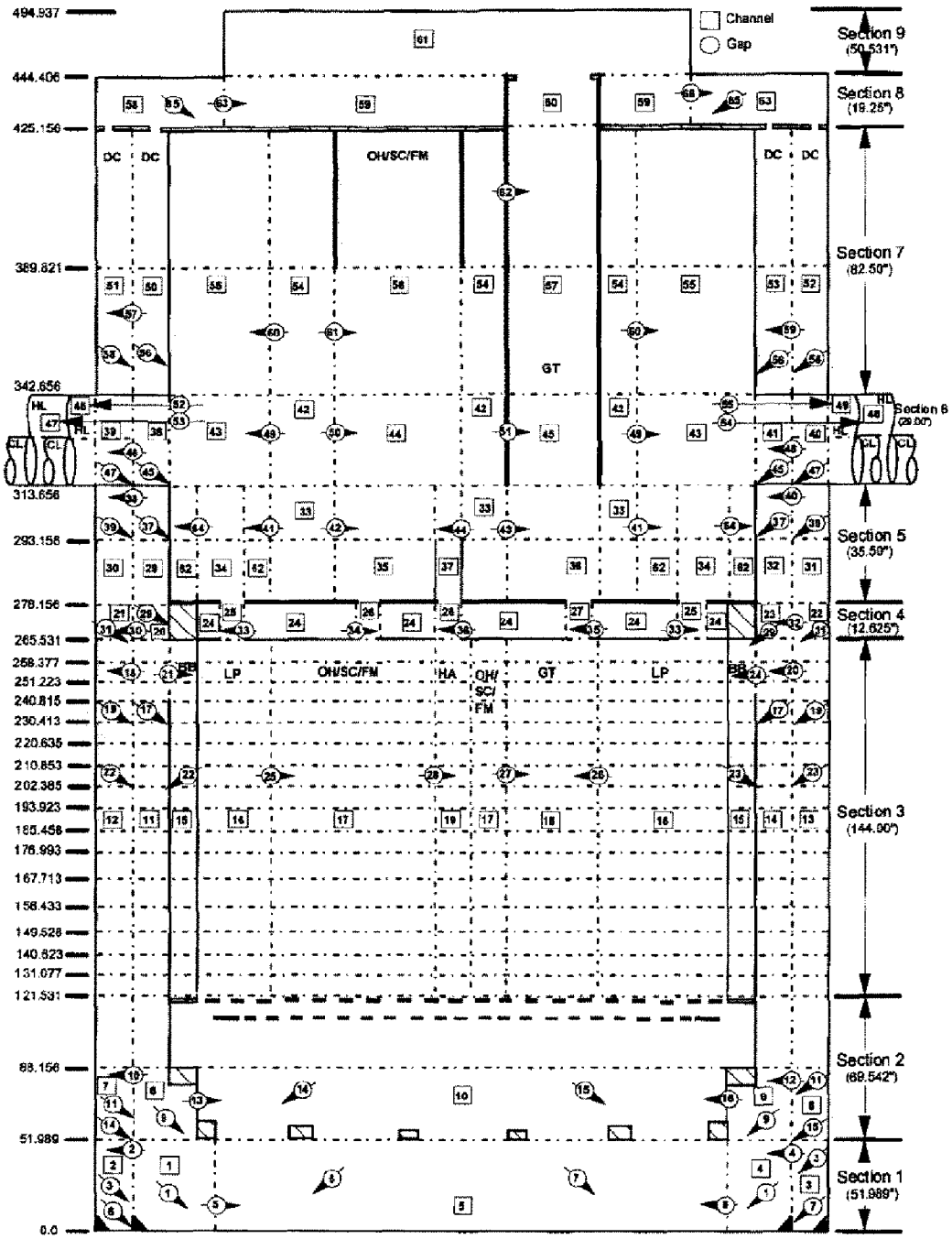


Figure 14.3-1: Indian Point Unit 2 WCOBRA/TRAC Vessel Model Noding Diagram

INDIAN POINT UNIT No. 2	
INDIAN POINT UNIT 2 WCOBRA/TRAC VESSEL MODEL NODING DIAGRAM	
UFSAR FIGURE 14.3-1	REV. No. 20

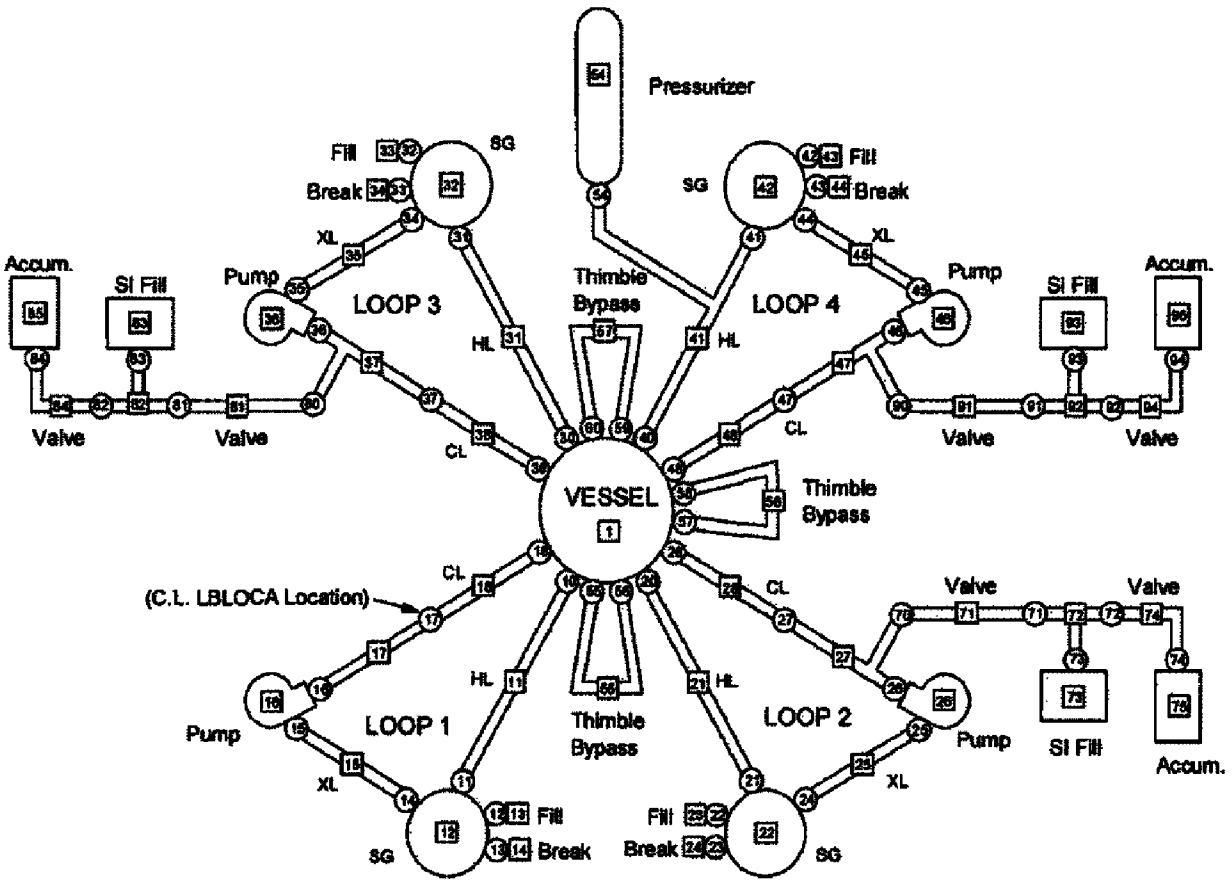
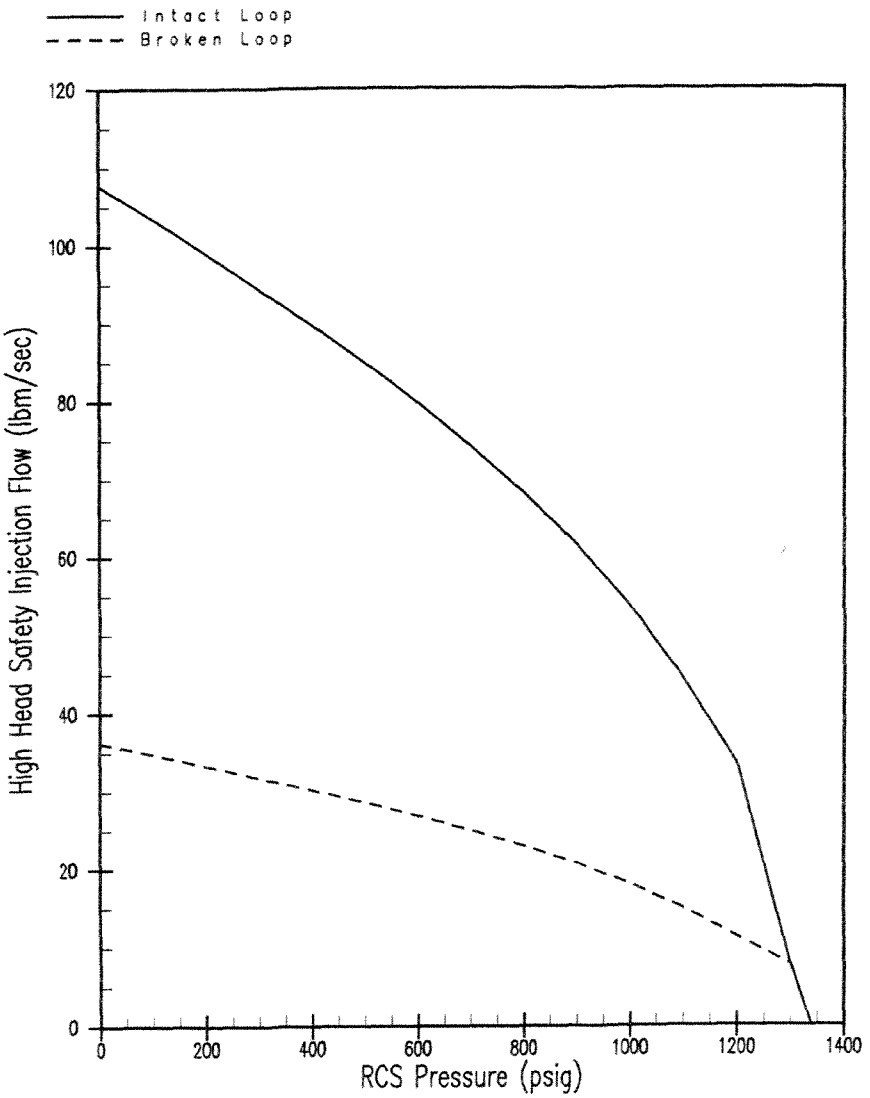
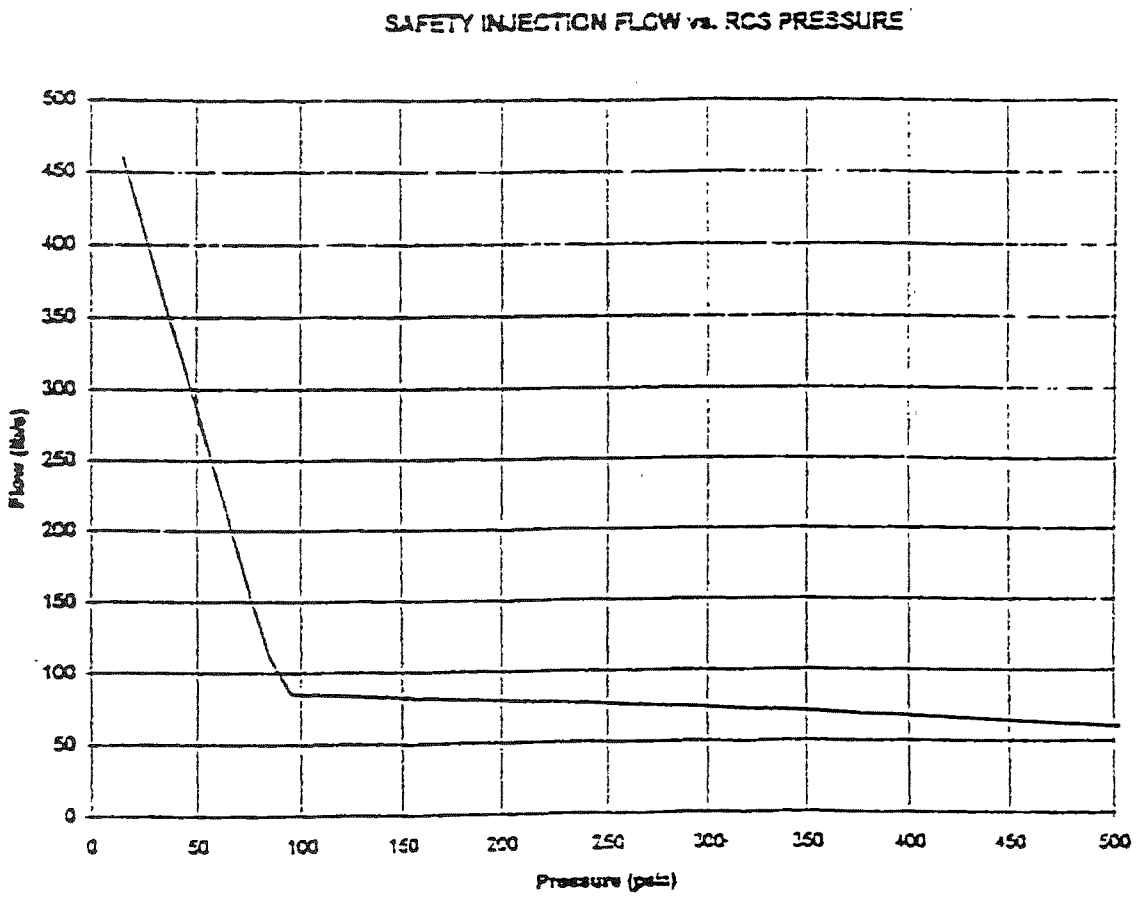


Figure 14.3-2: Indian Point Unit 2 WCOBRA/TRAC Model Loop Layout

INDIAN POINT UNIT No. 2	
INDIAN POINT UNIT 2 WCOBRA/TRAC VESSEL MODEL LOOP LAYOUT	
UFSAR FIGURE 14.3-2	REV. No. 20



INDIAN POINT UNIT No. 2	
HIGH HEAD SAFETY INJECTION FLOW RATE	
UFSAR FIGURE 14.3-3	REV. No. 19



INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3-3A SAFETY INJECTION FLOW vs RCS PRESSURE	
MIC. No. 2000MC4204	REV. No. 17A

