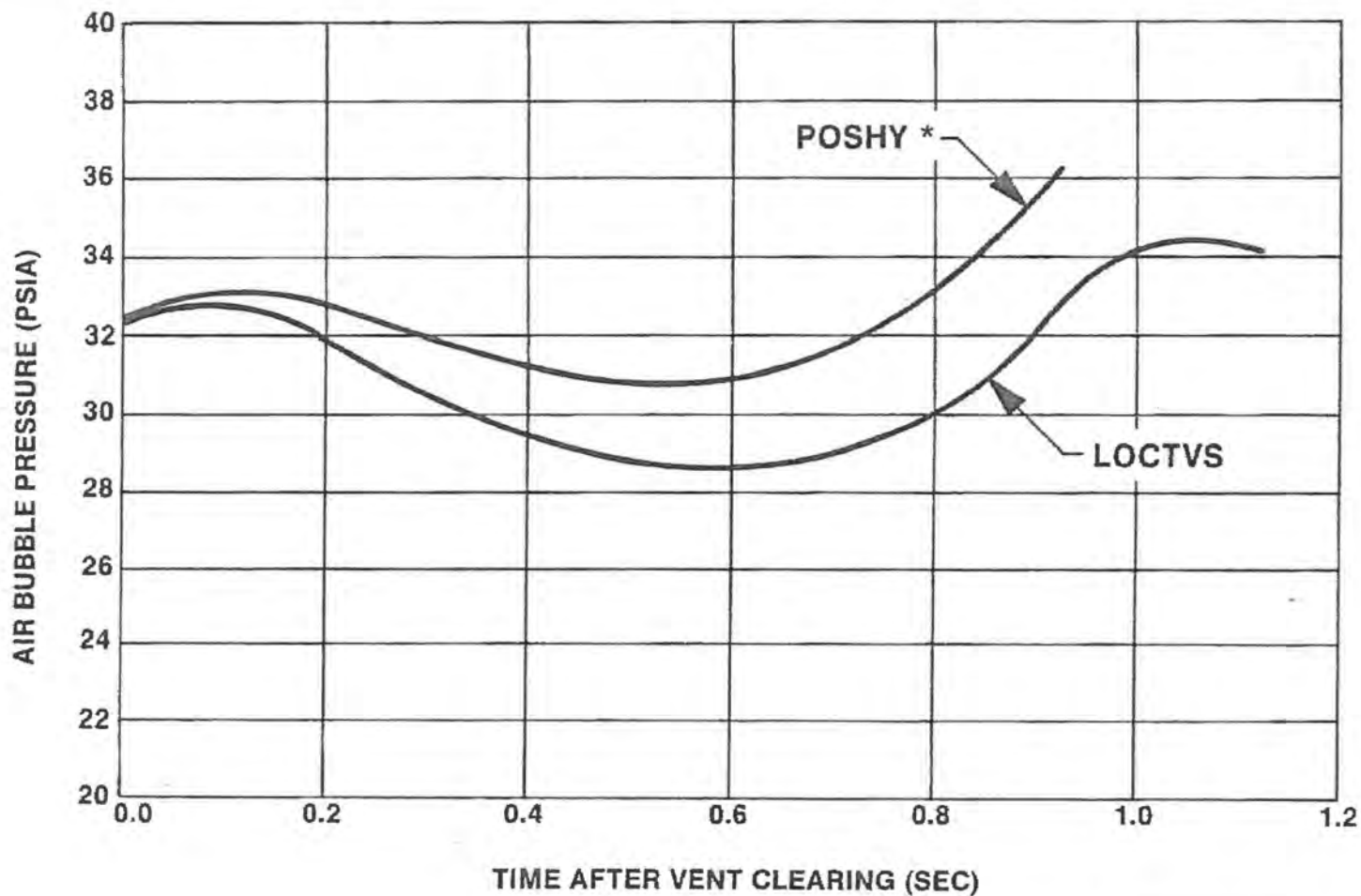


*SWEC EQUIVALENT OF MARK II PSAM

FIGURE 6A.4-55

POOL SURFACE VELOCITY VS TIME
COMPARISON OF LOCTVS & POSHY

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

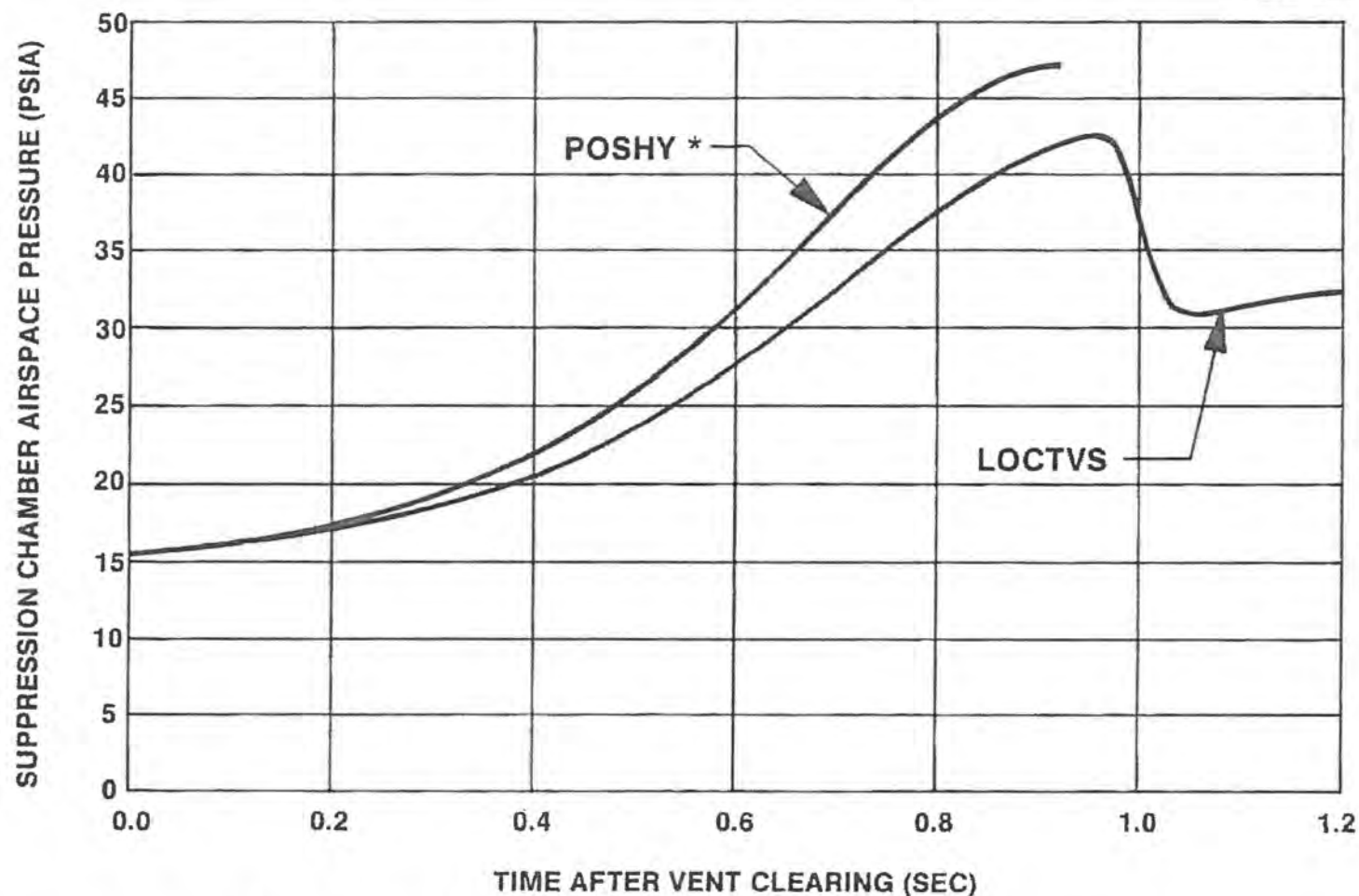


*SWEC EQUIVALENT OF MARK II PSAM

FIGURE 6A.4-56

AIR BUBBLE PRESSURE VS TIME
COMPARISON OF LOCTVS & POSHY

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



*SWEC EQUIVALENT OF MARK II PSAM

FIGURE 6A.4-57

SUPPRESSION CHAMBER AIRSPACE
PRESSURE VS TIME
COMPARISON OF LOCTVS & POSHY

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

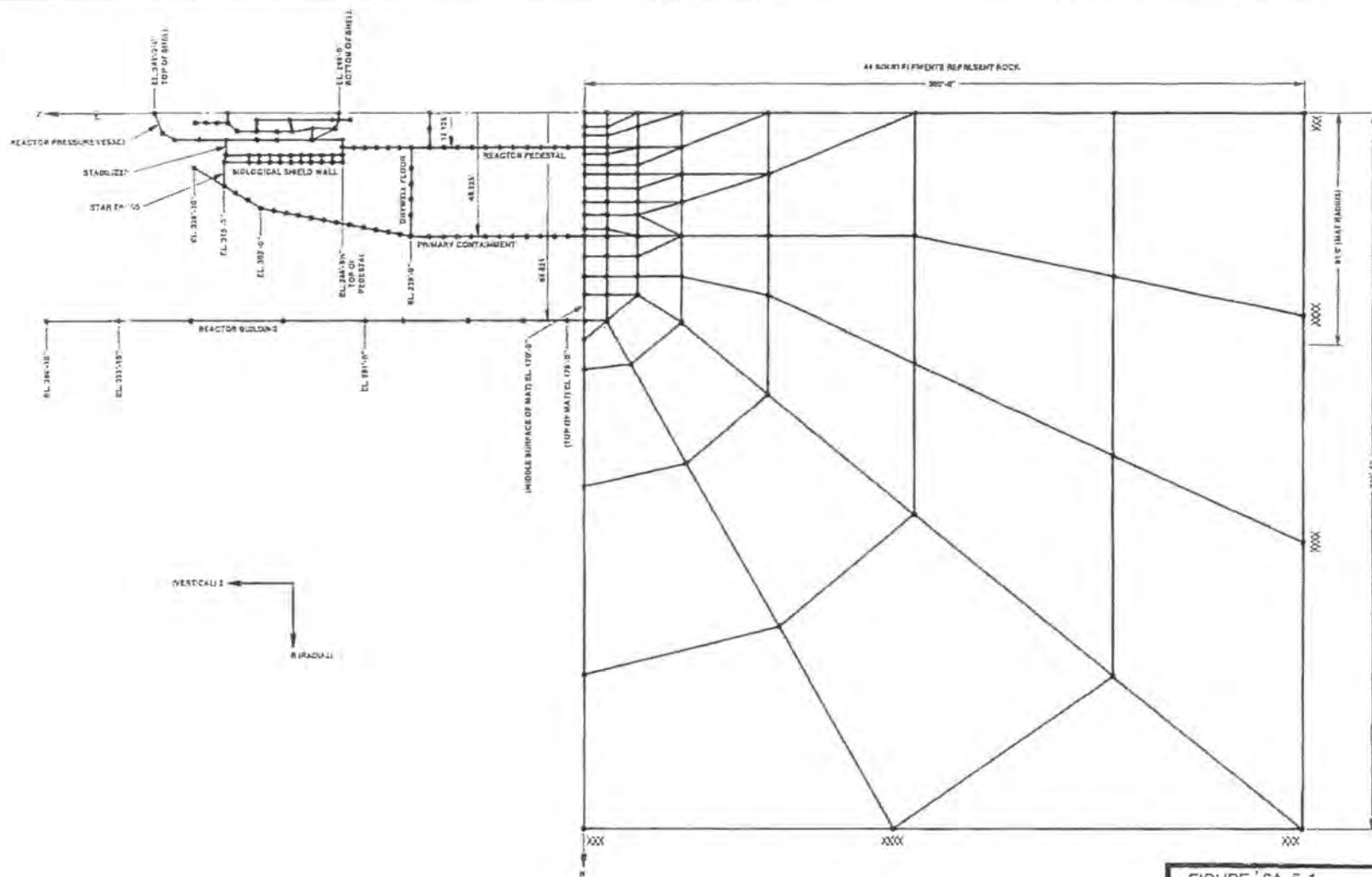


FIGURE 6A. 5-1

STRUCTURAL MODEL FOR HYDRODYNAMIC
LOAD ANALYSIS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

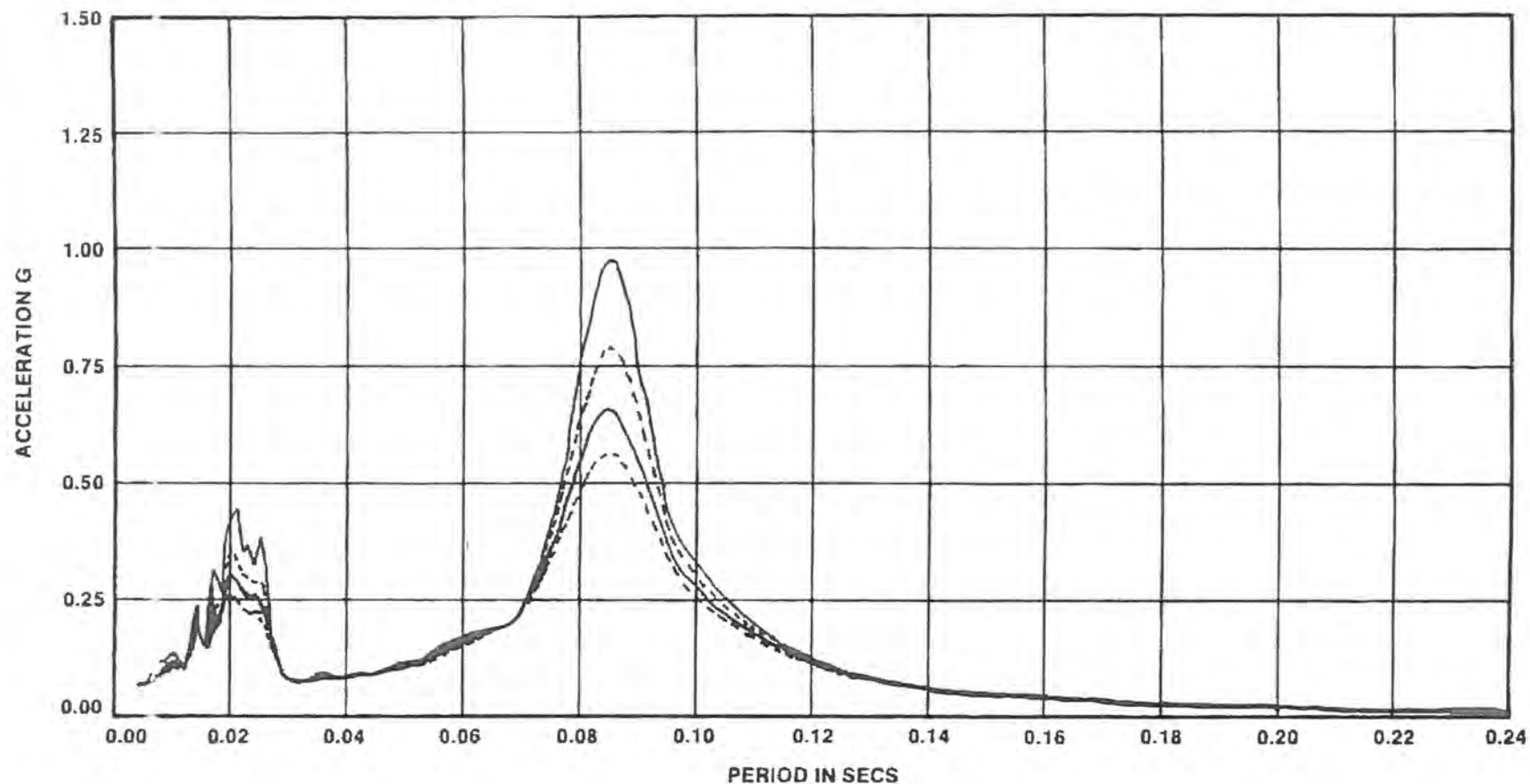


FIGURE 6A.5-2

ARS OF VERTICAL ACCELERATION
PEDESTAL TOP (ELEV. 266.54 NODE 141)
SAFETY RELIEF VALVE DISCHARGE
SYMMETRICAL LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

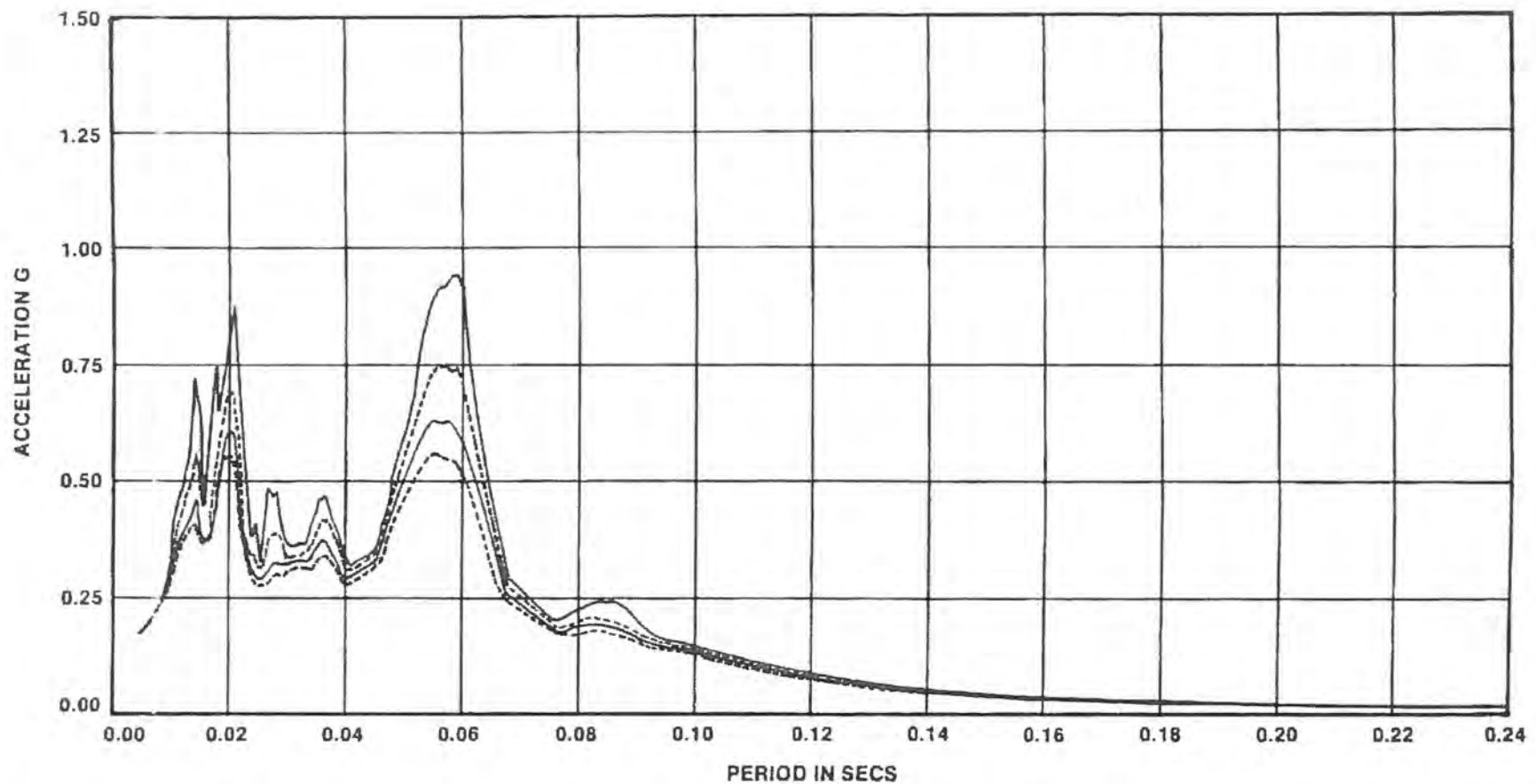
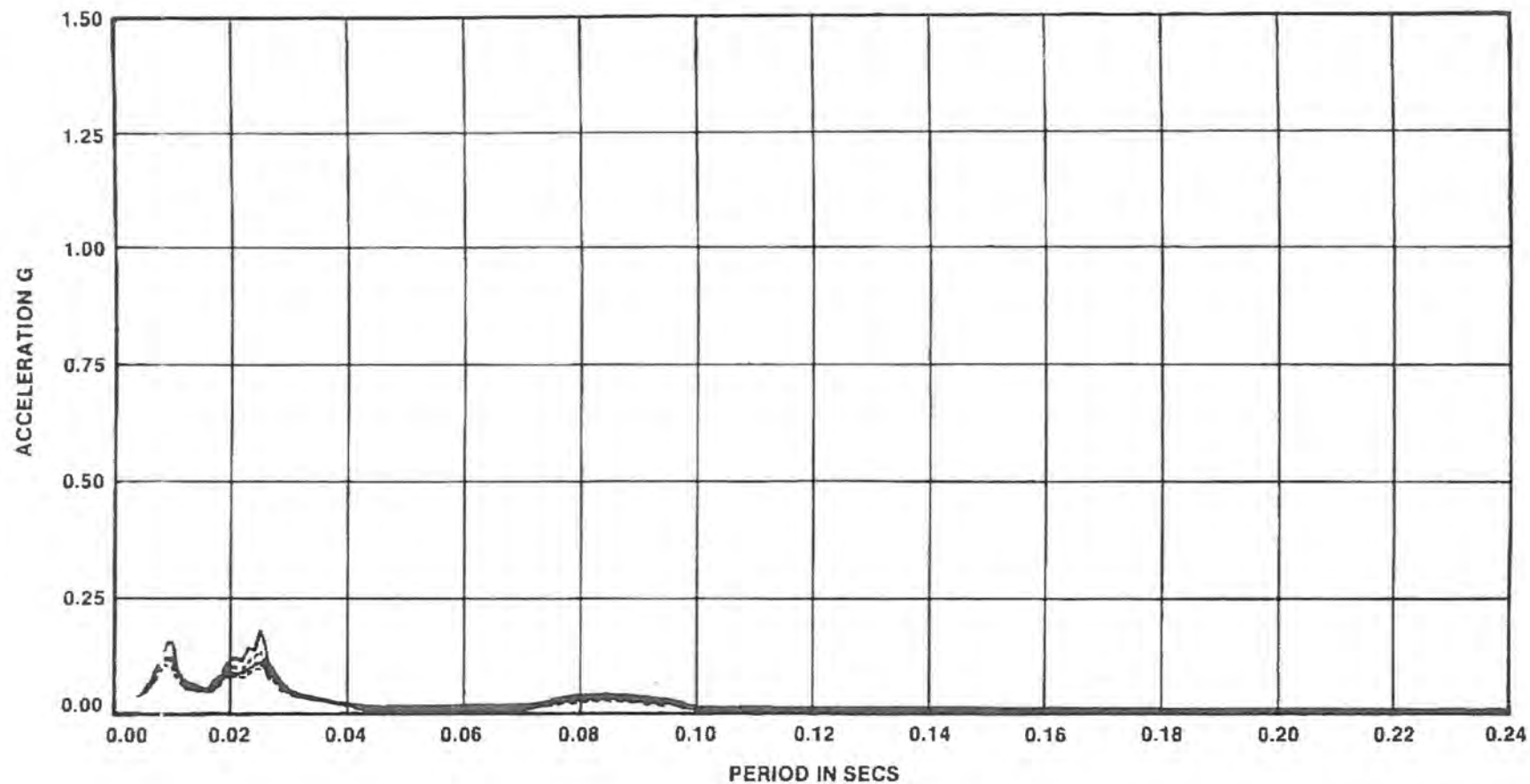


FIGURE 6A.5-3

ARS OF VERTICAL ACCELERATION
PRIMARY CONTAINMENT (ELEV. 315.25
NODE 136) SAFETY RELIEF VALVE
DISCHARGE SYMMETRICAL LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



——— 0.010 OSCILLATOR DAMPING
 - - - - 0.020 OSCILLATOR DAMPING
 ——— 0.030 OSCILLATOR DAMPING
 - - - - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-4

ARS OF RADIAL ACCELERATION
 PEDESTAL TOP (ELEV. 266.54 NODE 141)
 SAFETY RELIEF VALVE DISCHARGE
 SYMMETRICAL LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

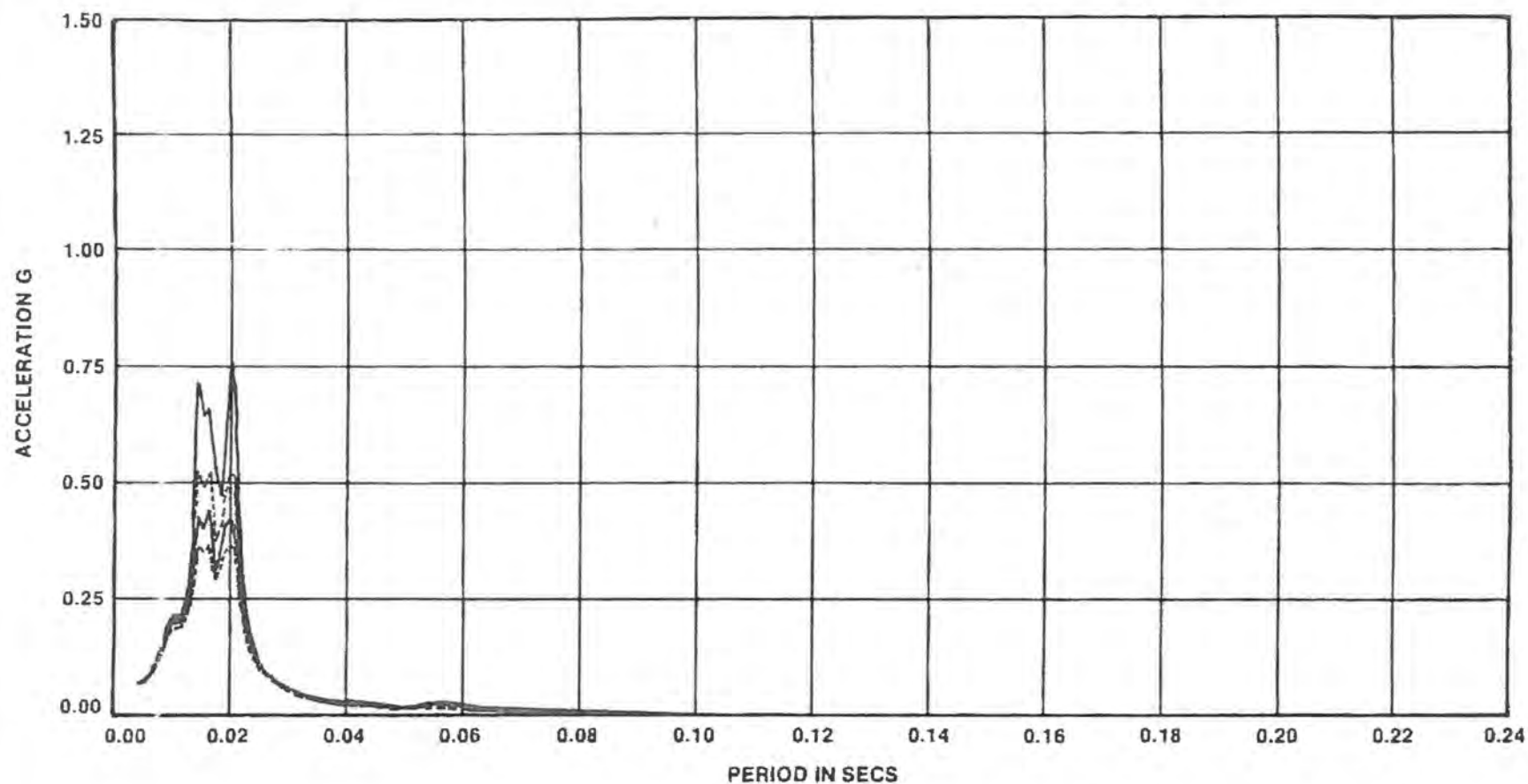
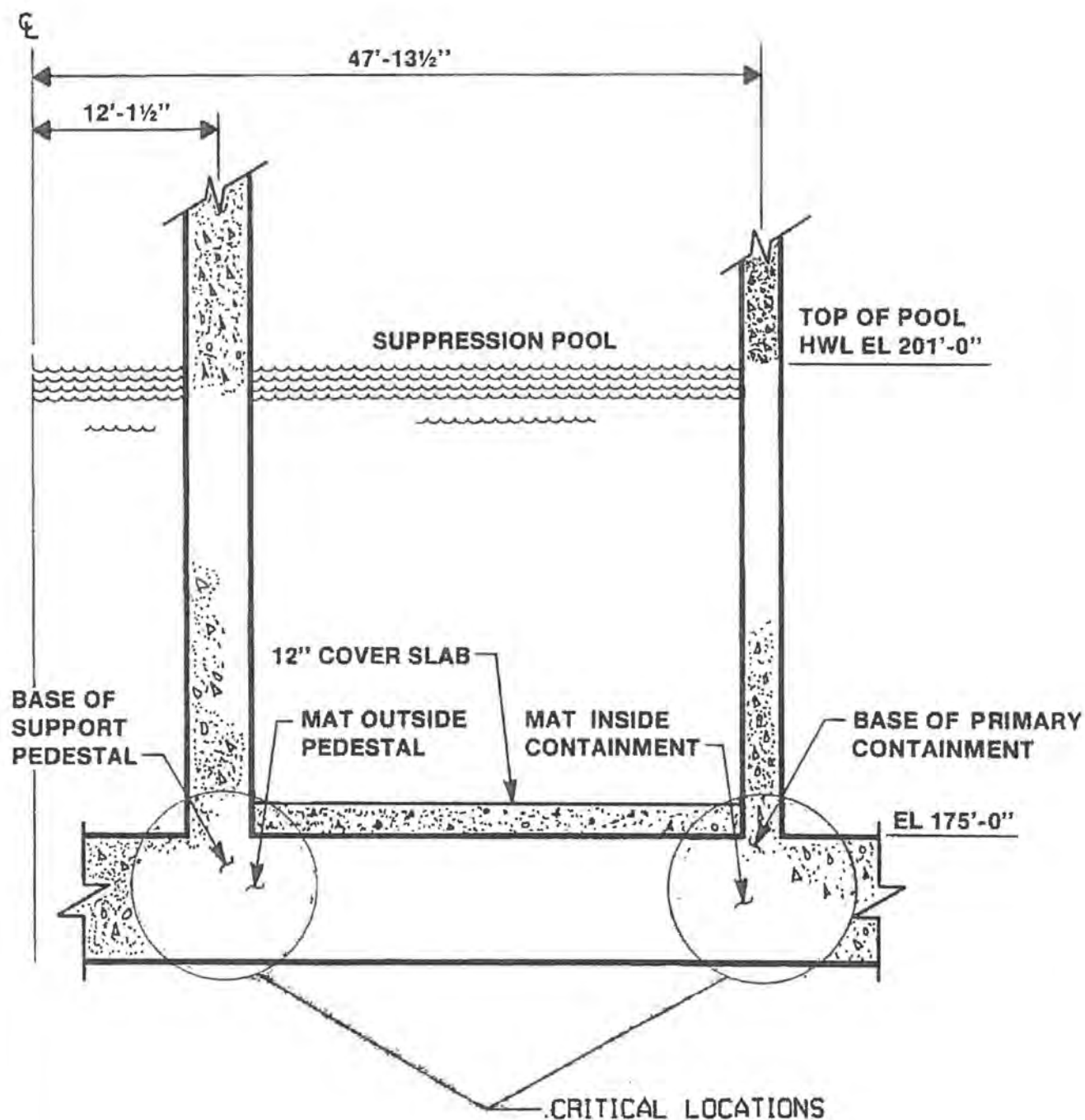


FIGURE 6A.5-5

ARS OF RADIAL ACCELERATION
PRIMARY CONTAINMENT (ELEV. 315.25
NODE 136) SAFETY RELIEF VALVE
DISCHARGE SYMMETRICAL LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



SOURCE: EM-2J-19

FIGURE 6A.5-6

CRITICAL LOCATIONS OF INTERNAL LOADS
PRIMARY CONTAINMENT

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

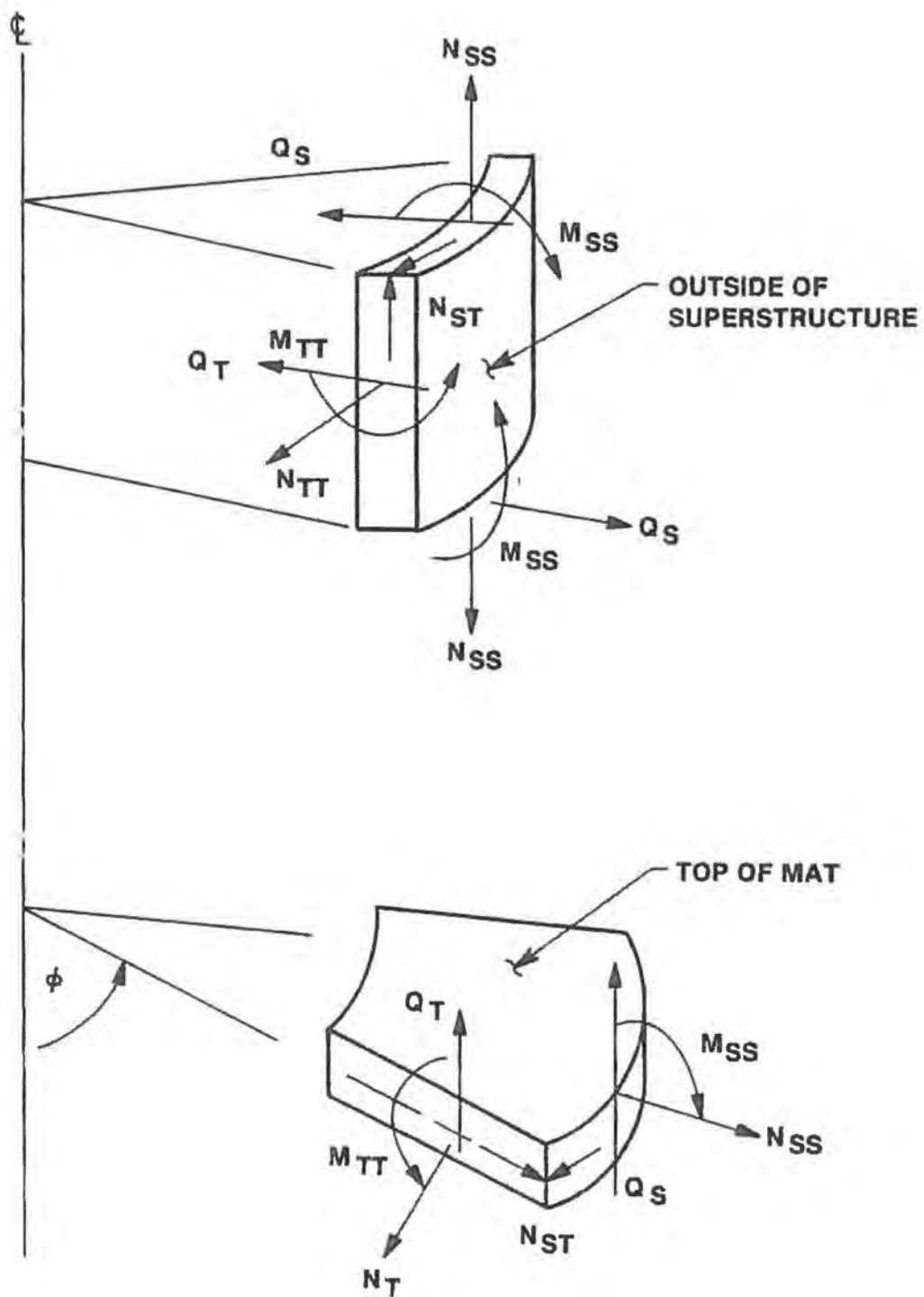


FIGURE 6A.5-7

POSITIVE SIGN CONVENTION
FOR INTERNAL LOADS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

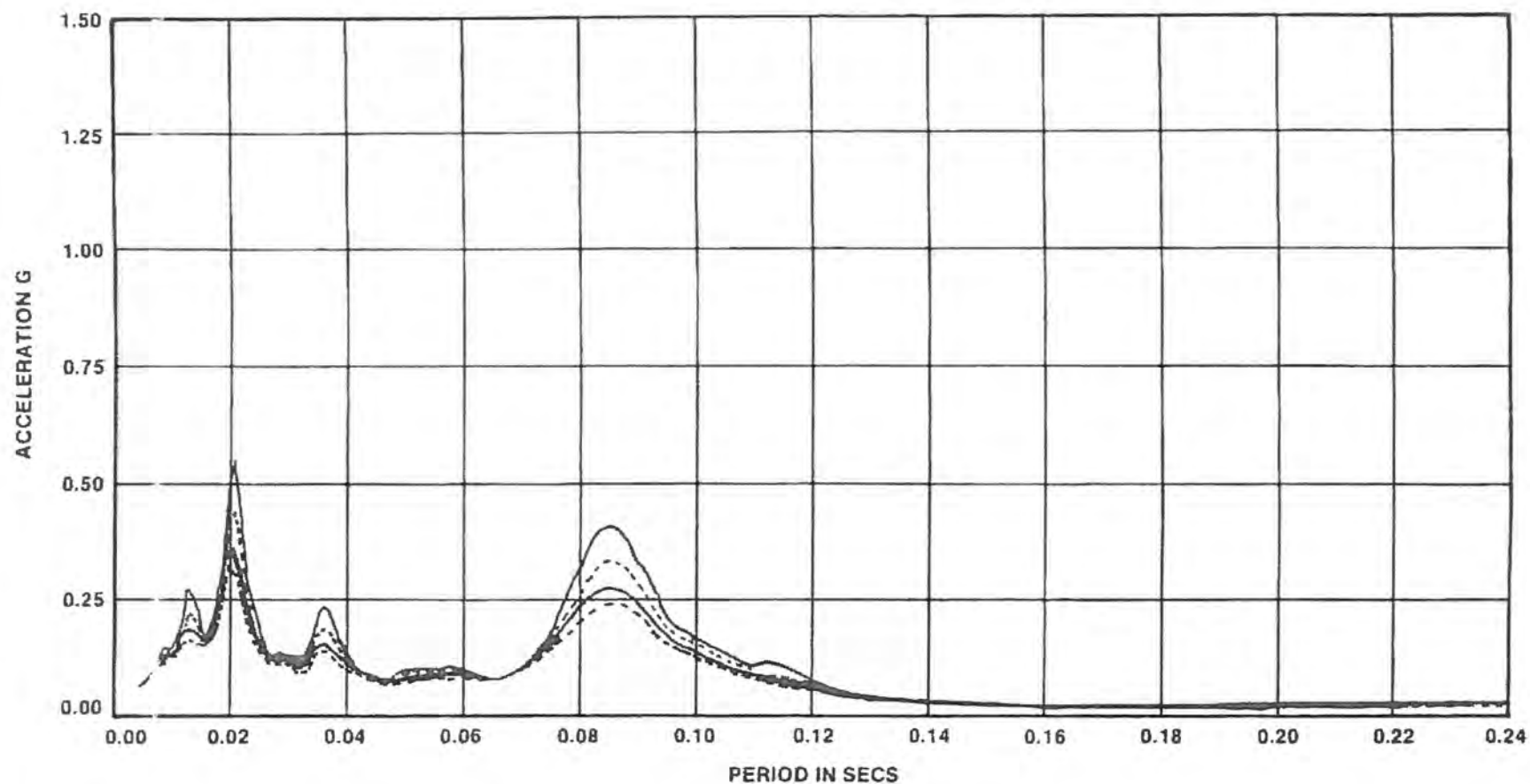
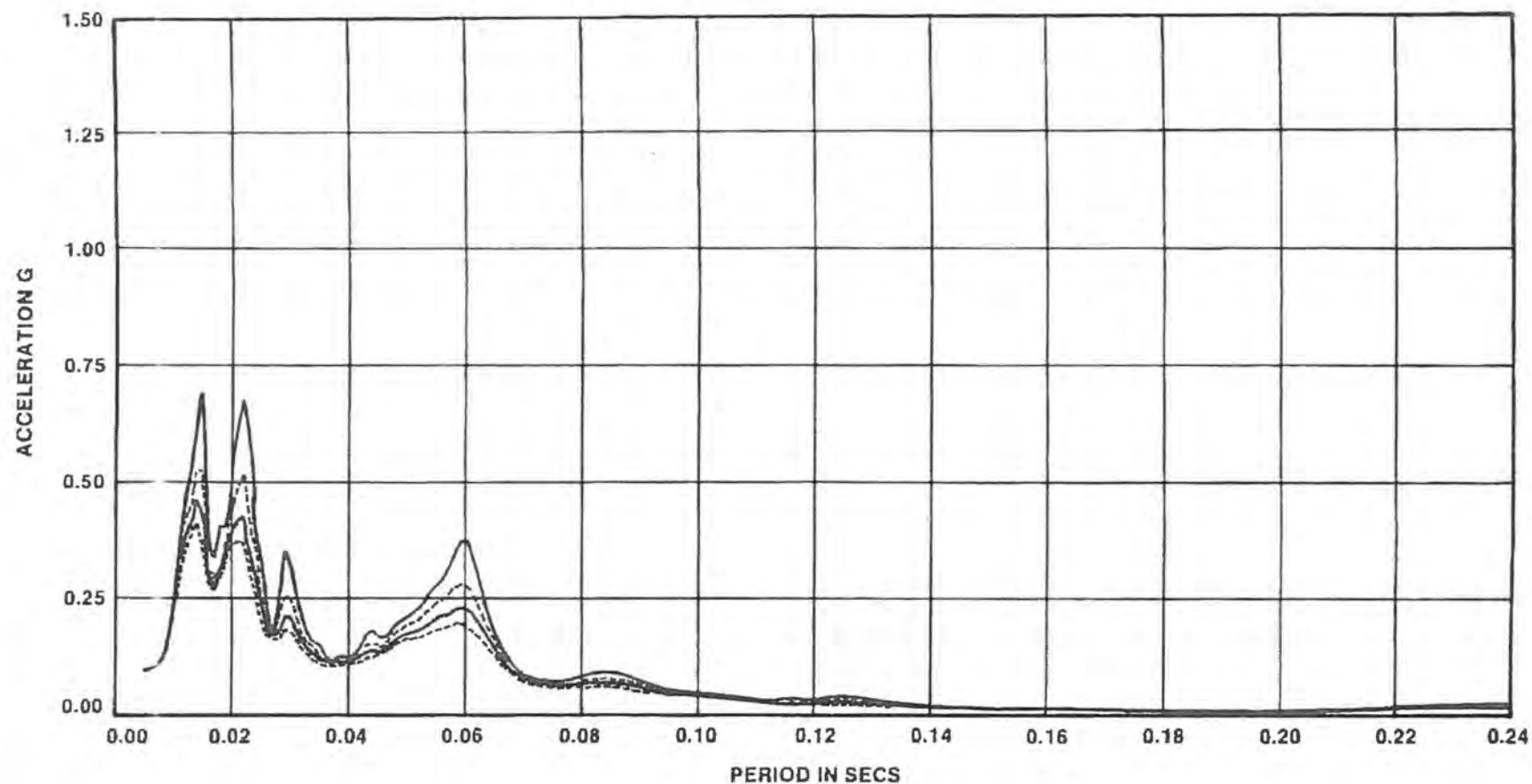


FIGURE 6A.5-8

ARS OF VERTICAL ACCELERATION
PEDESTAL TOP (ELEV. 266.54 NODE 141)
SAFETY RELIEF VALVE DISCHARGE
ASYMMETRIC LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



——— 0.010 OSCILLATOR DAMPING
 - - - - - 0.020 OSCILLATOR DAMPING
 ——— 0.030 OSCILLATOR DAMPING
 - - - - - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-9

ARS OF VERTICAL ACCELERATION
 PRIMARY CONTAINMENT (ELEV. 315.25
 NODE 136) SAFETY RELIEF VALVE
 DISCHARGE ASYMMETRIC LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

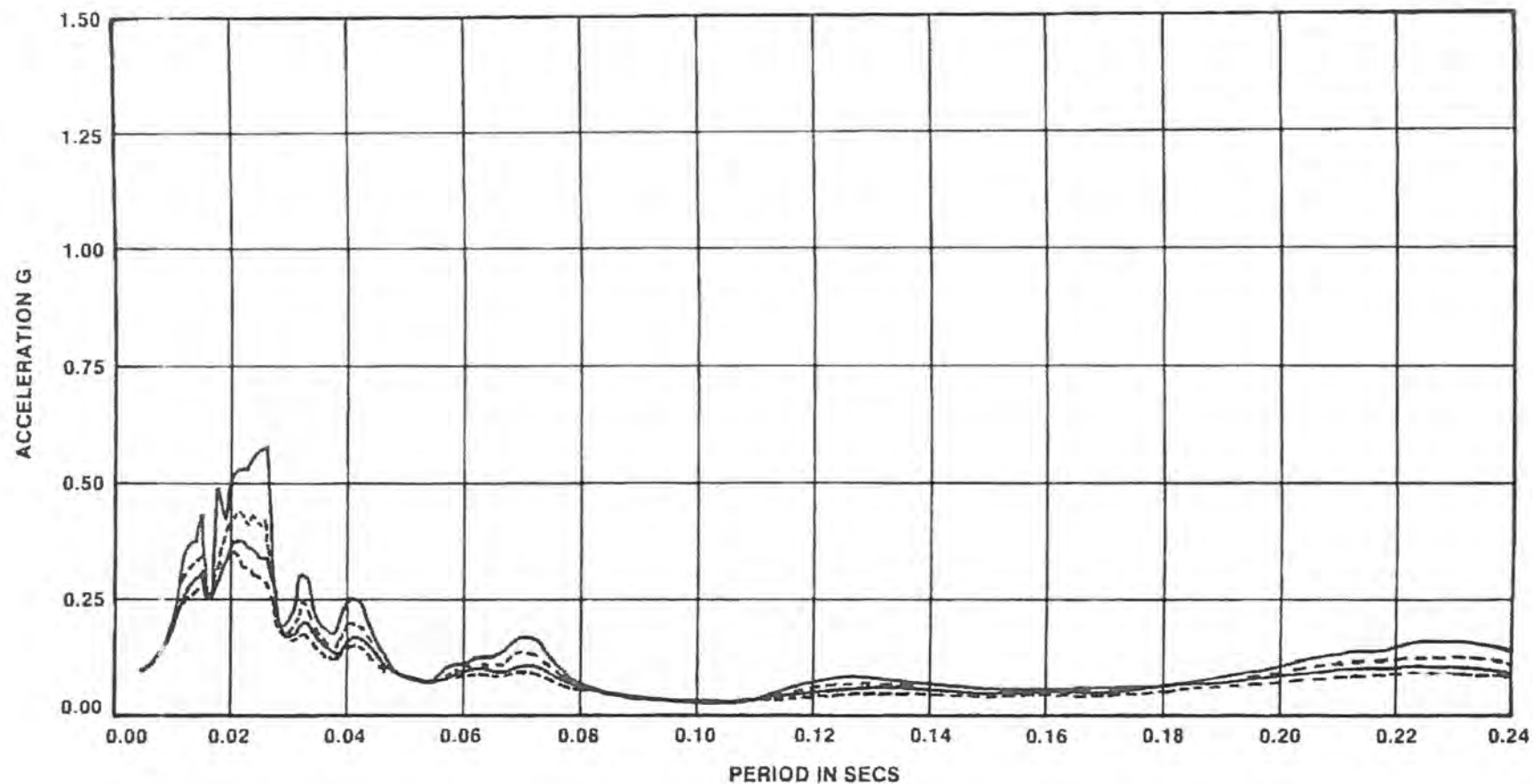


FIGURE 6A.5-10

ARS OF RADIAL ACCELERATION
PEDESTAL TOP (ELEV. 266.54 NODE 141)
SAFETY RELIEF VALVE DISCHARGE
ASYMMETRIC LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

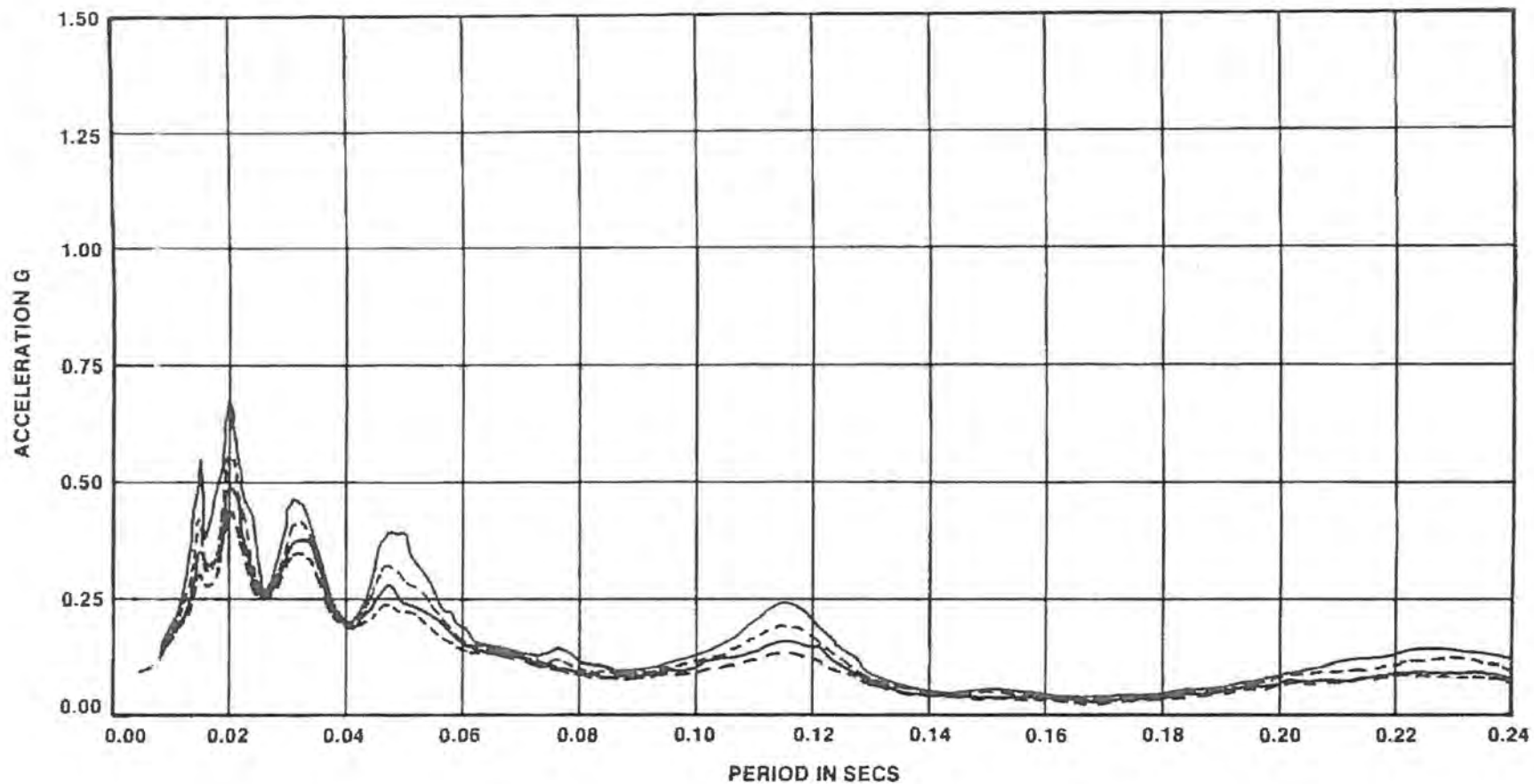


FIGURE 6A.5-11

ARS OF RADIAL ACCELERATION
PRIMARY CONTAINMENT (ELEV. 315.25
NODE 136) SAFETY RELIEF VALVE
DISCHARGE ASYMMETRIC LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

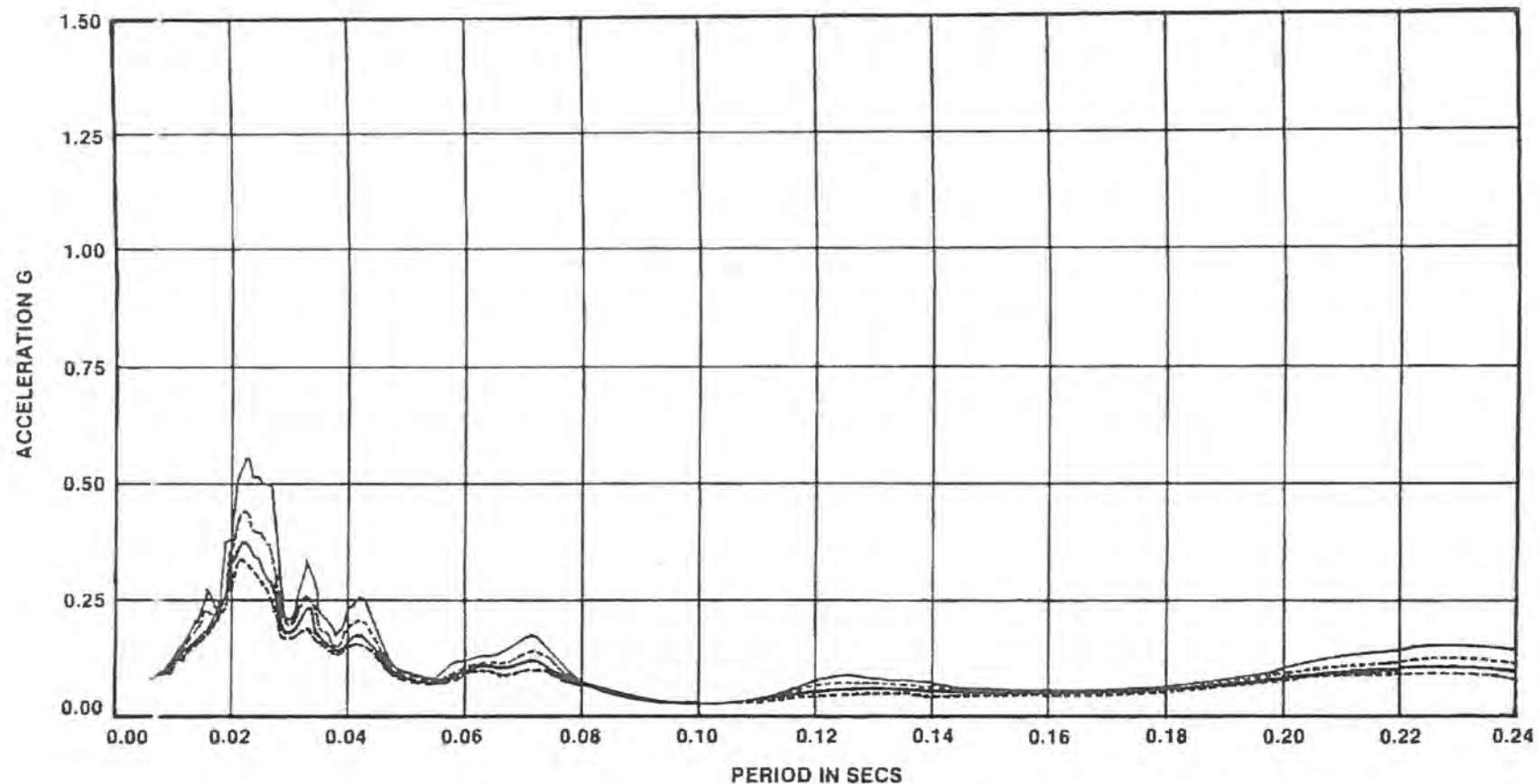
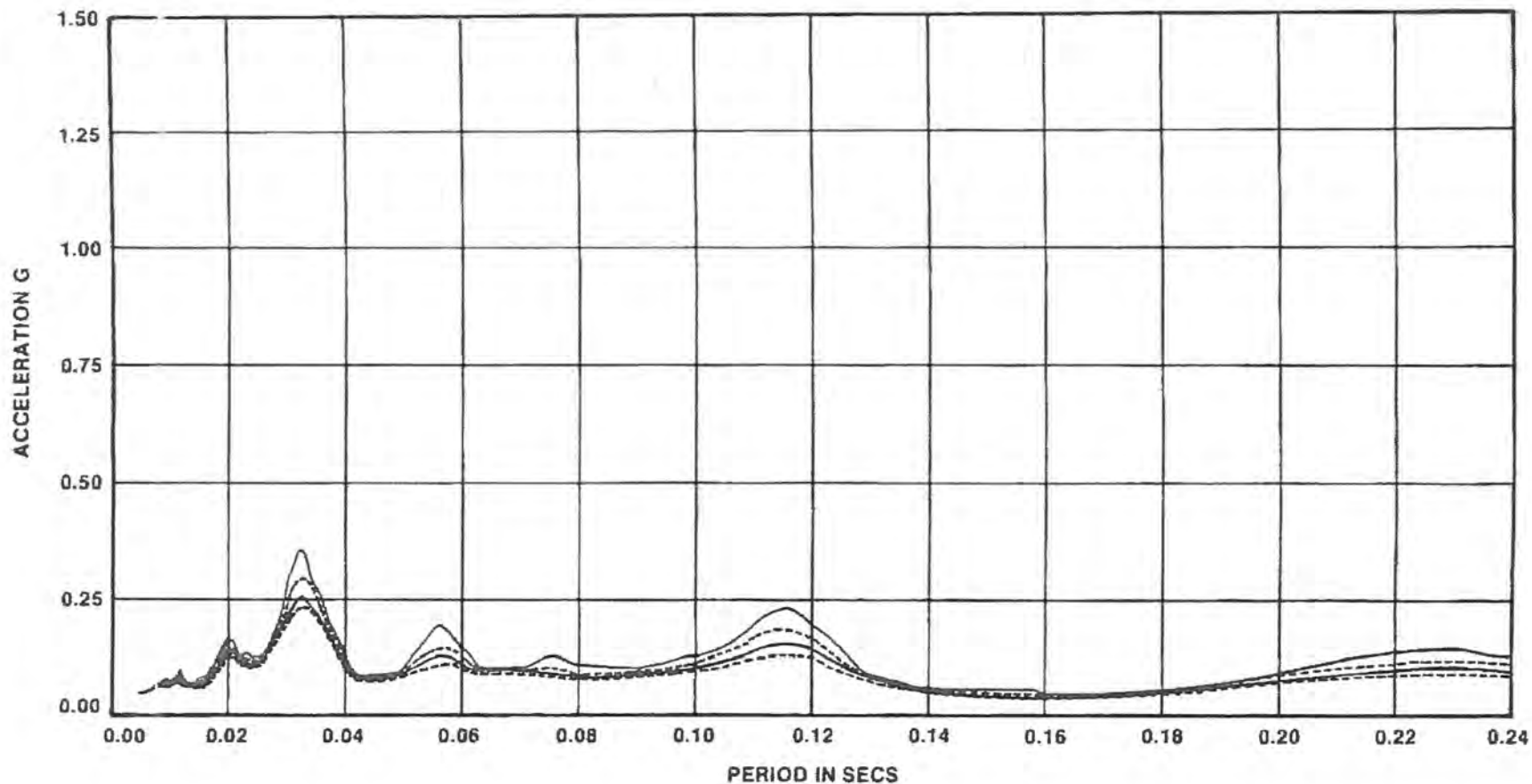


FIGURE 6A.5-12

ARS OF TANGENT ACCELERATION
 PEDESTAL TOP (ELEV. 266.54)
 SAFETY RELIEF VALVE DISCHARGE
 ASYMMETRIC LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT



— 0.010 OSCILLATOR DAMPING
 - - - 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 - . - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-13

ARS OF TANGENT ACCELERATION
 PRIMARY CONTAINMENT (ELEV. 315.25
 NODE 136) SAFETY RELIEF VALVE
 DISCHARGE ASYMMETRIC LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

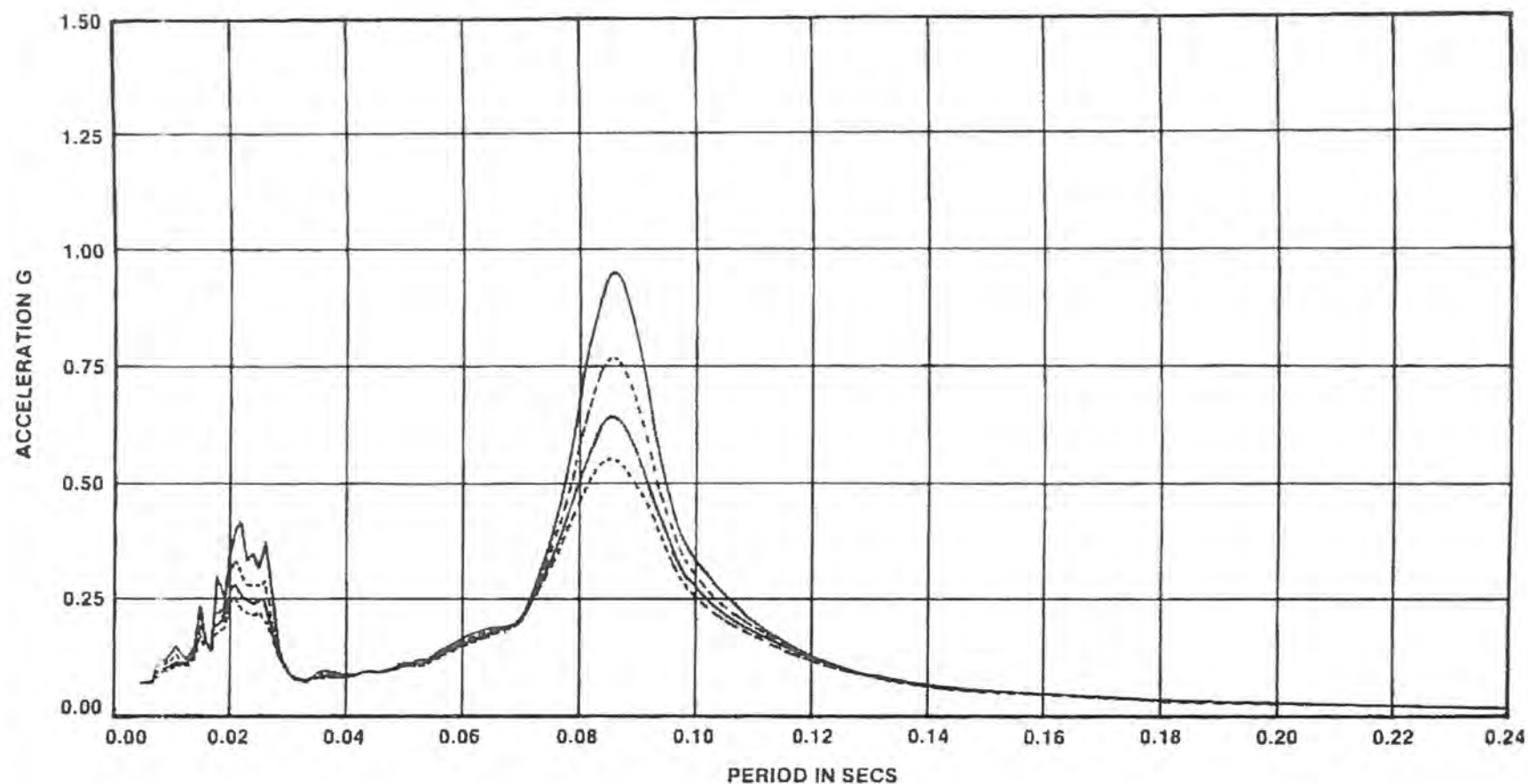
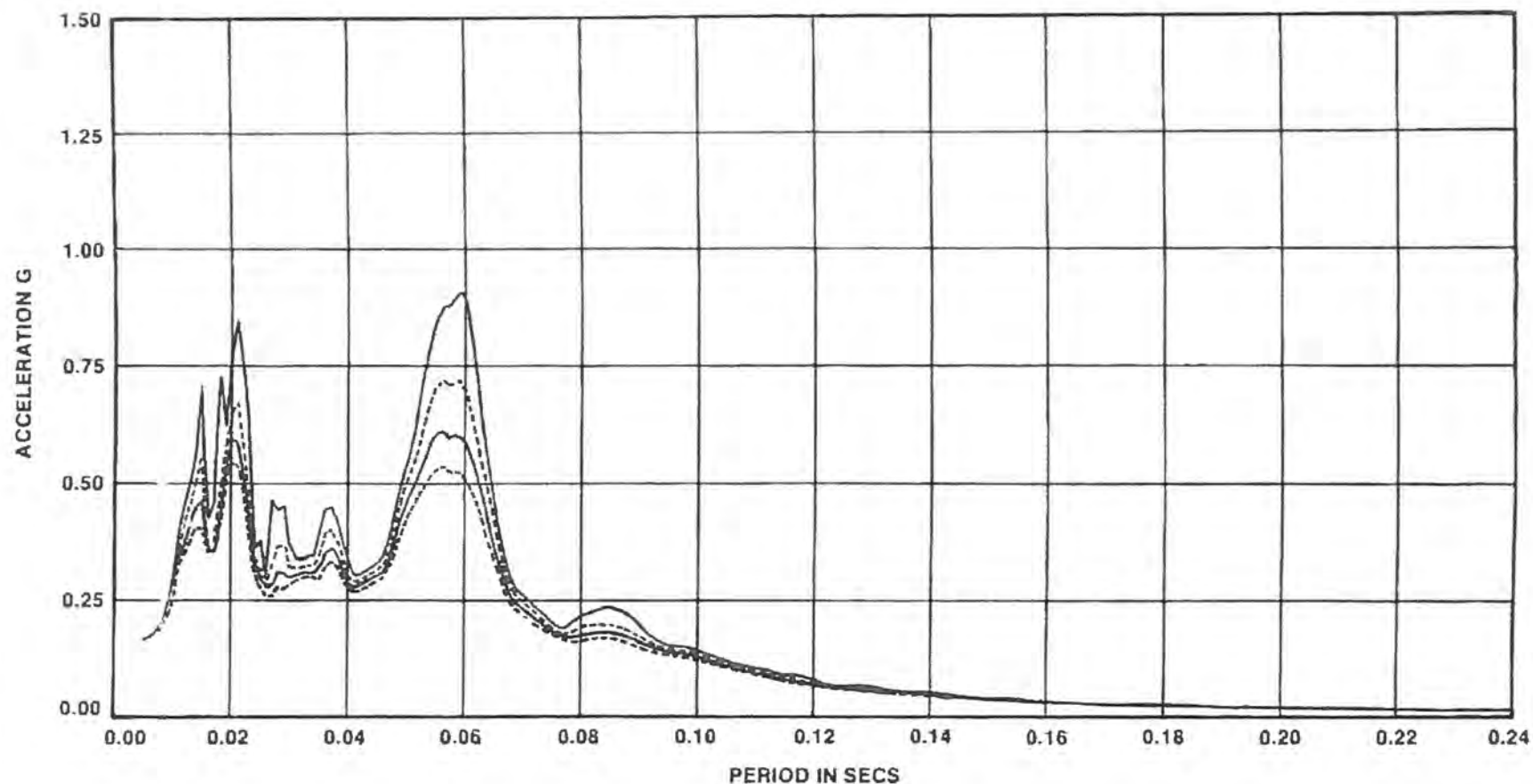


FIGURE 6A.5-14

ARS OF VERTICAL ACCELERATION
 PEDESTAL TOP (ELEV. 266.54 NODE 141)
 ADS SAFETY RELIEF VALVE DISCHARGE
 ASYMMETRIC LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

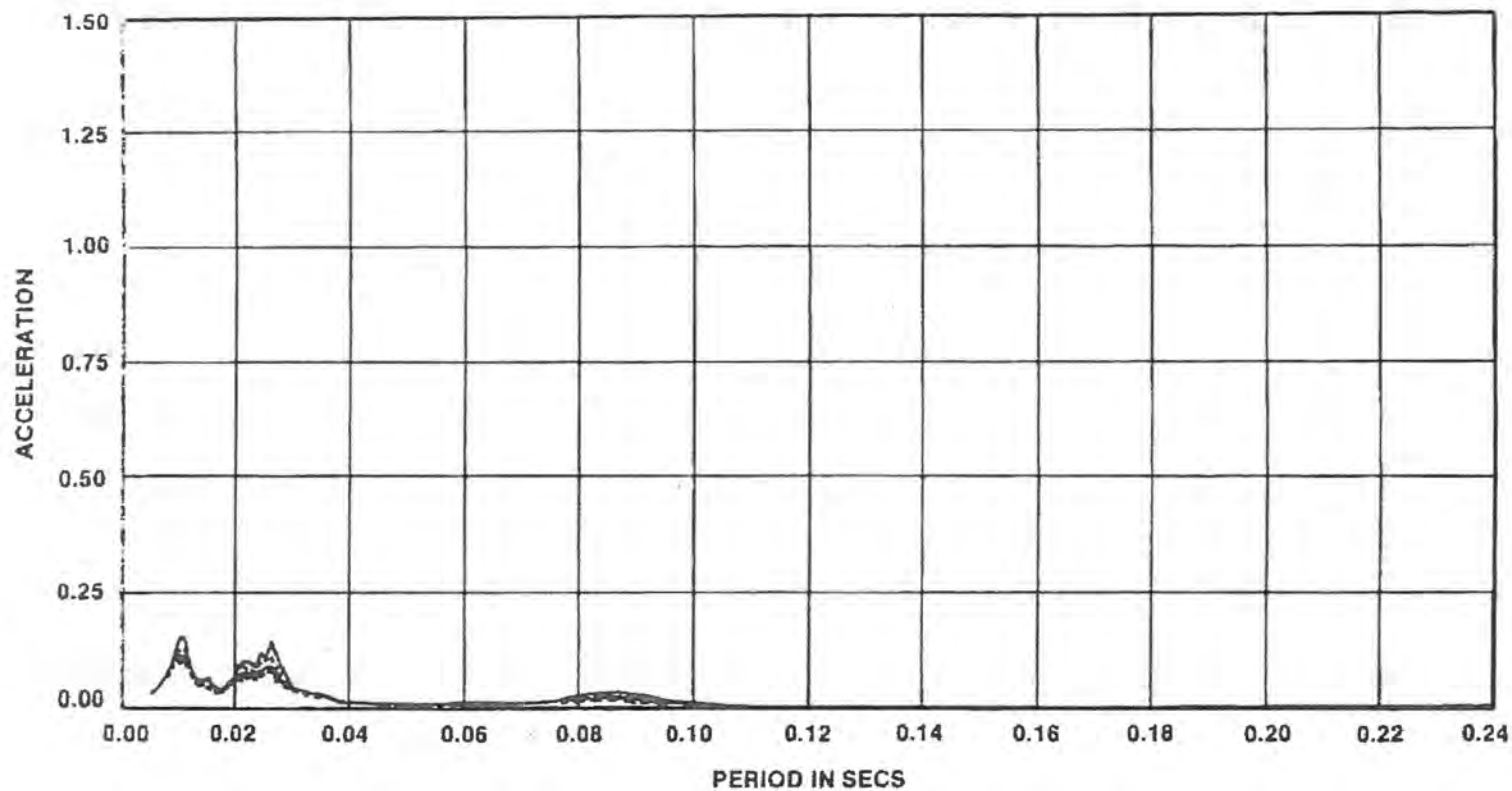


——— 0.010 OSCILLATOR DAMPING
 - - - - 0.020 OSCILLATOR DAMPING
 ——— 0.030 OSCILLATOR DAMPING
 - - - - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-15

ARS OF VERTICAL ACCELERATION
 PRIMARY CONTAINMENT (ELEV. 315.25
 NODE 136) ADS SAFETY RELIEF VALVE
 DISCHARGE ASYMMETRIC LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