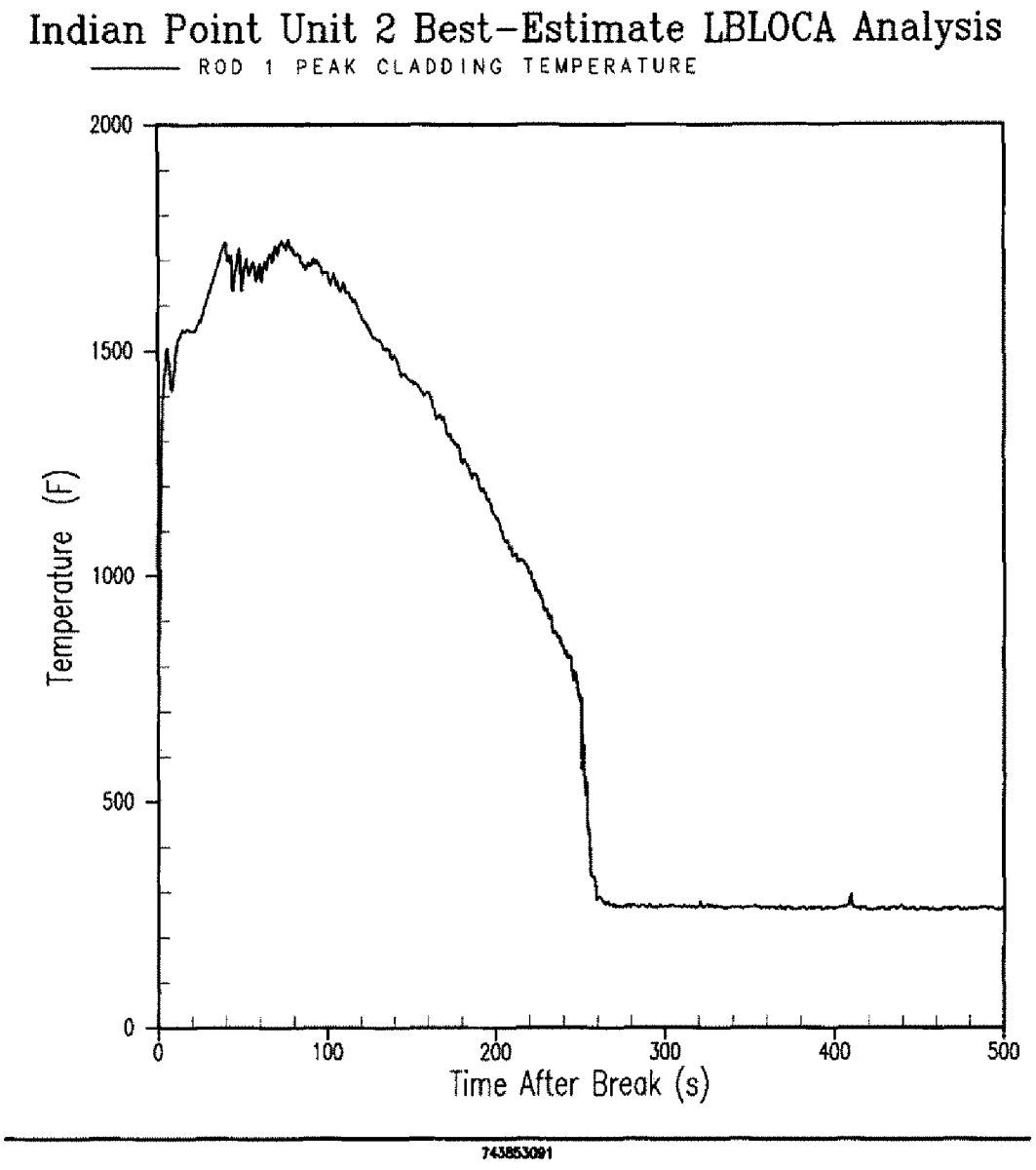


Figure 14.3-6: Peak Cladding Temperature for Reference Transient

INDIAN POINT UNIT No. 2	
PEAK CLADDING TEMPERATURE FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-6	REV. No. 20

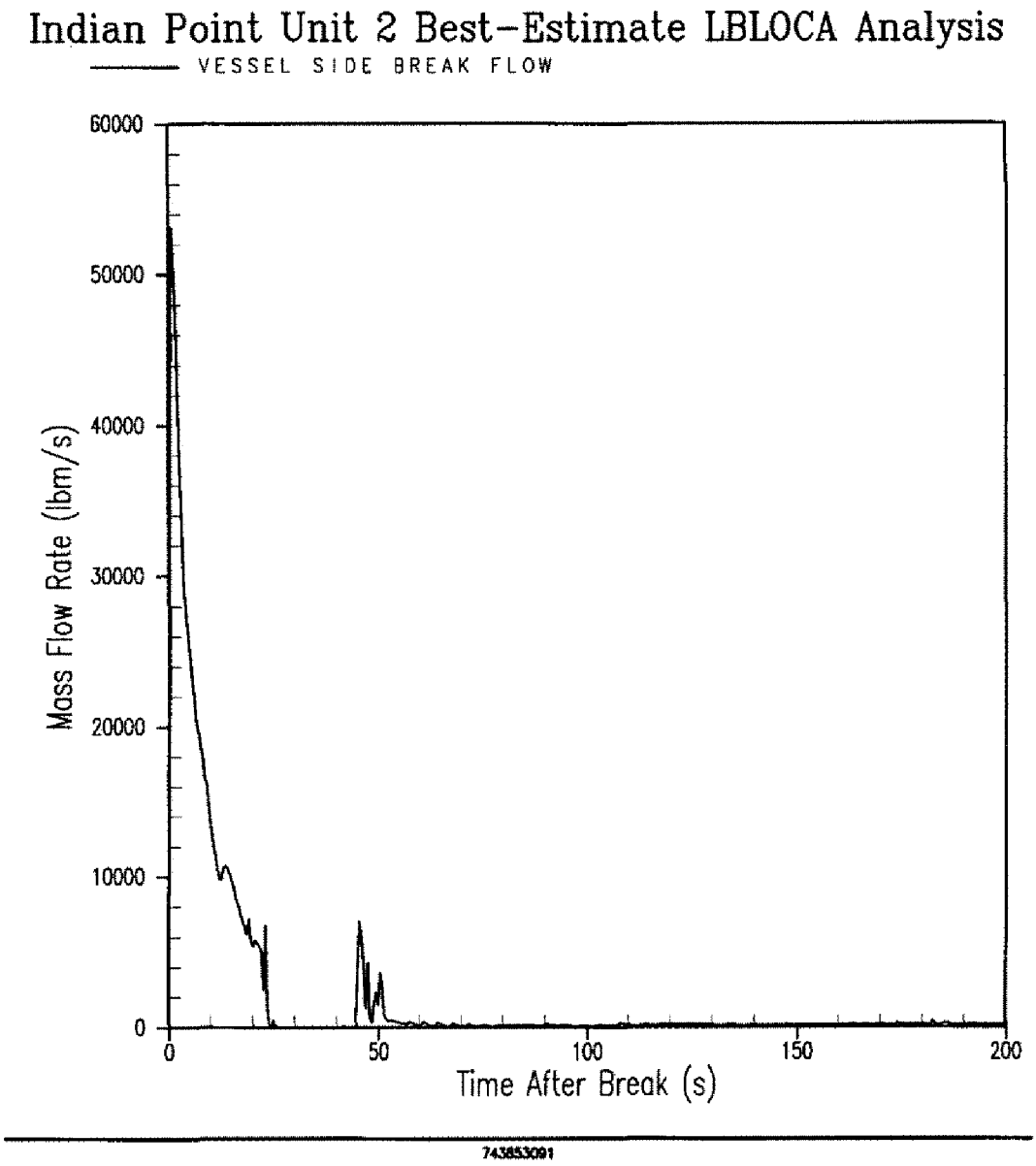


Figure 14.3-7: Vessel Side Break Flow for Reference Transient

INDIAN POINT UNIT No. 2	
VESSEL SIDE BREAK FLOW FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-7	REV. No. 20

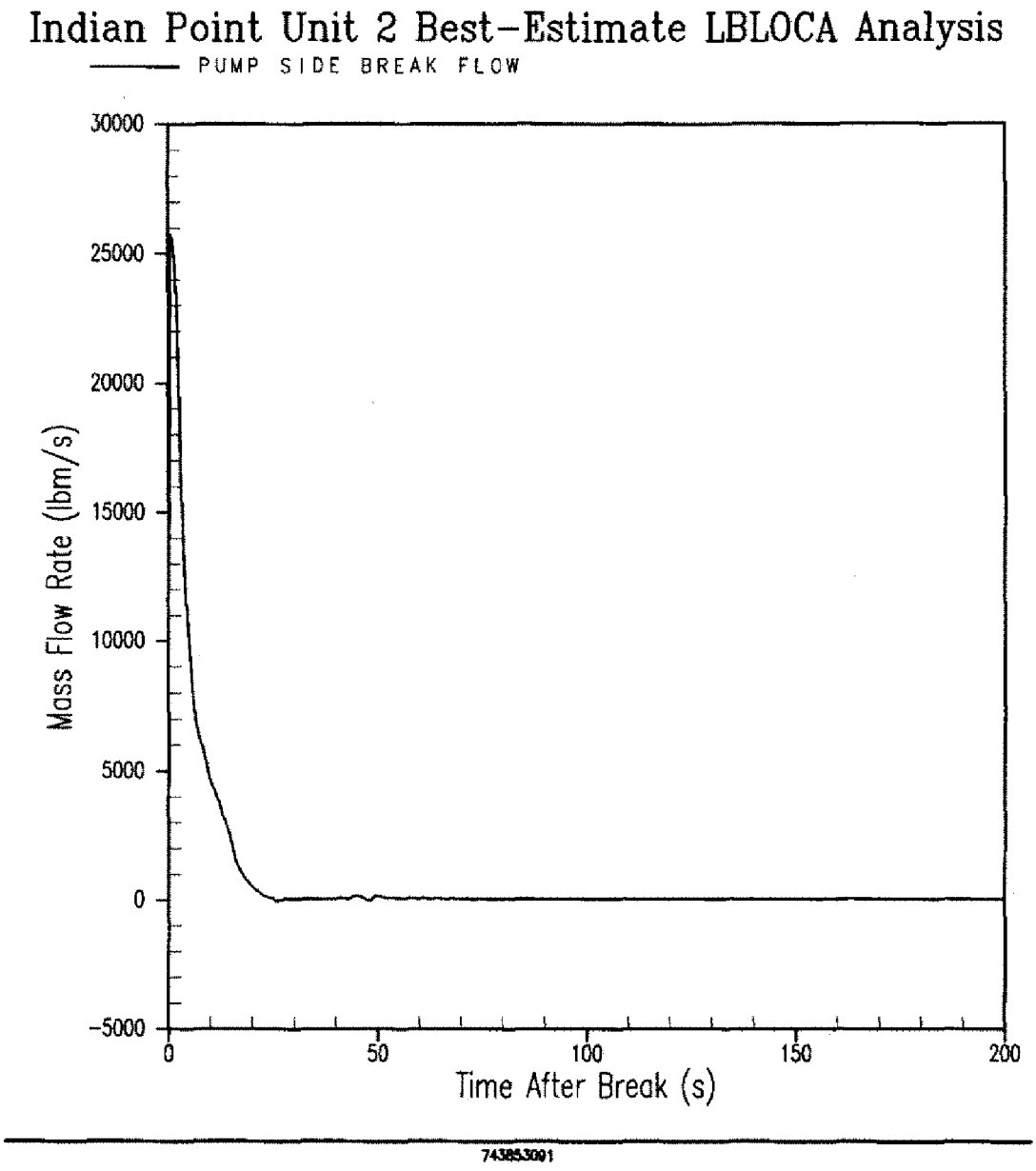


Figure 14.3-8: Loop Side Break Flow for Reference Transient

INDIAN POINT UNIT No. 2	
LOOP SIDE BREAK FLOW FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-8	REV. No. 20

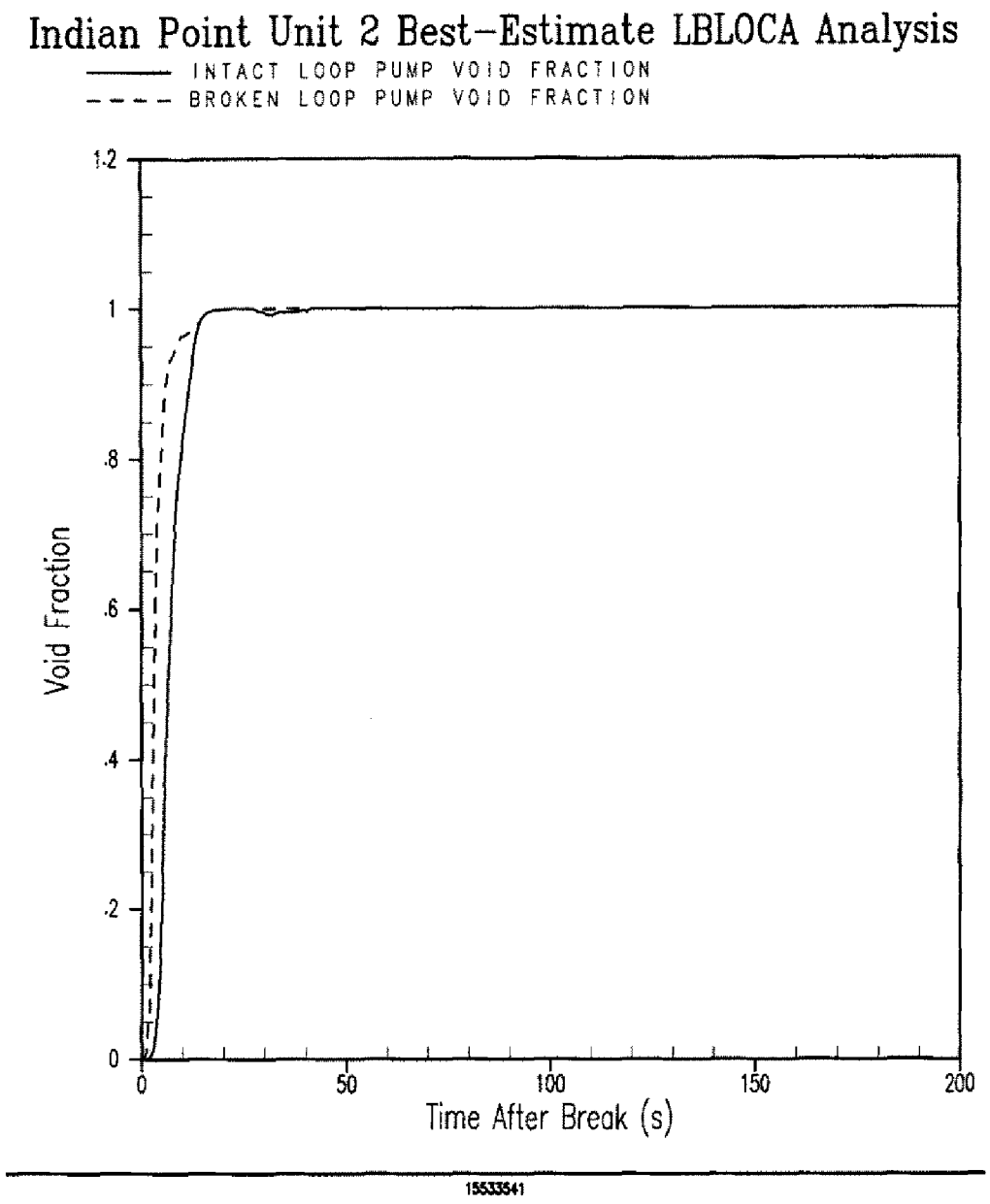


Figure 14.3-9: Void Fraction at the Intact and Broken Loop Pump Inlet for Reference Transient

INDIAN POINT UNIT No. 2	
VOID FRACTION AT THE INTACT AND BROKEN LOOP PUMP INLET FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-9	REV. No. 20

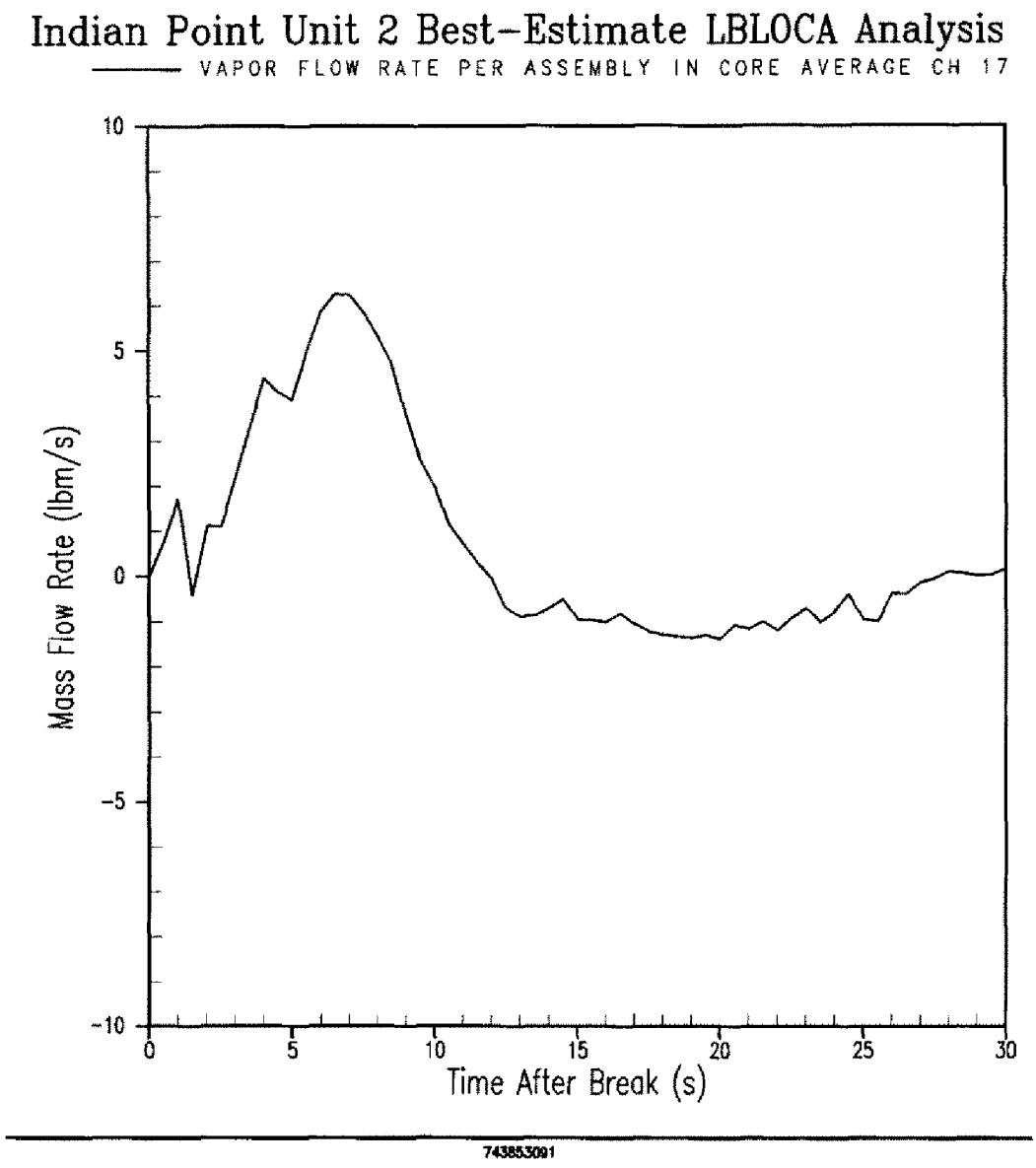


Figure 14.3-10: Vapor Flow Rate per Assembly at Mid-core in Core Average Channel 17 During Blowdown for Reference Transient

INDIAN POINT UNIT No. 2	
VAPOR FLOW RATE PER ASSEMBLY AT MID-CORE AVERAGE CHANNEL 17 DURING BLOWDOWN FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-10	REV. No. 20