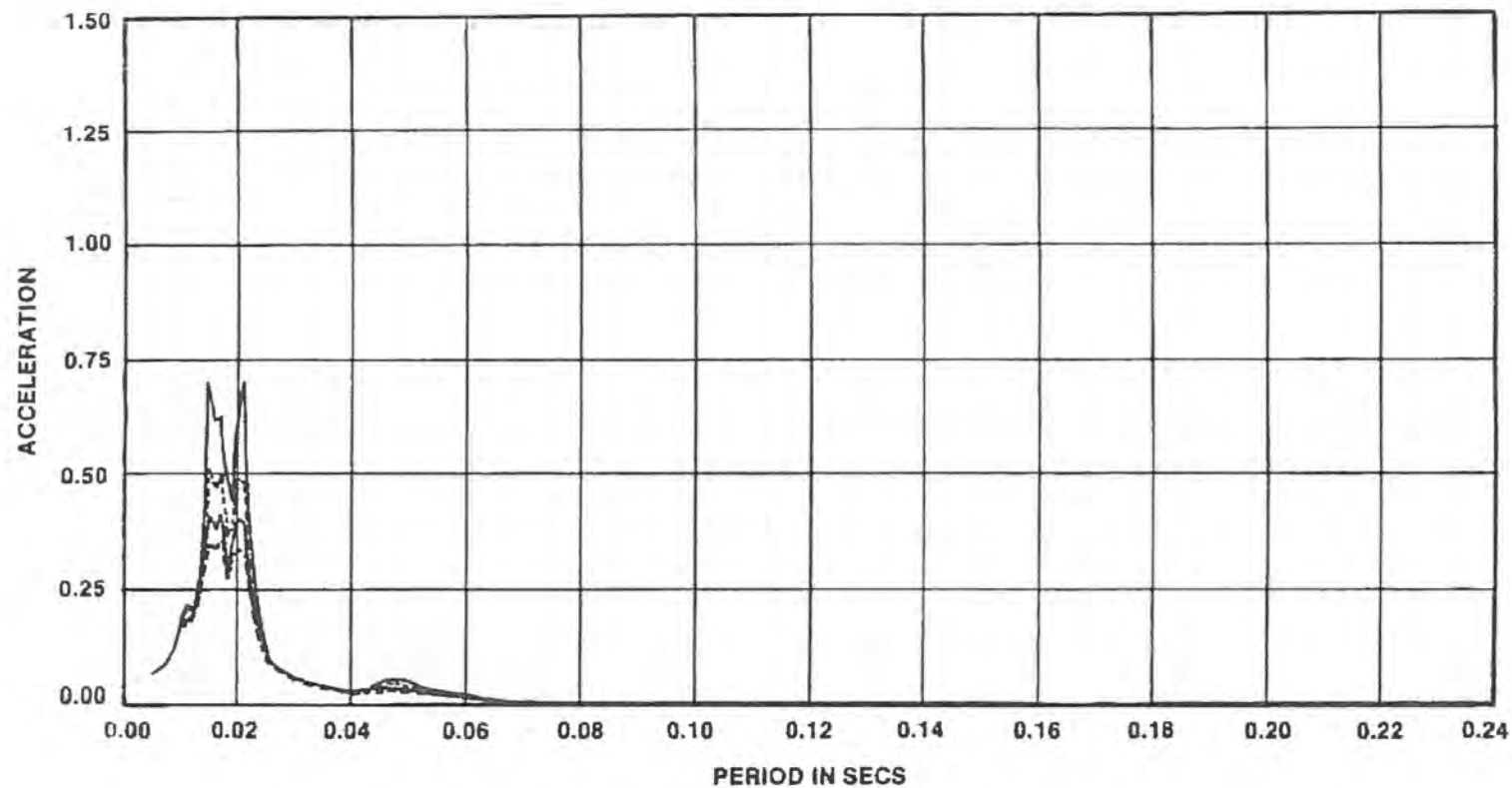


——— 0.010 OSCILLATOR DAMPING
 - - - 0.020 OSCILLATOR DAMPING
 ——— 0.030 OSCILLATOR DAMPING
 - - - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-16

ARS OF RADIAL ACCELERATION
 PEDESTAL TOP (ELEV. 266.54 NODE 141)
 ADS SAFETY RELIEF VALVE DISCHARGE
 ADS LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

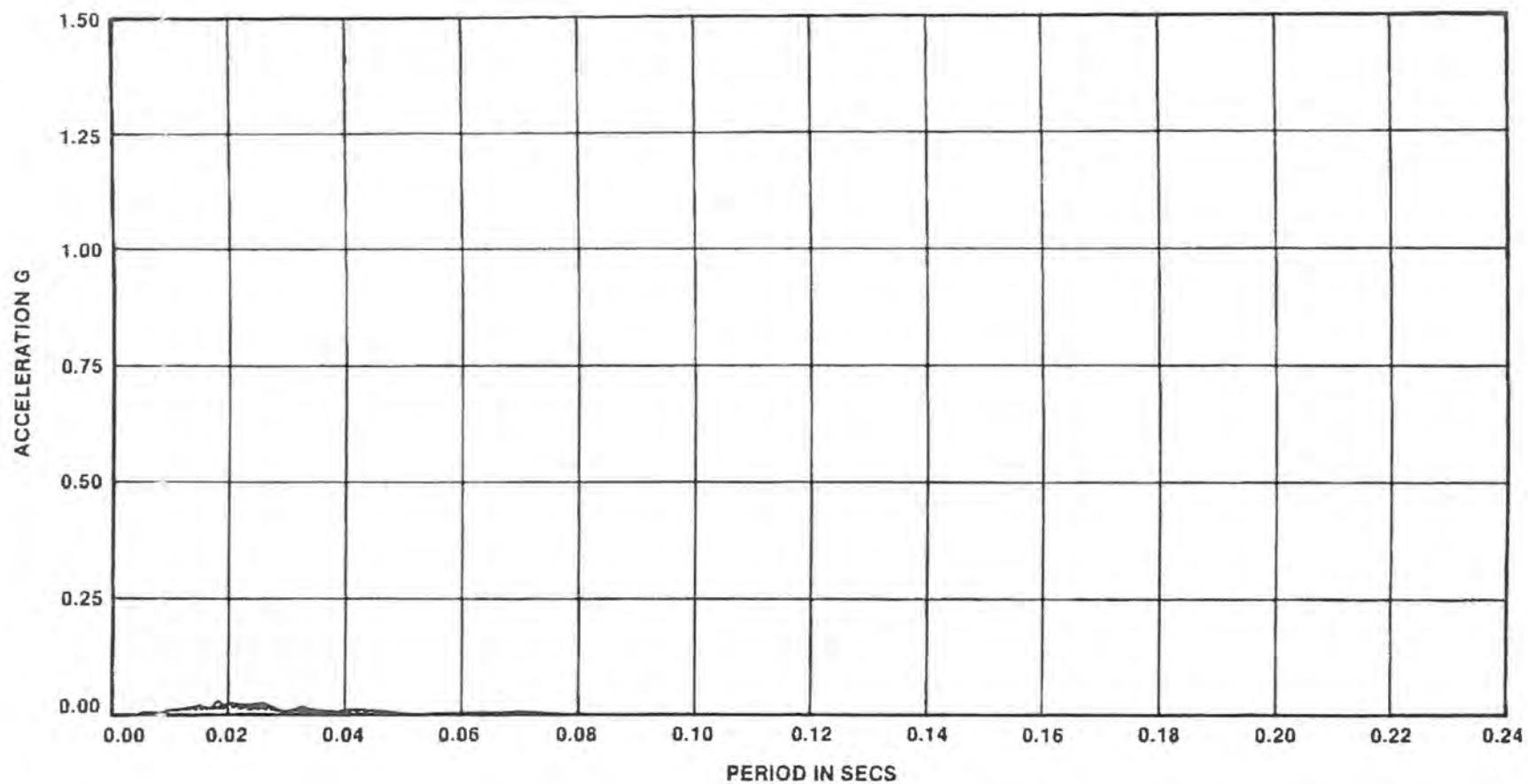


——— 0.010 OSCILLATOR DAMPING
 - - - - 0.020 OSCILLATOR DAMPING
 ——— 0.030 OSCILLATOR DAMPING
 - · - · 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-17

ARS OF RADIAL ACCELERATION
 PRIMARY CONTAINMENT (ELEV. 315.25
 NODE 136) ADS SAFETY RELIEF VALVE
 DISCHARGE ADS LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT



——— 0.010 OSCILLATOR DAMPING
 - - - - 0.020 OSCILLATOR DAMPING
 ——— 0.030 OSCILLATOR DAMPING
 - - - - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-18

ARS OF TANGENT ACCELERATION
 PEDESTAL TOP (ELEV. 266.54 NODE 141)
 ADS SAFETY RELIEF VALVE DISCHARGE
 ADS LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

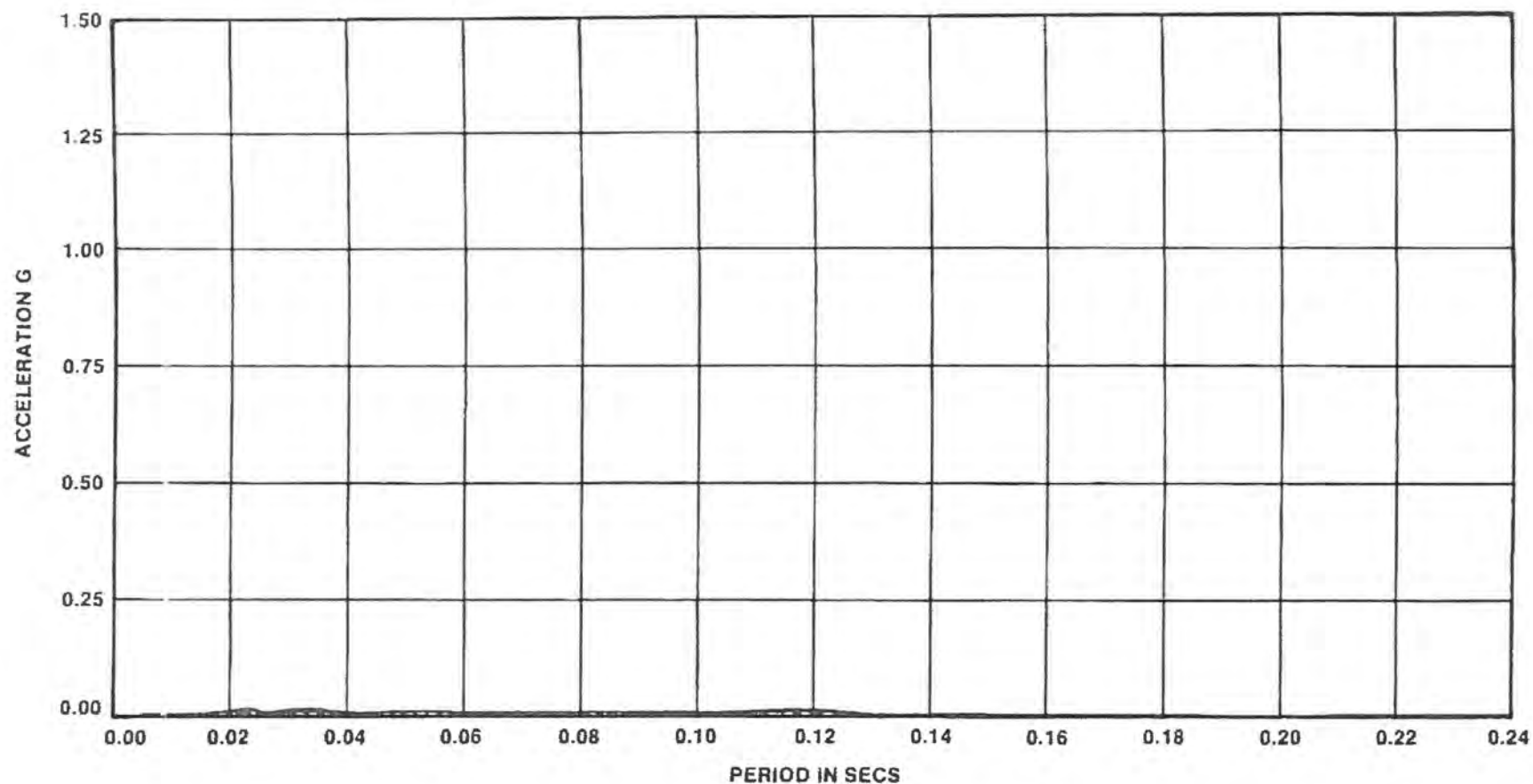
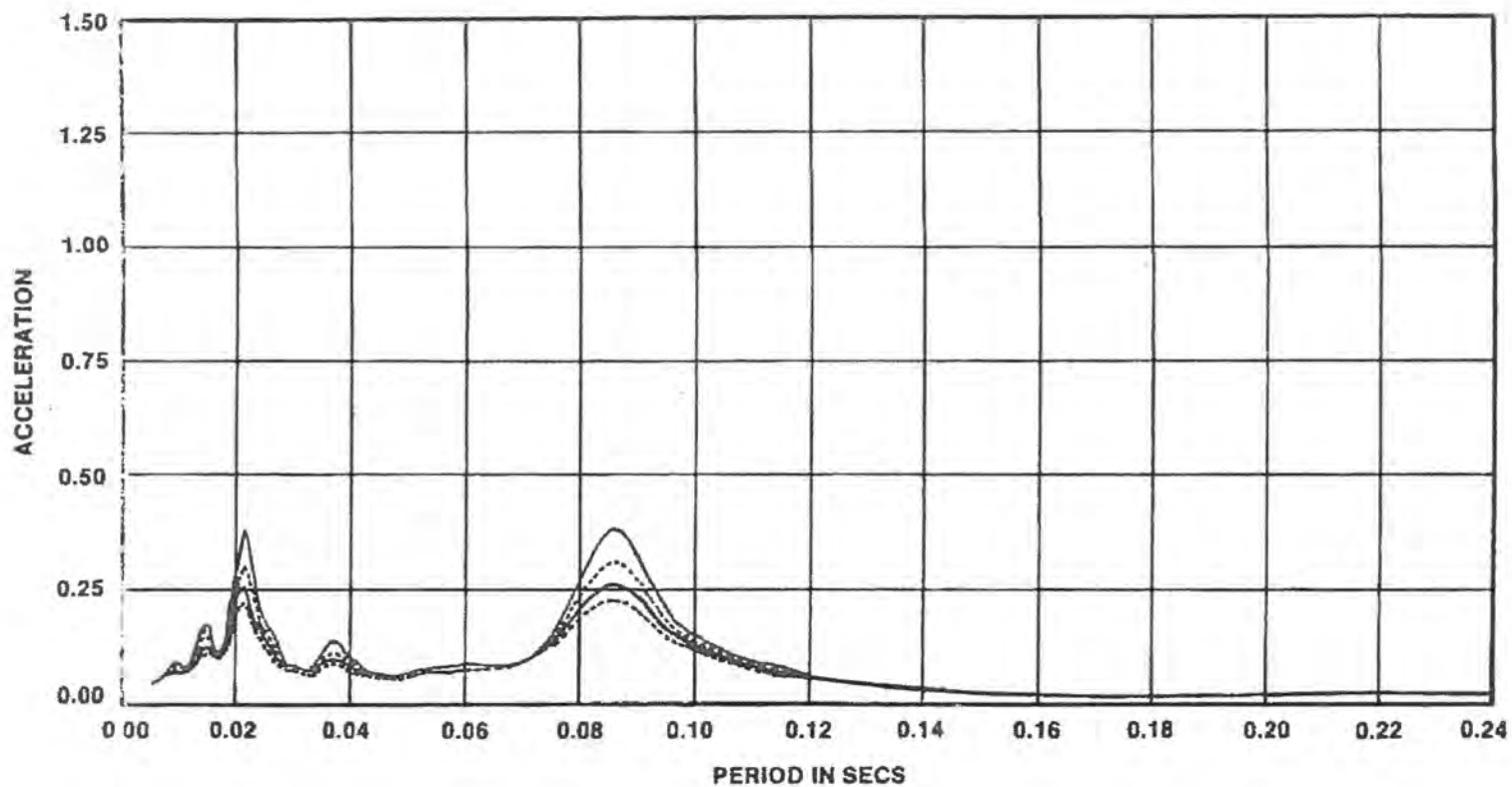


FIGURE 6A.5-19

ARS OF TANGENT ACCELERATION
PRIMARY CONTAINMENT (ELEV. 315.25
NODE 136) ADS SAFETY RELIEF VALVE
DISCHARGE ADS LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

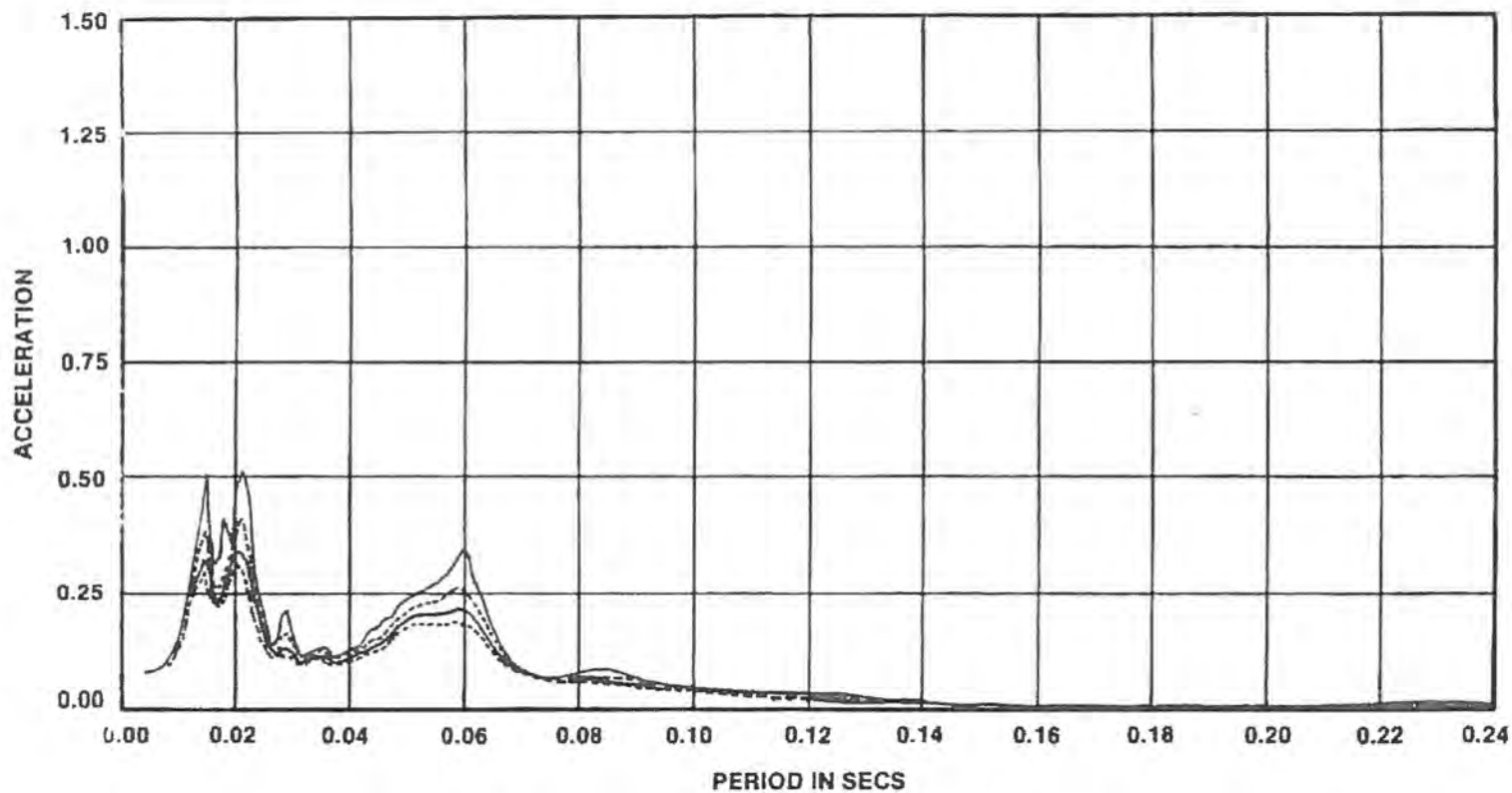


——— 0.010 OSCILLATOR DAMPING
 - - - - 0.020 OSCILLATOR DAMPING
 ——— 0.030 OSCILLATOR DAMPING
 - - - - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-20

ARS OF VERTICAL ACCELERATION
 PEDESTAL TOP (ELEV. 266.54 NODE 141)
 SAFETY RELIEF VALVE DISCHARGE
 SINGLE VALVE LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

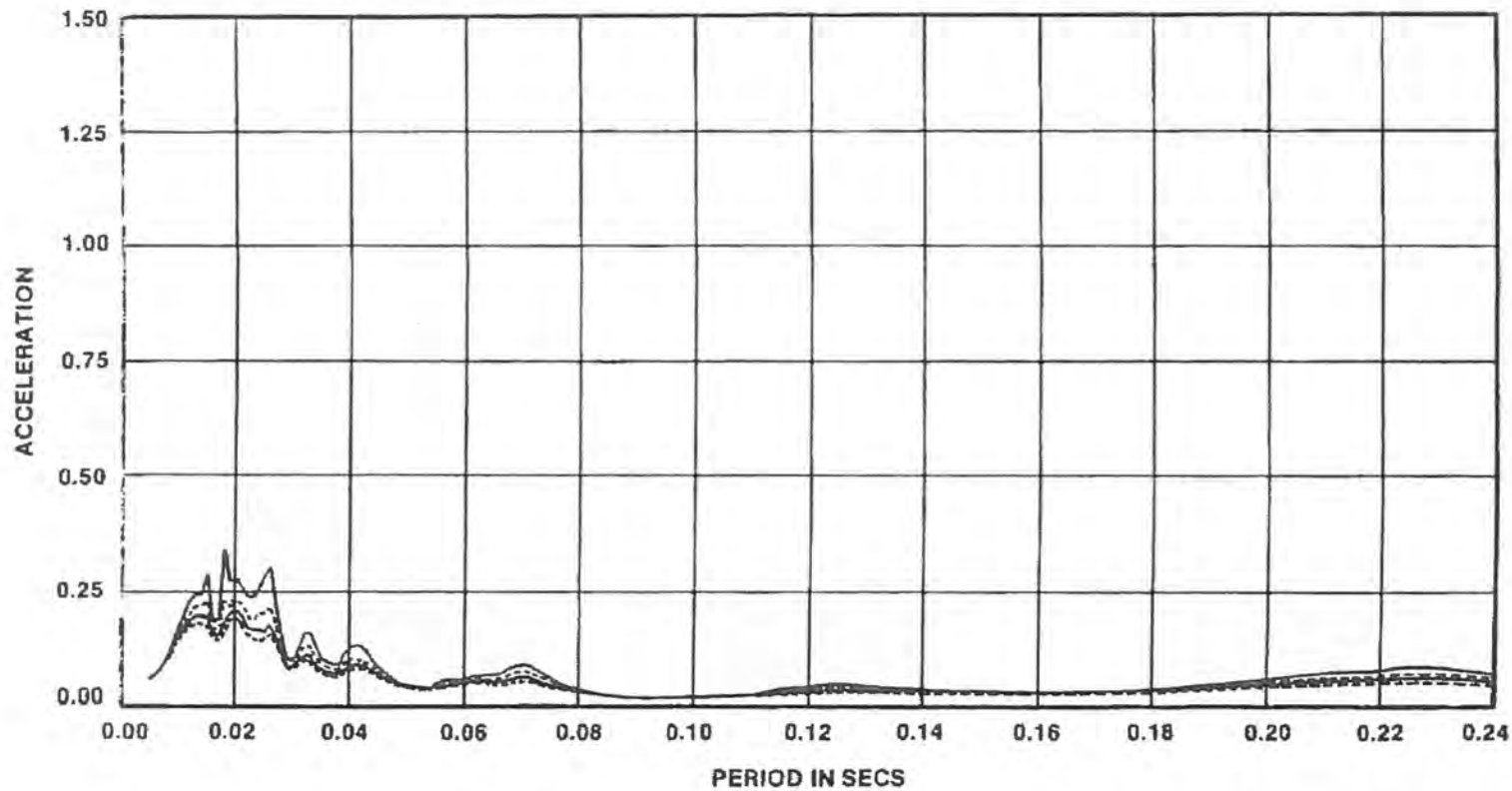


——— 0.010 OSCILLATOR DAMPING
 - - - - 0.020 OSCILLATOR DAMPING
 - - - - 0.030 OSCILLATOR DAMPING
 - . - . 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-21

ARS OF VERTICAL ACCELERATION
 PRIMARY CONTAINMENT (ELEV. 315.25
 NODE 136) SAFETY RELIEF VALVE
 DISCHARGE SINGLE VALVE LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

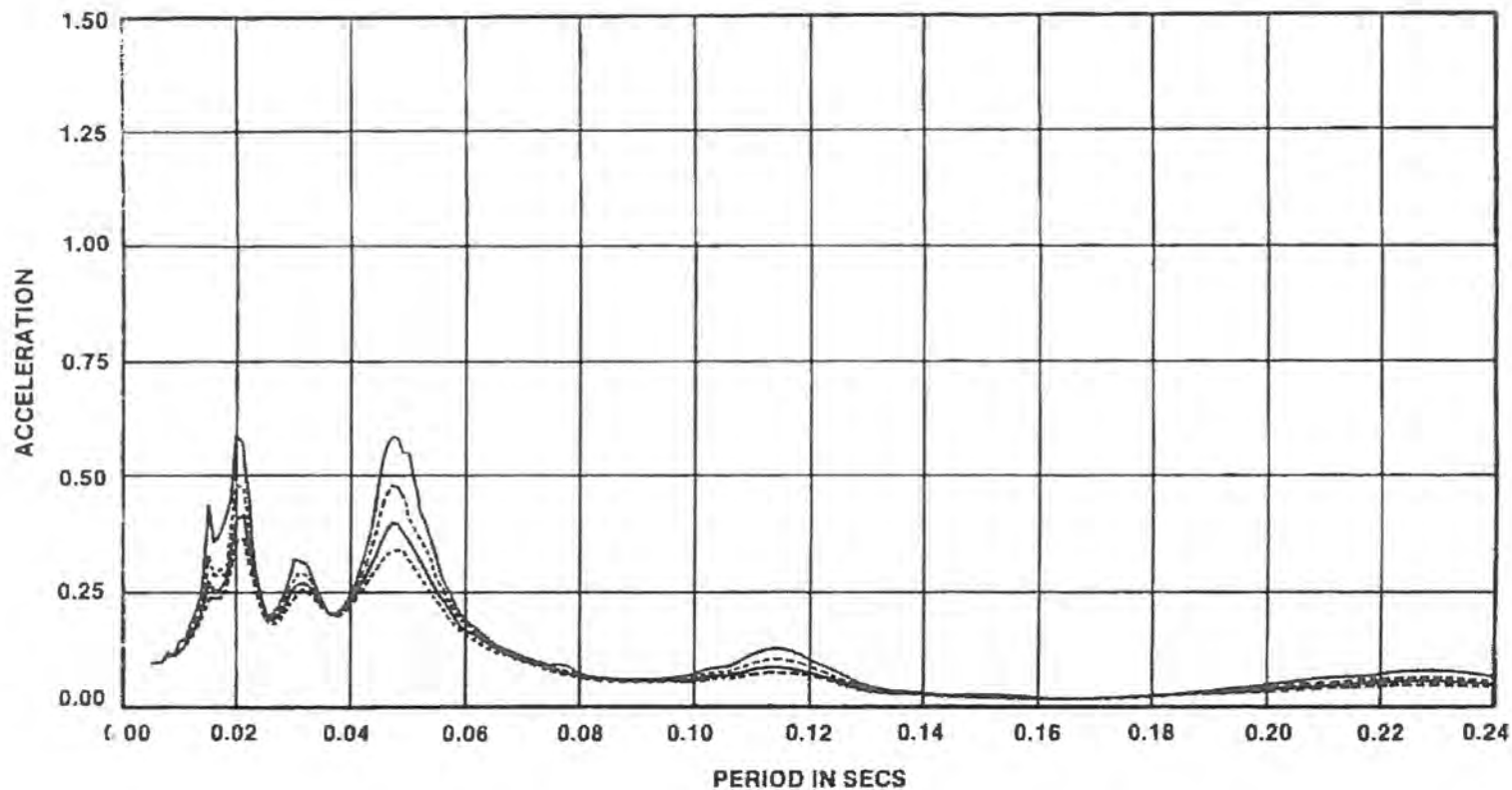


——— 0.010 OSCILLATOR DAMPING
 - - - - 0.020 OSCILLATOR DAMPING
 - - - - 0.030 OSCILLATOR DAMPING
 - . - . 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-22

ARS OF RADIAL ACCELERATION
 PEDESTAL TOP (ELEV. 266.54 NODE 141)
 SAFETY RELIEF VALVE DISCHARGE
 SINGLE VALVE LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

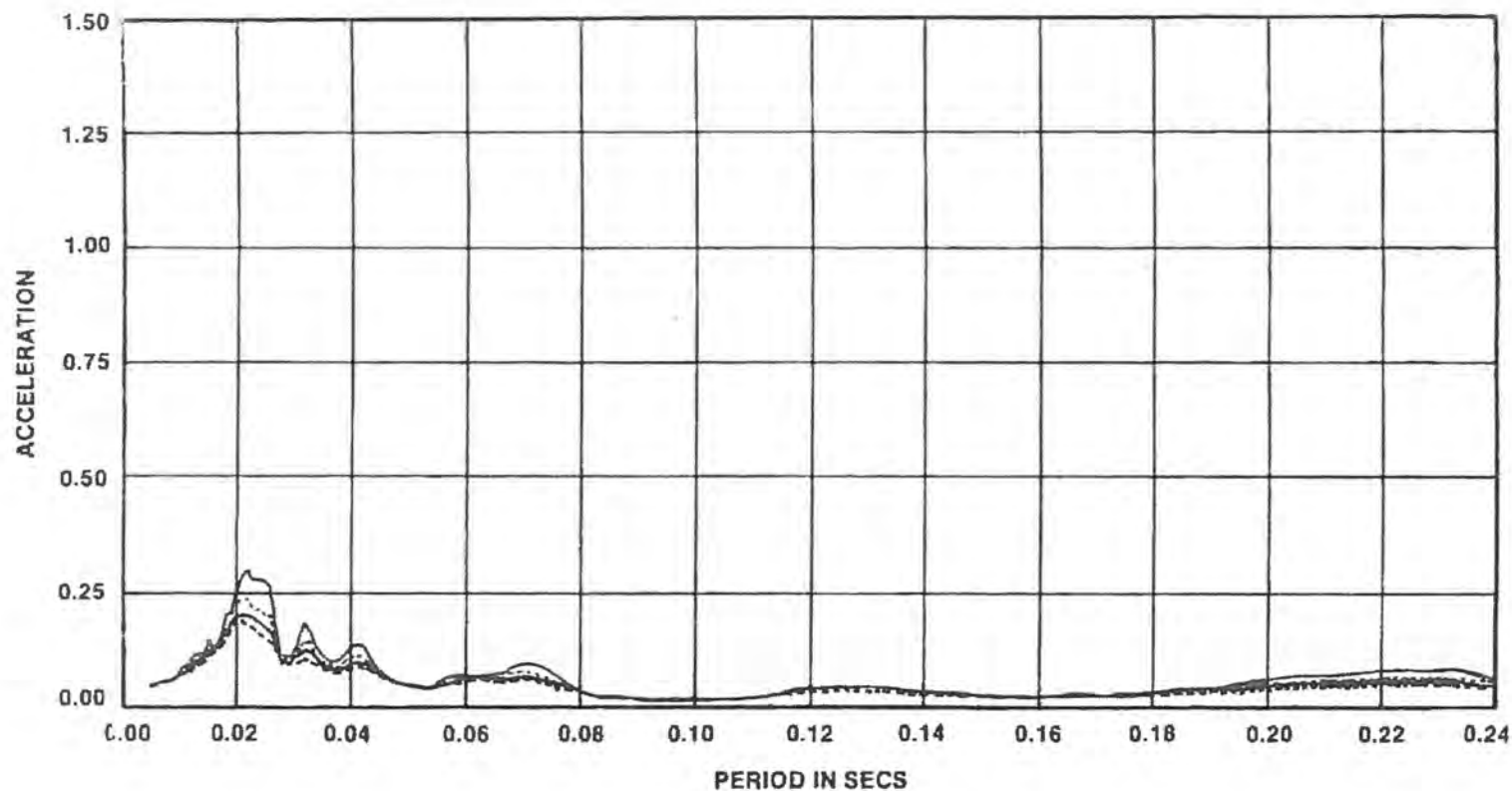


— 0.010 OSCILLATOR DAMPING
 - - - 0.020 OSCILLATOR DAMPING
 - - - - 0.030 OSCILLATOR DAMPING
 - · - · 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-23

ARS OF RADIAL ACCELERATION
 PRIMARY CONTAINMENT (ELEV 315.25
 NODE 136) SAFETY RELIEF VALVE
 DISCHARGE SINGLE VALVE LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

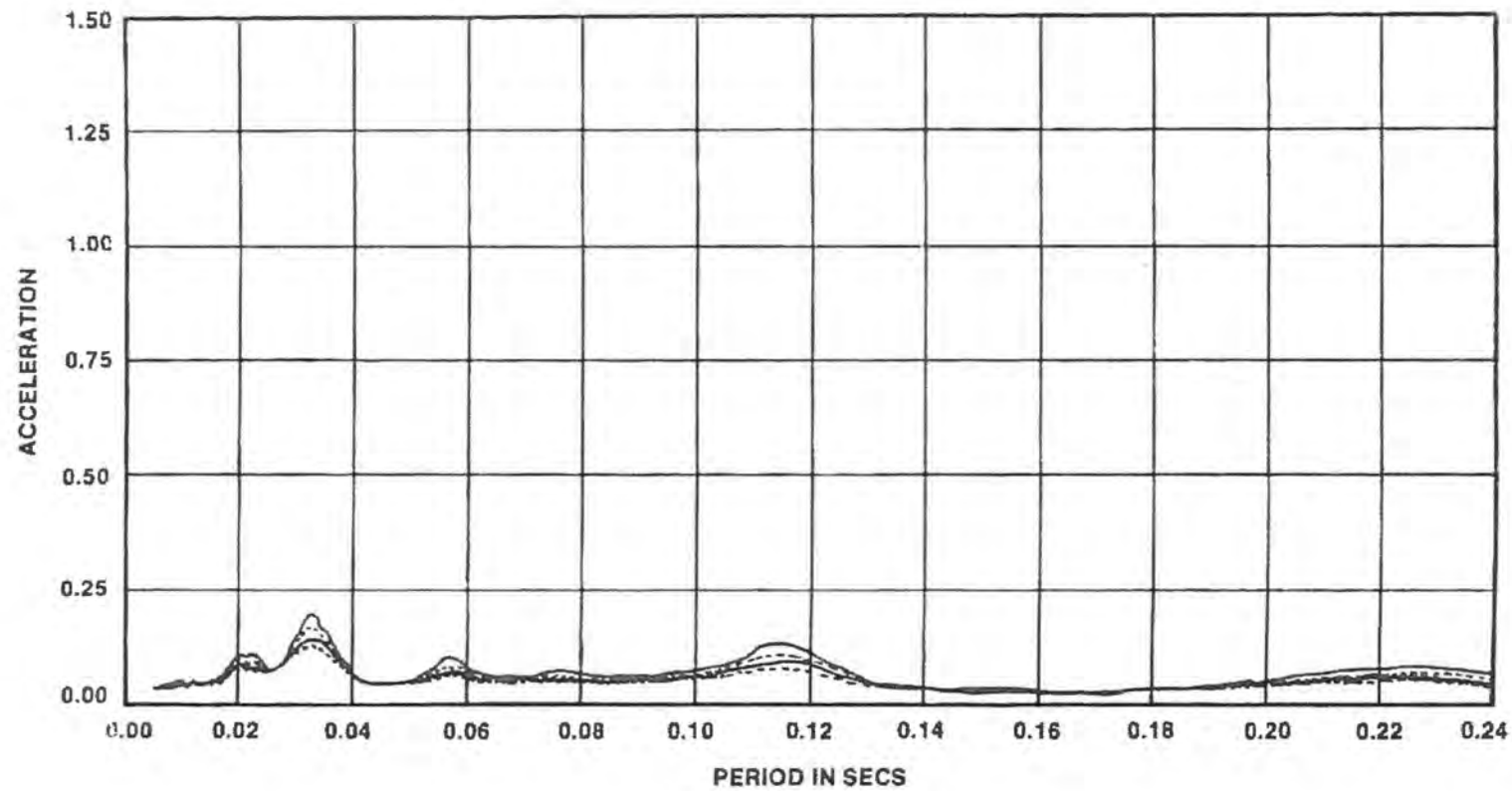


————— 0.010 OSCILLATOR DAMPING
 - - - - - 0.020 OSCILLATOR DAMPING
 - - - - - 0.030 OSCILLATOR DAMPING
 - . - . - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-24