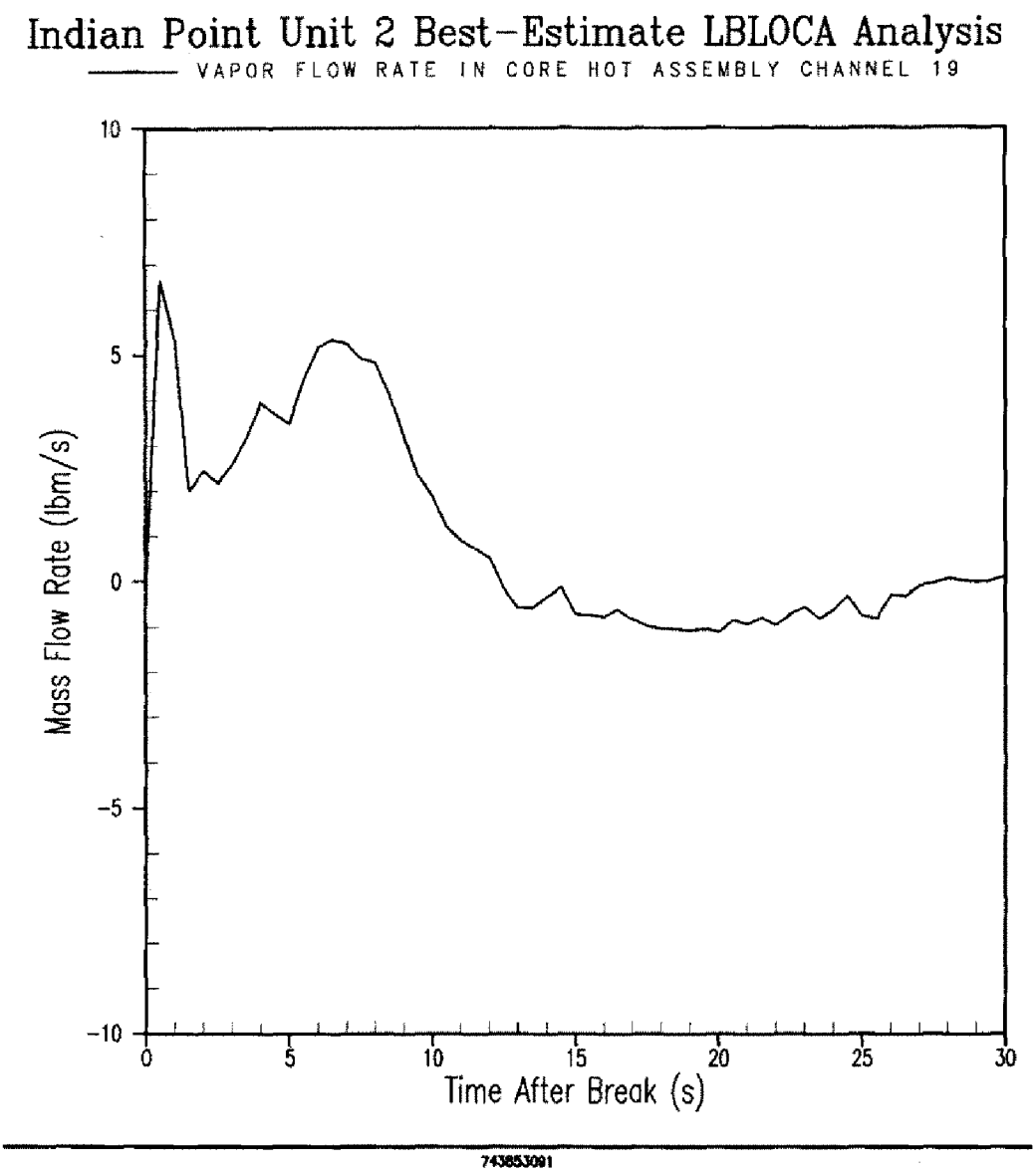


Figure 14.3-11: Vapor Flow Rate at Mid-core in Core Hot Assembly Channel 19 During Blowdown for Reference Transient

INDIAN POINT UNIT No. 2	
VAPOR FLOW RATE PER ASSEMBLY AT MID-CORE AVERAGE CHANNEL 19 DURING BLOWDOWN FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-11	REV. No. 20

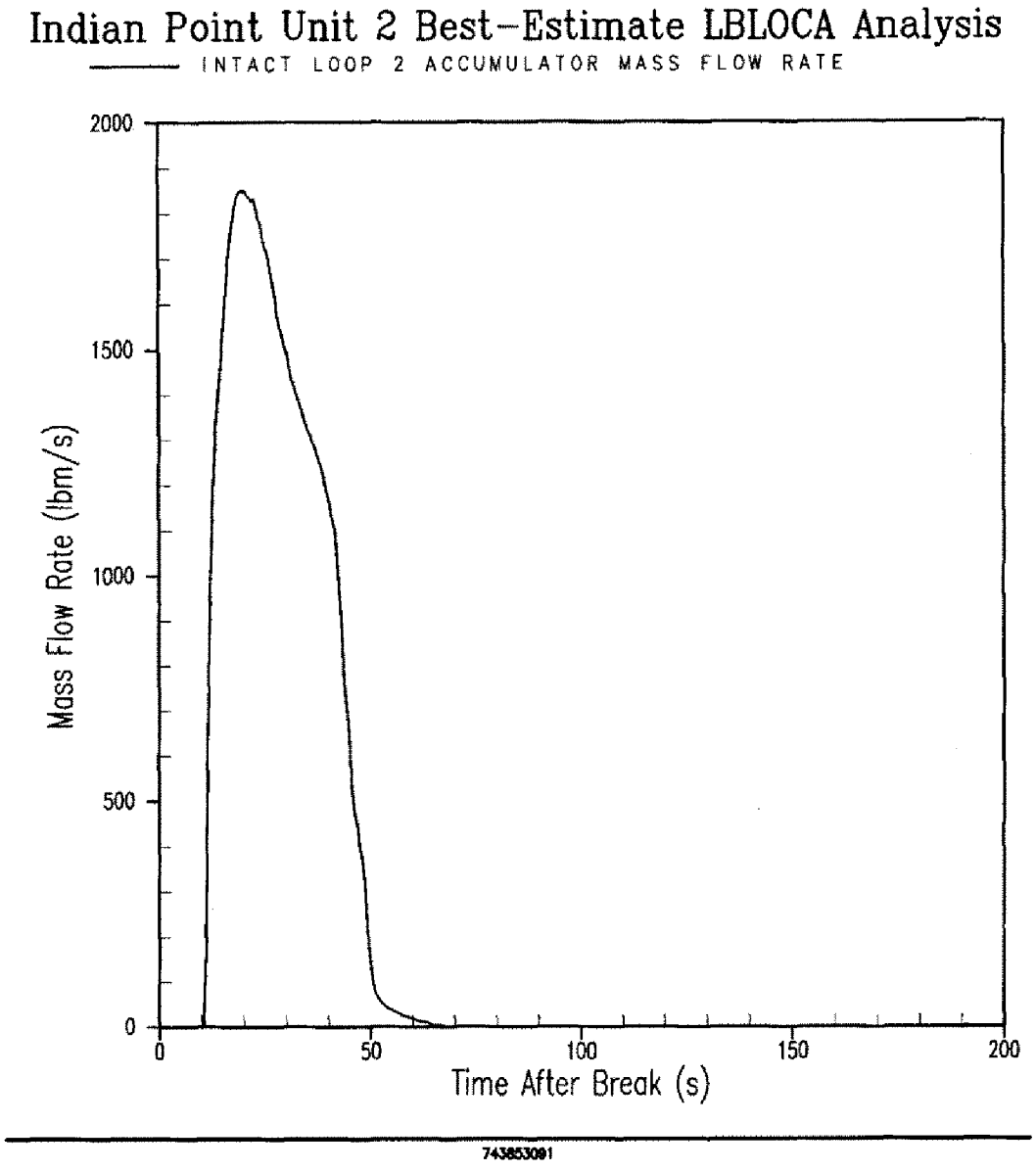


Figure 14.3-13: Intact Loop 2 Accumulator Flow for Reference Transient

INDIAN POINT UNIT No. 2	
INTACT LOOP 2 ACCUMULATOR FLOW FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-13	REV. No. 20

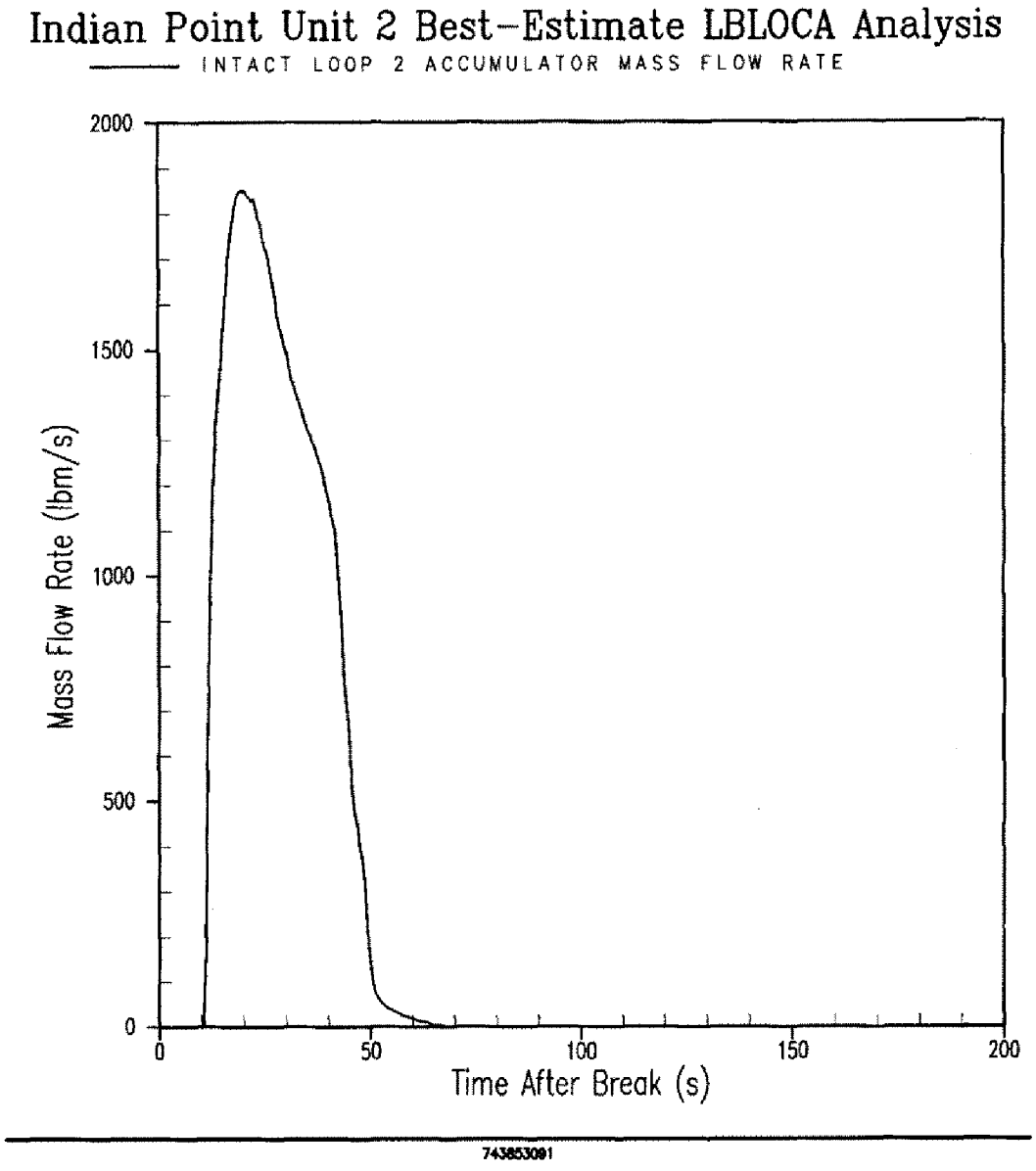


Figure 14.3-13: Intact Loop 2 Accumulator Flow for Reference Transient

INDIAN POINT UNIT No. 2	
INTACT LOOP 2 ACCUMULATOR FLOW FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-13	REV. No. 20

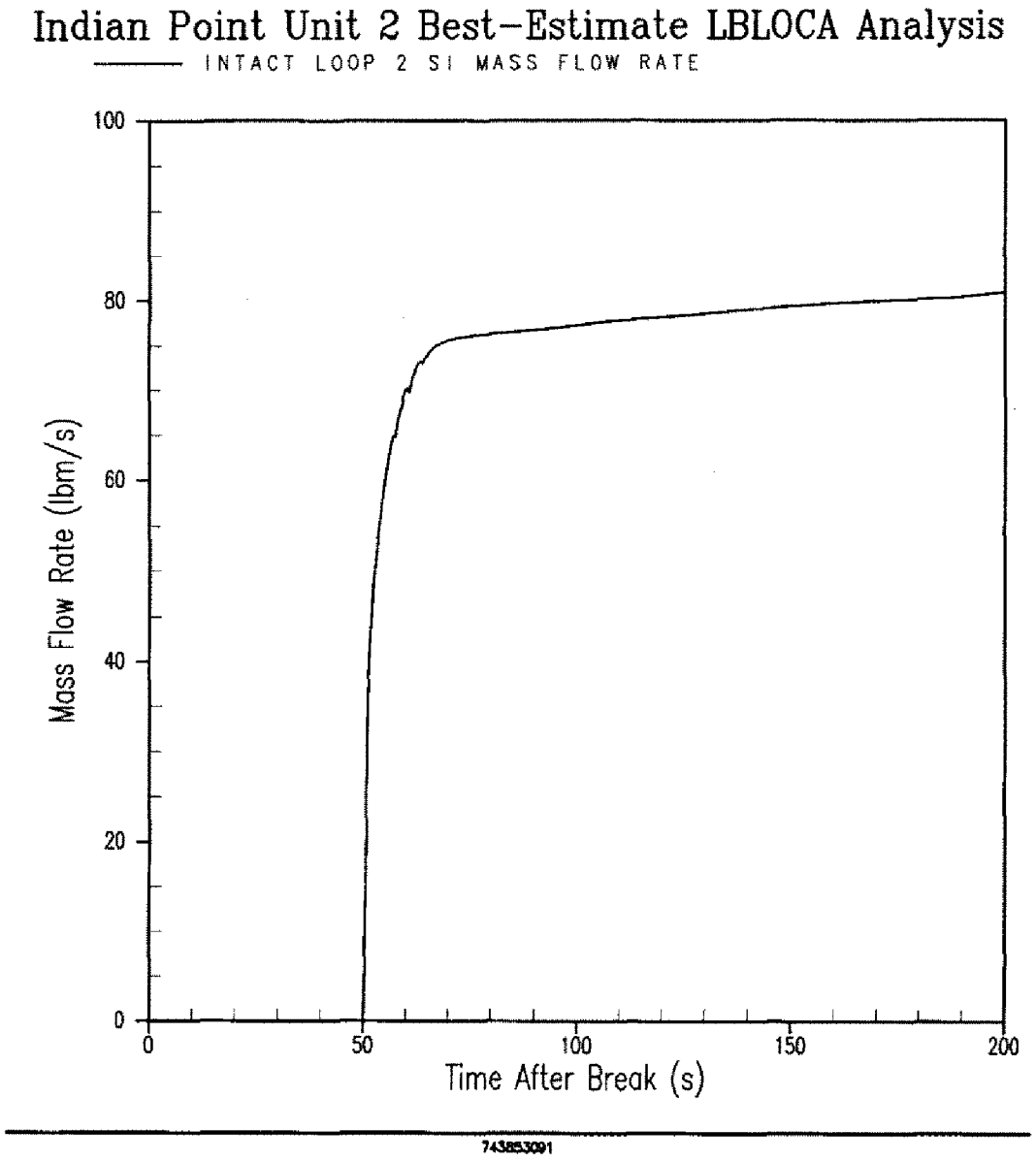


Figure 14.3-14: Intact Loop 2 Safety Injection Flow for Reference Transient

INDIAN POINT UNIT No. 2	
INTACT LOOP 2 SAFETY INJECTION FLOW FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-14	REV. No. 20