ARS OF TANGENT ACCELERATION
 PEDESTAL TOP (ELEV. 266.54 NODE 141)
 SAFETY RELIEF VALVE DISCHARGE
 SINGLE VALVE LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

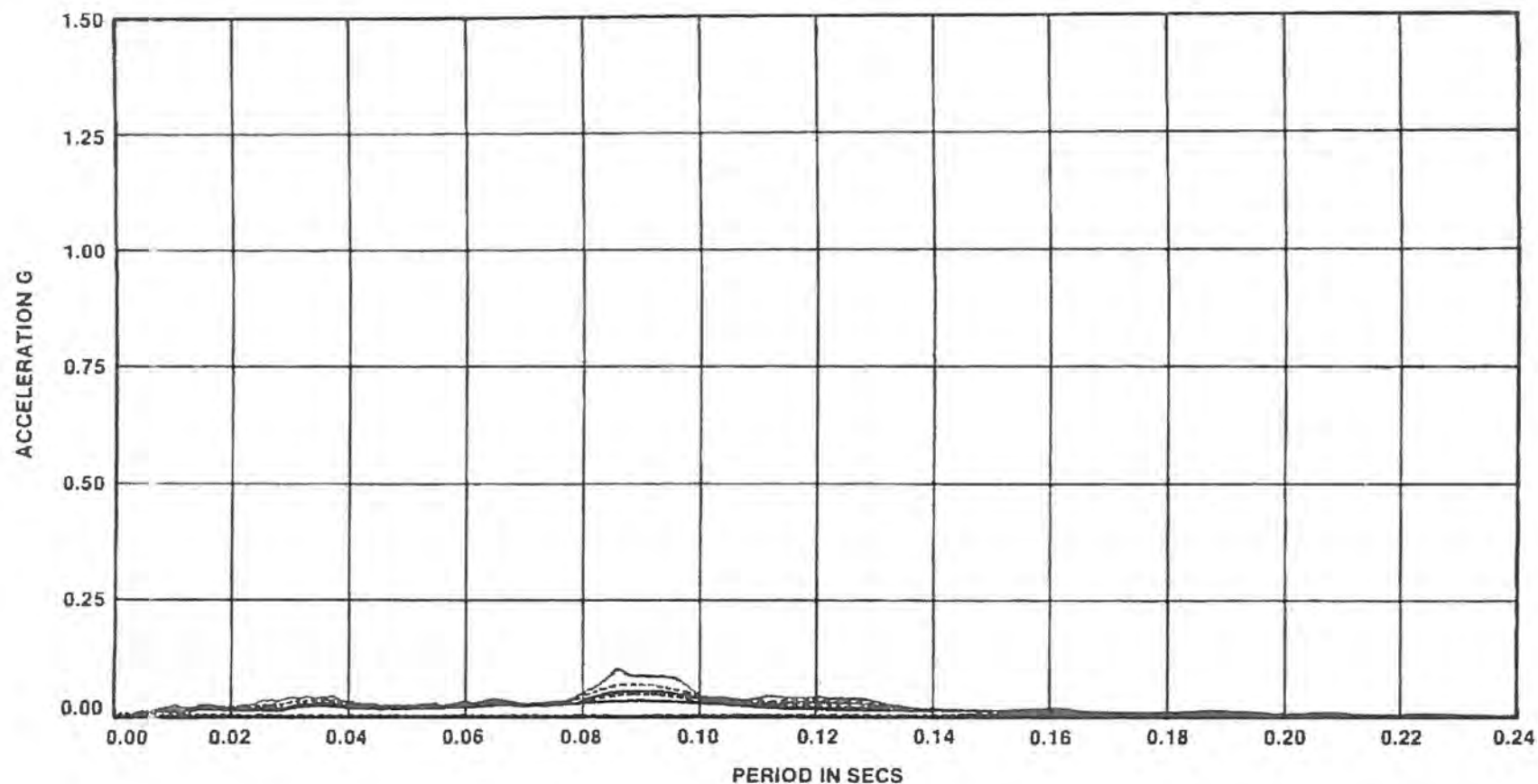


—— 0.010 OSCILLATOR DAMPING
- - - 0.020 OSCILLATOR DAMPING
—— 0.030 OSCILLATOR DAMPING
- - - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-25

ARS OF TANGENT ACCELERATION
PRIMARY CONTAINMENT (ELEV. 315.25
NODE 136) SAFETY RELIEF VALVE
DISCHARGE SINGLE VALVE LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

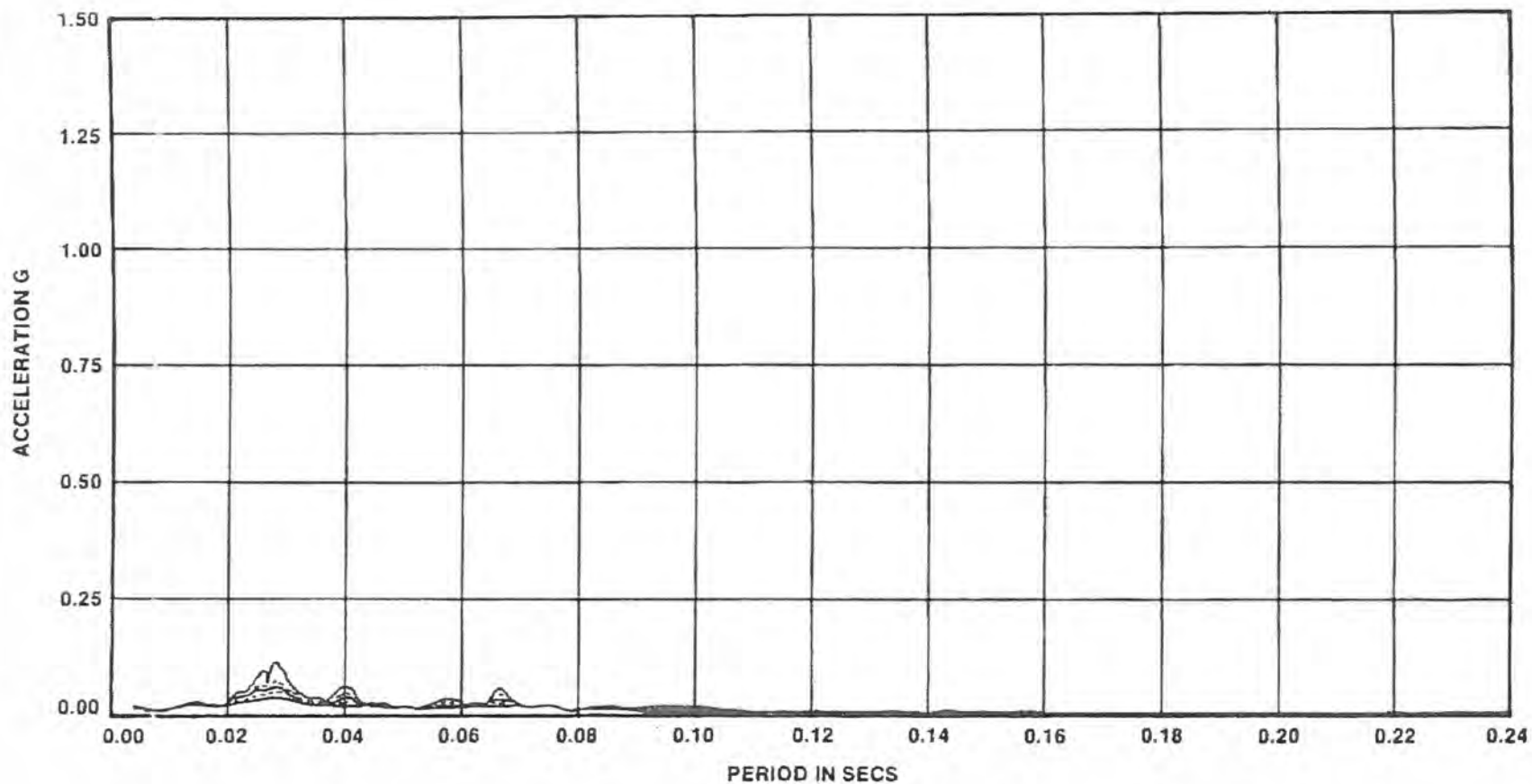


——— 0.010 OSCILLATOR DAMPING
 - - - - 0.020 OSCILLATOR DAMPING
 ——— 0.030 OSCILLATOR DAMPING
 - - - - 0.040 OSCILLATOR DAMPING
 ——— 0.070 OSCILLATOR DAMPING

FIGURE 6A.5-26

ARS OF VERTICAL ACCELERATION
 TOP OF PEDESTAL (ELEV. 266.54)
 DYNAMIC ANALYSIS OF LOCA PRESSURE

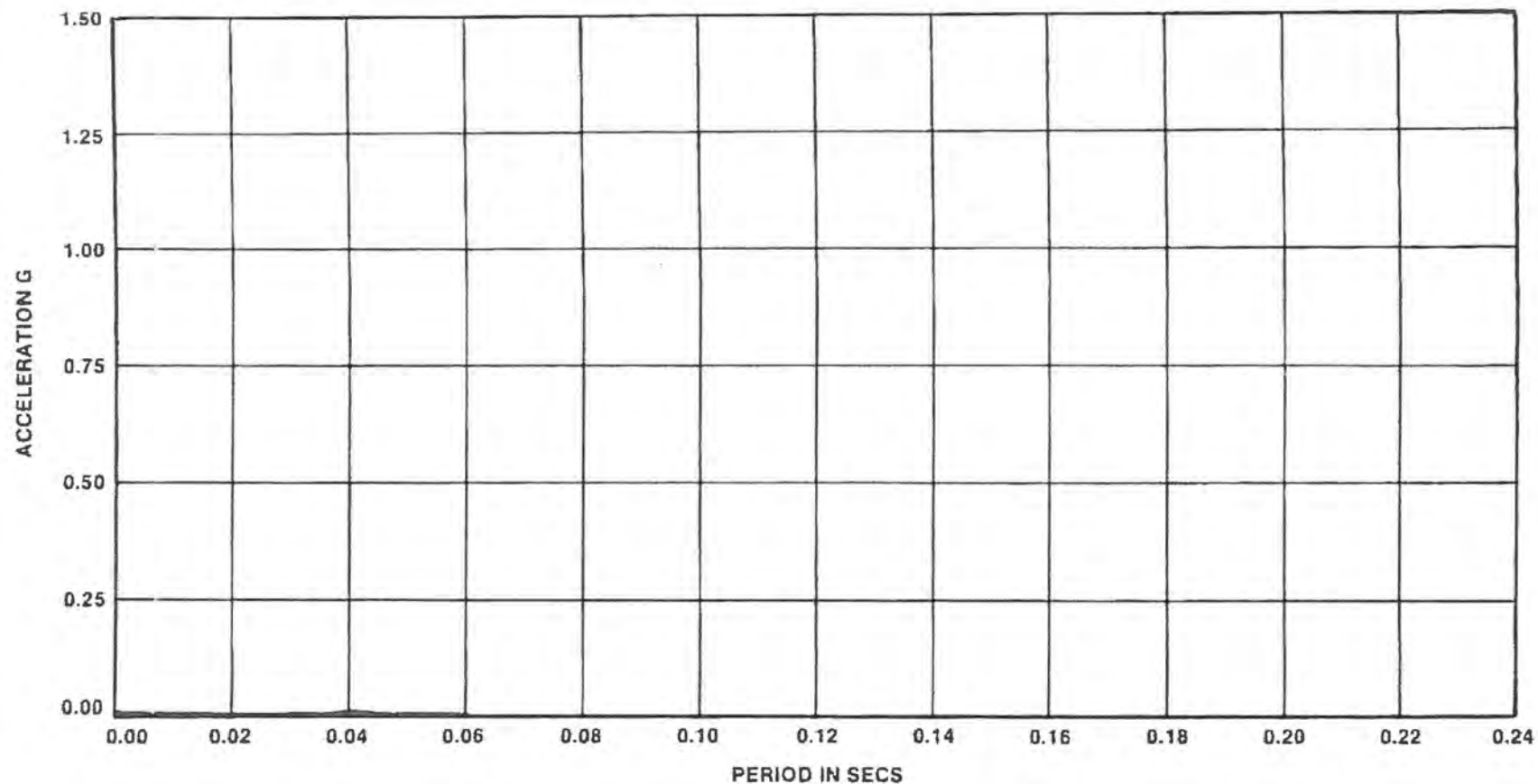
NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT



———— 0.010 OSCILLATOR DAMPING
----- 0.020 OSCILLATOR DAMPING
———— 0.030 OSCILLATOR DAMPING
----- 0.040 OSCILLATOR DAMPING

ARS OF VERTICAL ACCELERATION
PRIMARY CONTAINMENT (ELEV. 315.08)
DYNAMIC ANALYSIS OF LOCA PRESSURE

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

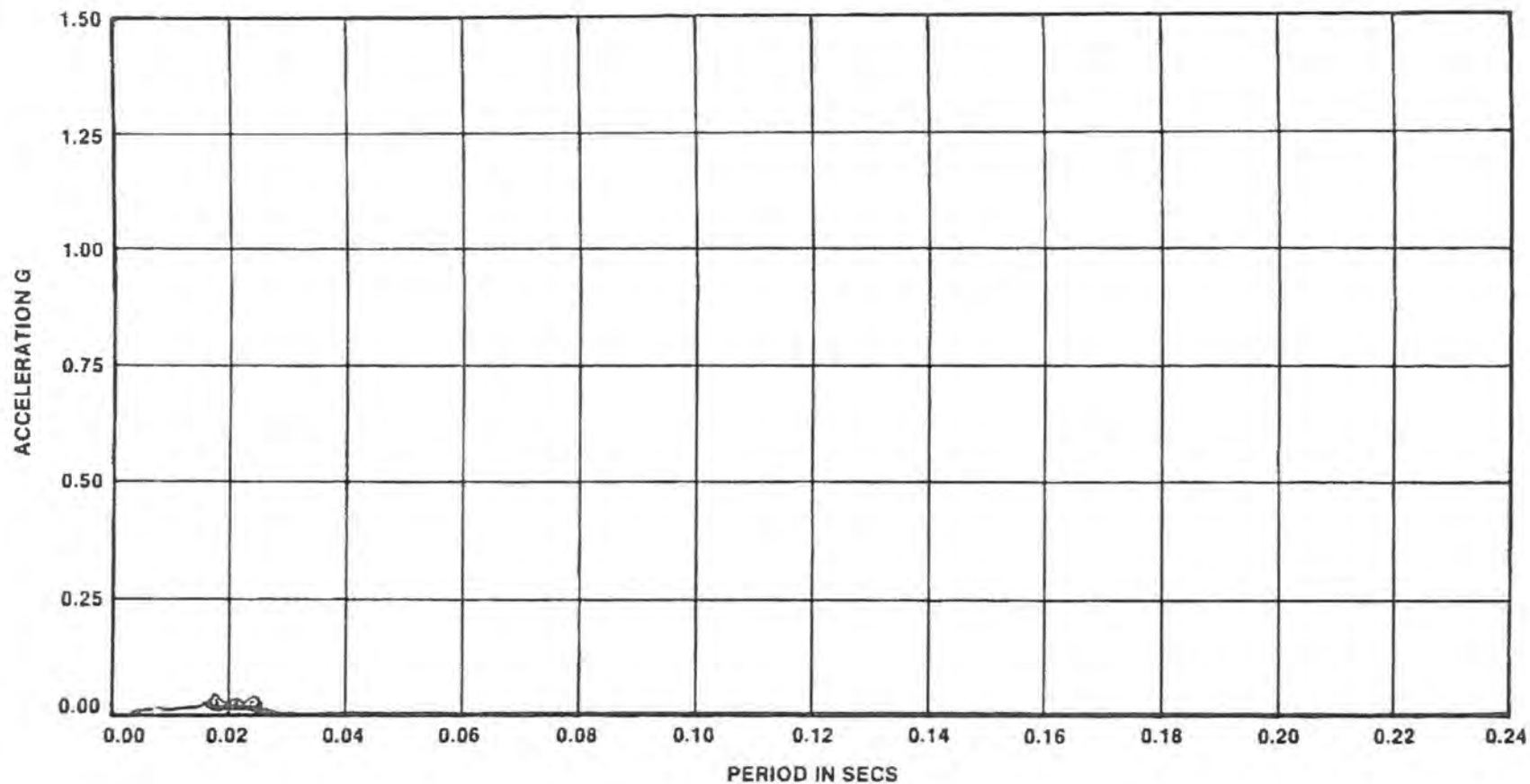


——— 0.010 OSCILLATOR DAMPING
 - - - - 0.020 OSCILLATOR DAMPING
 ——— 0.030 OSCILLATOR DAMPING
 - - - - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-28

ARS OF RADIAL ACCELERATION
 TOP OF PEDESTAL (ELEV. 266.54)
 DYNAMIC ANALYSIS OF LOCA PRESSURE

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

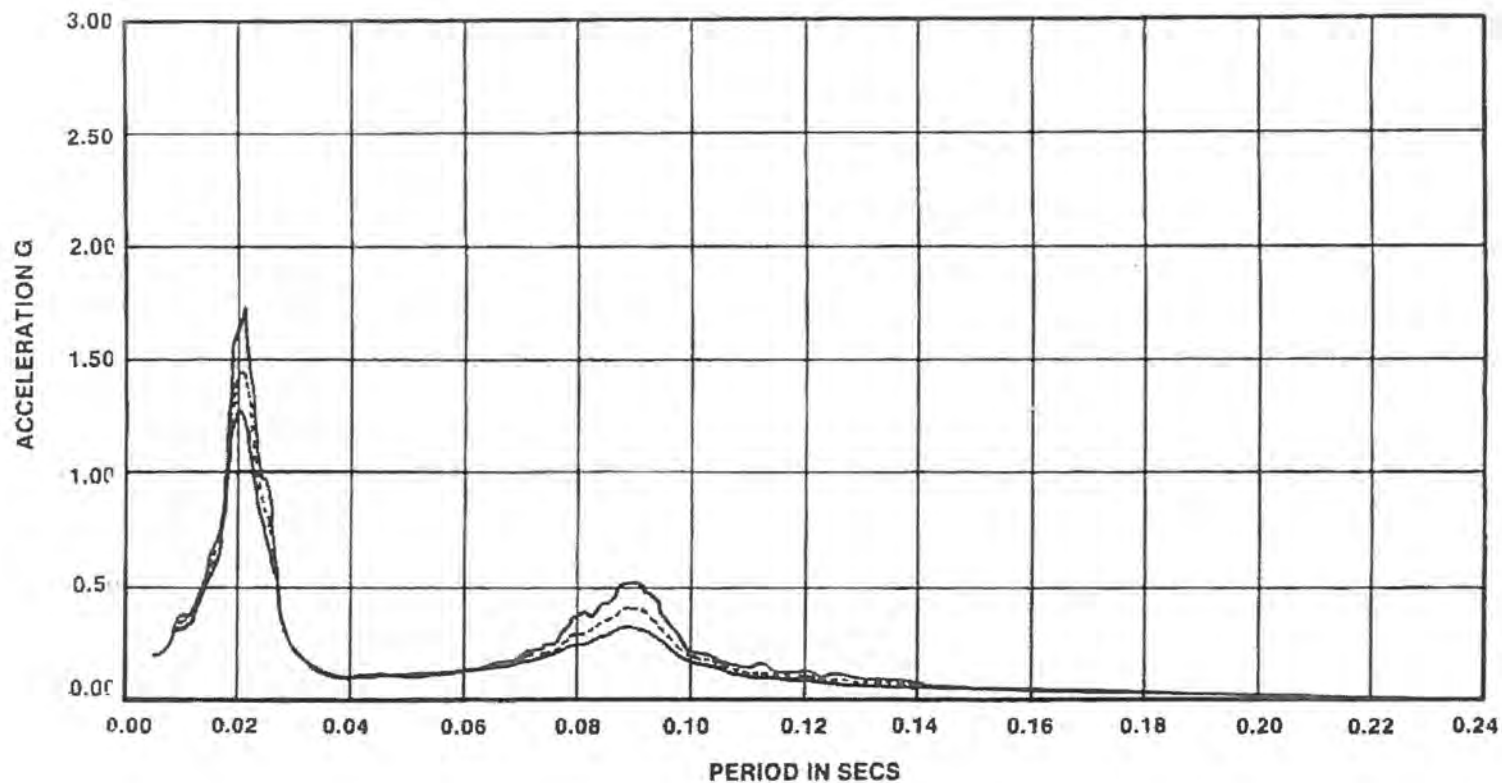


——— 0.010 OSCILLATOR DAMPING
 - - - - 0.020 OSCILLATOR DAMPING
 ——— 0.030 OSCILLATOR DAMPING
 - - - - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-29

ARS OF RADIAL ACCELERATION
 PRIMARY CONTAINMENT (ELEV. 315.08)
 DYNAMIC ANALYSIS OF LOCA PRESSURE

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

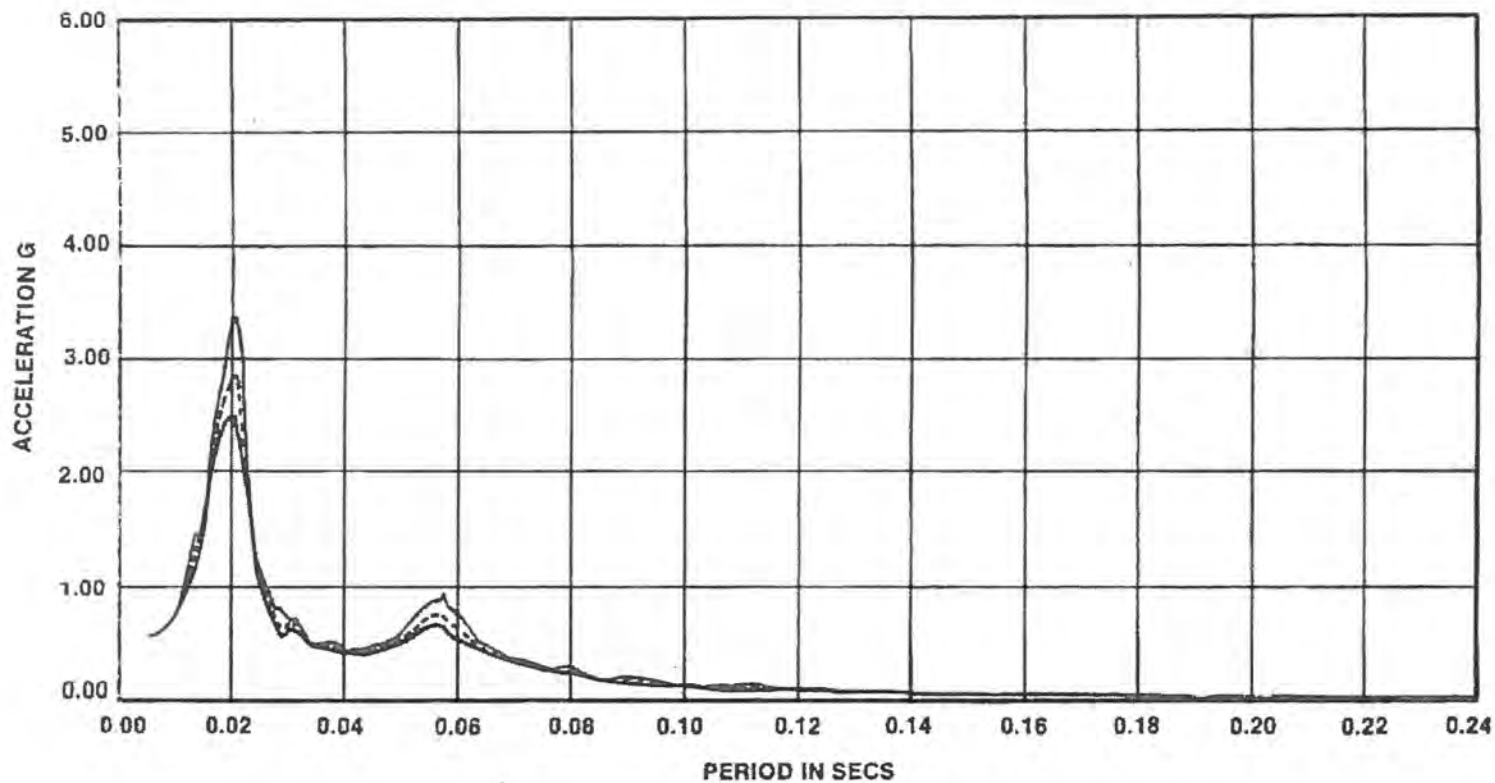


——— 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 ——— 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-30

ARS OF VERTICAL ACCELERATION
 PEDESTAL TOP (ELEV. 266.54)
 CONDENSATION OSCILLATION LOAD
 ANALYSIS (BASIC)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

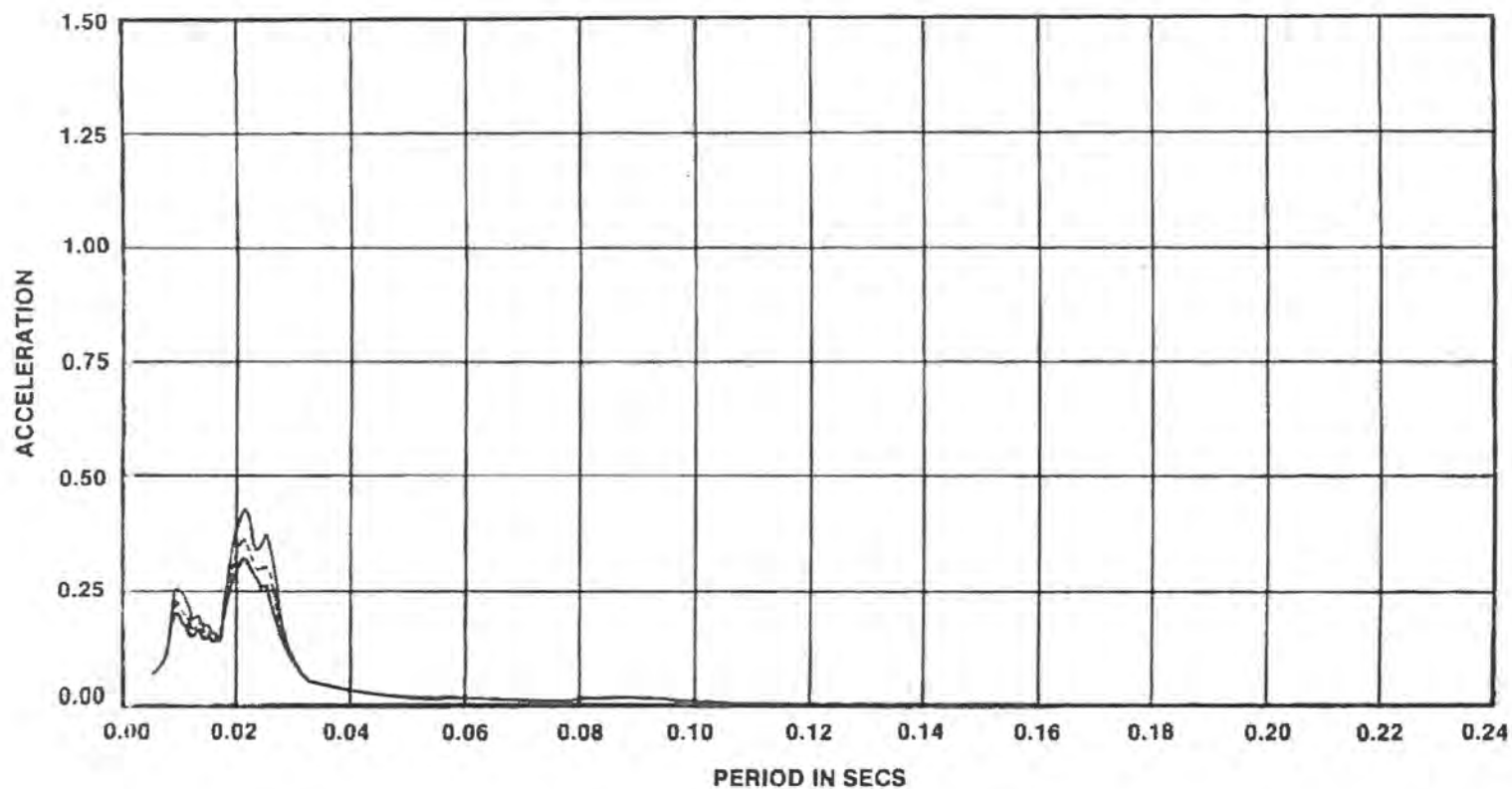


——— 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 ——— 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-31

ARS OF VERTICAL ACCELERATION
 PRIMARY CONTAINMENT (ELEV. 315.25)
 CONDENSATION OSCILLATION
 LOAD ANALYSIS (BASIC)

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

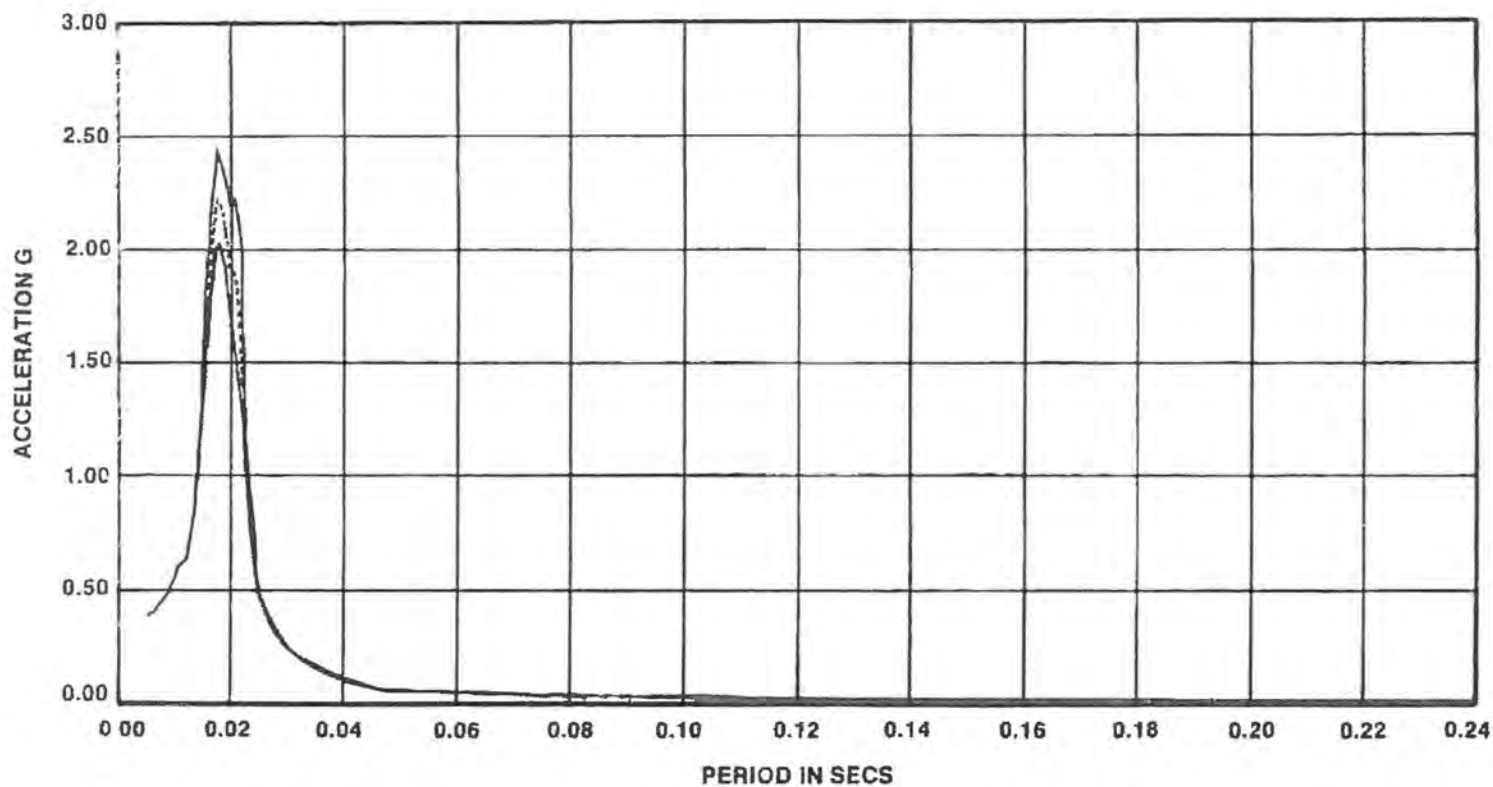


——— 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 ——— 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-32

ARS OF RADIAL ACCELERATION
 PEDESTAL TOP (ELEV. 266.54 NODE 141)
 CONDENSATION OSCILLATION LOAD
 ANALYSIS (BASIC)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT



——— 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 ——— 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-33

ARS OF RADIAL ACCELERATION
 PRIMARY CONTAINMENT (ELEV. 315.25)
 CONDENSATION OSCILLATION
 LOAD ANALYSIS (BASIC)