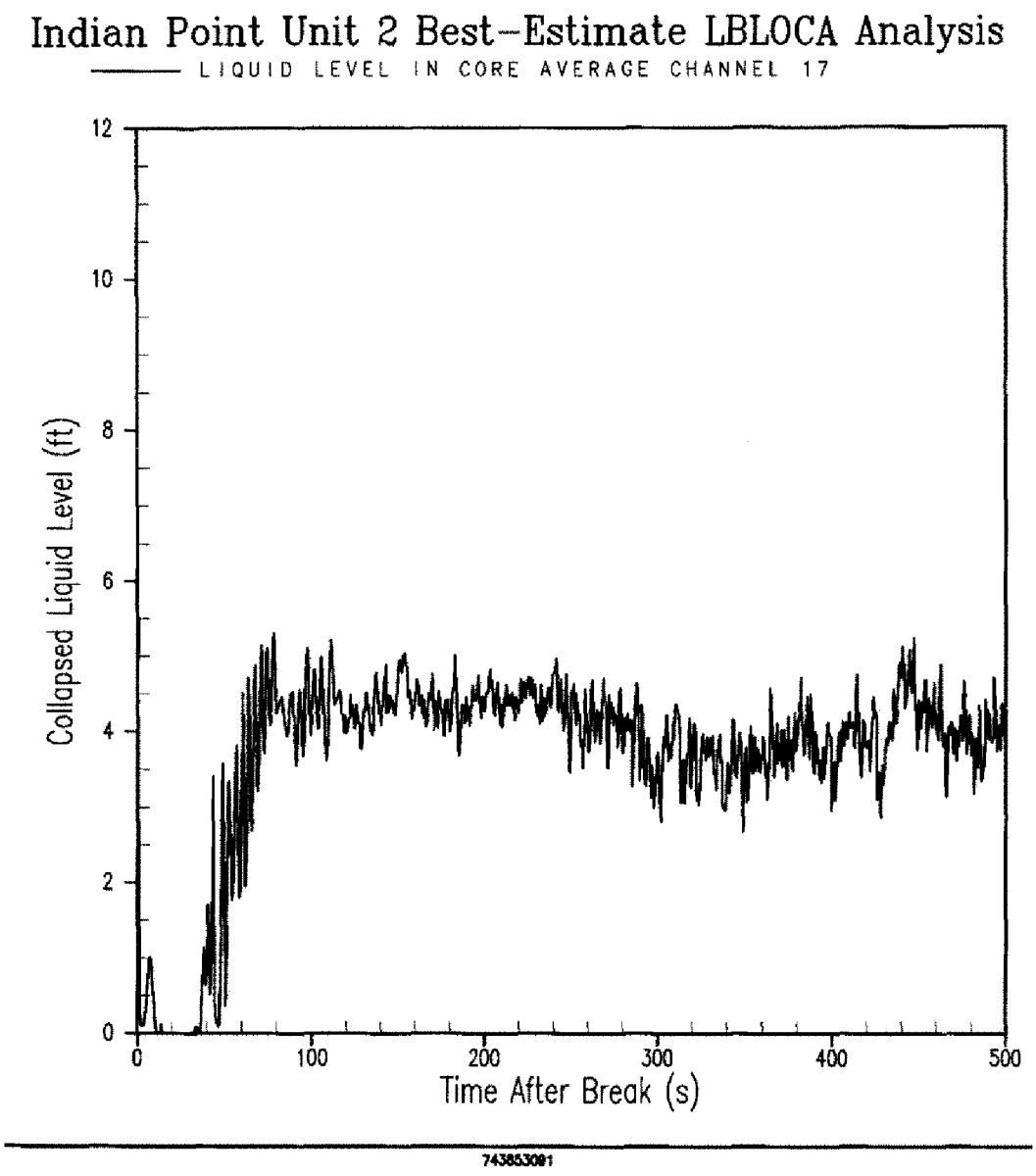


Figure 14.3-15: Collapsed Liquid Level in Core Average Channel 17 for Reference Transient

INDIAN POINT UNIT No. 2	
COLLAPSED LIQUID LEVEL IN CORE AVERAGE CHANNEL 17 FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-15	REV. No. 20

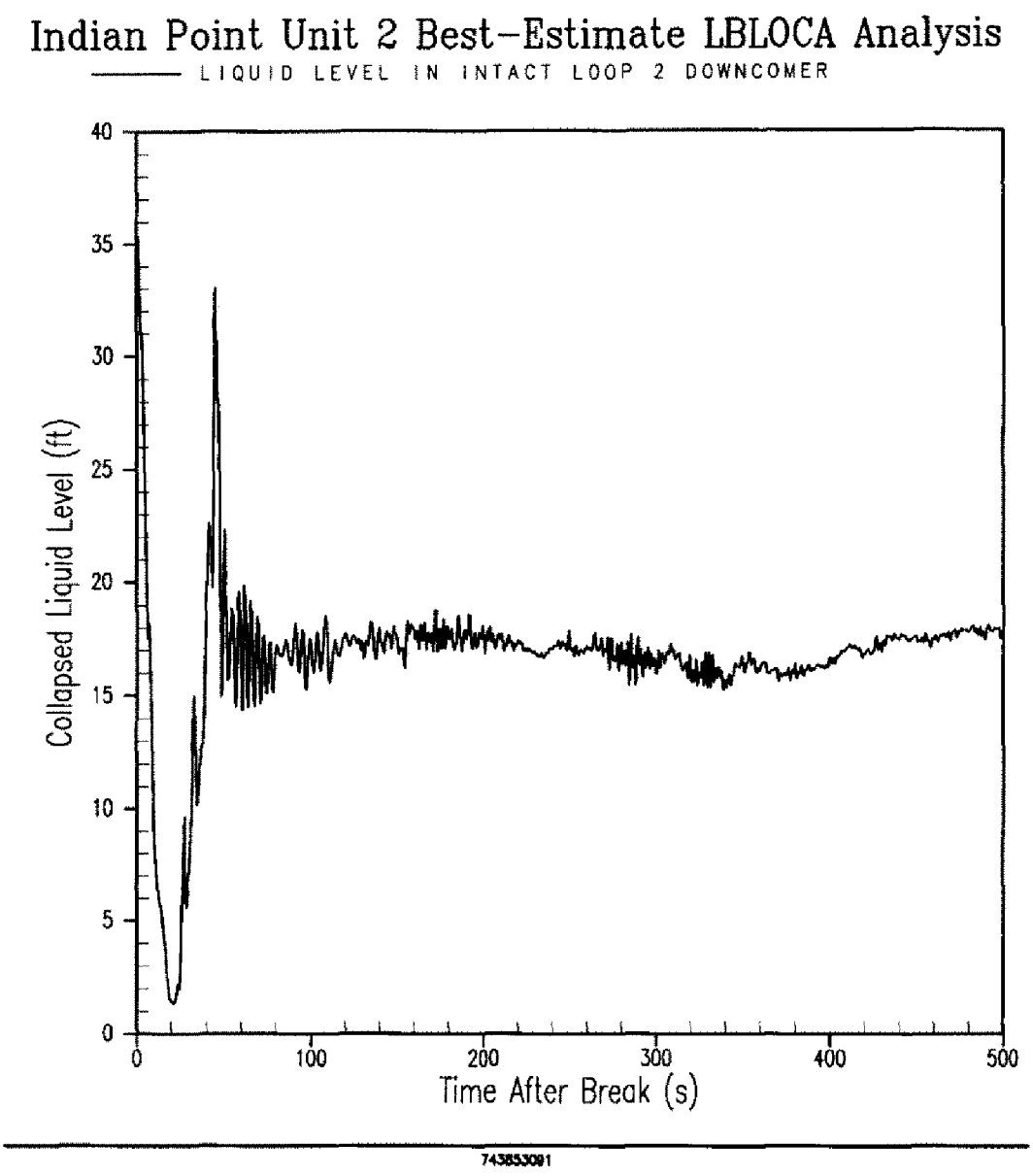


Figure 14.3-16: Collapsed Liquid Level in Intact Loop Downcomer for Reference Transient

INDIAN POINT UNIT No. 2	
COLLAPSED LIQUID LEVEL IN INTACT LOOP DOWNCOMER FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-16	REV. No. 20

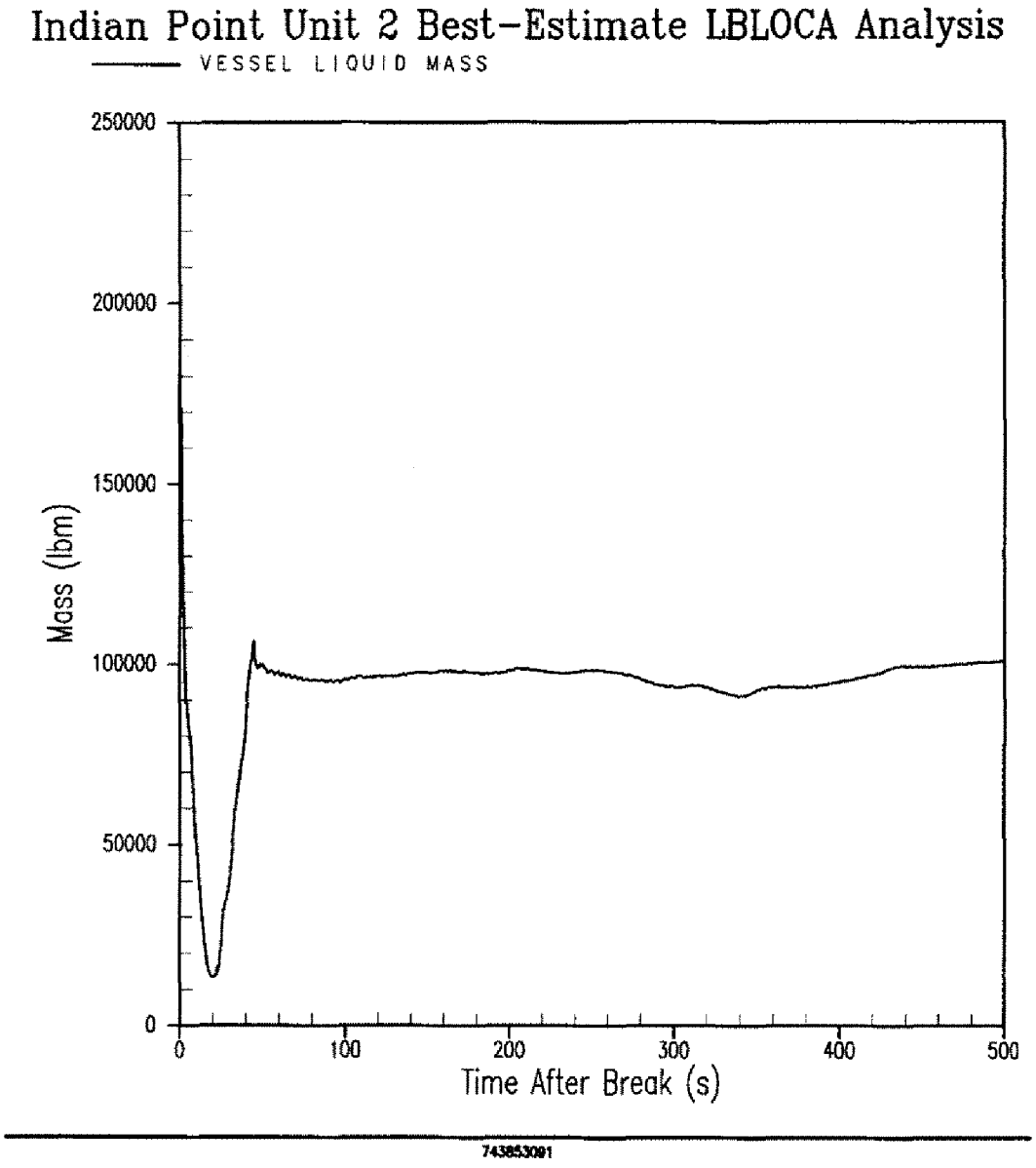


Figure 14.3-17: Vessel Fluid Mass for Reference Transient

INDIAN POINT UNIT No. 2	
VESSEL FLUID MASS FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-17	REV. No. 20

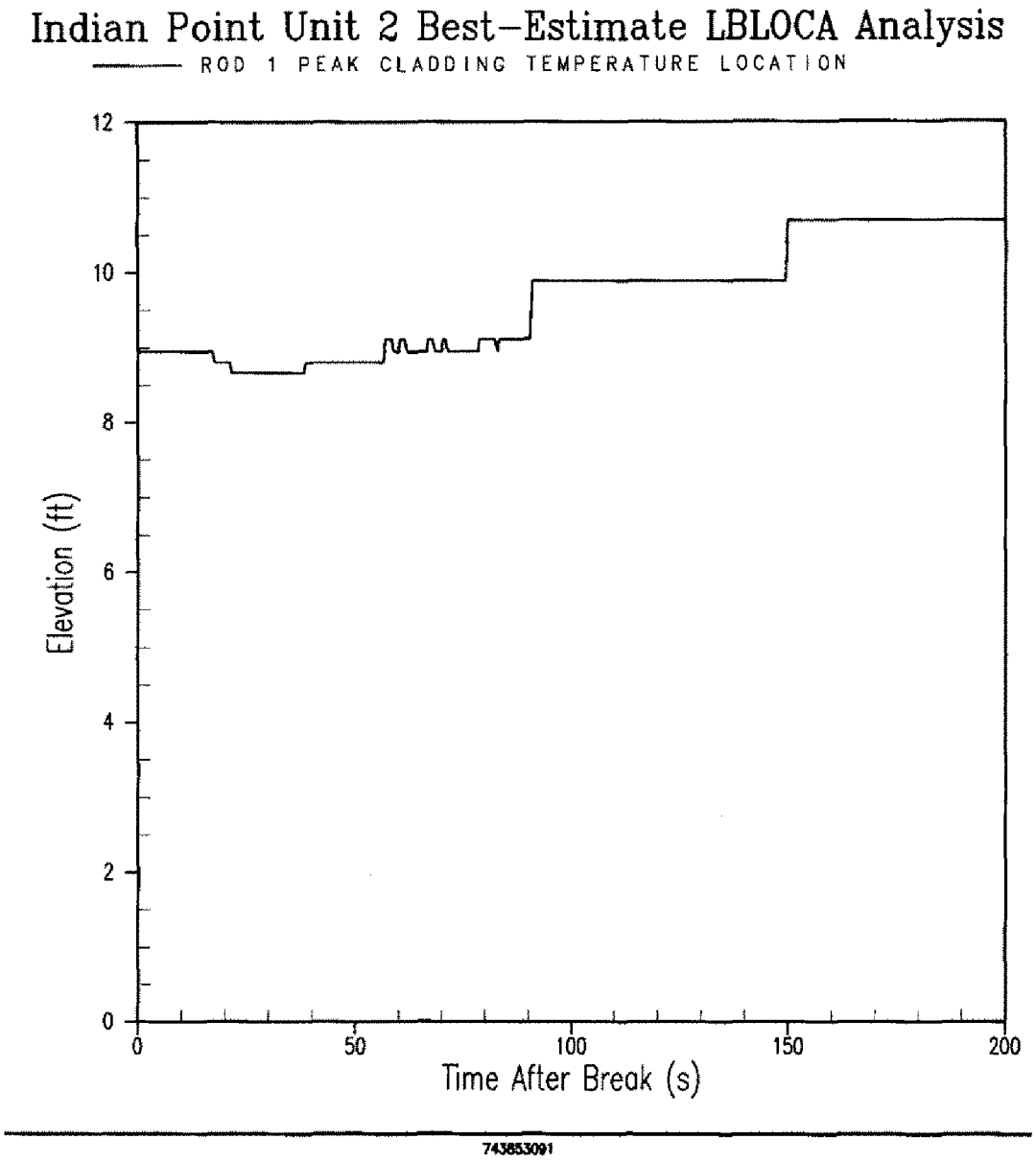


Figure 14.3-18: Peak Cladding Temperature Elevation for Reference Transient

INDIAN POINT UNIT No. 2	
PEAK CLADDING TEMPERATURE ELEVATION FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-18	REV. No. 20

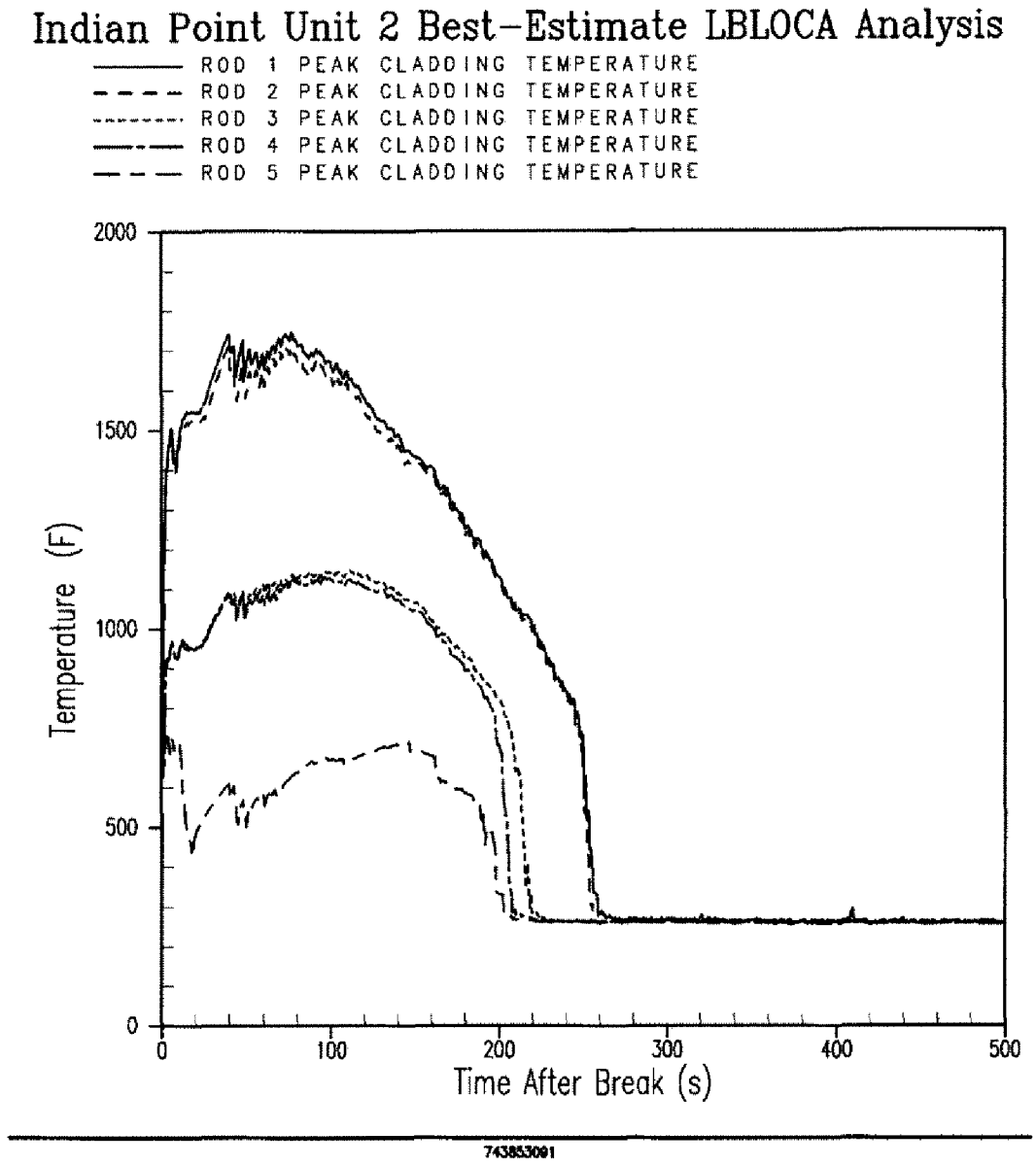


Figure 14.3-19: Peak Cladding Temperature Comparison for Five Rods for Reference Transient