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

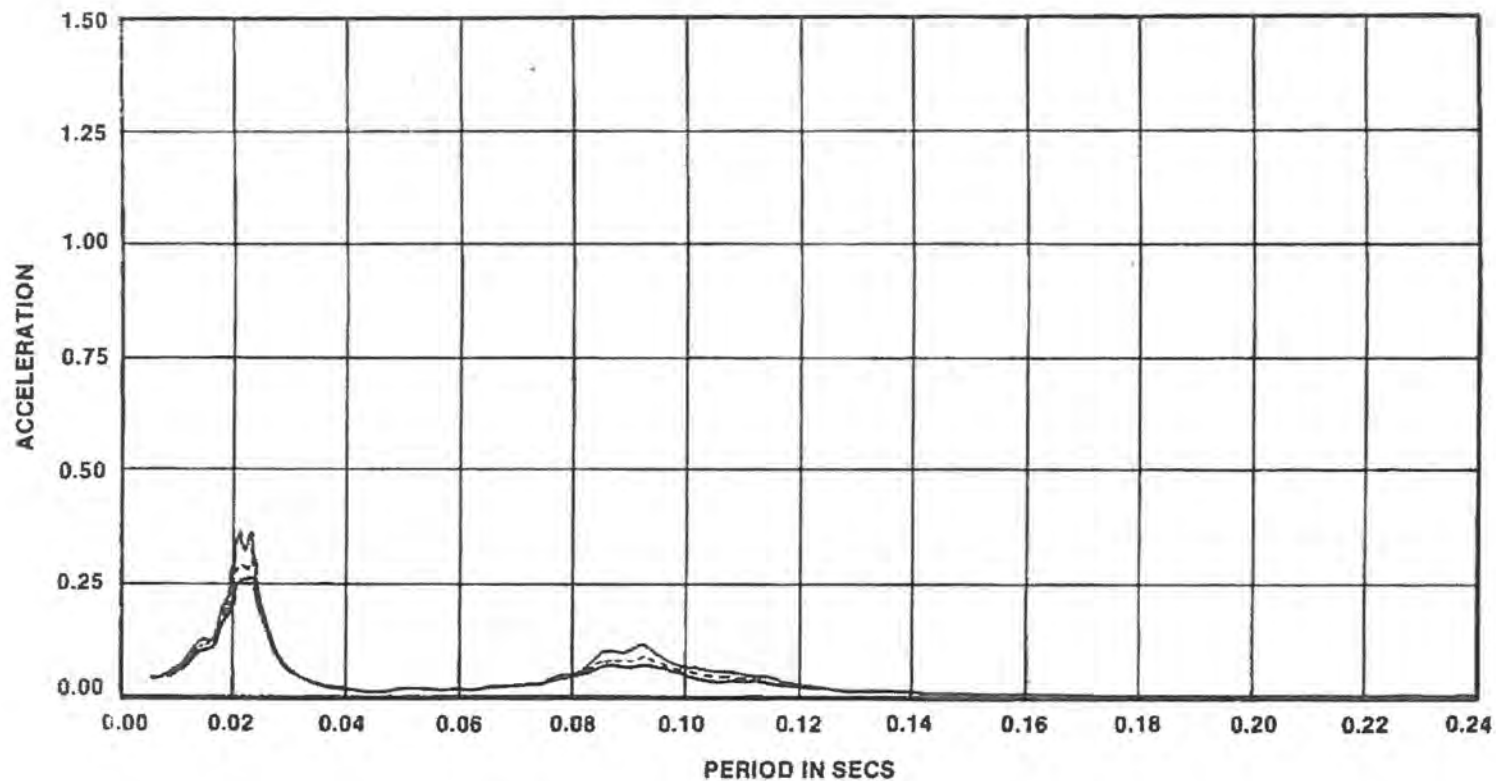
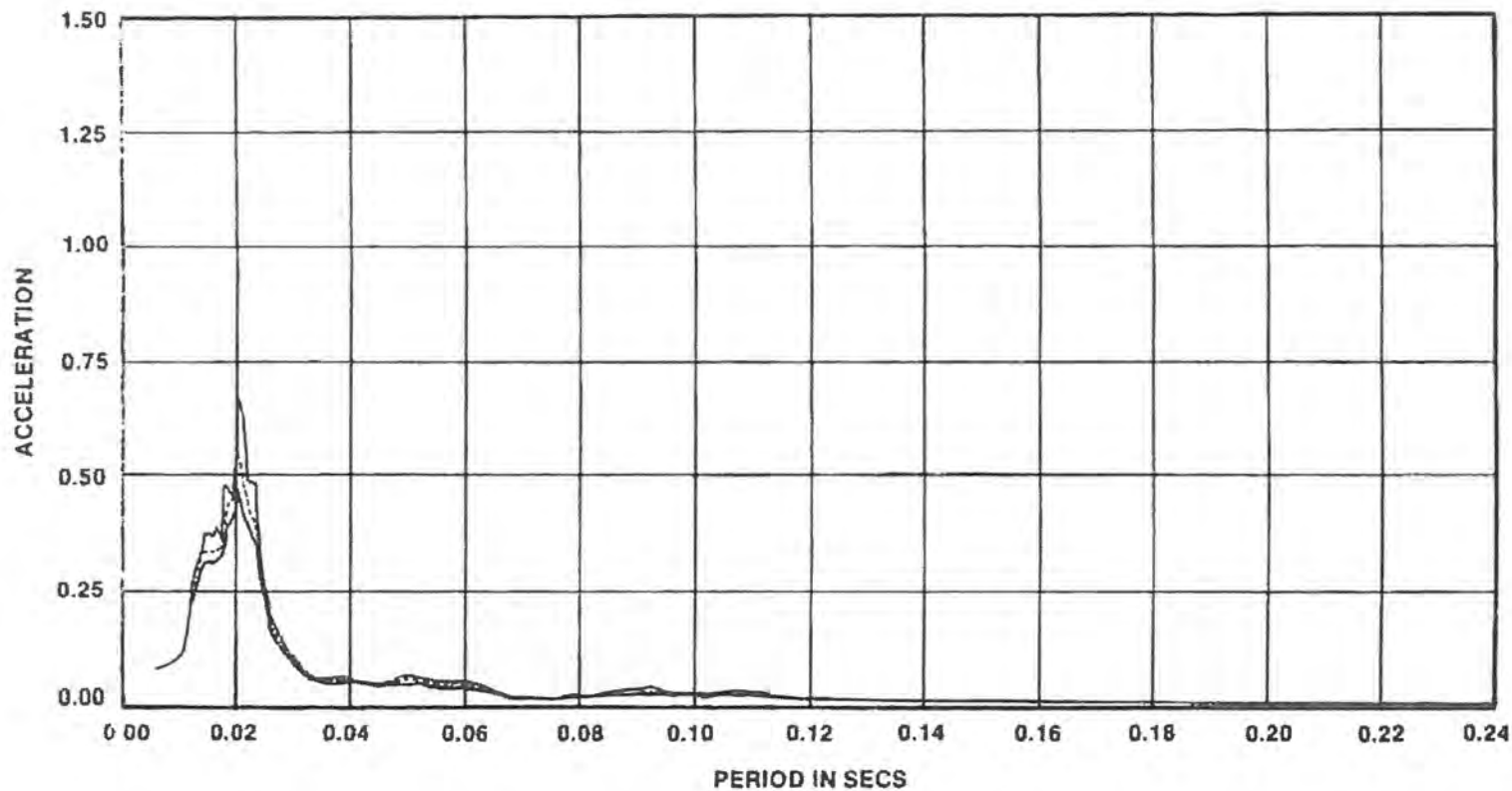


FIGURE 6A.5-34

ARS OF VERTICAL ACCELERATION
PEDESTAL TOP (ELEV. 266.54)
CONDENSATION OSCILLATION LOAD
ANALYSIS ADS LOADING

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

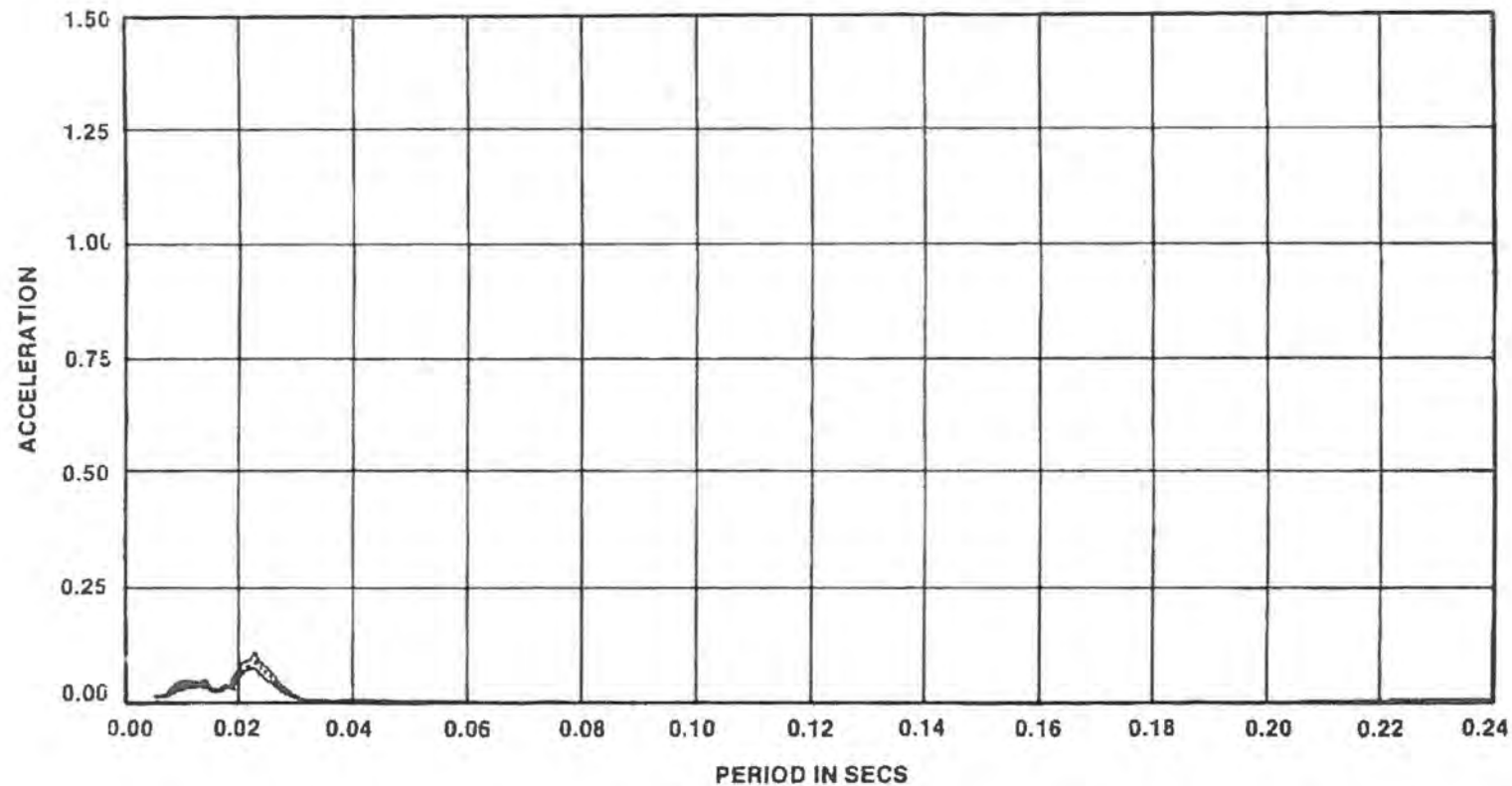


——— 0.020 OSCILLATOR DAMPING
 - - - - 0.030 OSCILLATOR DAMPING
 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-35

ARS OF VERTICAL ACCELERATION
 PRIMARY CONTAINMENT (ELEV. 315.25
 NODE 136) CONDENSATION OSCILLATION
 LOAD ANALYSIS ADS LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

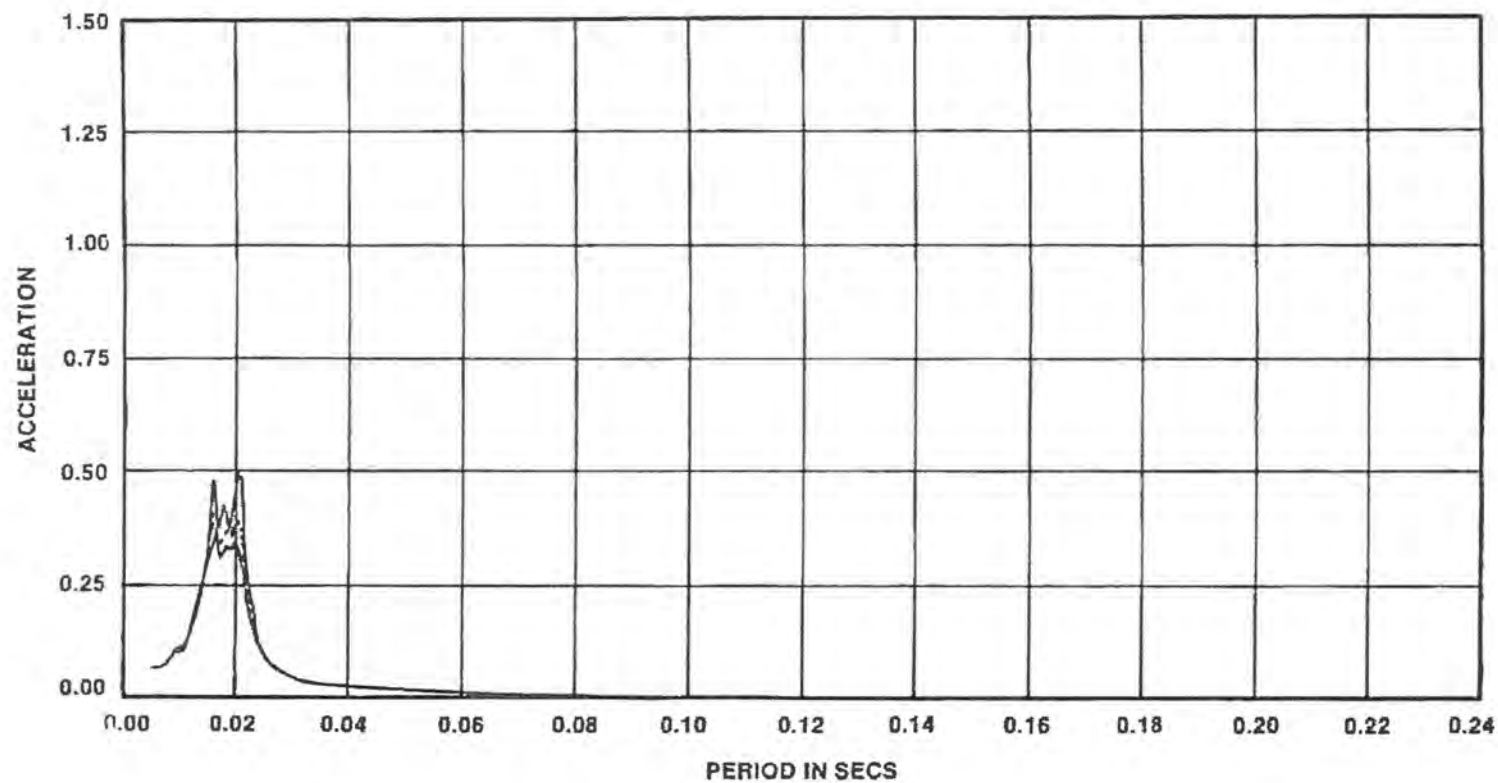


——— 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 - . - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-36

ARS OF RADIAL ACCELERATION
 PEDESTAL TOP (ELEV. 266.54 NODE 141)
 CONDENSATION OSCILLATION LOAD
 ANALYSIS ADS LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

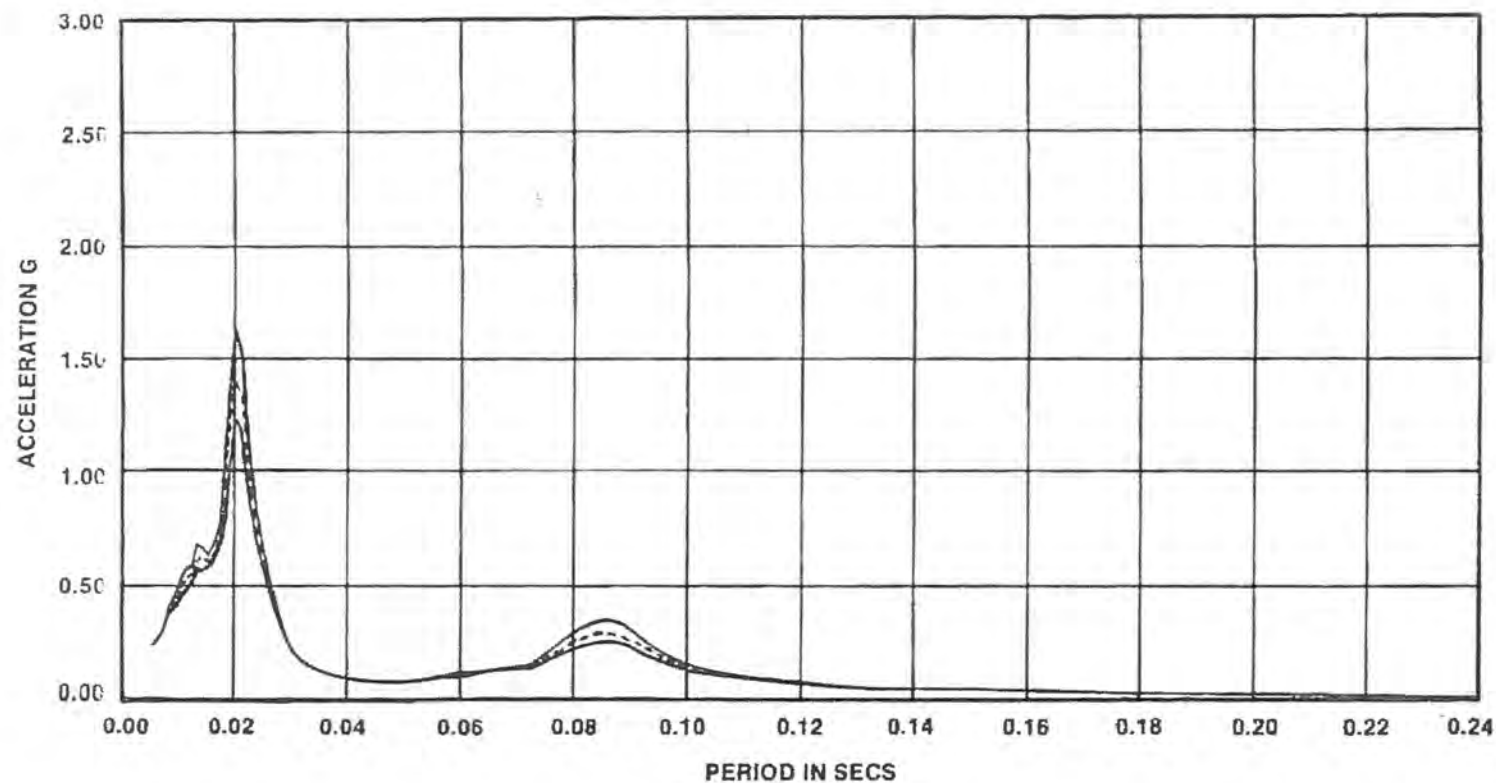


——— 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 ——— 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-37

ARS OF RADIAL ACCEL. — PRIM.
 CONTAINMENT (EL. 315.25)
 CONDENSATION OSCILLATION LOAD
 ANALYSIS ADS LOADING

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

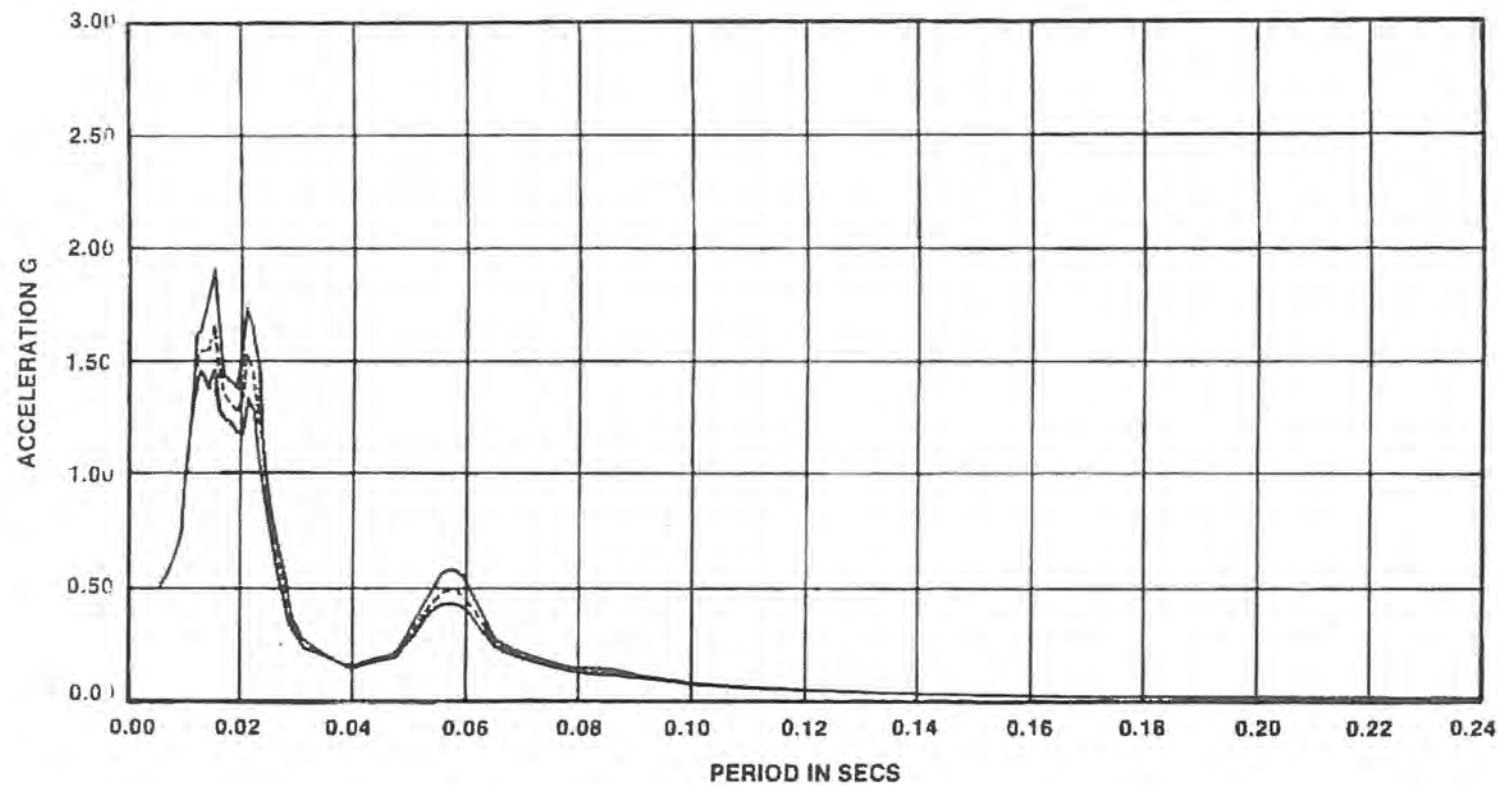


——— 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 ——— 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-38

ARS OF VERTICAL ACCELERATION
 PEDESTAL TOP (ELEV. 266.54)
 800 SERIES CHUGGING LOADS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

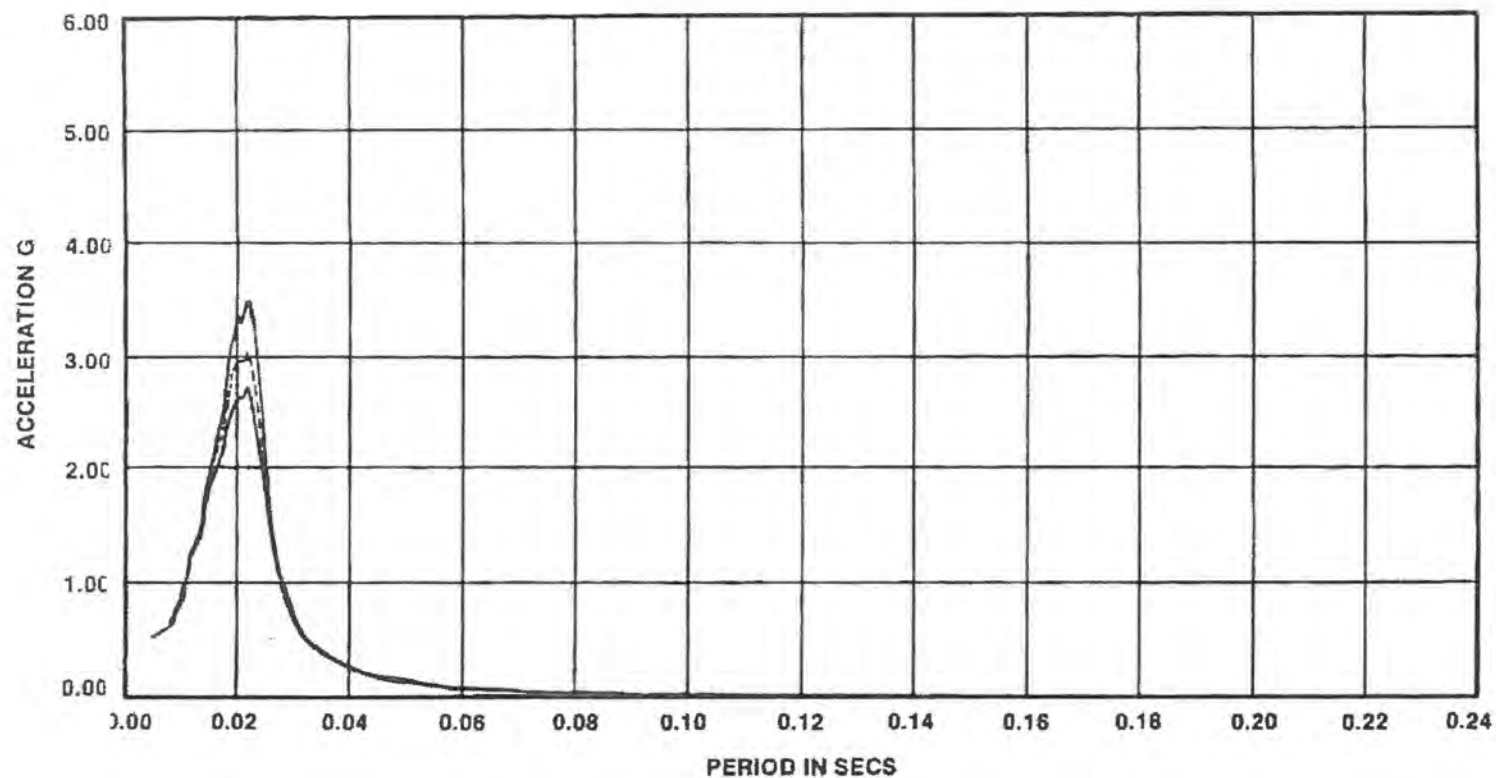


——— 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 ——— 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-39

ARS OF VERTICAL ACCELERATION
 PRIMARY CONTAINMENT (ELEV. 315.25)
 800 SERIES CHUGGING LOADS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

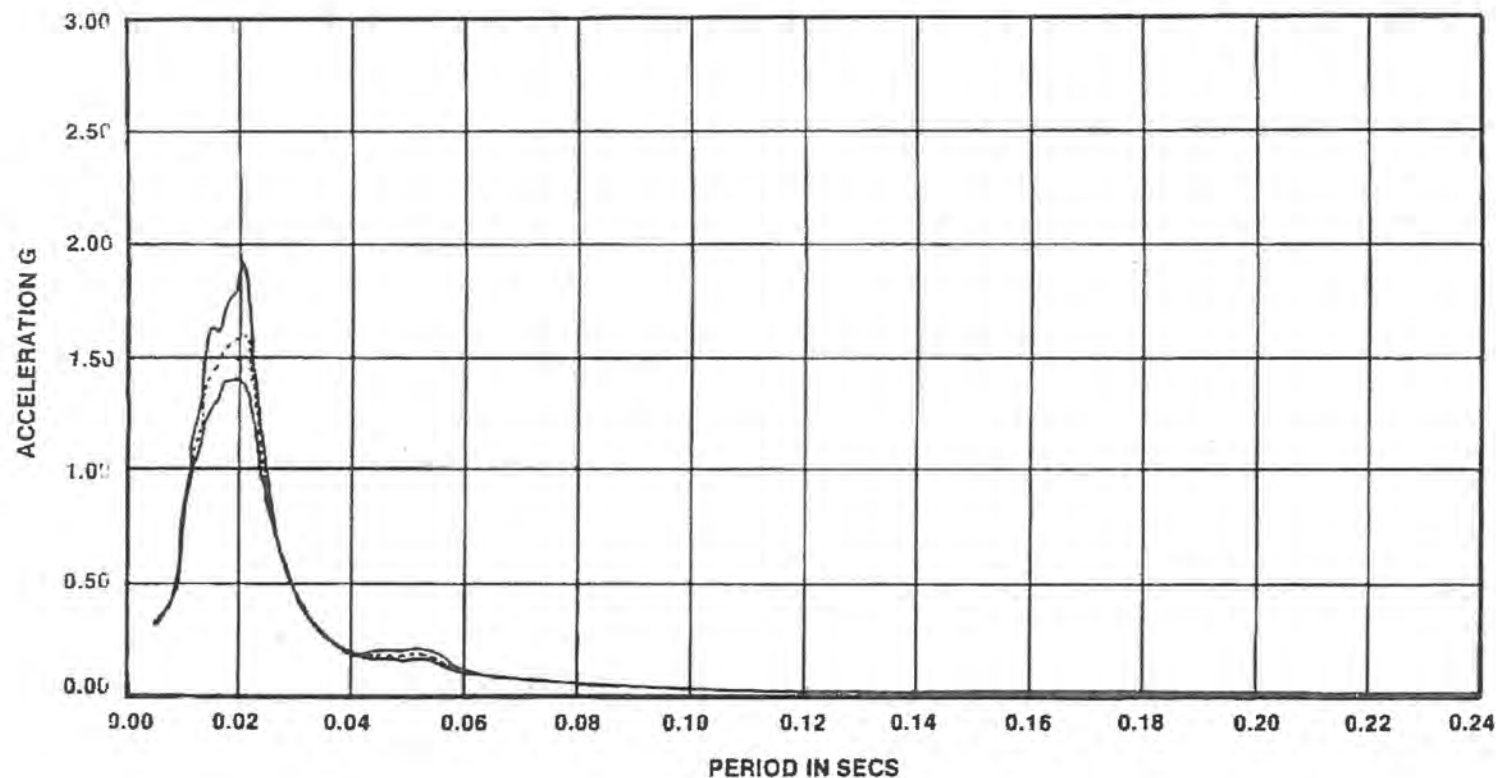


——— 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 ——— 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-40

ARS OF RADIAL ACCELERATION
 PEDESTAL TOP (ELEV. 266.54)
 800 SERIES CHUGGING LOADS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

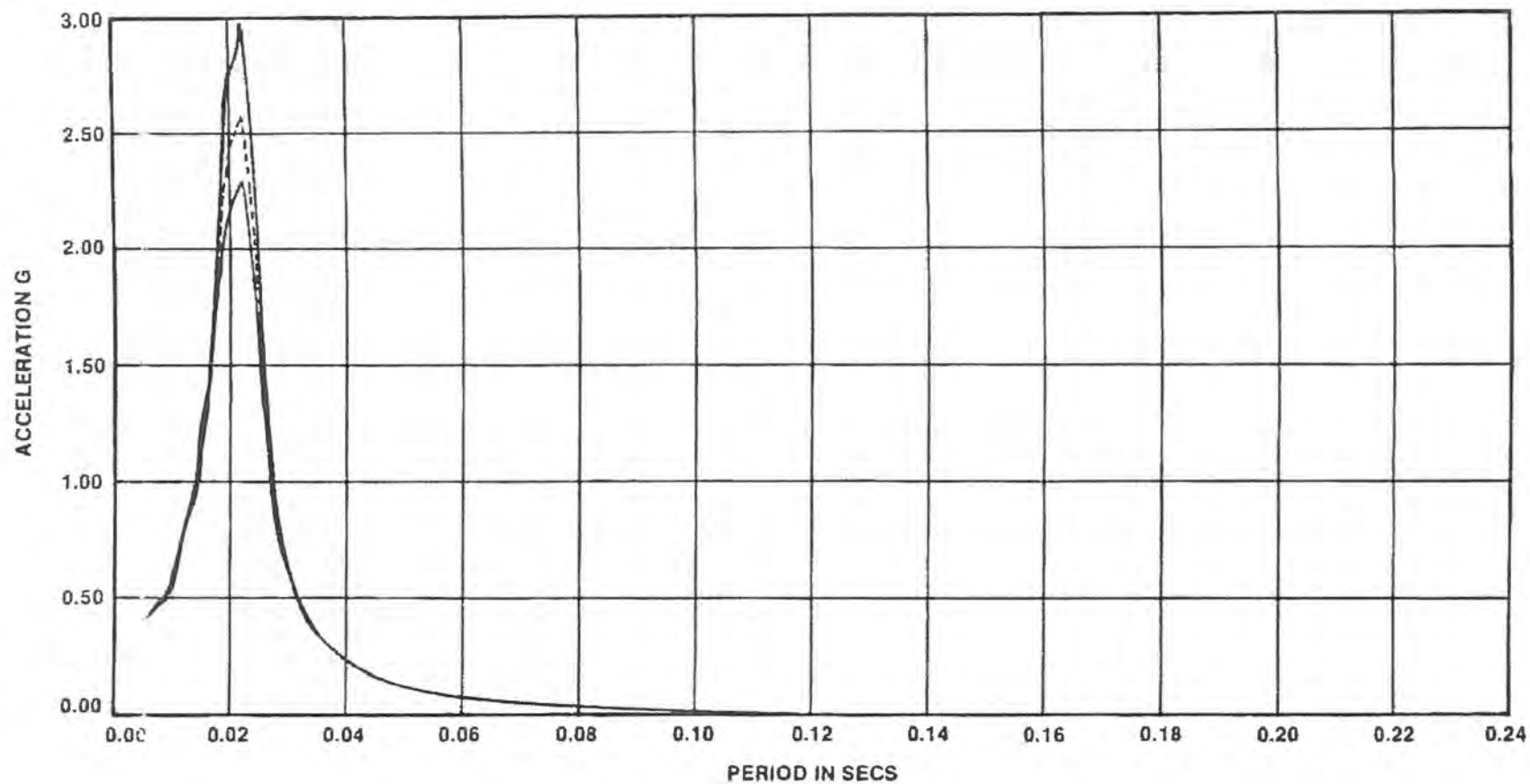


— 0.020 OSCILLATOR DAMPING
- - - 0.030 OSCILLATOR DAMPING
— 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-41

ARS OF RADIAL ACCELERATION
PRIMARY CONTAINMENT (ELEV. 315.25)
800 SERIES CHUGGING LOADS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



——— 0.020 OSCILLATOR DAMPING
 - - - 0.030 OSCILLATOR DAMPING
 - · - 0.040 OSCILLATOR DAMPING

FIGURE 6A.5-42

ARS OF TANGENT ACCELERATION
 PEDESTAL TOP (ELEV. 266.54)
 800 SERIES CHUGGING LOADS

NIAGARA MOHAWK POWER CORPORATION
 NINE MILE POINT-UNIT 2
 FINAL SAFETY ANALYSIS REPORT

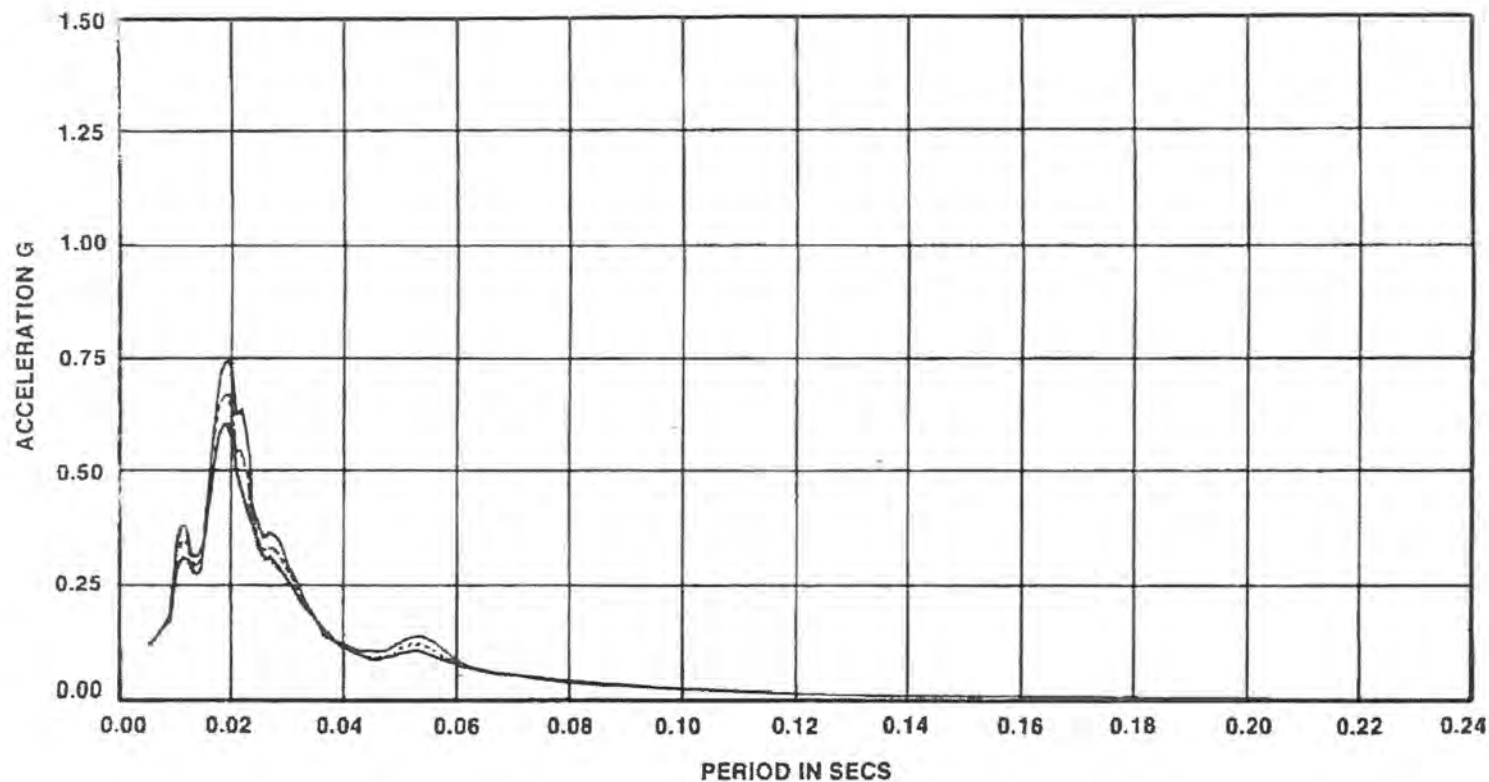


FIGURE 6A.5-43

ARS OF TANGENT ACCELERATION
PRIMARY CONTAINMENT (ELEV. 315.25)
800 SERIES CHUGGING LOADS

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

TYPE OF SUPPORT	LOCATION (NODE)
RPV NOZZLE	5, 480, 580
PRIMARY CONTAINMENT PENETRATION	280, 285, 290, 295, 300, 305, 310
SNUBBERS	37, 39, 40, 74, 94, 95, 133, 140, 158, 180, 181, 183, 420, 421, 450, 451, 521, 535, 547, 550
RIGID RESTRAINTS	215, 220, 250, 265, 534
SPRING HANGERS	10, 69, 105, 157, 185, 235, 470, 530

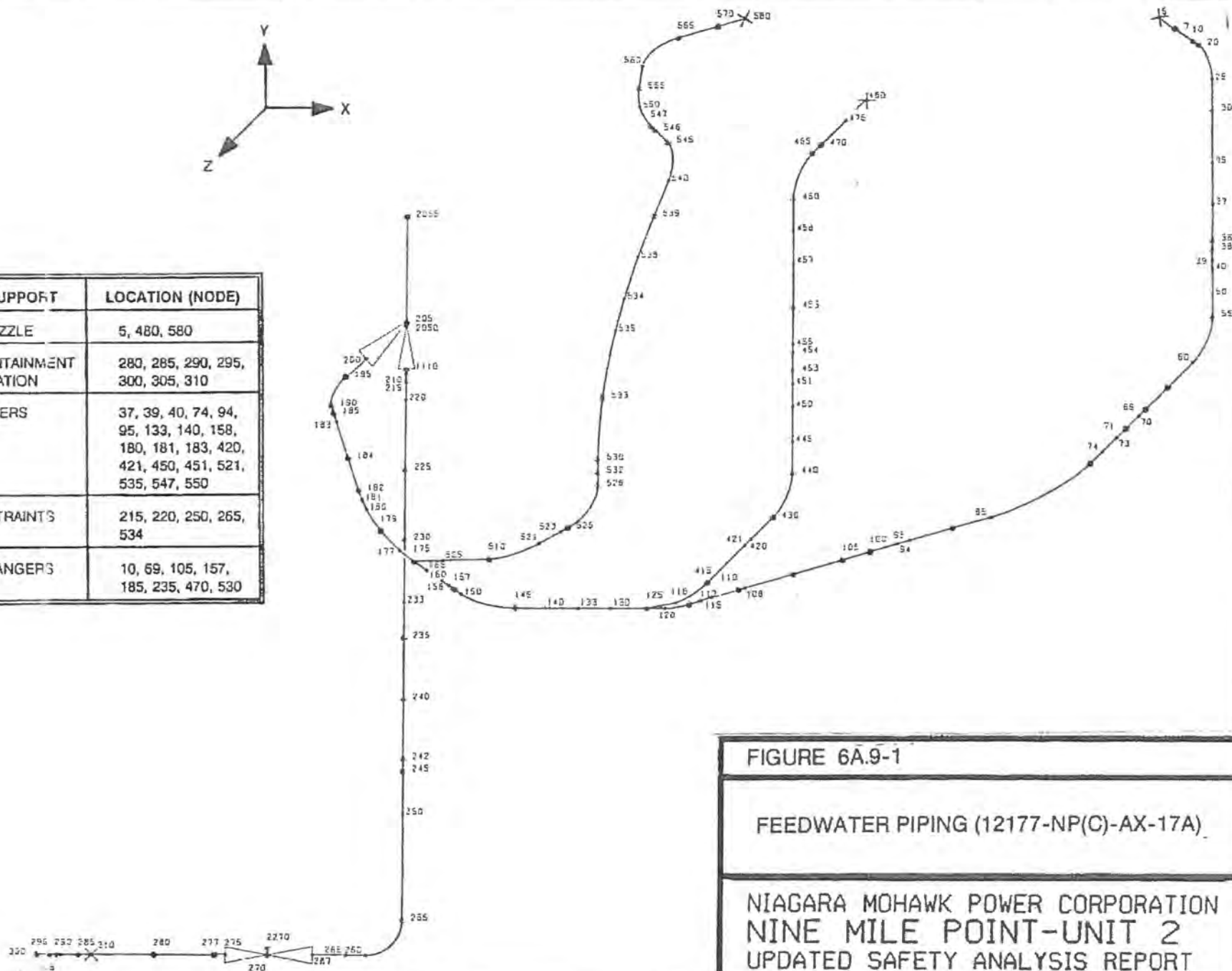


FIGURE 6A.9-1

FEEDWATER PIPING (12177-NP(C)-AX-17A)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

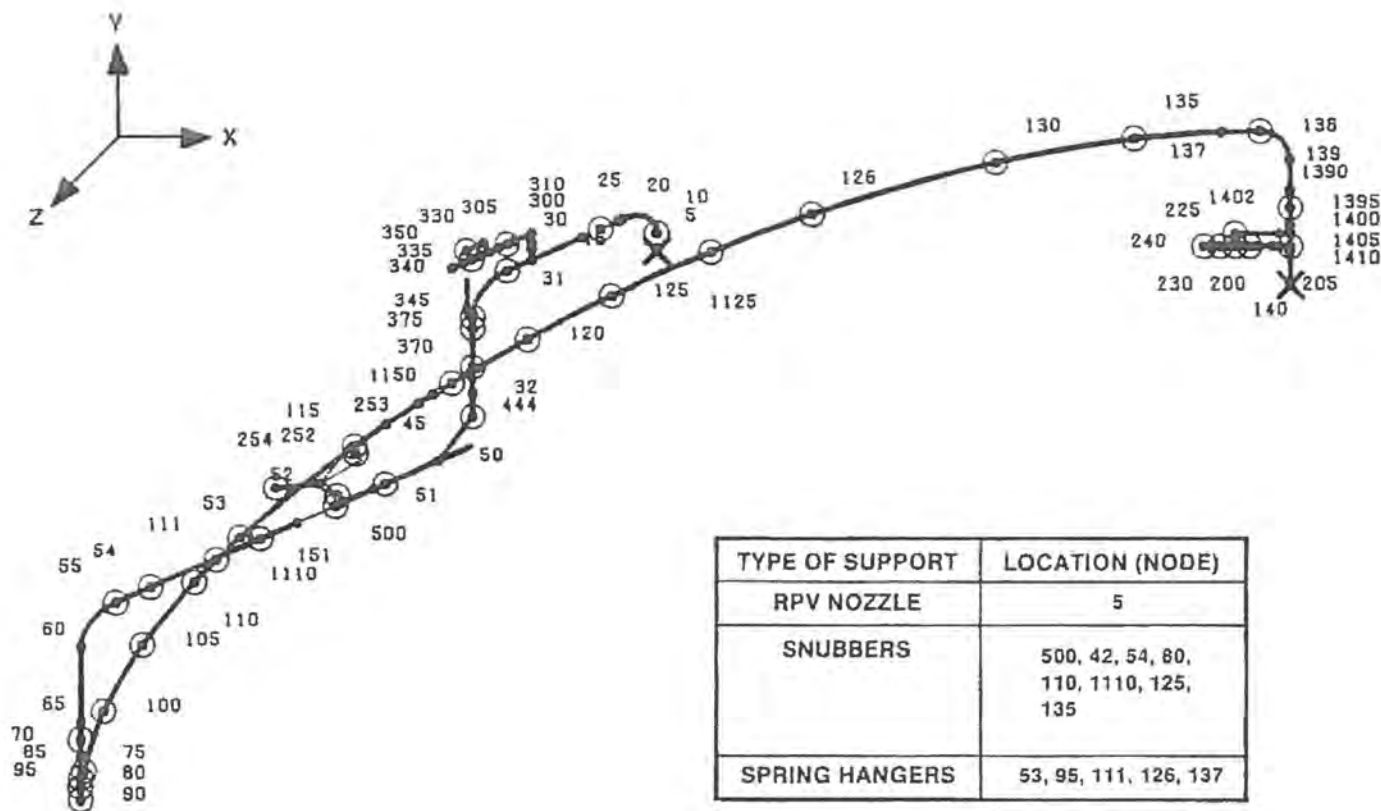
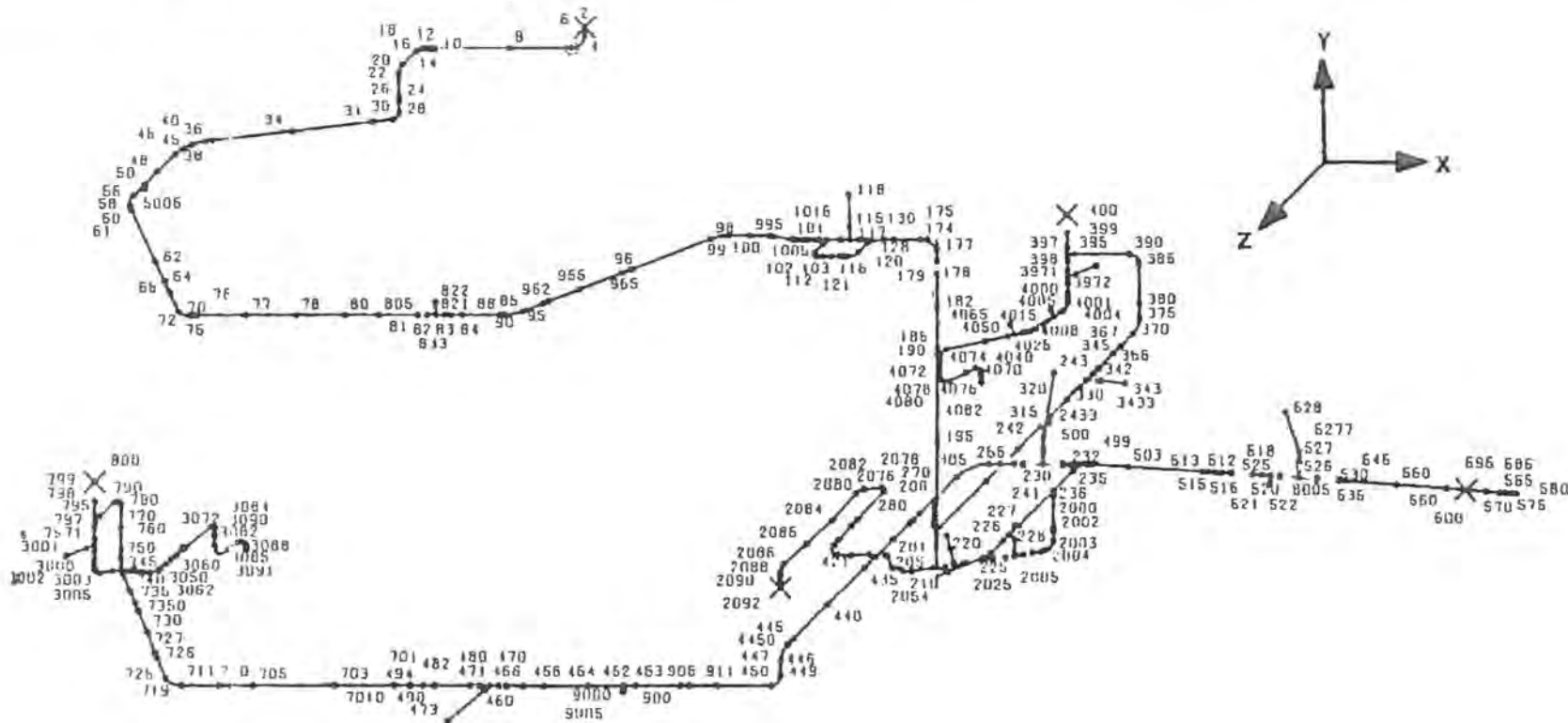


FIGURE 6A.9-2

REACTOR CORE ISOLATION COOLING PIPING
(12177-NP(C)-AX-76A)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT



**THIS FIGURE HAS
BEEN DELETED**

FIGURE 6A.10-1

CONTORT COMPUTER MODEL
SCHEMATIC

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

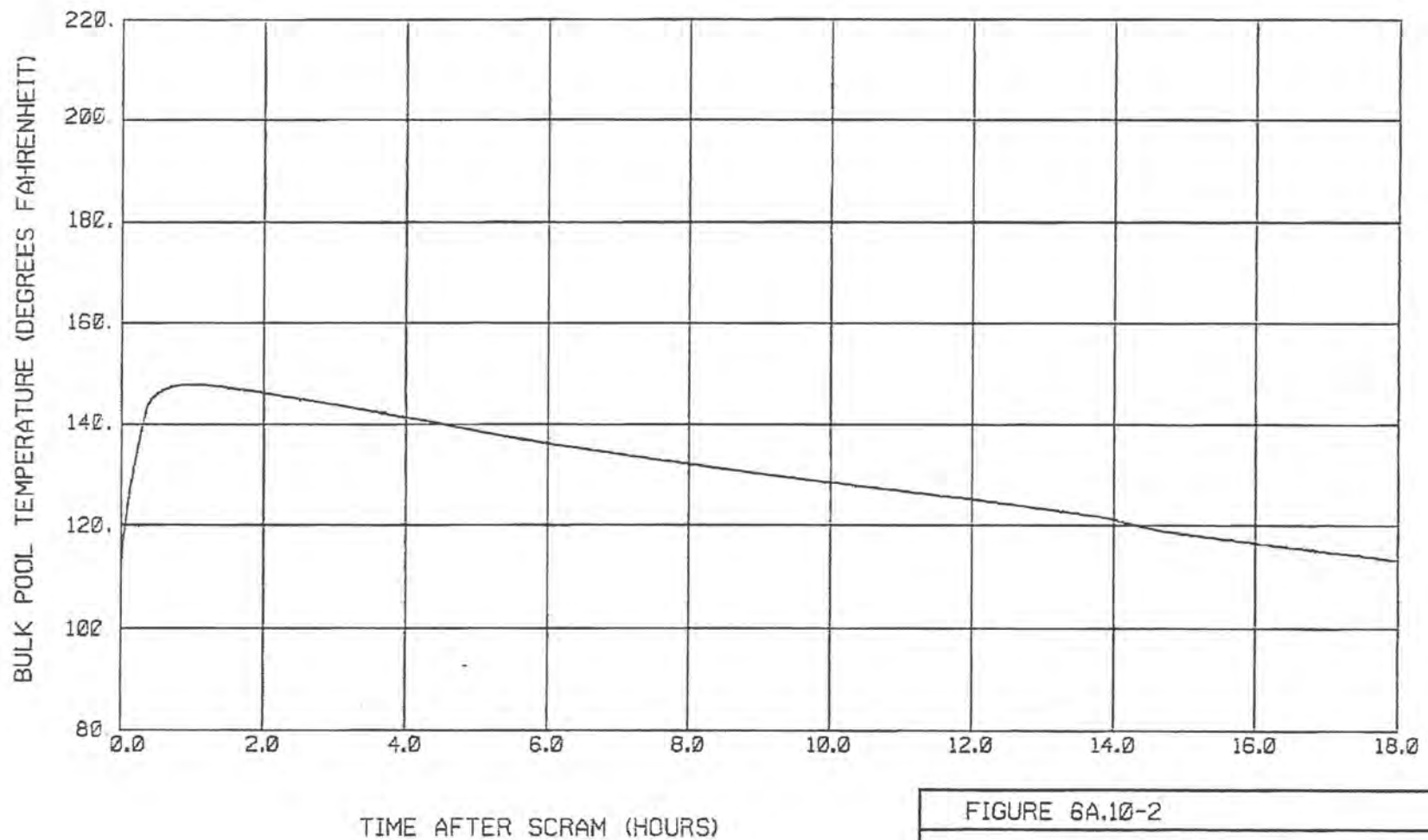


FIGURE 6A.10-2

UNIT 2 POOL TEMPERATURE
TRANSIENT: CASE 1a.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT

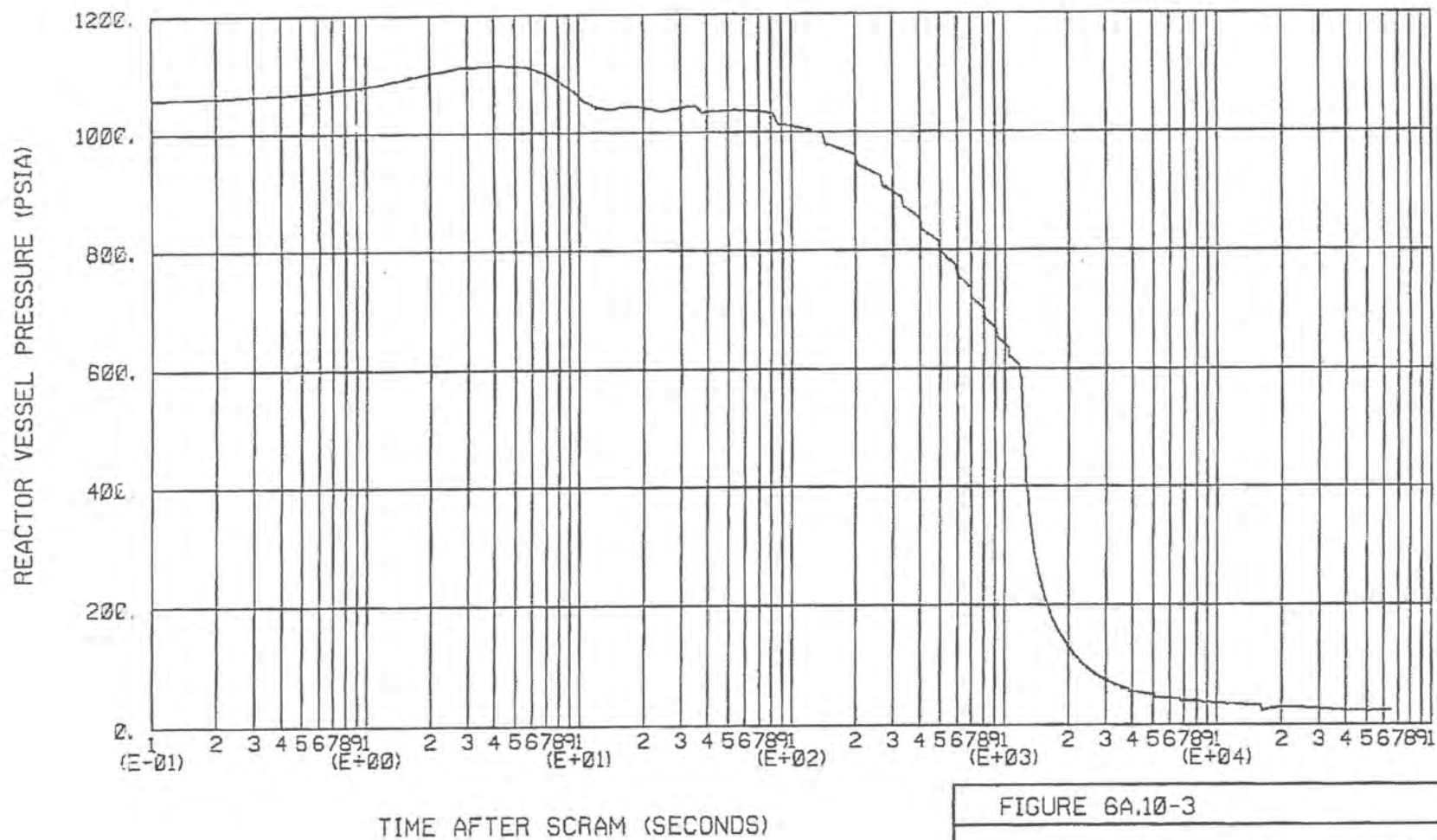
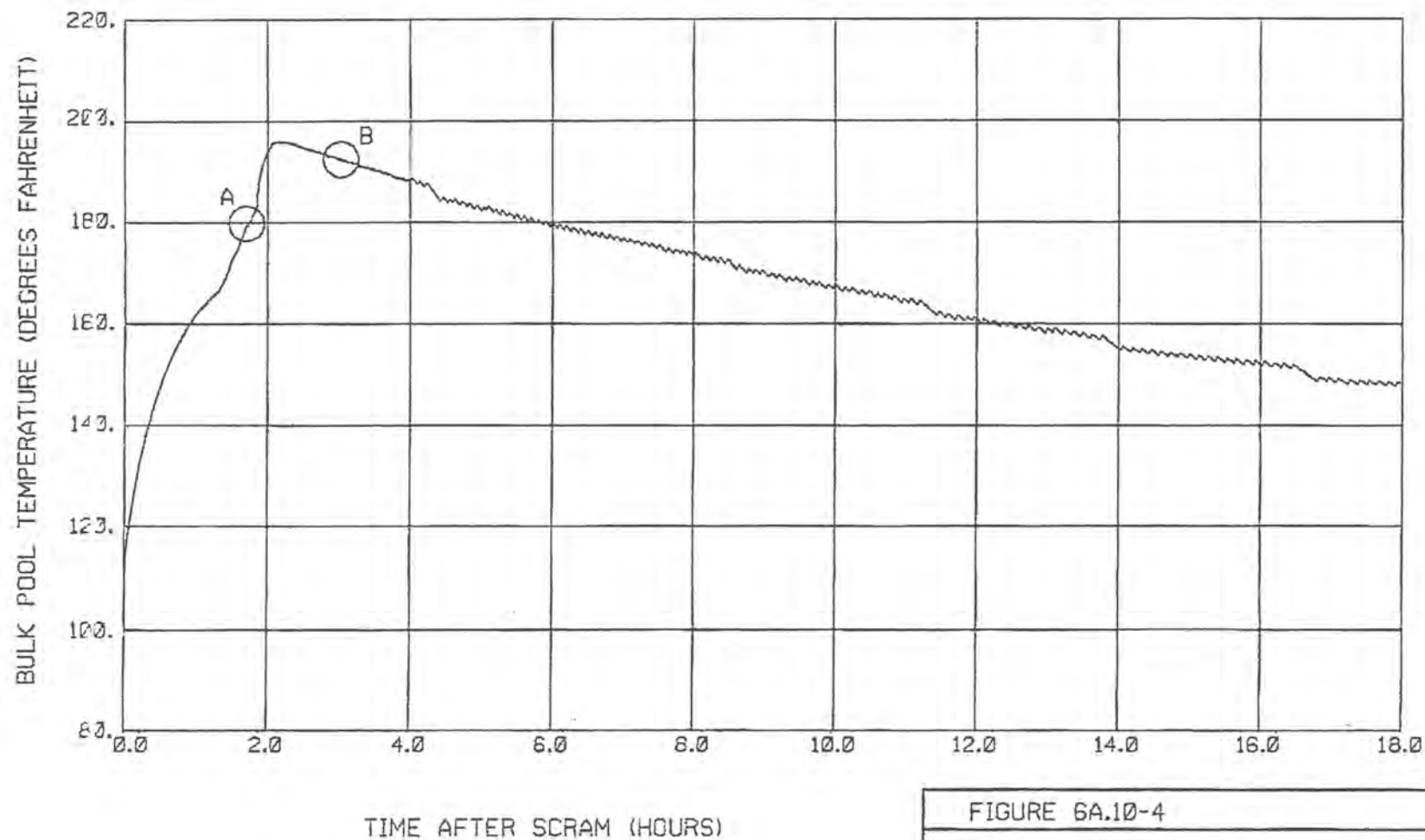


FIGURE 6A.10-3

UNIT 2 REACTOR VESSEL PRESSURE
TRANSIENT: CASE 1a.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT

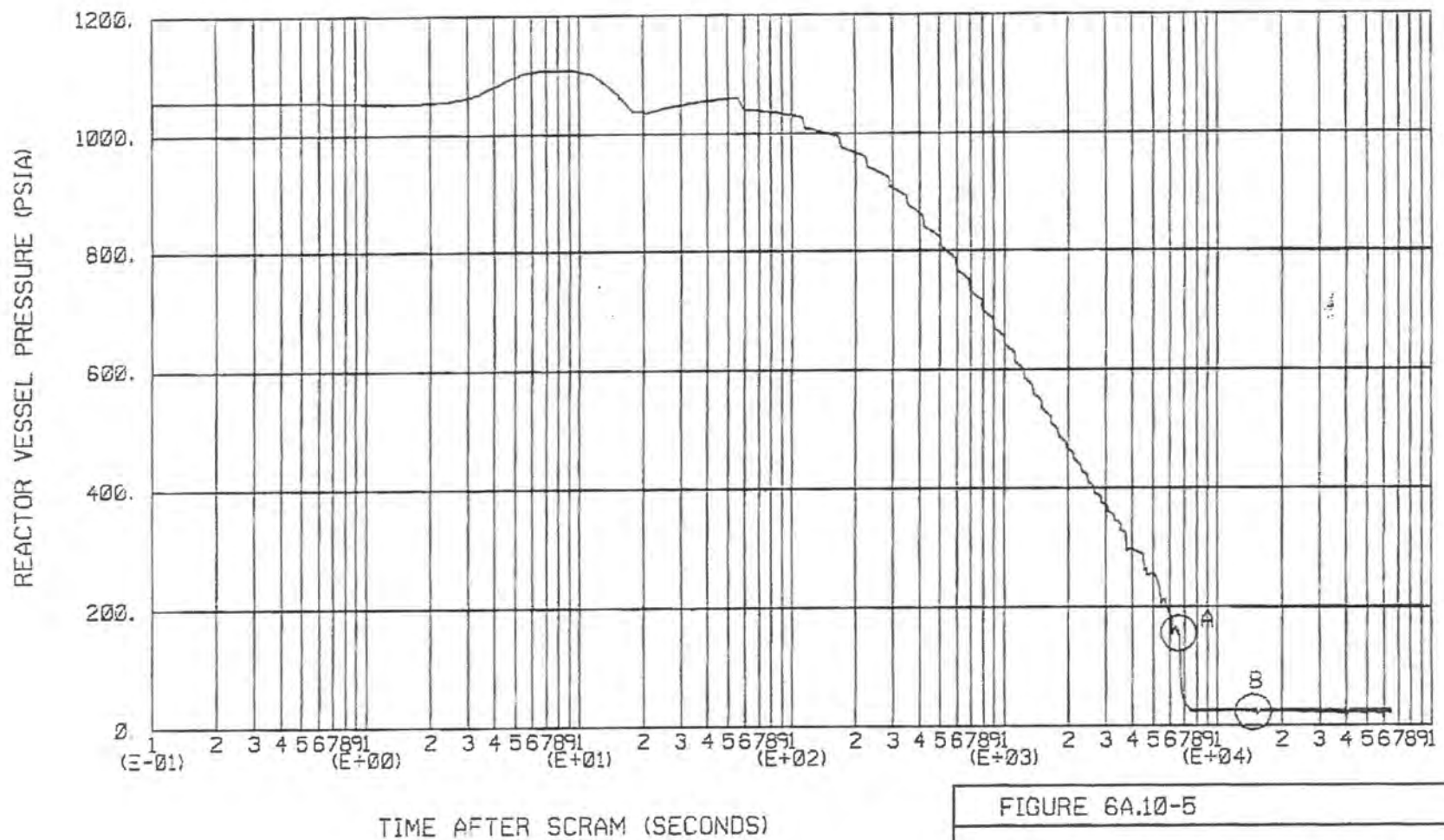


- A - Initiation of transfer to alternate shutdown cooling.
- B - Alternate shutdown cooling established; SRV steam flow terminated.

FIGURE 6A.10-4

UNIT 2 POOL TEMPERATURE
TRANSIENT: CASE 1b.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT



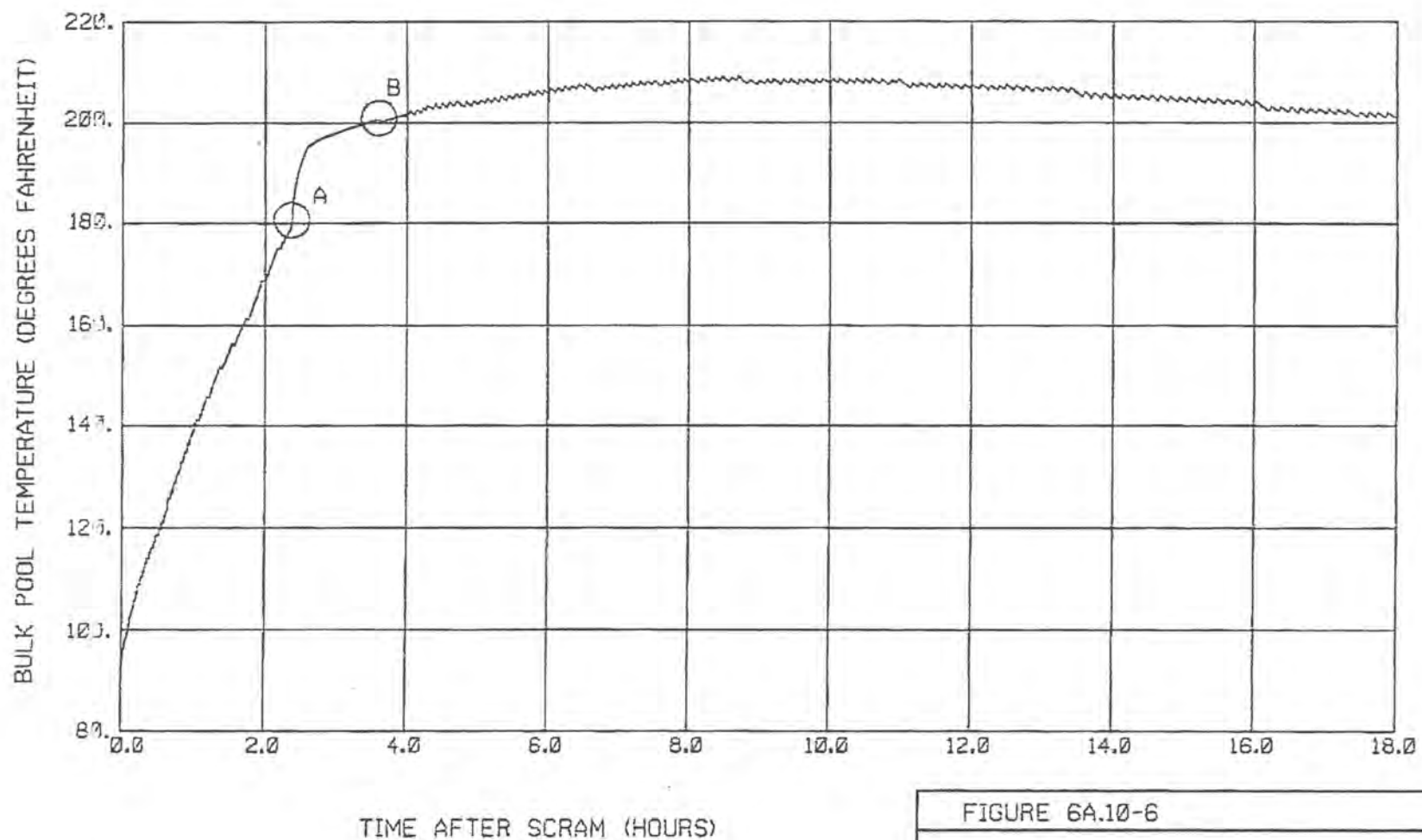
A - Initiation of transfer to alternate shutdown cooling.

B - Alternate shutdown cooling established; SRV steam flow terminated.

FIGURE 6A.10-5

UNIT 2 REACTOR VESSEL PRESSURE
TRANSIENT: CASE 1b.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT



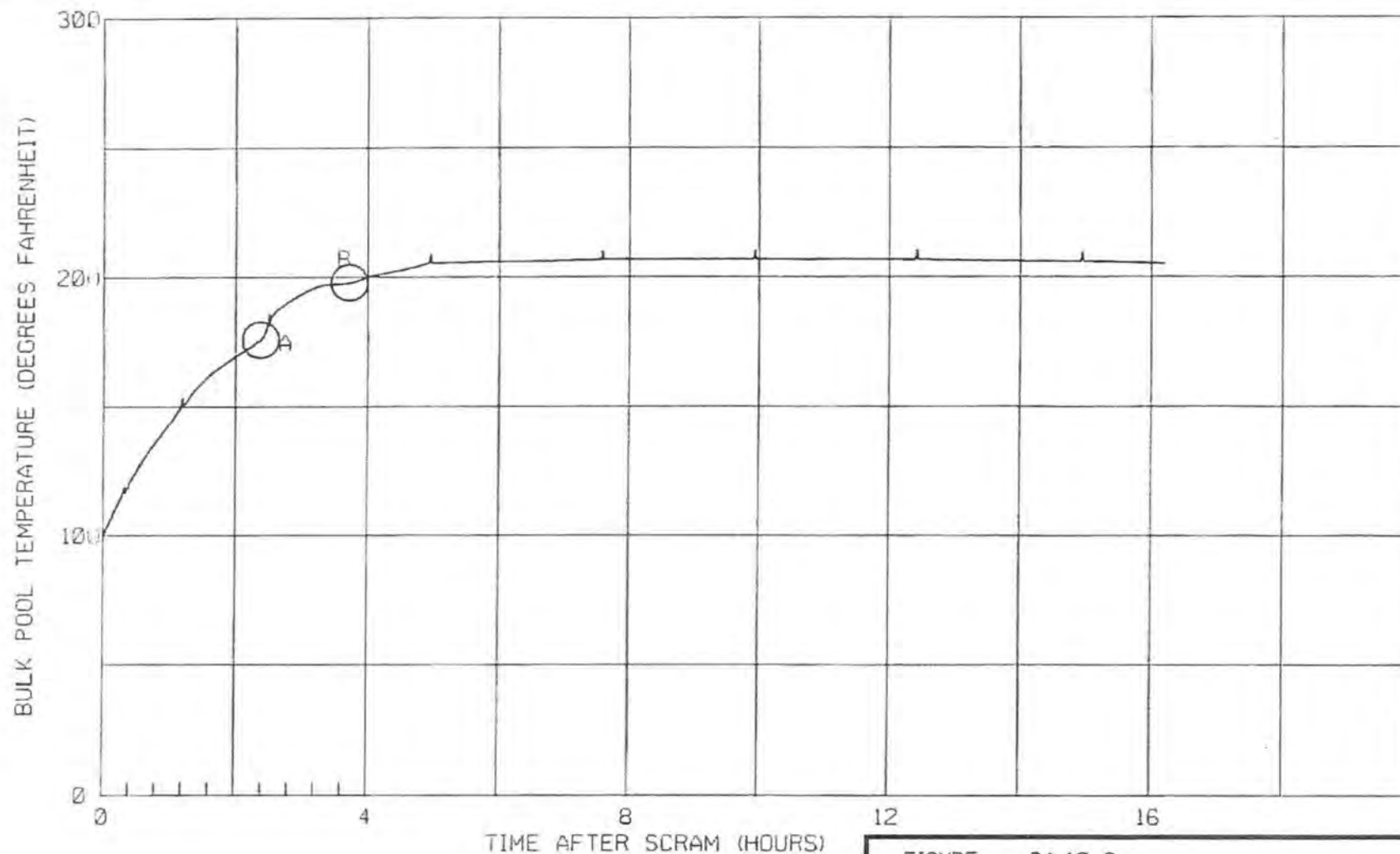
A - Initiation of transfer to alternate shutdown cooling.

B - Alternate shutdown cooling established; SRV steam flow terminated.