INDIAN POINT UNIT No. 2	
PEAK CLADDING TEMPERATURE COMPARISON FOR FIVE RODS FOR REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-19	REV. No. 20

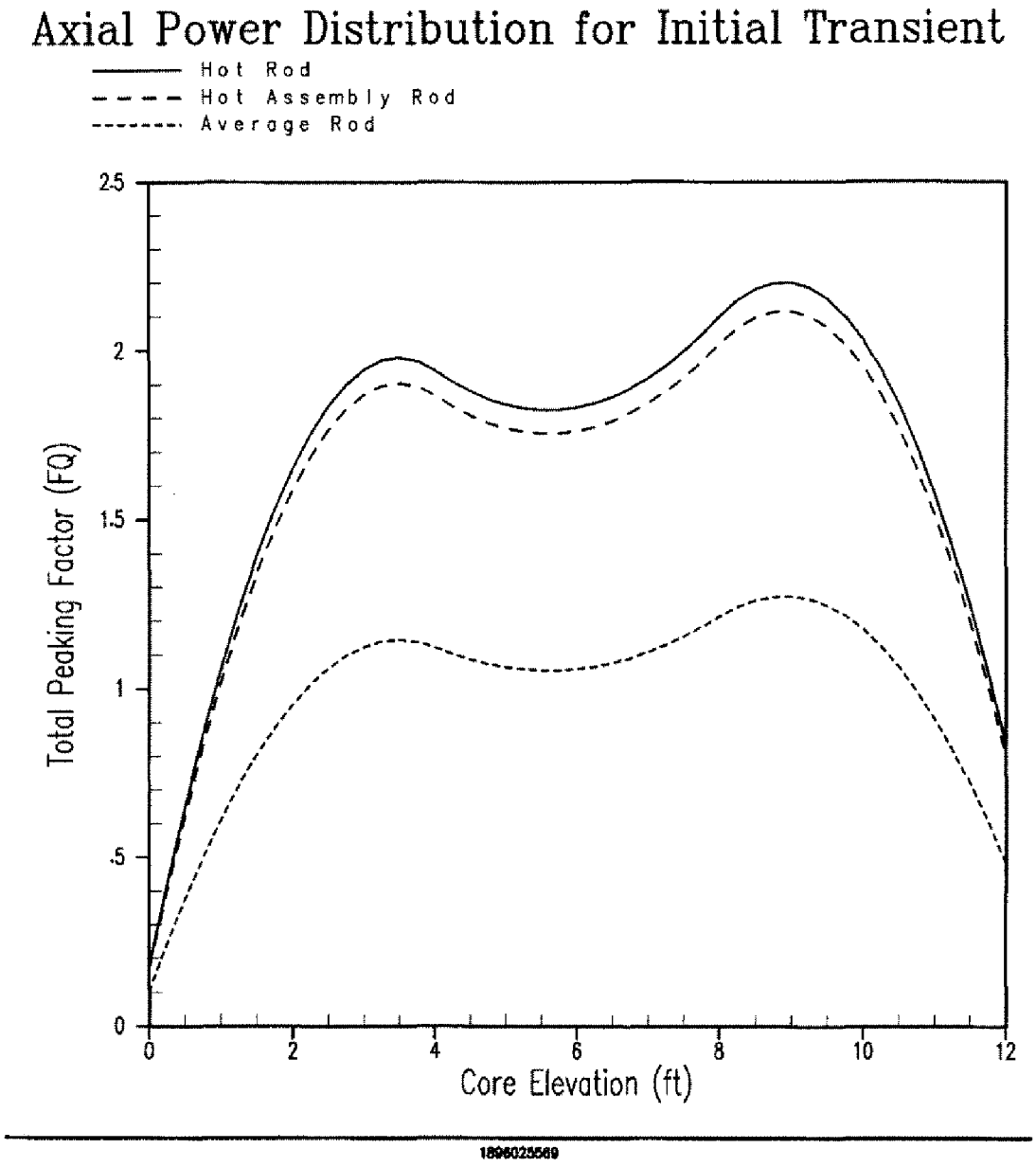


Figure 14.3-20: Indian Point Unit 2 Axial Power Distribution for Initial and Reference Transient

INDIAN POINT UNIT No. 2	
INDIAN POINT UNIT 2 AXIAL POWER DISTRIBUTION FOR INITIAL AND REFERENCE TRANSIENT	
UFSAR FIGURE 14.3-20	REV. No. 20

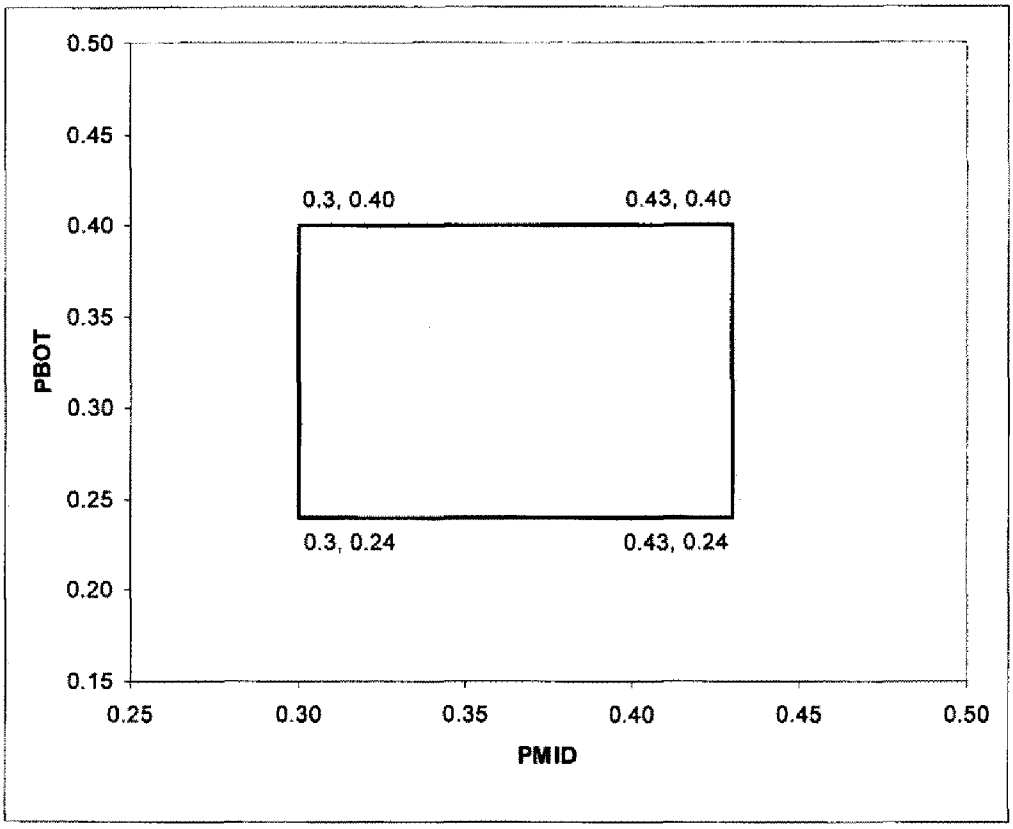


Figure 14.3-21: Indian Point Unit 2 PBOT/PMID Analysis and Operating Limits

INDIAN POINT UNIT No. 2	
INDIAN POINT UNIT 2 PBOT/PMID ANALYSIS AND OPERATING LIMITS	
UFSAR FIGURE 14.3-21	REV. No. 20

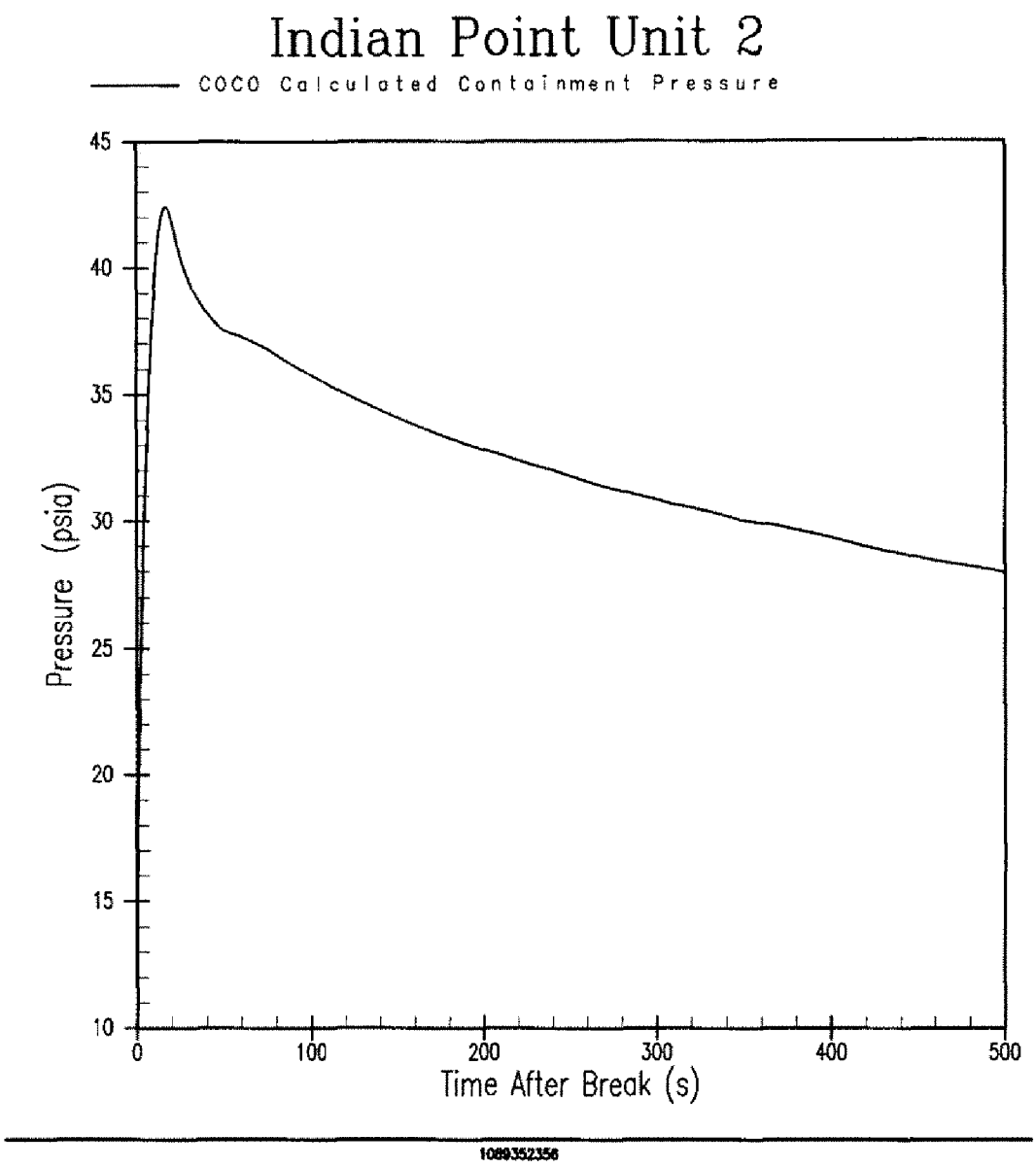
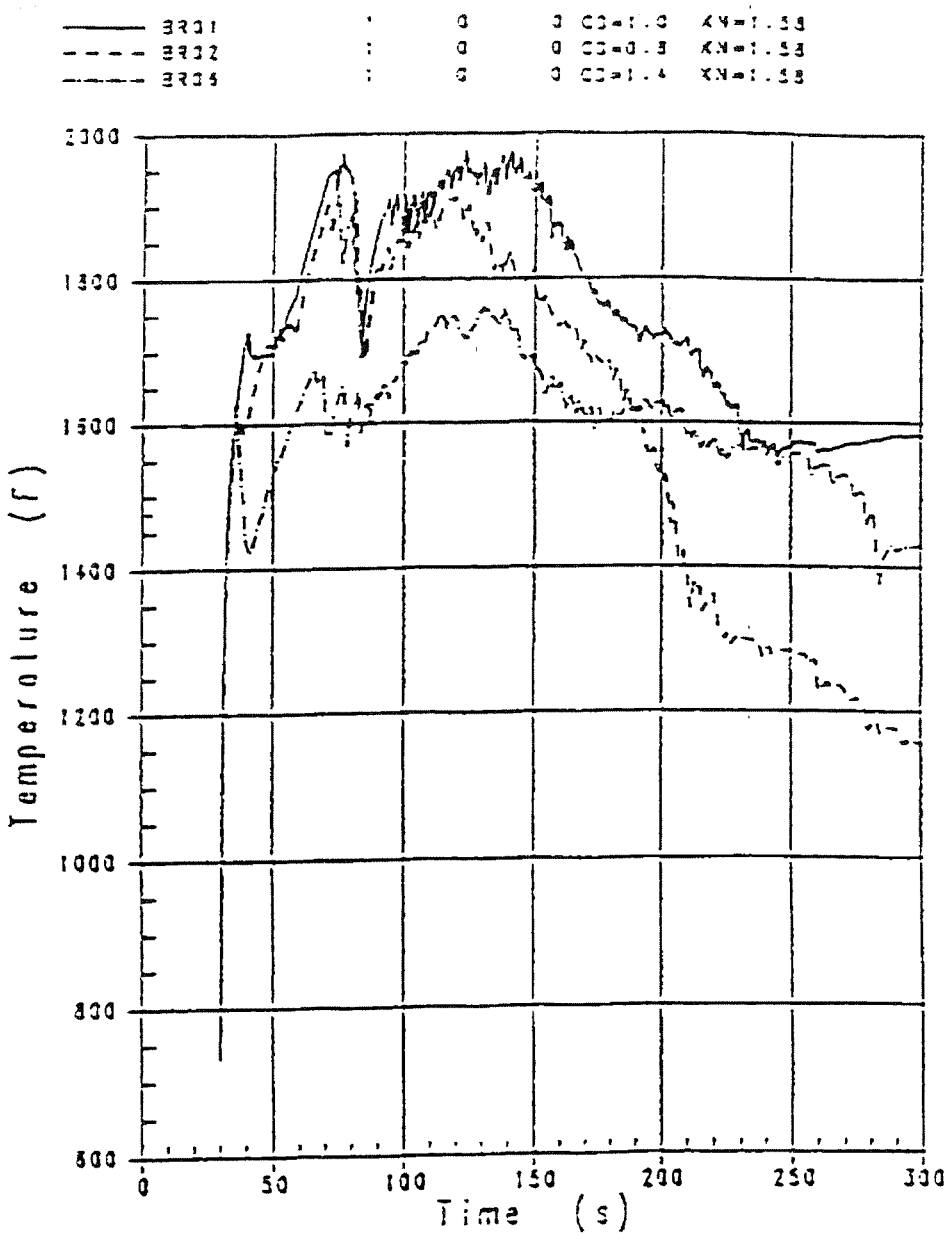
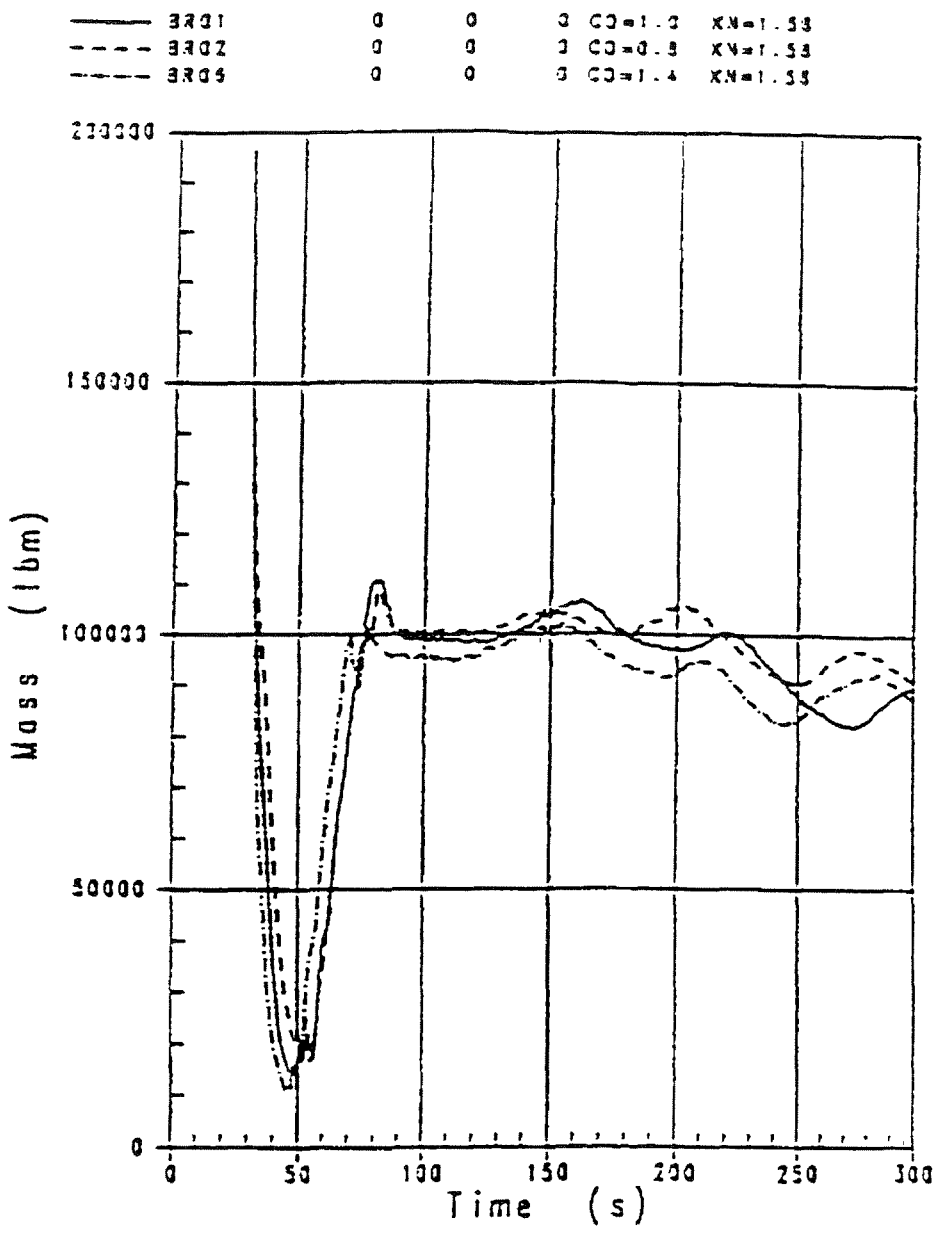