FIGURE 6A.10-6

UNIT 2 POOL TEMPERATURE
TRANSIENT: CASE 2.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT



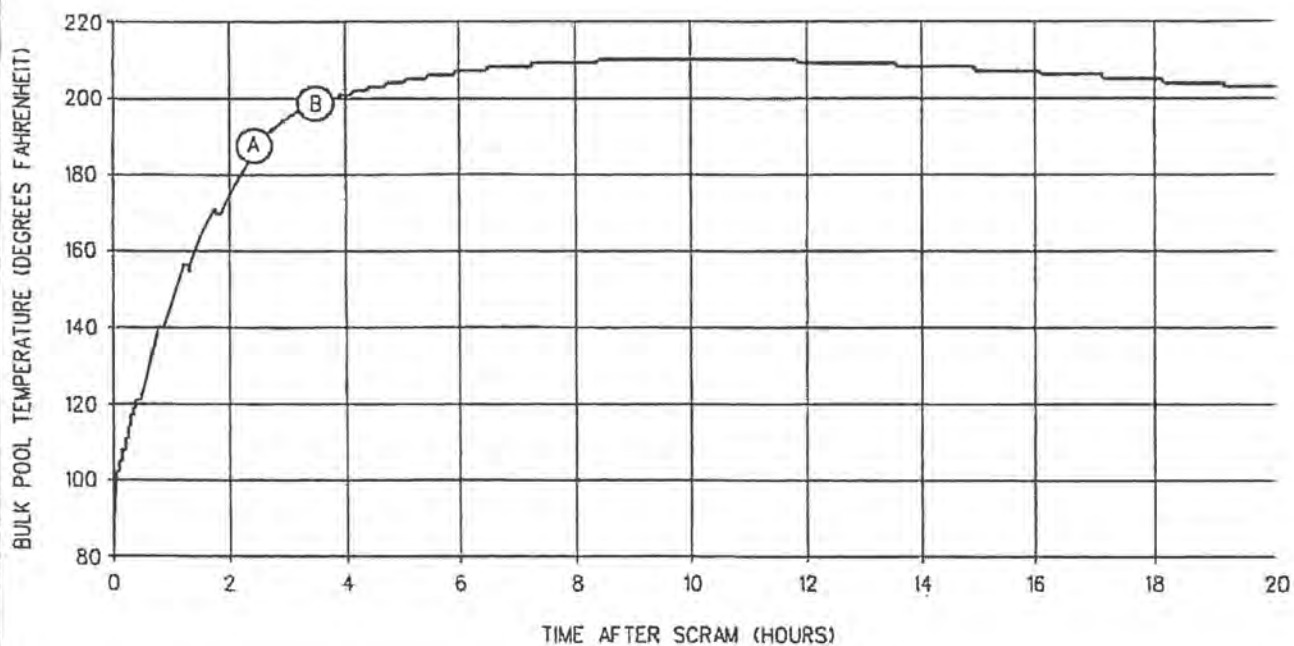
- A- INITIATION OF TRANSFER TO ALTERNATE SHUTDOWN COOLING.
- B- ALTERNATE SHUTDOWN COOLING ESTABLISHED; SRV STEAM FLOW TERMINATED.

THIS DRAWING CREATED ELECTRONICALLY

FIGURE 6A.10-6a

UNIT 2 POOL TEMPERATURE
TRANSIENT: CASE 2' (POWER UPRATE)

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



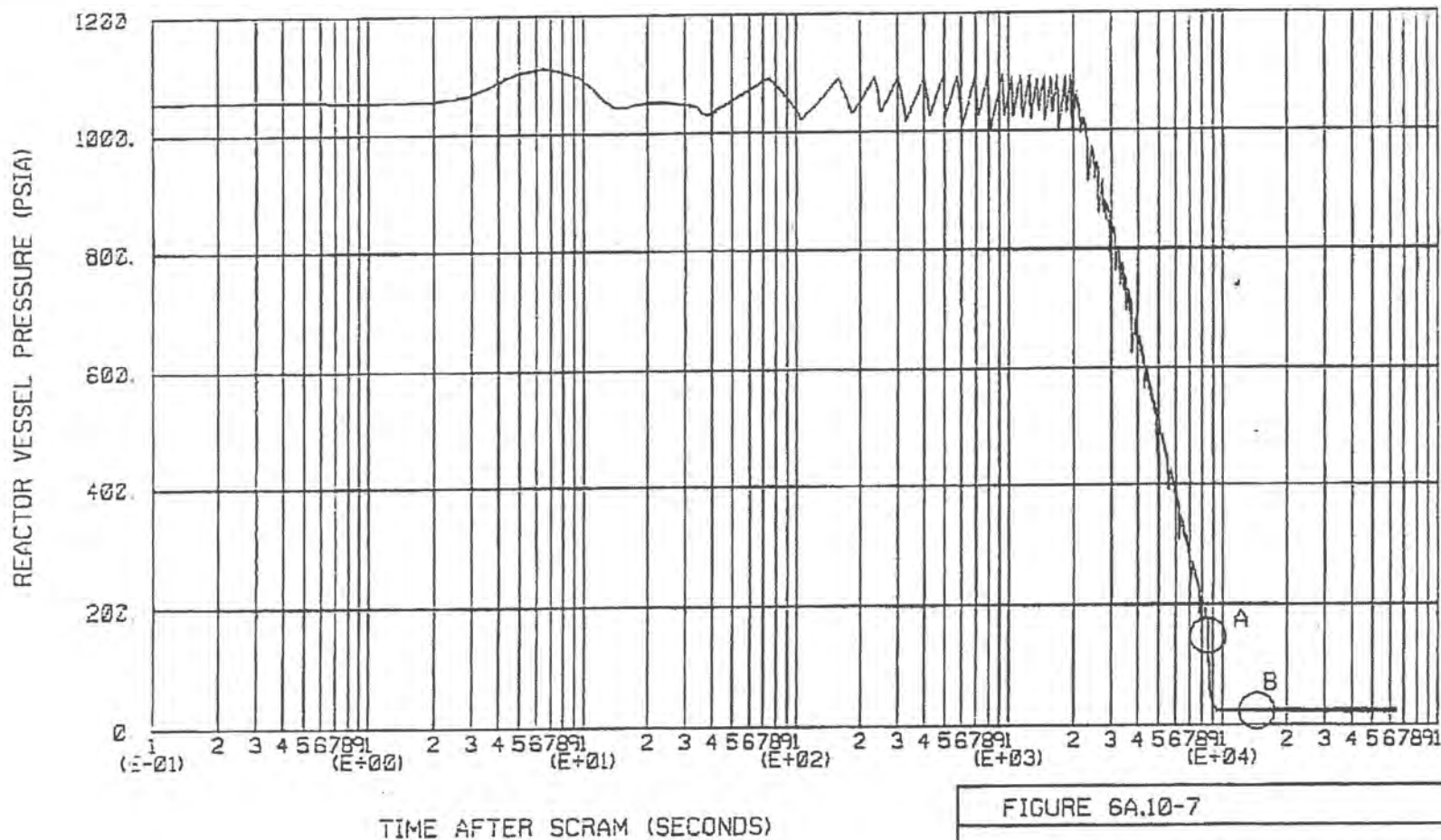
A- INITIATION OF TRANSFER TO ALTERNATE SHUTDOWN COOLING (2.4 HOURS).

B- ALTERNATE SHUTDOWN COOLING ESTABLISHED: SRV STEAM FLOW TERMINATED (3.4 HOURS).

FIGURE: 6A.10-6b

UNIT 2 POOL TEMPERATURE
TRANSIENT: CASE 2 EPU

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT

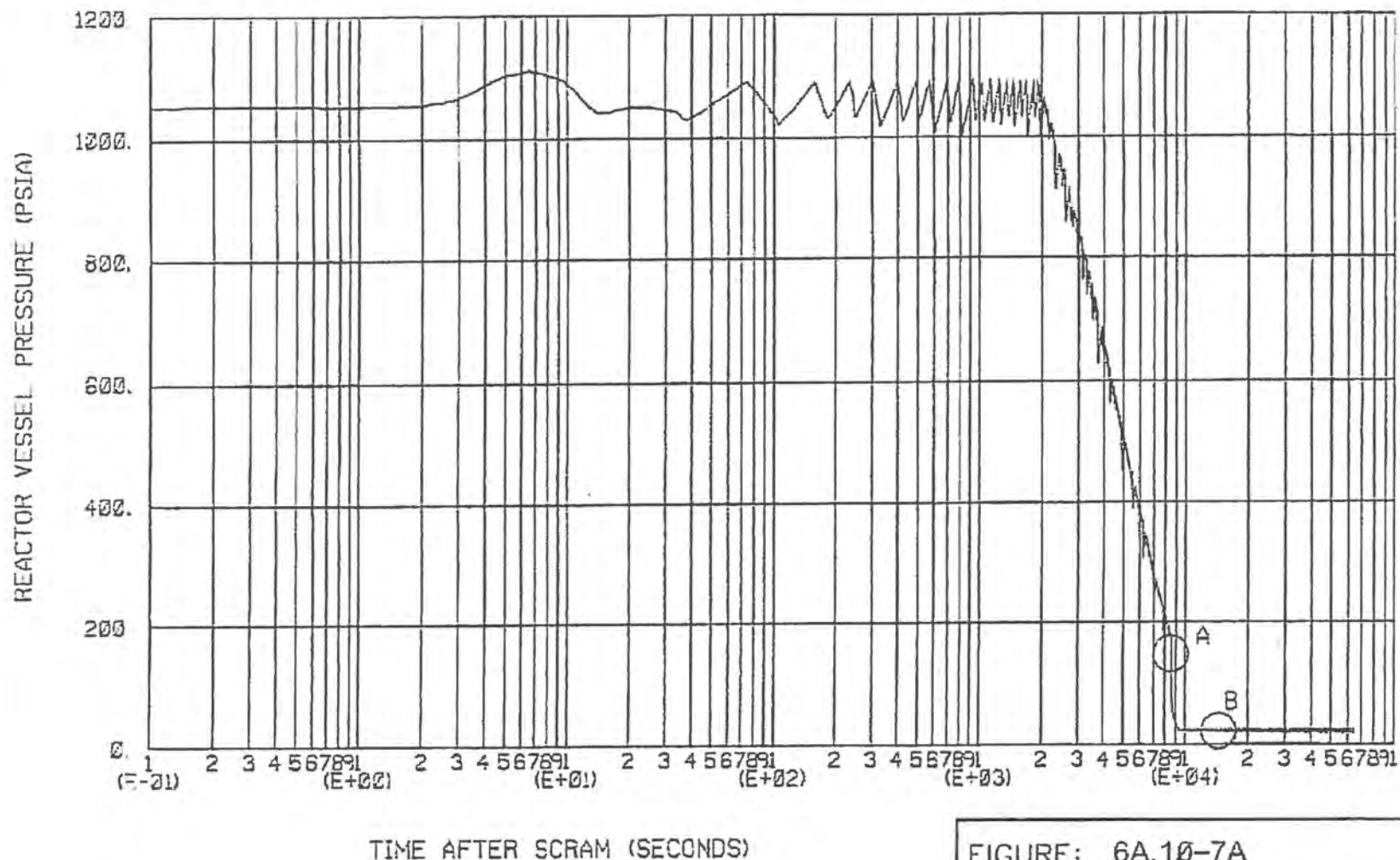


- A - Initiation of transfer to alternate shutdown cooling.
- B - Alternate shutdown cooling established; SRV steam flow terminated.

FIGURE 6A.10-7

UNIT 2 REACTOR VESSEL PRESSURE
TRANSIENT: CASE 2.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT



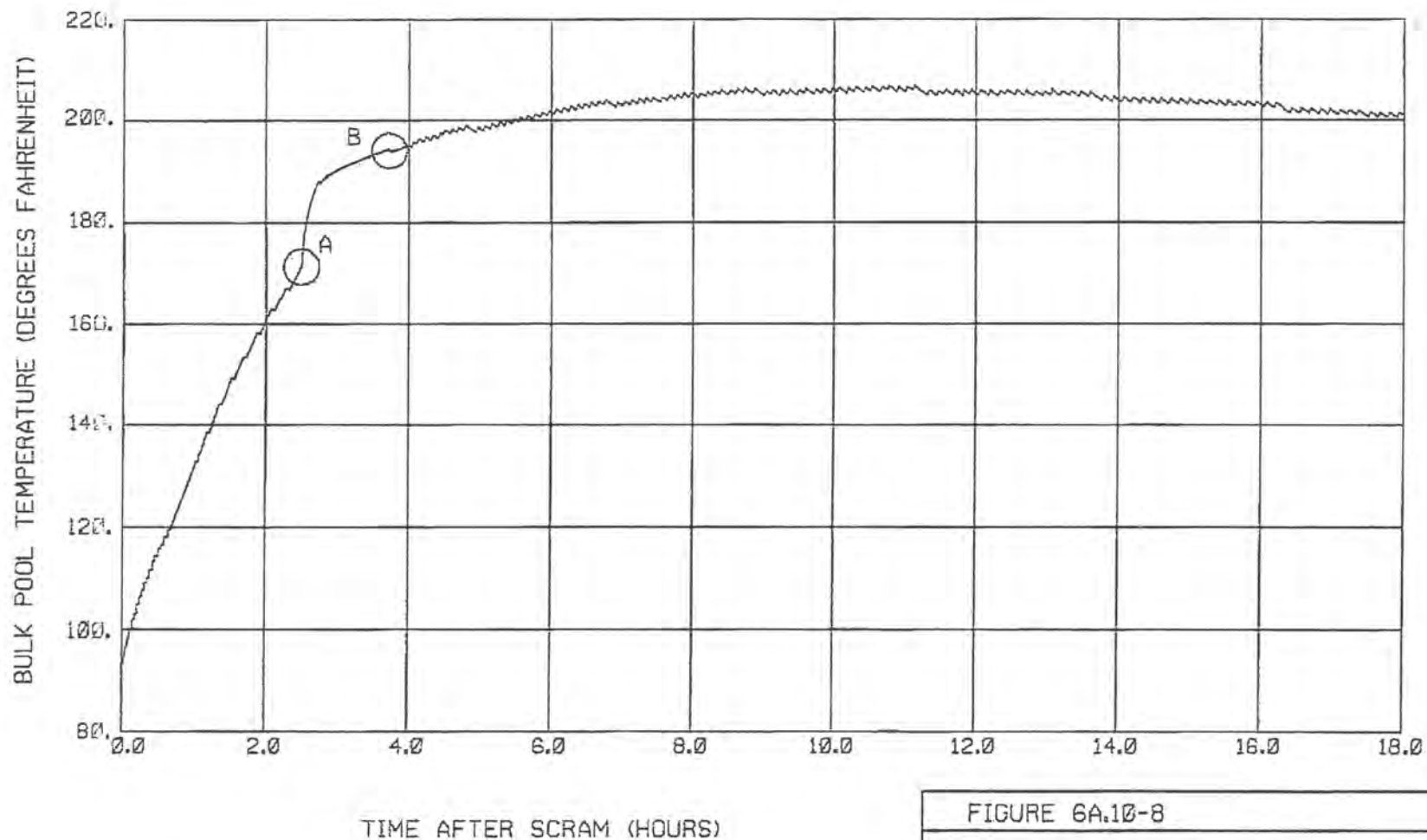
- A - Initiation of transfer to alternate shutdown cooling.
- B - Alternate shutdown cooling established; SRV steam flow terminated.

NOTE: THIS IS AN APPROXIMATE REPRESENTATION OF EPU.

FIGURE: 6A.10-7A

UNIT 2 REACTOR VESSEL PRESSURE
TRANSIENT: EPU CASE 2.

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



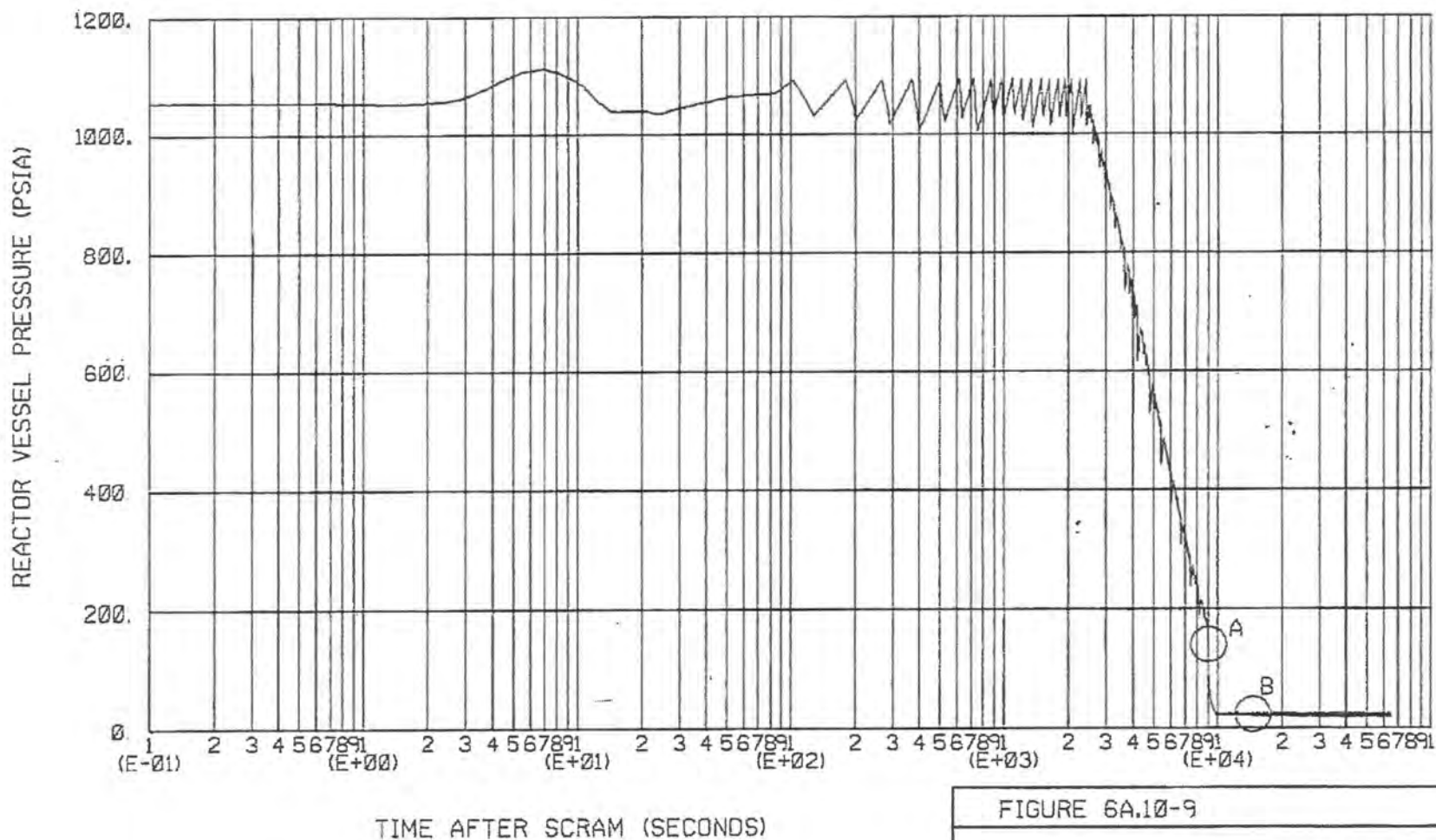
A - Initiation of transfer to alternate shutdown cooling.

B - Alternate shutdown cooling established; SRV steam flow terminated.

FIGURE 6A.10-8

UNIT 2 POOL TEMPERATURE
TRANSIENT: CASE 3.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
UPDATED SAFETY ANALYSIS REPORT



- A - Initiation of transfer to alternate shutdown cooling.
- B - Alternate shutdown cooling established; SRV steam flow terminated.

FIGURE 6A.10-9

UNIT 2 REACTOR VESSEL PRESSURE
TRANSIENT: CASE 3.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT - UNIT 2
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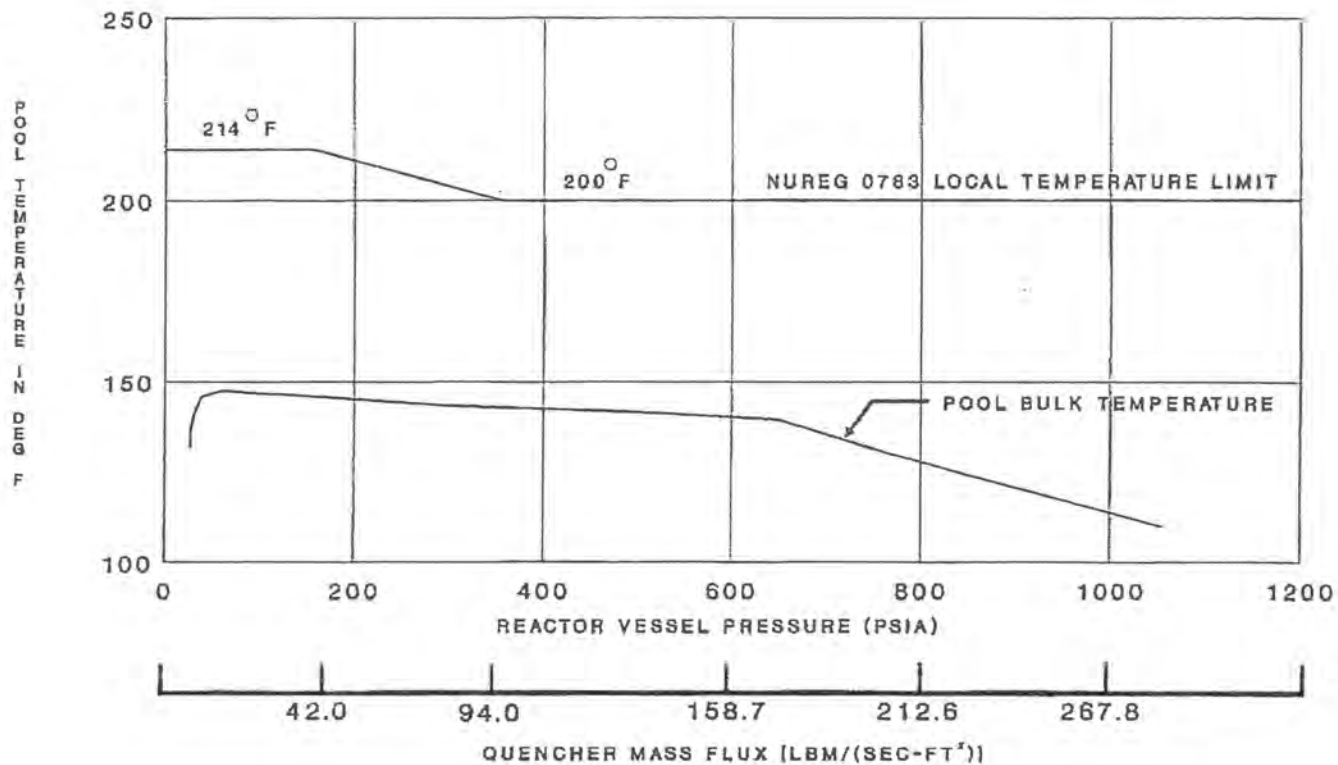
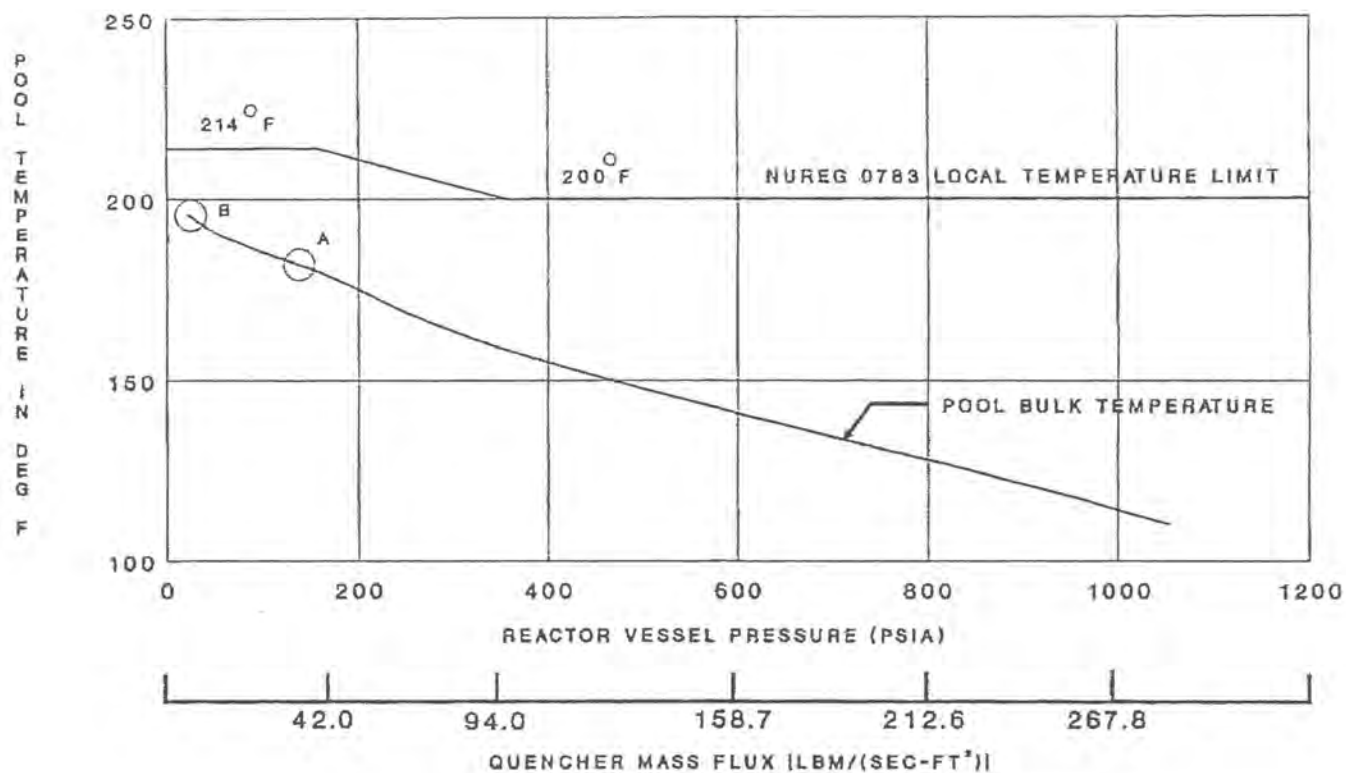


FIGURE 6A.10-10

UNIT 2 POOL TEMPERATURE
- MASS FLUX PLOT: CASE 1a.

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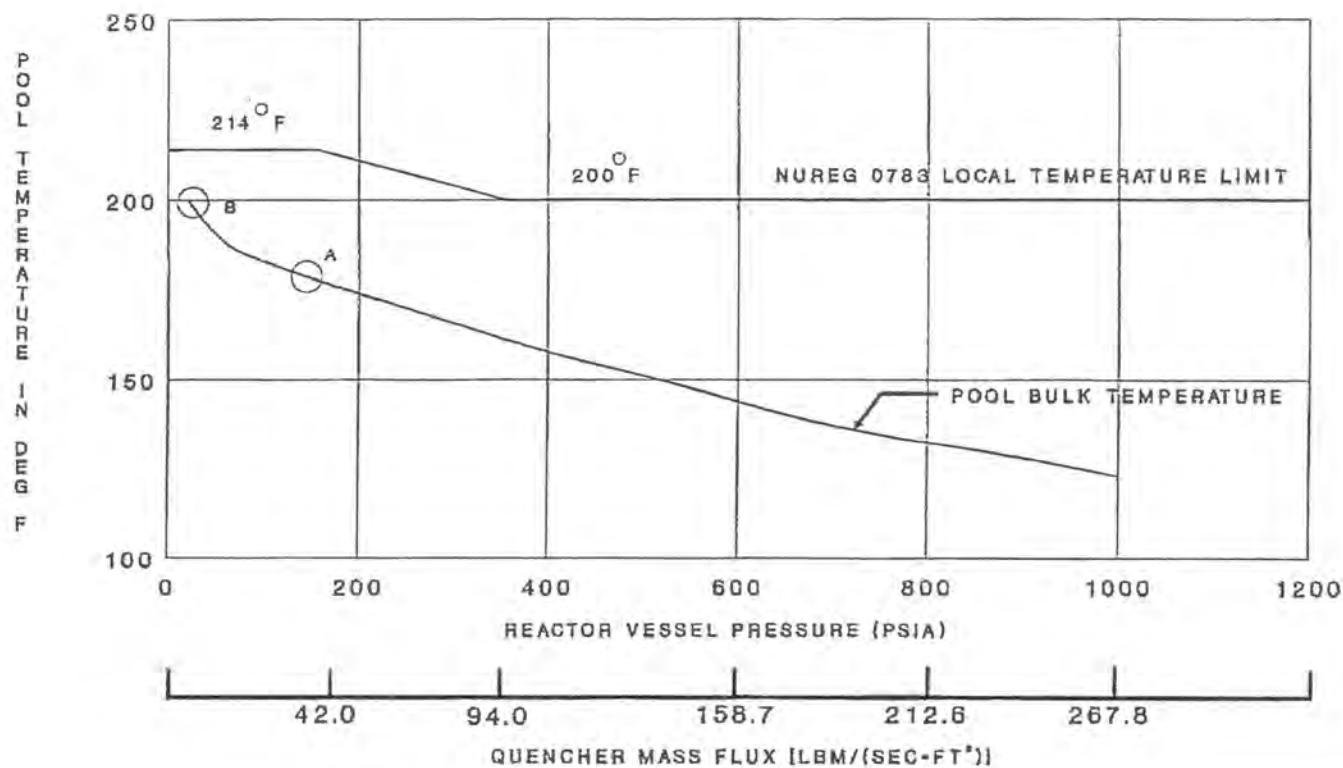
A - Initiation of transfer to alternate shutdown cooling.

B - MAXIMUM BULK POOL TEMPERATURE DURING SRV STEAM DISCHARGE PHASE.

FIGURE 6A.10-11

UNIT 2 POOL TEMPERATURE
- MASS FLUX PLOT: CASE 1b.

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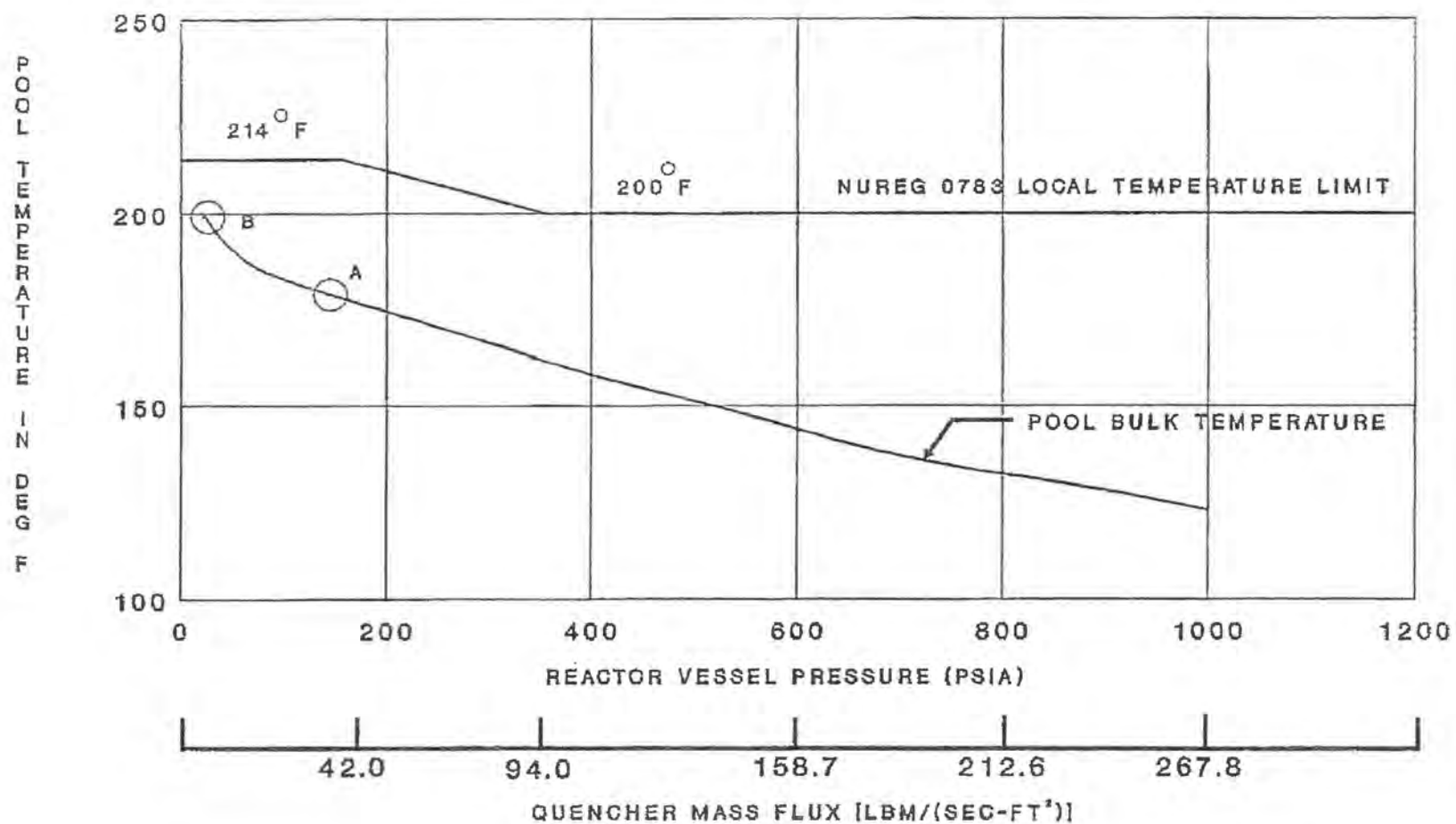
A - Initiation of transfer to alternate shutdown cooling.

B - MAXIMUM BULK POOL TEMPERATURE DURING SRY STEAM DISCHARGE PHASE.

FIGURE 6A.10-12

UNIT 2 POOL TEMPERATURE
- MASS FLUX PLOT: CASE 2.

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A - Initiation of transfer to alternate shutdown cooling.

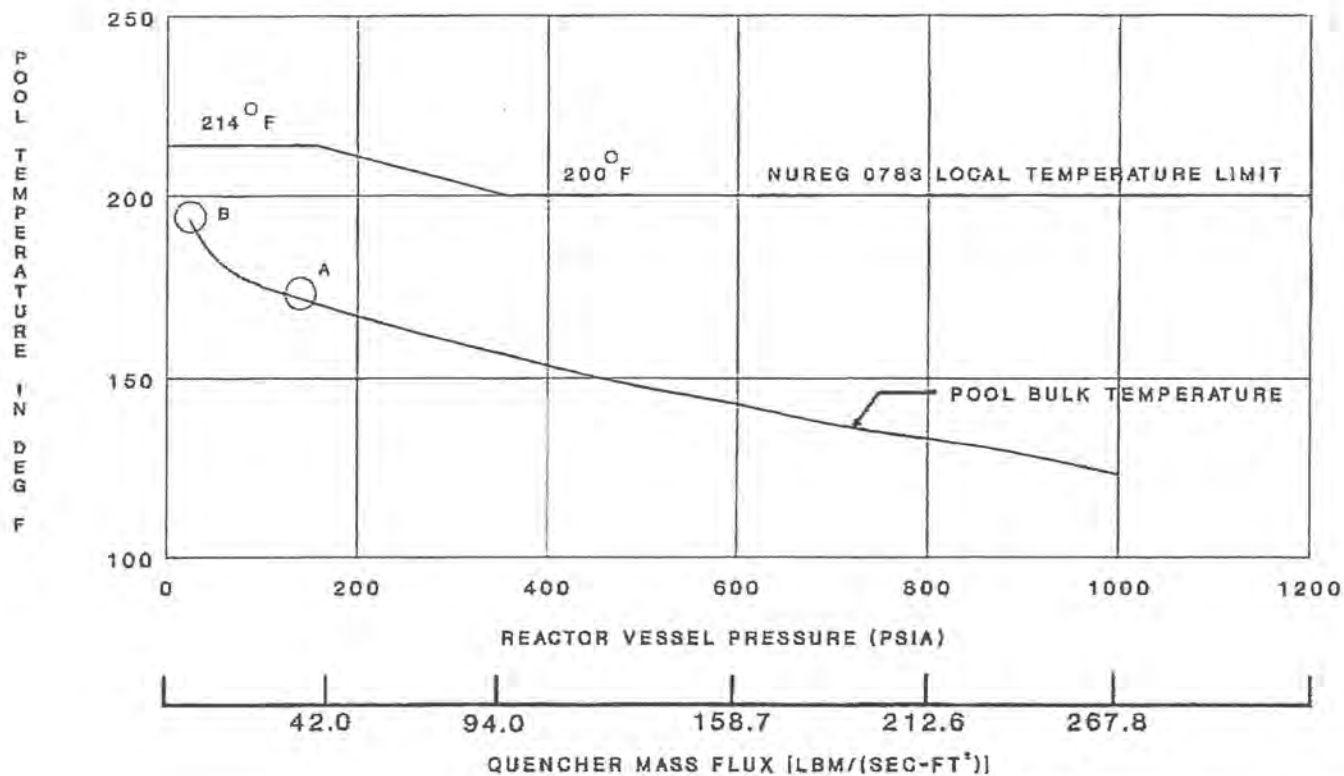
B - MAXIMUM BULK POOL TEMPERATURE DURING SRV STEAM DISCHARGE PHASE.

NOTE: THIS IS AN APPROXIMATE REPRESENTATION OF EPU.