Figure 14.3-22: Indian Point Unit 2 Lower Bound COCO Calculated Containment Pressure

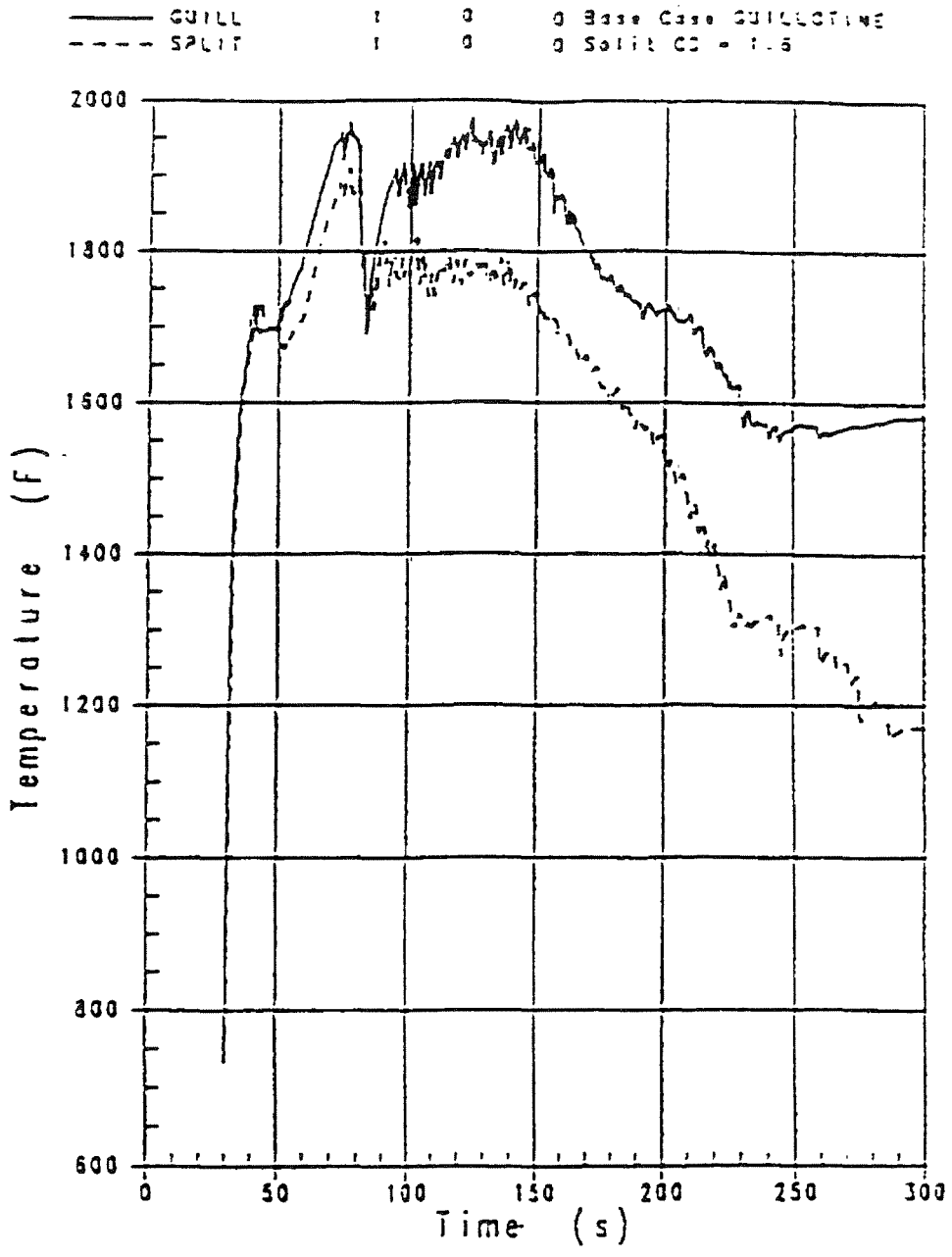
INDIAN POINT UNIT No. 2	
INDIAN POINT UNIT 2 LOWER BOUND COCO CALCULATED CONTAINMENT PRESSURE	
UFSAR FIGURE 14.3-22	REV. No. 20



INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3-23 EFFECT OF VARYING CD, WITH KN=1.58 AND XC=1.0 PCT (RUN 1 vs. RUN 2 vs. RUN 6)	
MIC. No. 2000MC4224	REV. No. 17A



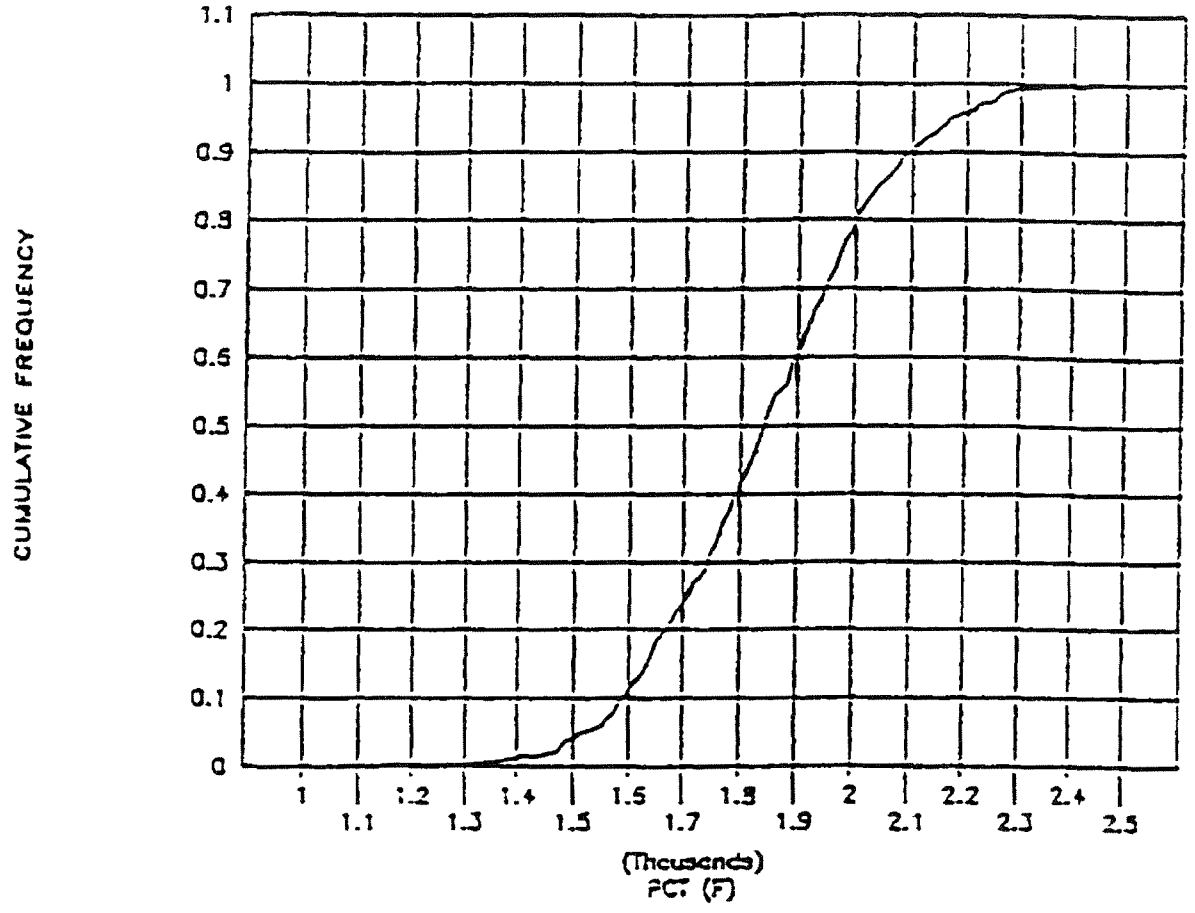
INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3-24 EFFECT OF VARYING CD, WITH KN=1.58 AND XC=1.0 VESSEL MASS (RUN 1 vs. RUN 2 vs. RUN 6)	
MIC. No. 2000MC4225	REV. No. 17A



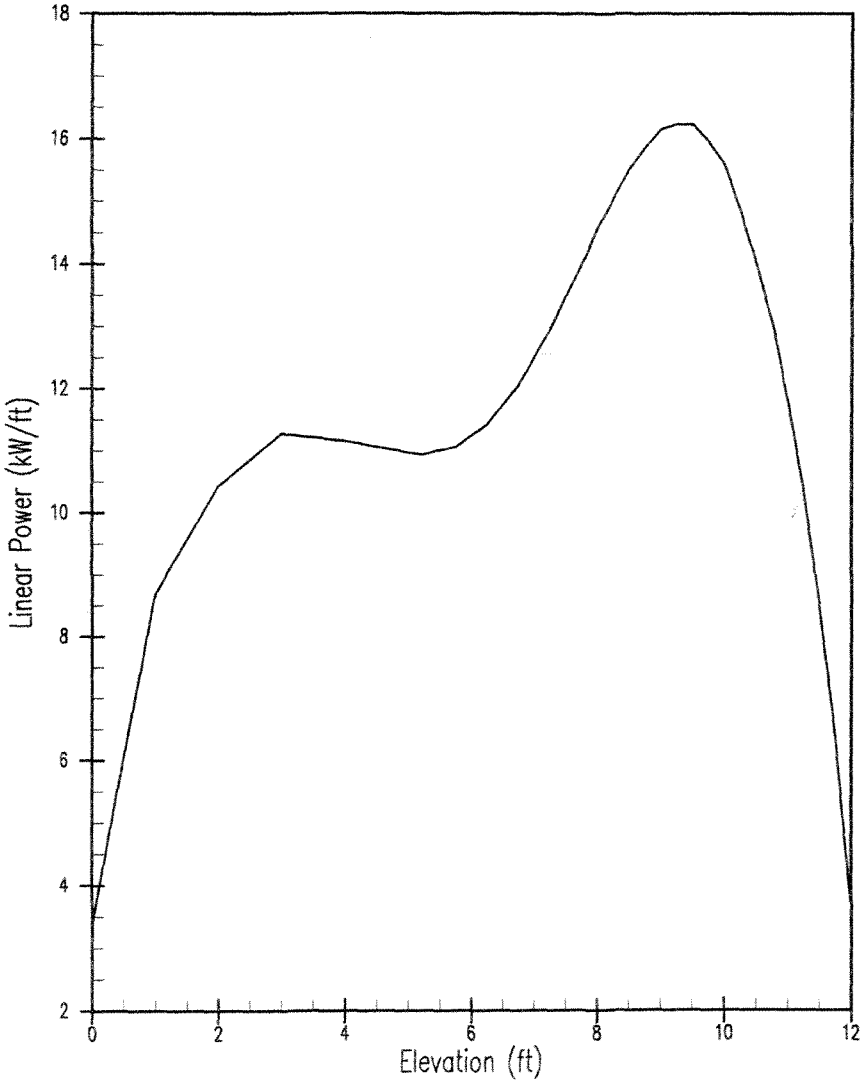
INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3–25 COMPARISON BETWEEN REFERENCE GUILLOTINE BREAK AND LIMITING SPLIT BREAK	
MIC. No. 2000MC4226	REV. No. 17A

FINAL PCT CUMULATIVE DISTRIBUTION

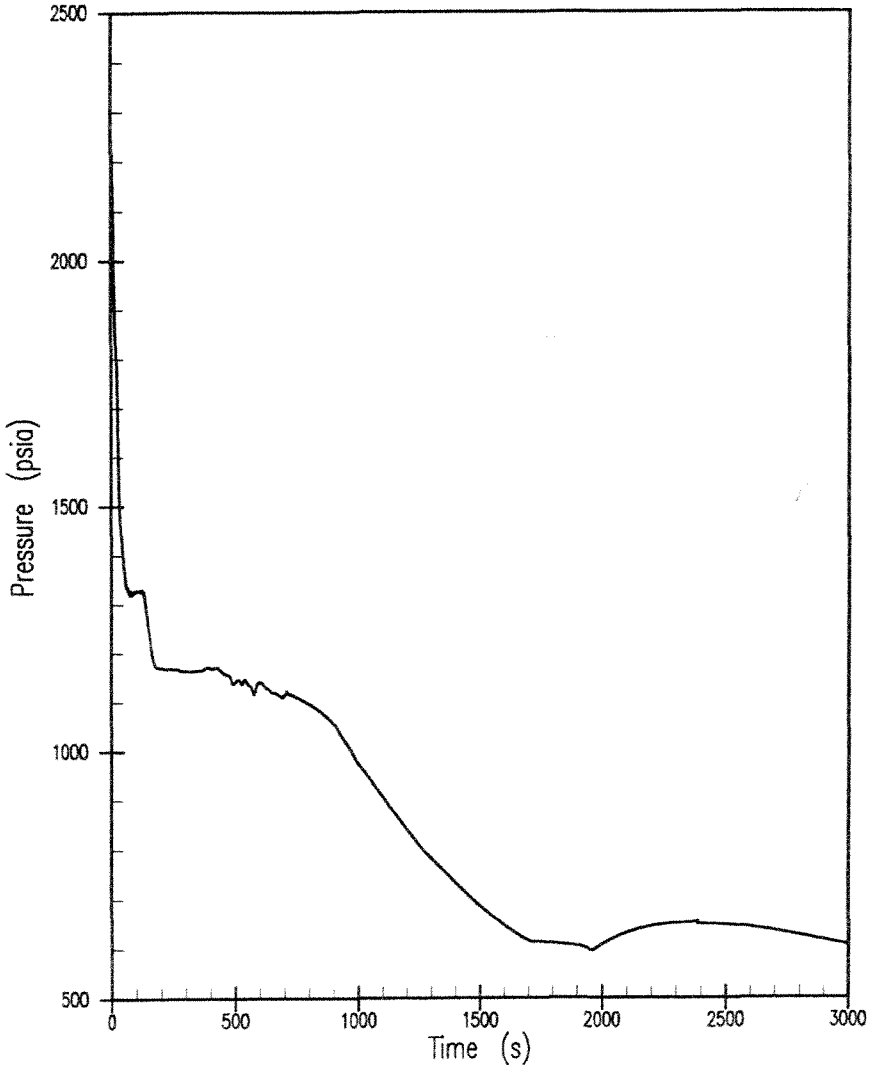
IP2 FIRST REFLOOD PCT



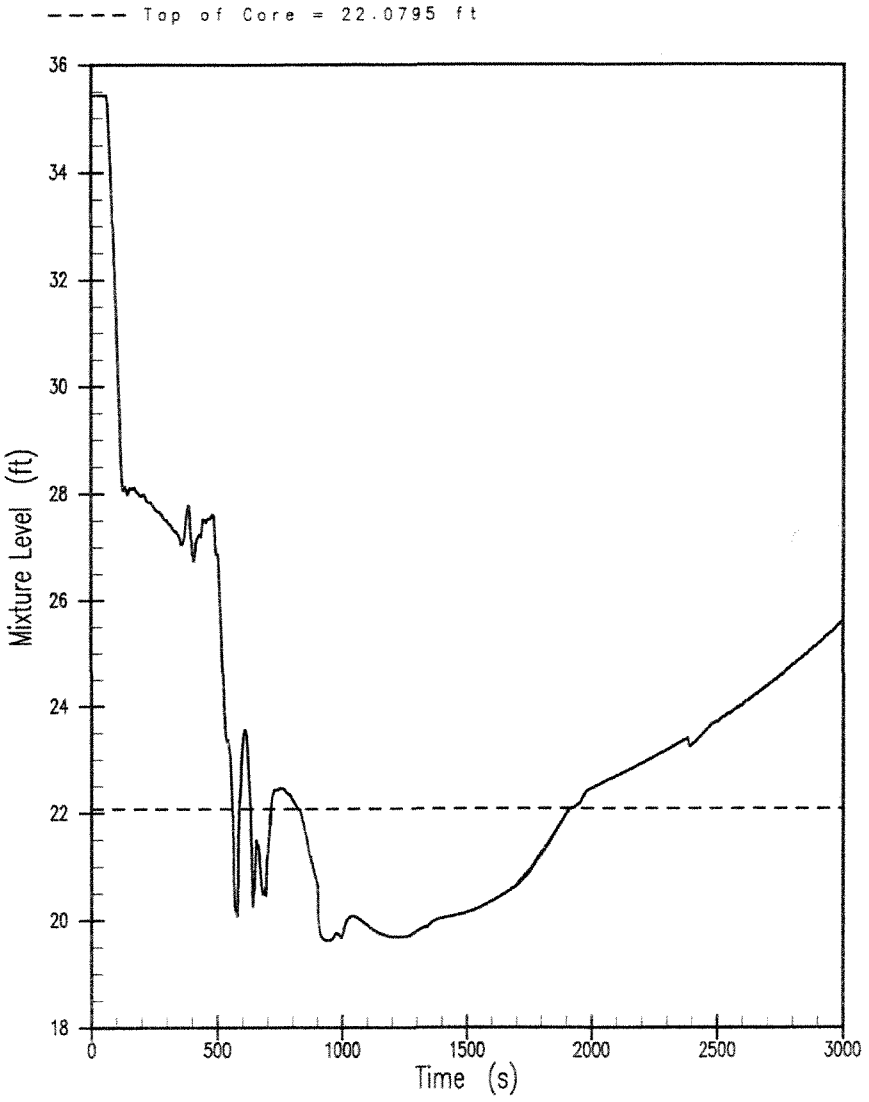
INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3-26 PCT CUMULATIVE DISTRIBUTION- IP2 FIRST REFLOOD PCT	
MIC. No. 2000MC4227	REV. No. 17A



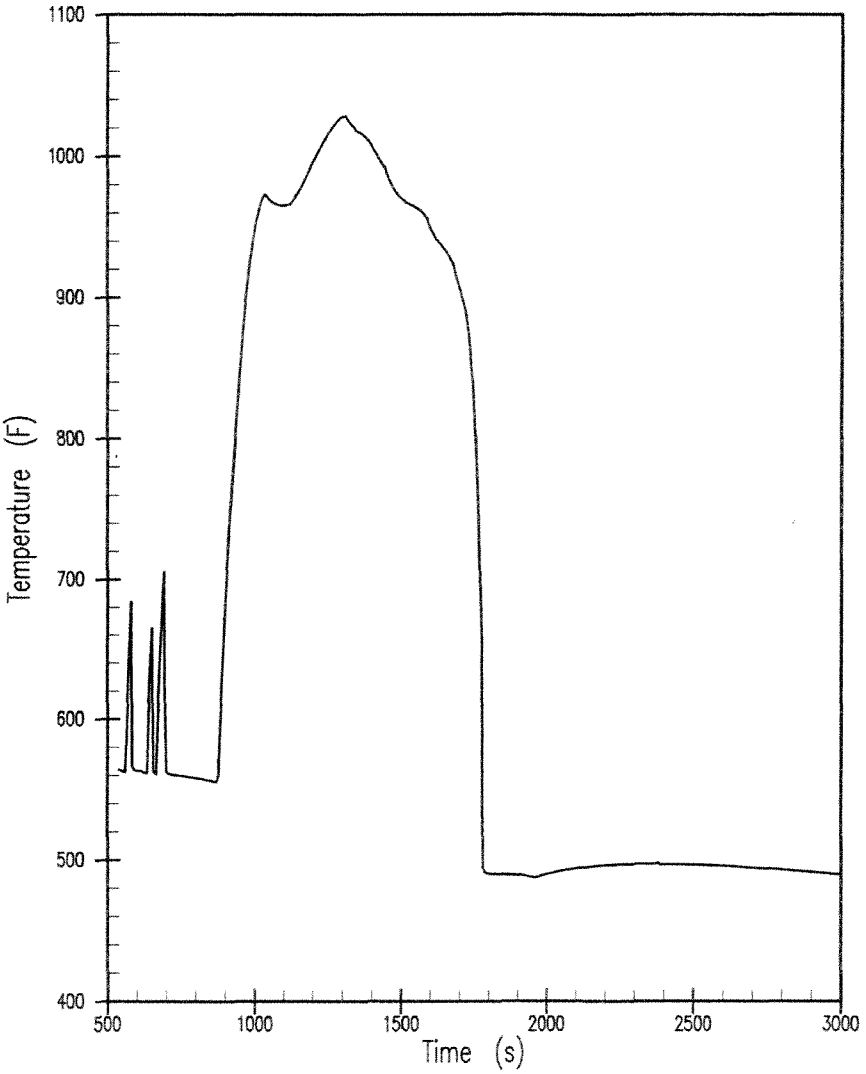
INDIAN POINT UNIT No. 2	
SMALL BREAK LOCA AXIAL POWER SHAPE	
UFSAR FIGURE 14.3-53	REV. No. 19



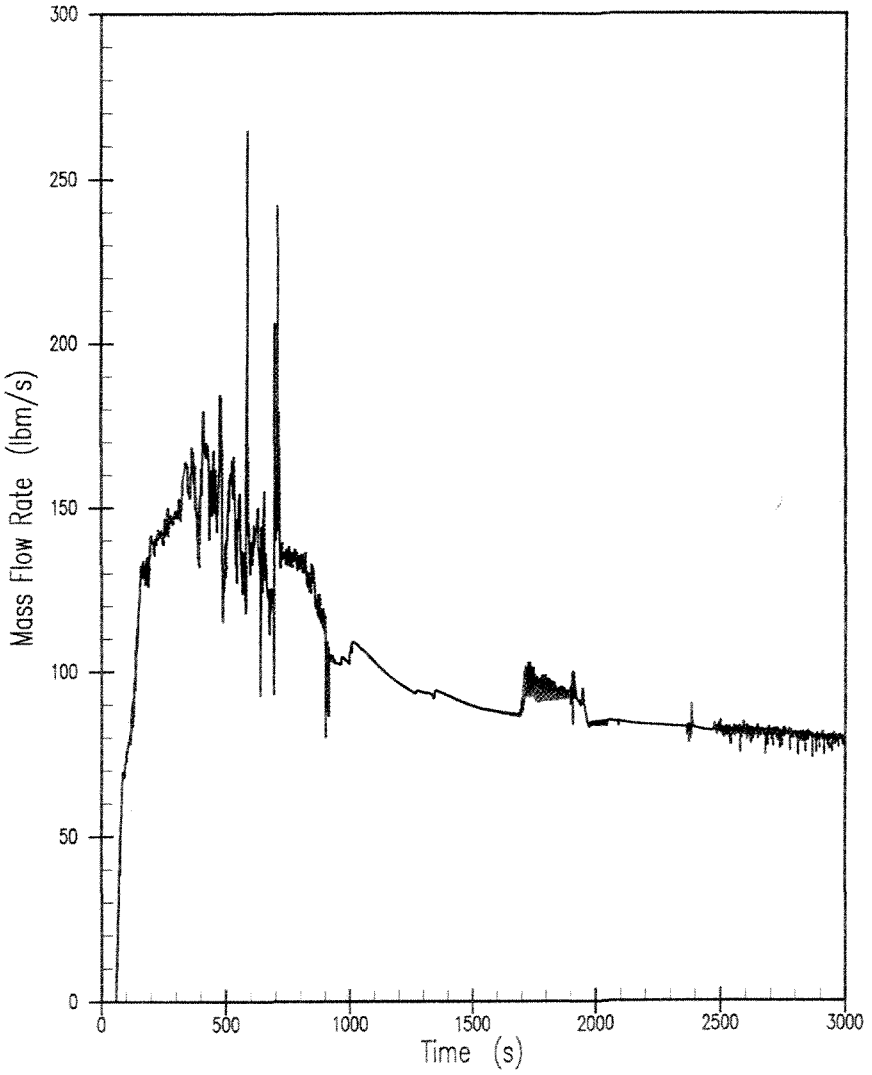
INDIAN POINT UNIT No. 2	
3.0" SMALL BREAK LOCA RCS PRESSURE	
UFSAR FIGURE 14.3-54	REV. No. 19



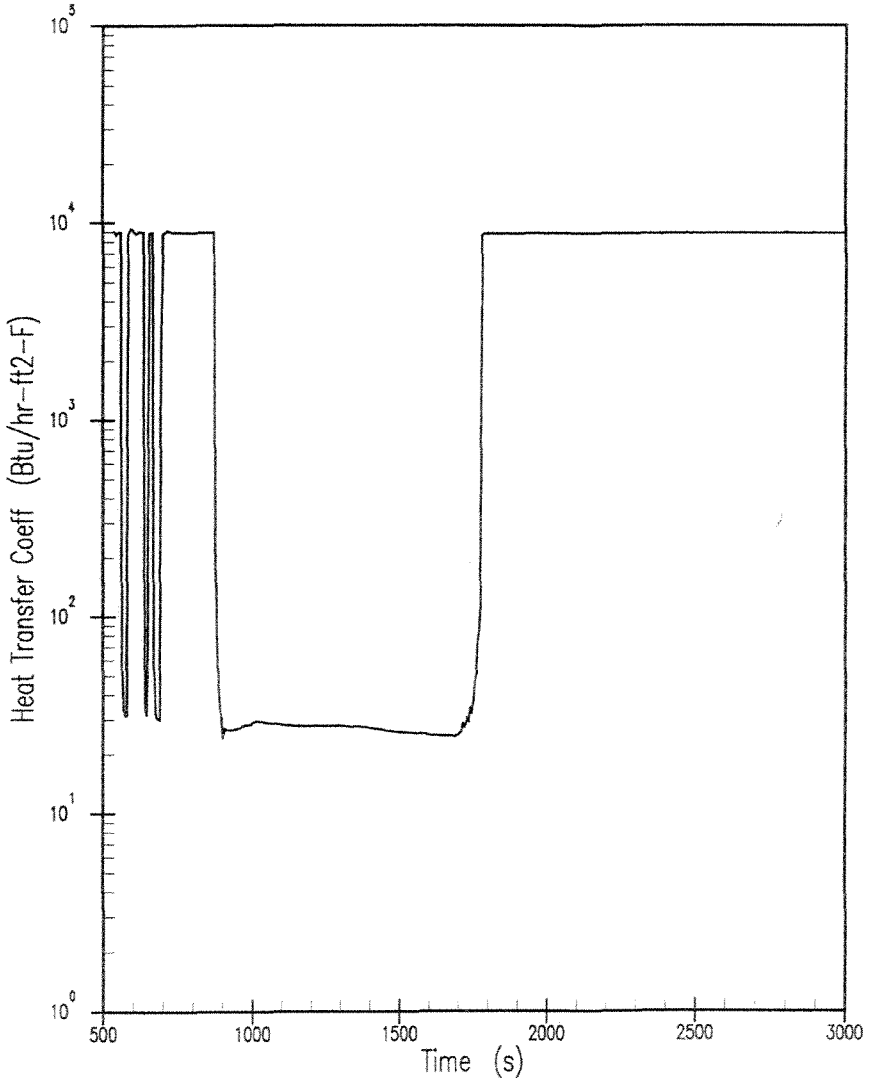
INDIAN POINT UNIT No. 2	
3.0" SMALL BREAK LOCA CORE MIXTURE LEVEL	
UFSAR FIGURE 14.3-55	REV. No. 19



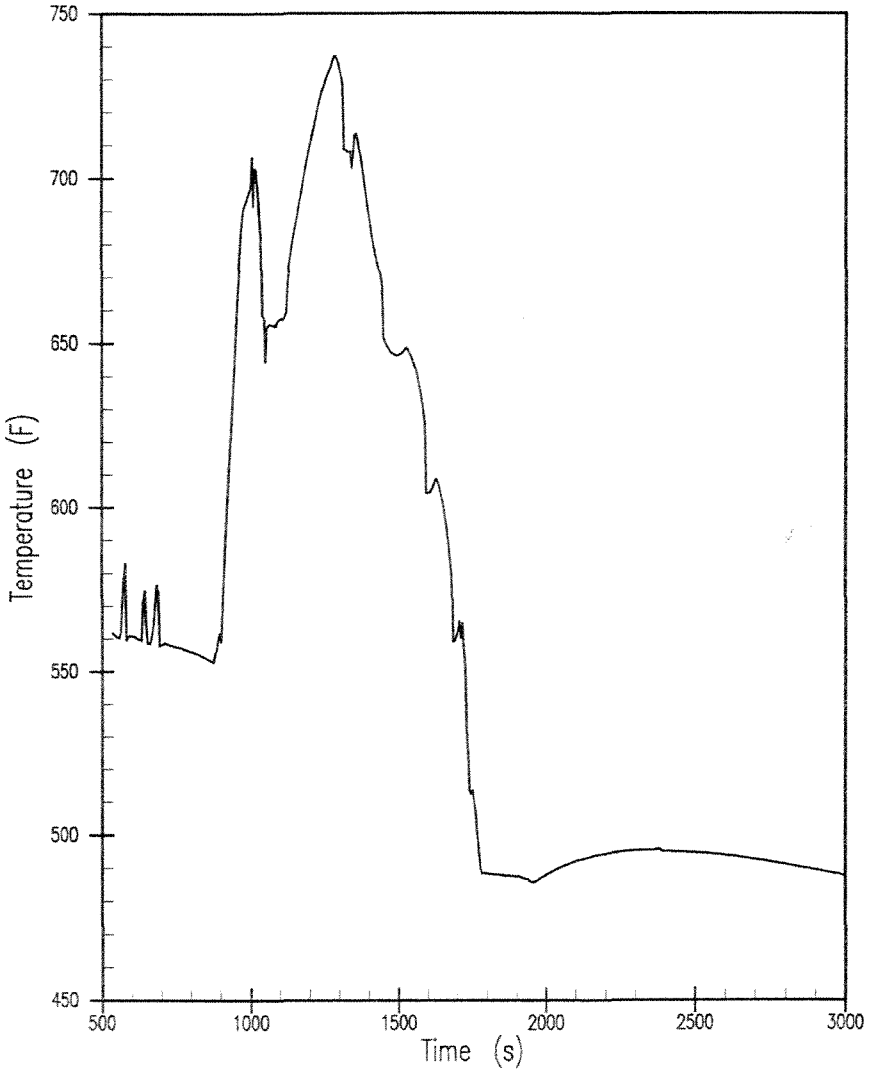
INDIAN POINT UNIT No. 2	
3.0" SMALL BREAK LOCA HOT ROD CLAD AVERAGE TEMPERATURE	
UFSAR FIGURE 14.3-56	REV. No. 19



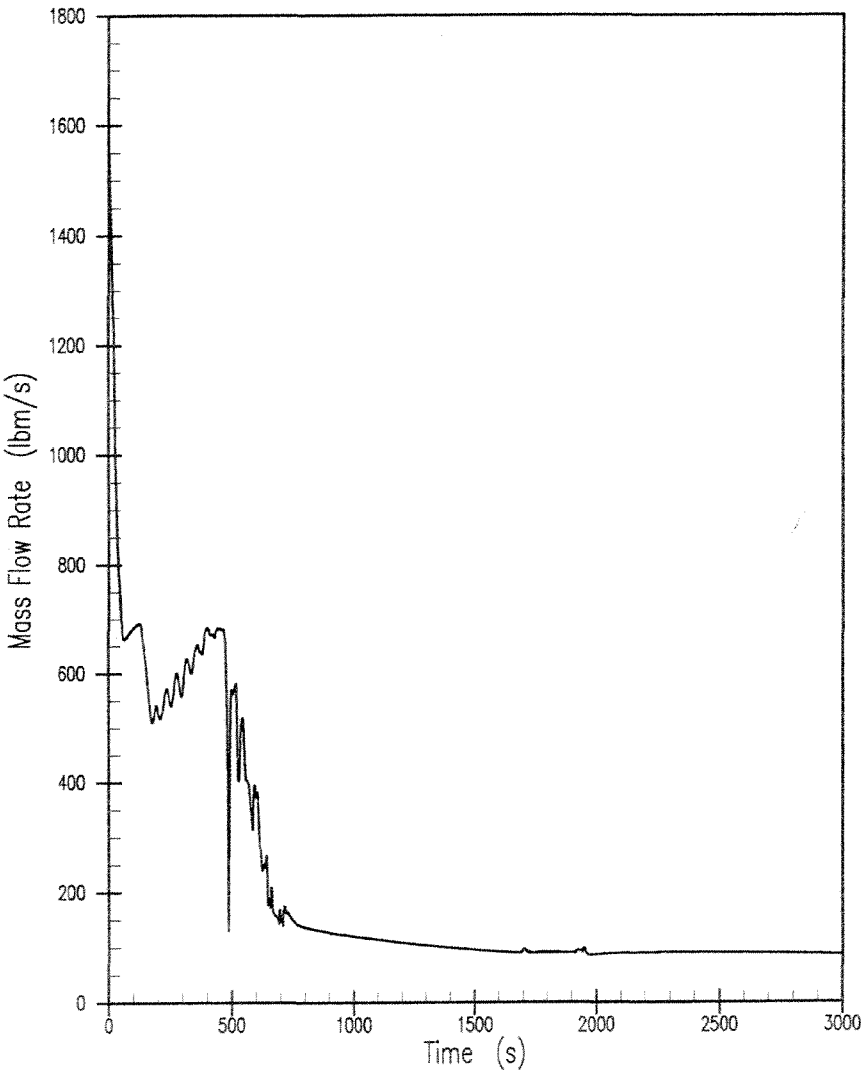
INDIAN POINT UNIT No. 2	
3.0" SMALL BREAK LOCA CORE OUTLET STEAM FLOW	
UFSAR FIGURE 14.3-57	REV. No. 19