FIGURE: 6A.10-12A

UNIT 2 POOL TEMPERATURE
MASS FLUX: EPU CASE 2.

NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT



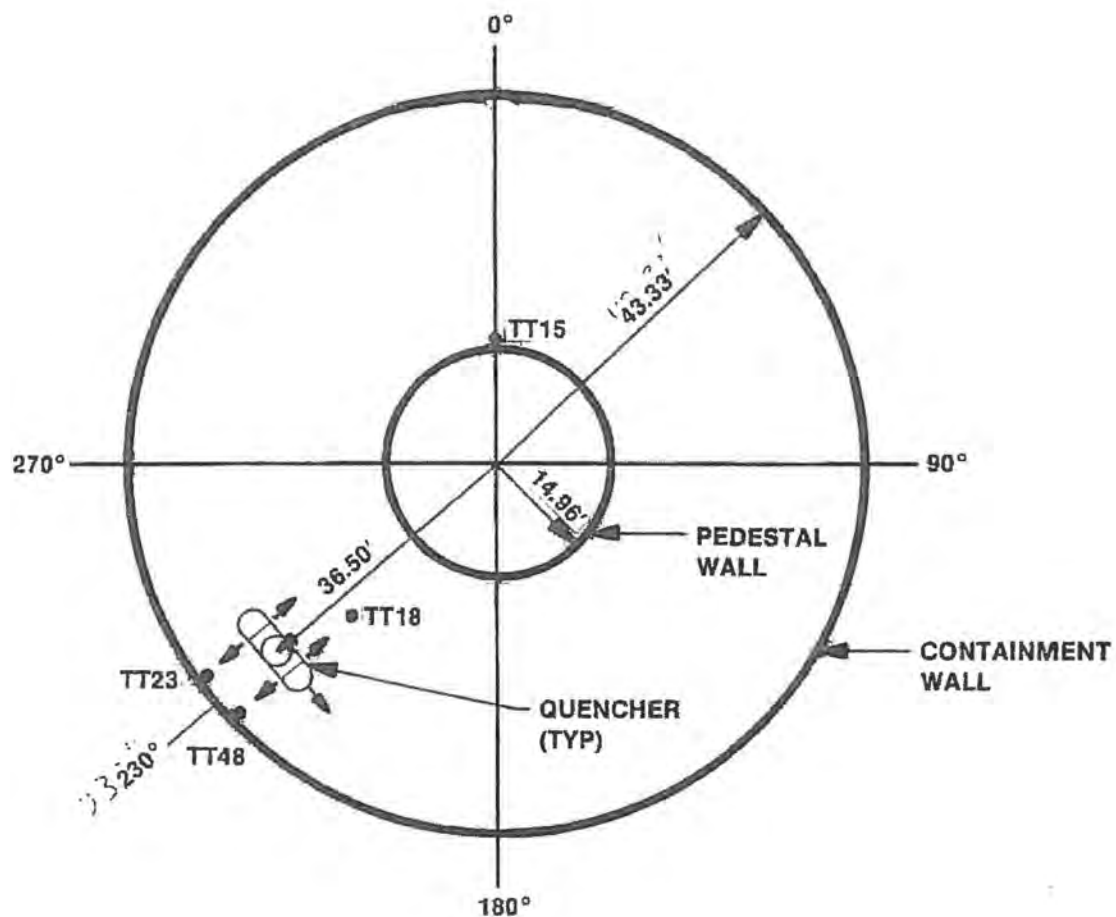
A - Initiation of transfer to alternate shutdown cooling.

B - MAXIMUM BULK POOL TEMPERATURE DURING SRV STEAM DISCHARGE PHASE.

FIGURE 6A.10-13

UNIT 2 POOL TEMPERATURE
- MASS FLUX PLOT: CASE 3.

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NINE MILE POINT - UNIT 2
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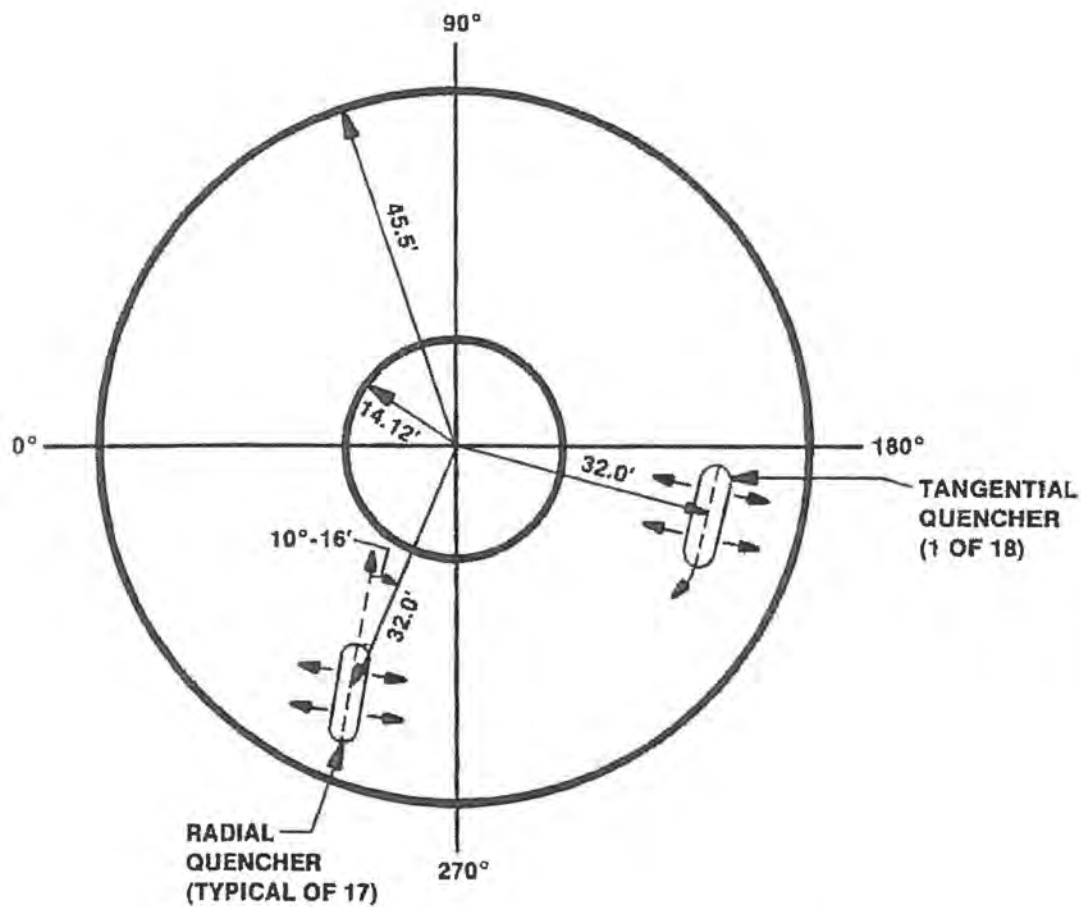
ELEVATIONS

WATER SURFACE	— 26.6'
QUENCHER C	— 3.5'
BOTTOM OF POOL	— 0.0'
TEMPERATURE SENSOR TT15	— 3.5'
TT18	— 3.5'
TT23	— 11.4'
TT48	— 25.7'

FIGURE 6A.10-14

LA SALLE SUPPRESSION POOL SCHEMATIC

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NINE MILE POINT-UNIT 2
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ELEVATIONS

WATER SURFACE	— 24.00'
QUENCHER ϕ	— 3.58'
BOTTOM OF POOL	— 0.0'

FIGURE 6A.10-15

NMP2 SUPPRESSION POOL SCHEMATIC

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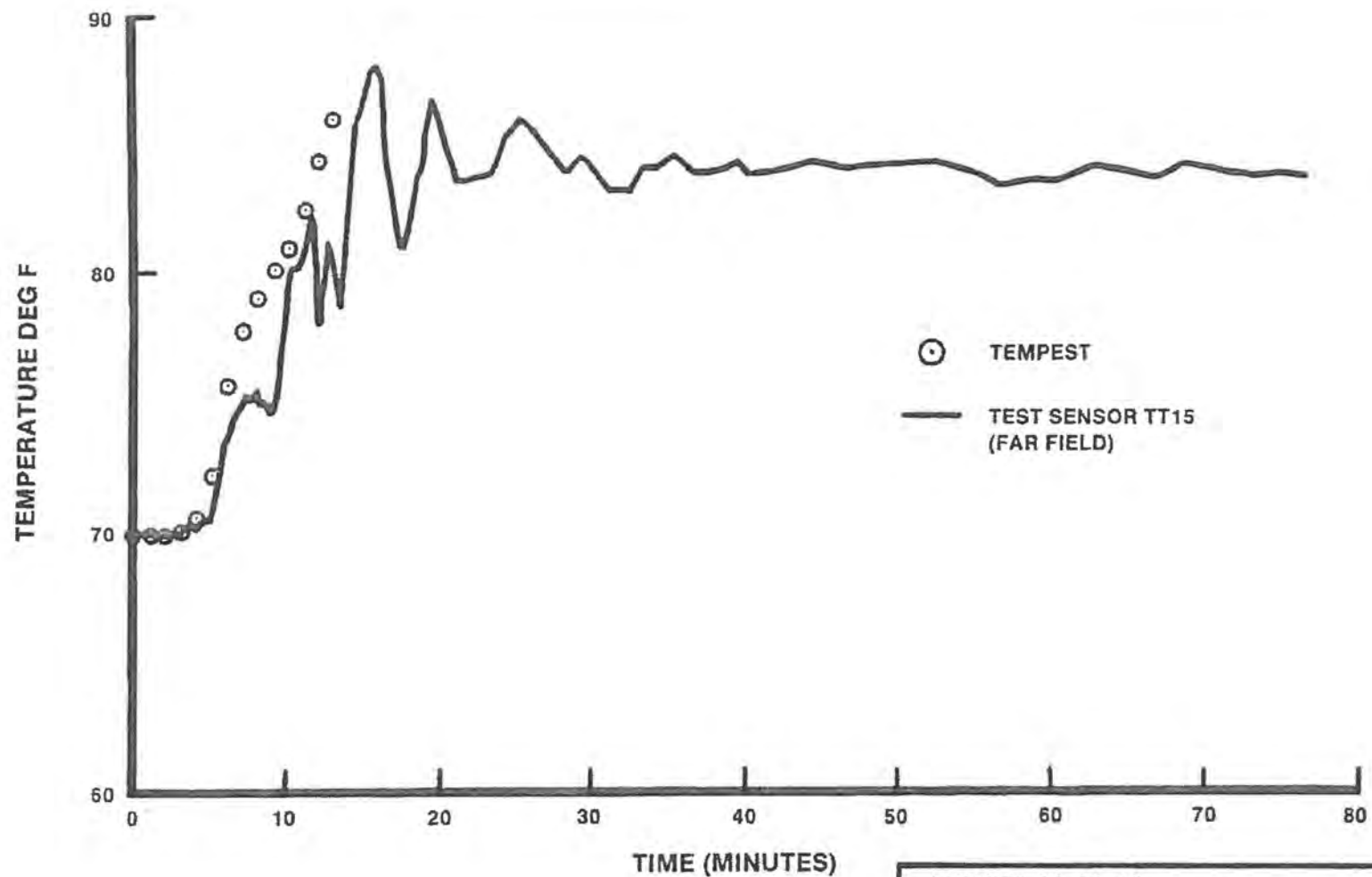


FIGURE 6A.10-16

TEMPEST BENCHMARK COMPARISON
WITH LA SALLE POOL TEMPERATURE
TEST DATA

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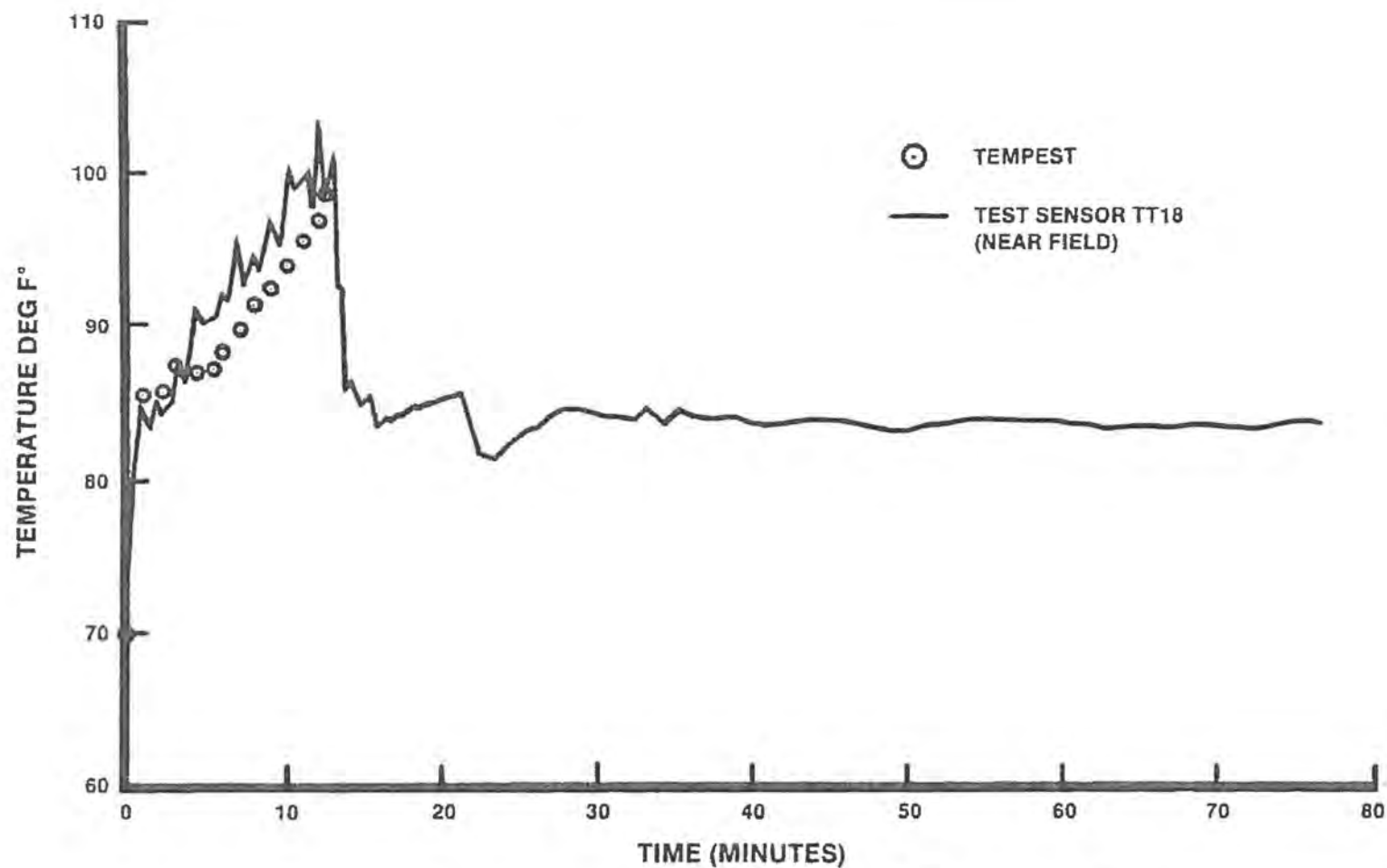


FIGURE 6A.10-17

TEMPEST BENCHMARK COMPARISON
WITH LA SALLE POOL TEMPERATURE
TEST DATA

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NINE MILE POINT-UNIT 2
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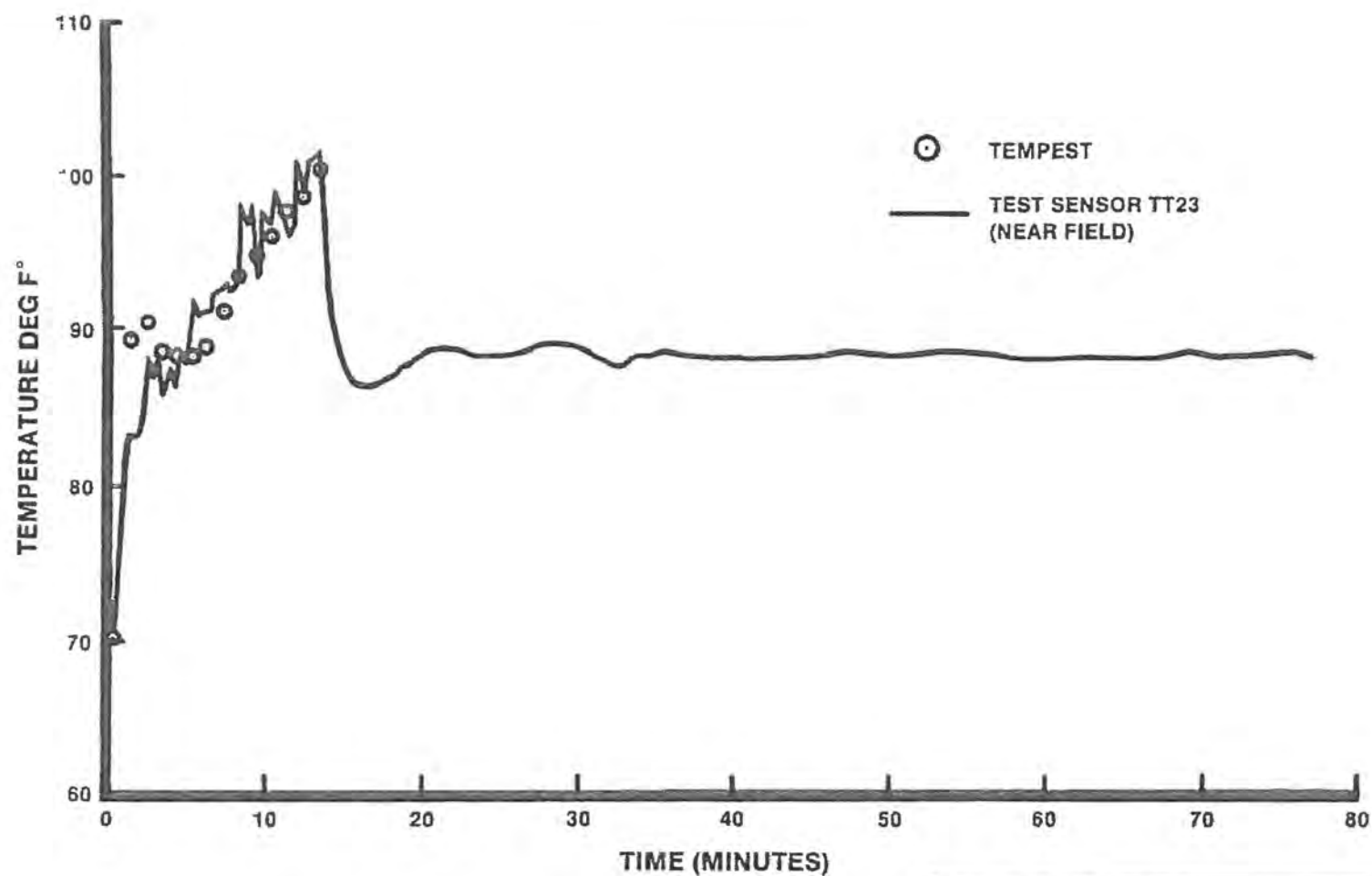


FIGURE 6A.10-18

TEMPEST BENCHMARK COMPARISON
WITH LA SALLE POOL TEMPERATURE
TEST DATA

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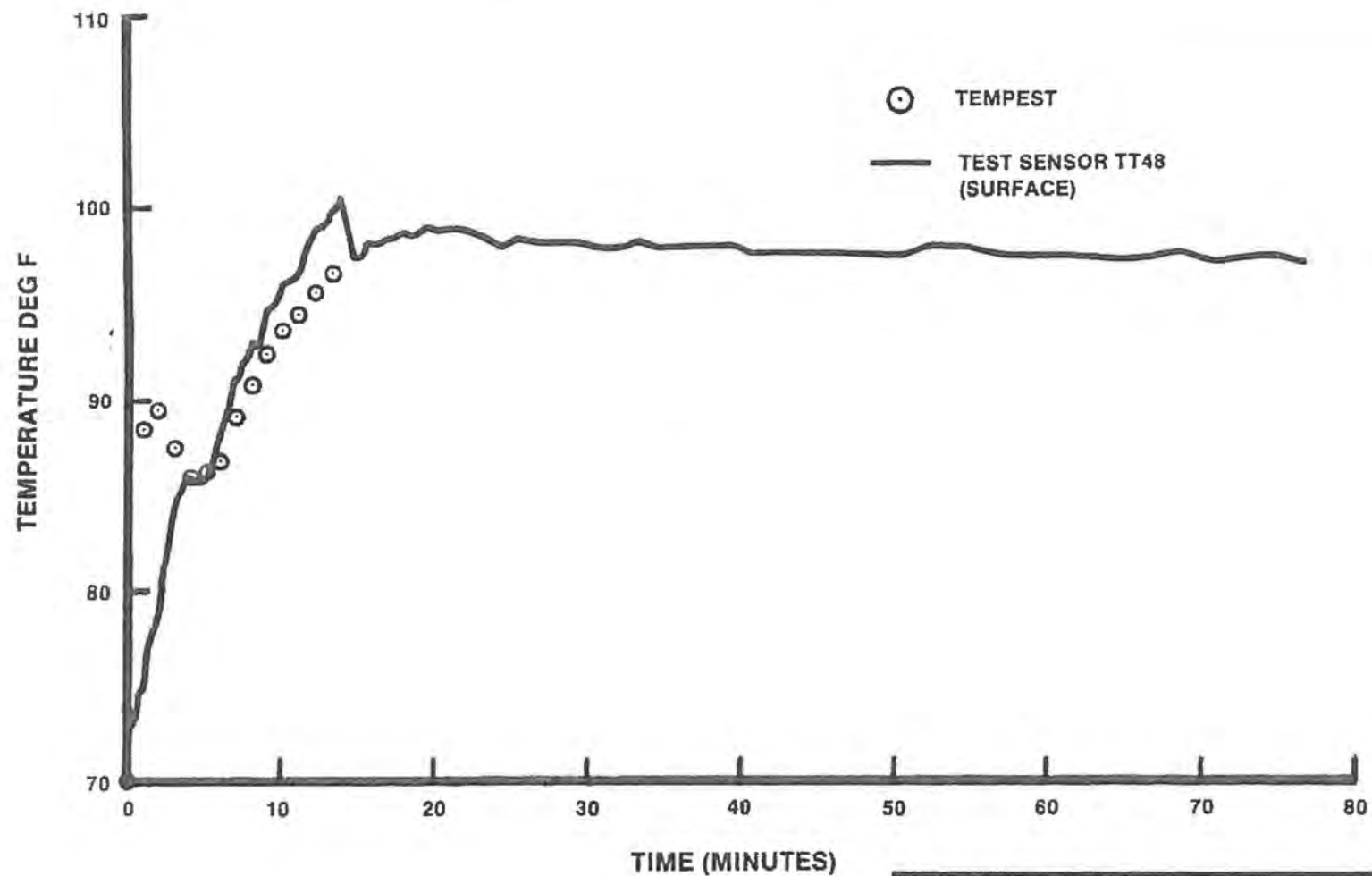


FIGURE 6A.10-19

TEMPEST BENCHMARK COMPARISON
WITH LA SALLE POOL TEMPERATURE
TEST DATA

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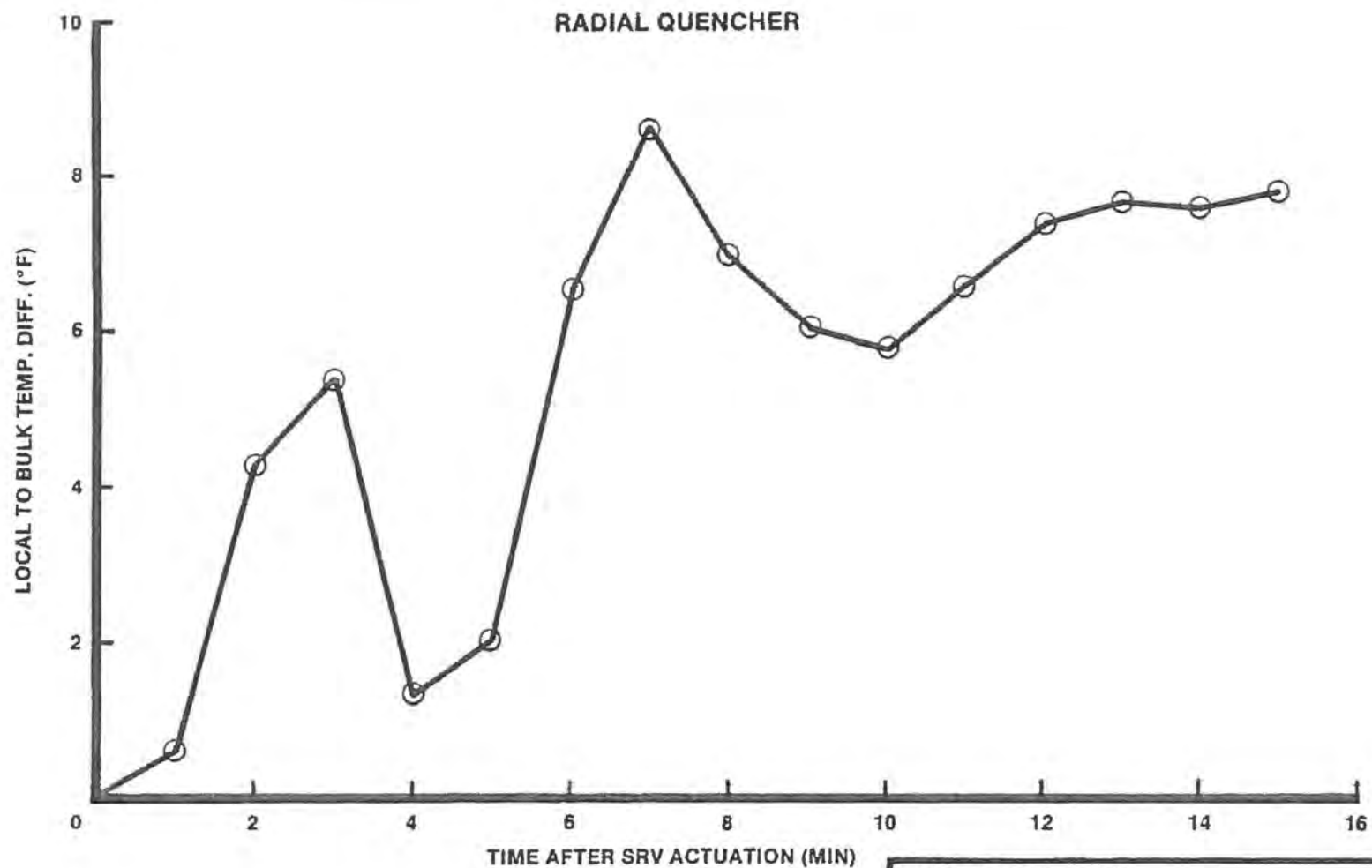
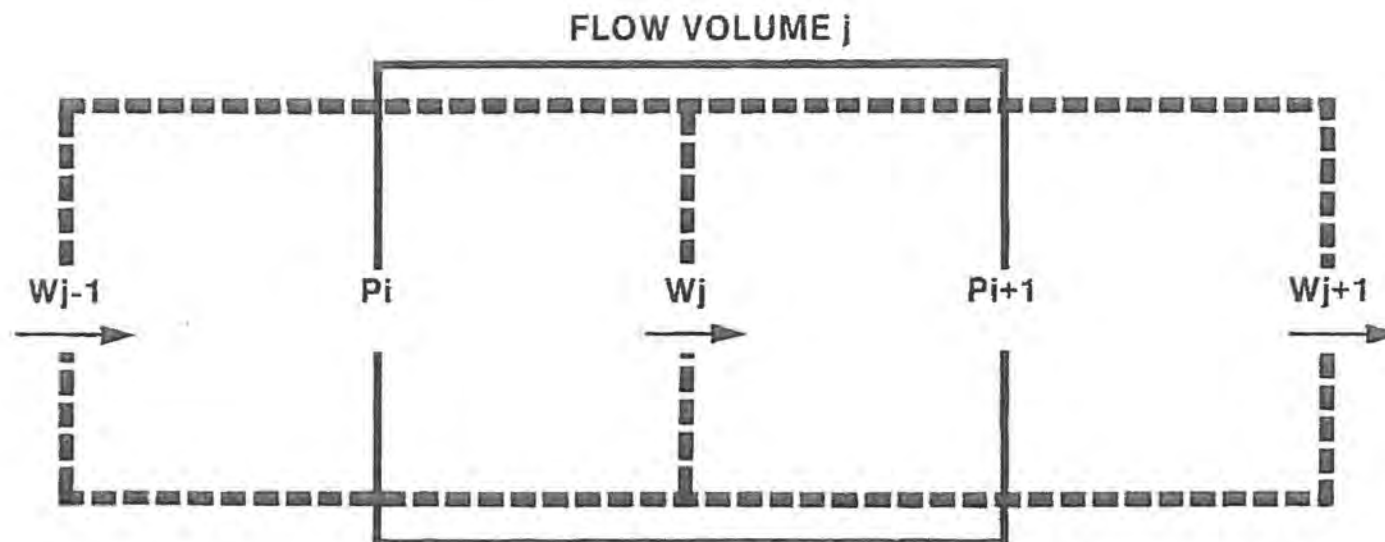


FIGURE 6A.10-20

SUPPRESSION POOL LOCAL TO BULK
TEMPERATURE DIFFERENCE

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NINE MILE POINT-UNIT 2
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NOTE:

DASHED LINES INDICATE NODE BOUNDARIES
OR MASS AND ENERGY CONTROL VOLUMES

SOLID LINES INDICATE INTERNAL JUNCTION OR
MOMENTUM CONTROL VOLUMES

FIGURE 6B-1

STAGGERED MESH CONTROL VOLUME
APPROXIMATION FOR THREE-D

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

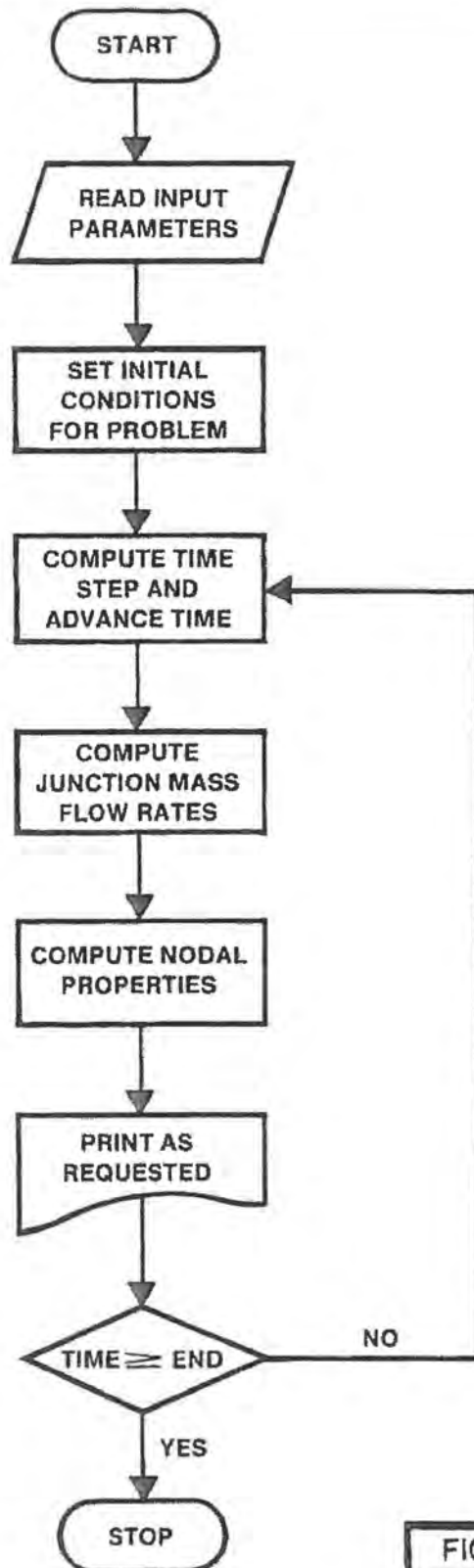
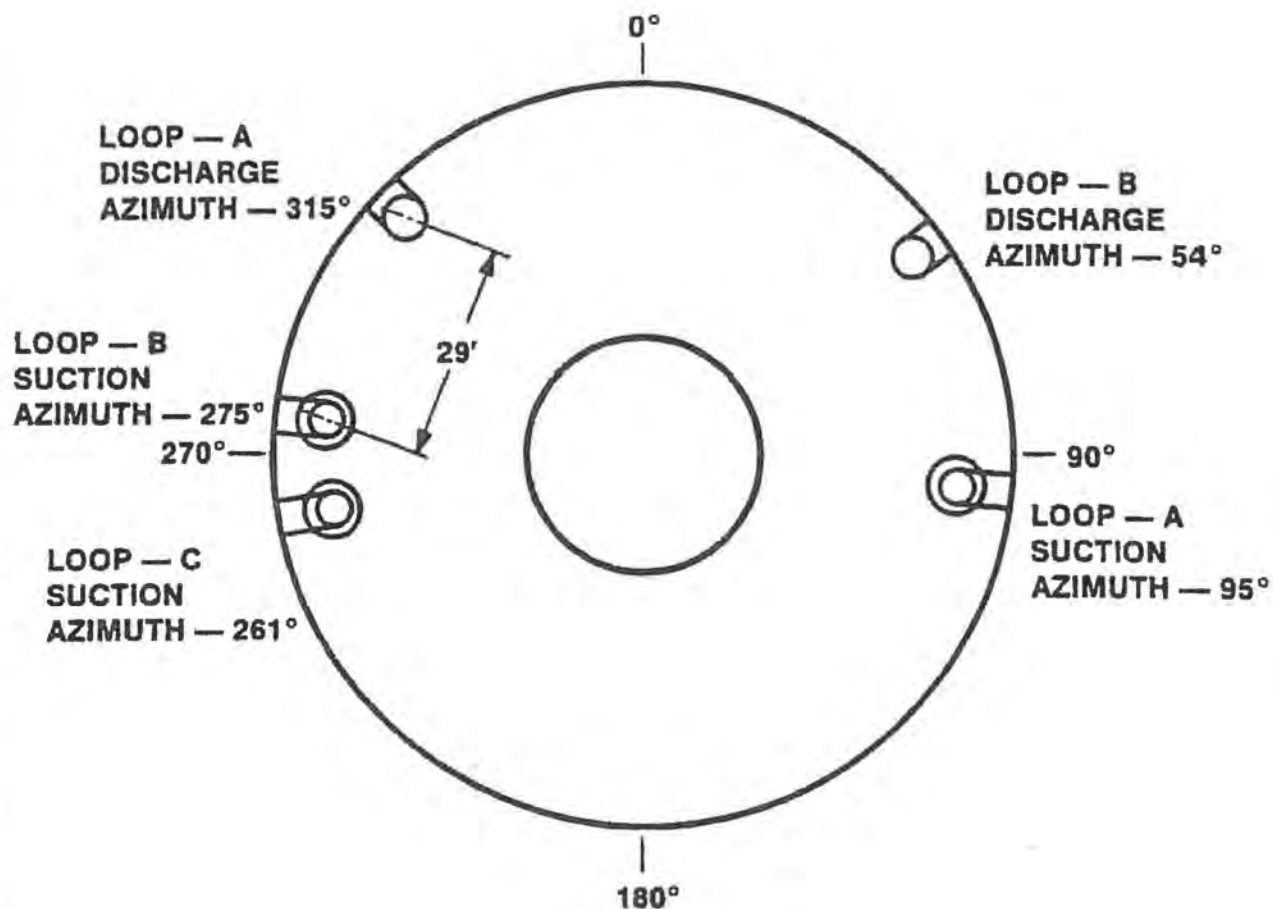


FIGURE 6B-2

COMPUTATIONAL BLOCK
DIAGRAM FOR THREED

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NORMAL POOL LEVEL	EL — 200'
DISCHARGE	EL — 198'
SUCTION (TOP)	EL — 189'-8"
POOL BOTTOM	EL — 176'

FIGURE 6C-1

UNIT 2 — RHR SUCTION &
DISCHARGE SCHEMATIC

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NINE MILE POINT-UNIT 2
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