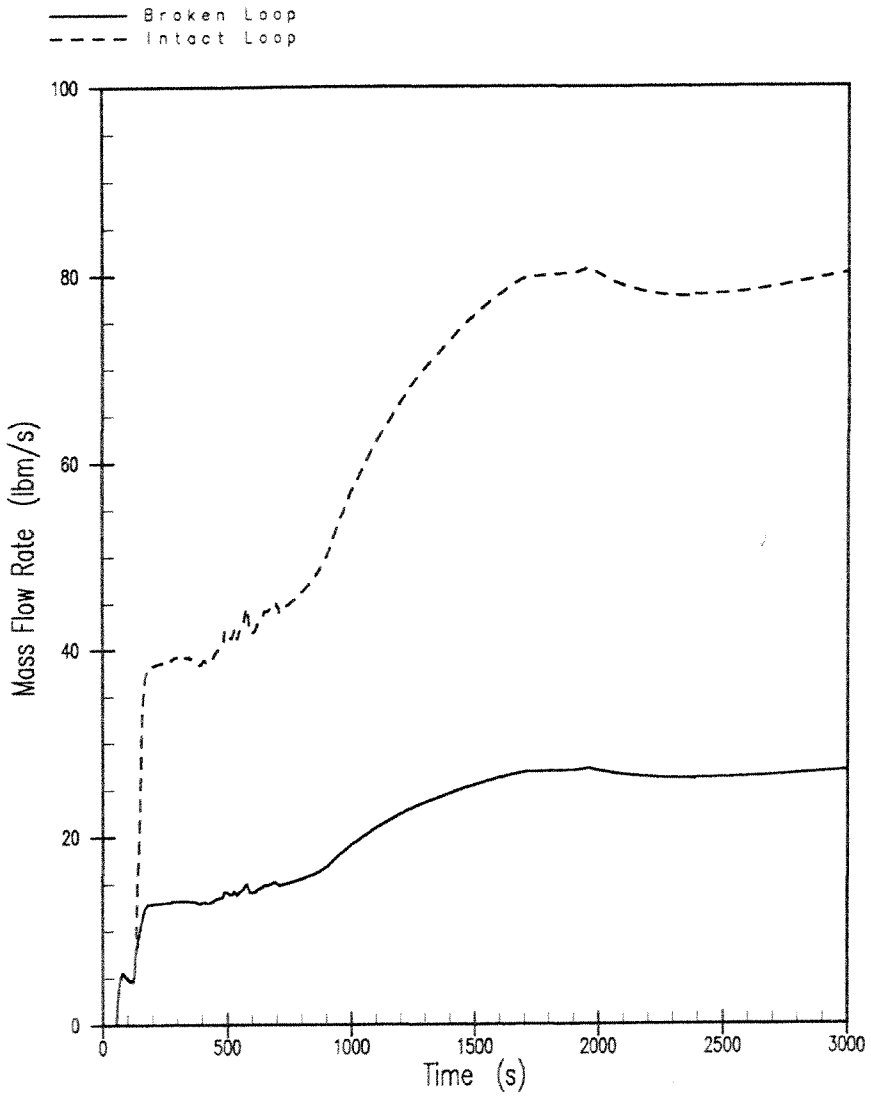
INDIAN POINT UNIT No. 2	
3.0" SMALL BREAK LOCA HEAT TRANSFER COEFFICIENT	
UFSAR FIGURE 14.3-58	REV. No. 19



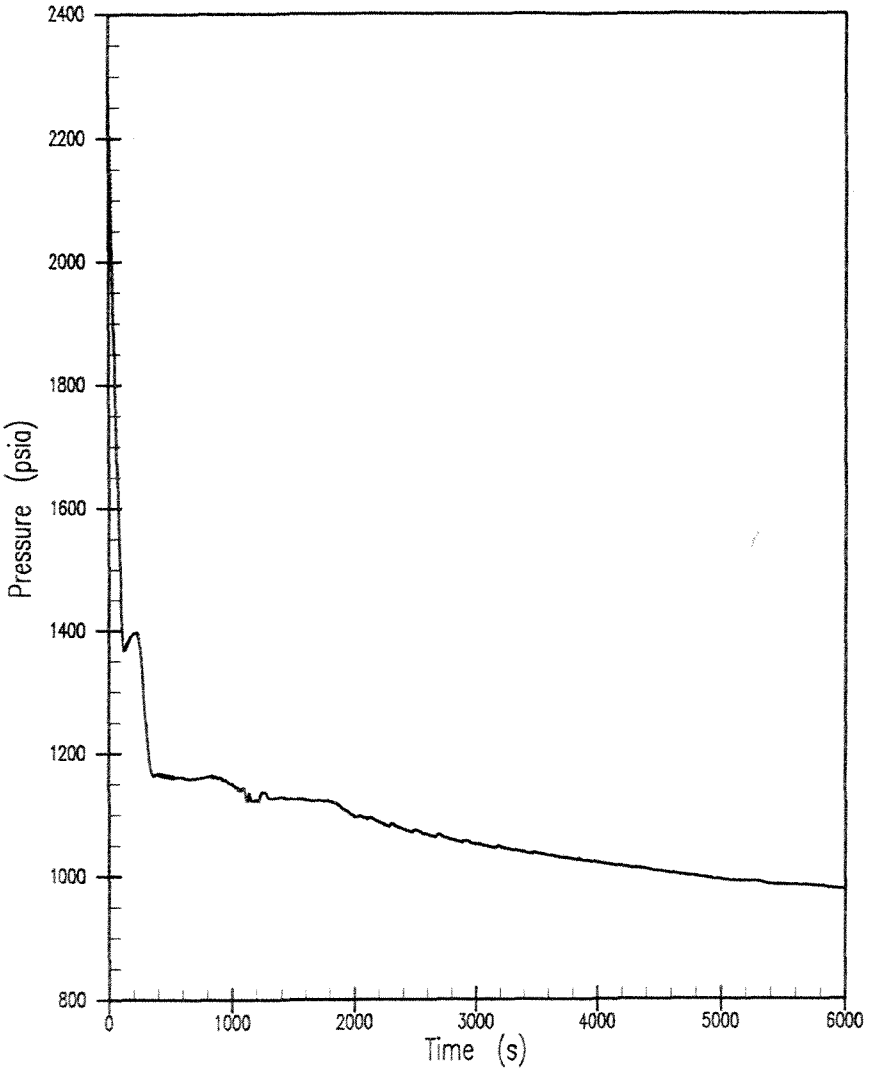
INDIAN POINT UNIT No. 2	
3.0" SMALL BREAK LOCA HOT SPOT FLUID TEMPERATURE	
UFSAR FIGURE 14.3-59	REV. No. 19



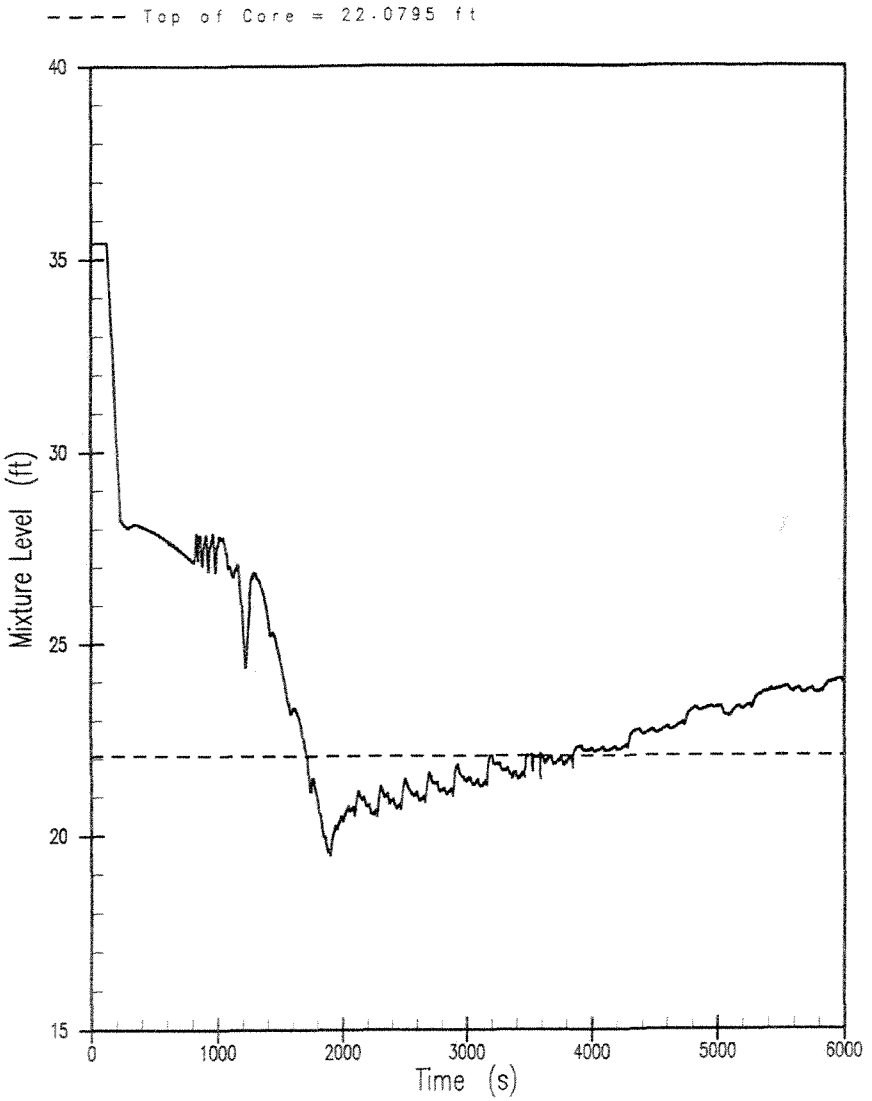
INDIAN POINT UNIT No. 2	
3.0" SMALL BREAK LOCA BREAK FLOW	
UFSAR FIGURE 14.3-60	REV. No. 19



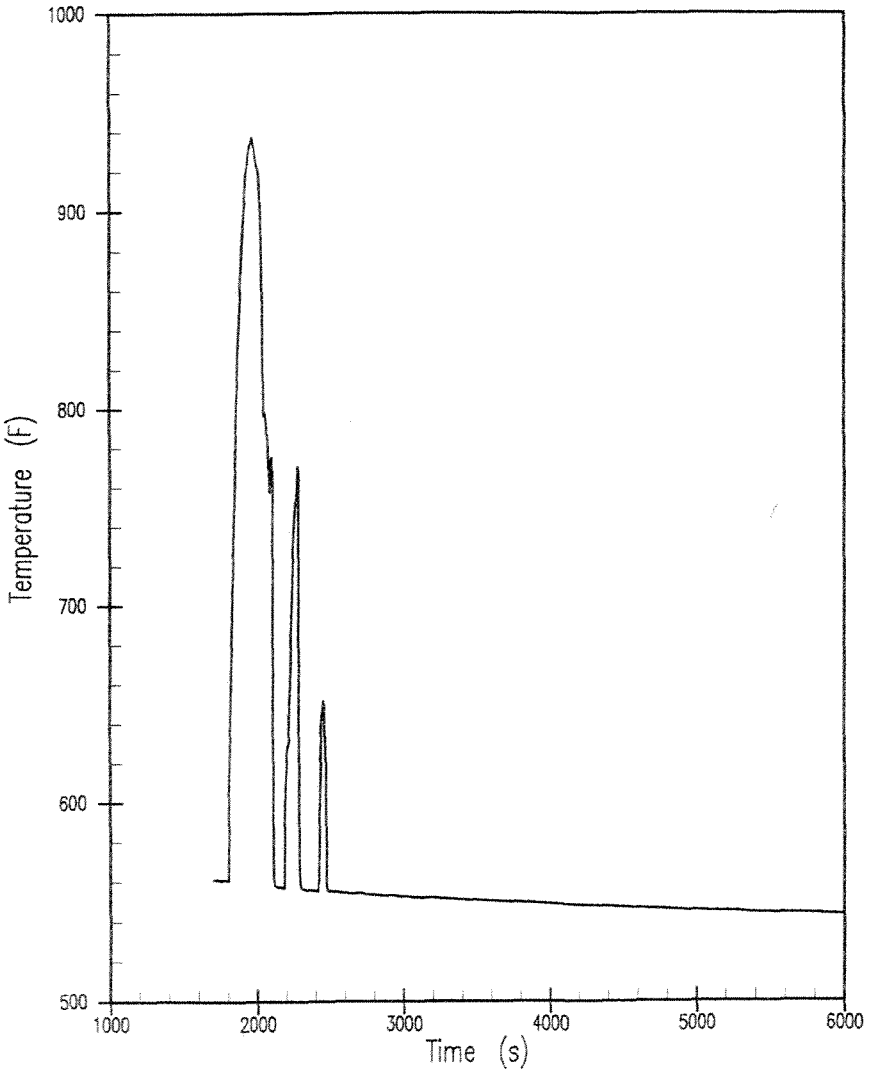
INDIAN POINT UNIT No. 2	
3.0" SMALL BREAK LOCA SAFETY INJECTION MASS FLOW RATE	
UFSAR FIGURE 14.3-61	REV. No. 19



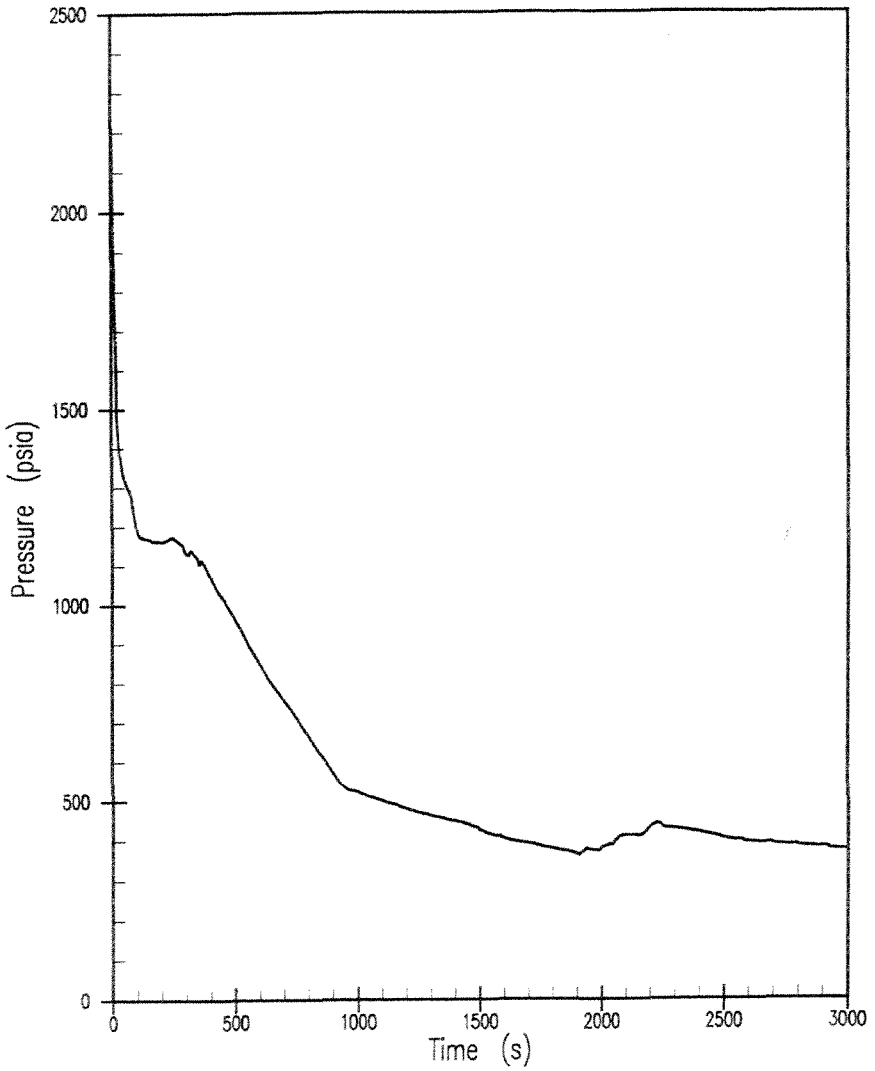
INDIAN POINT UNIT No. 2	
2.0" SMALL BREAK LOCA RCS PRESSURE	
UFSAR FIGURE 14.3-62	REV. No. 19



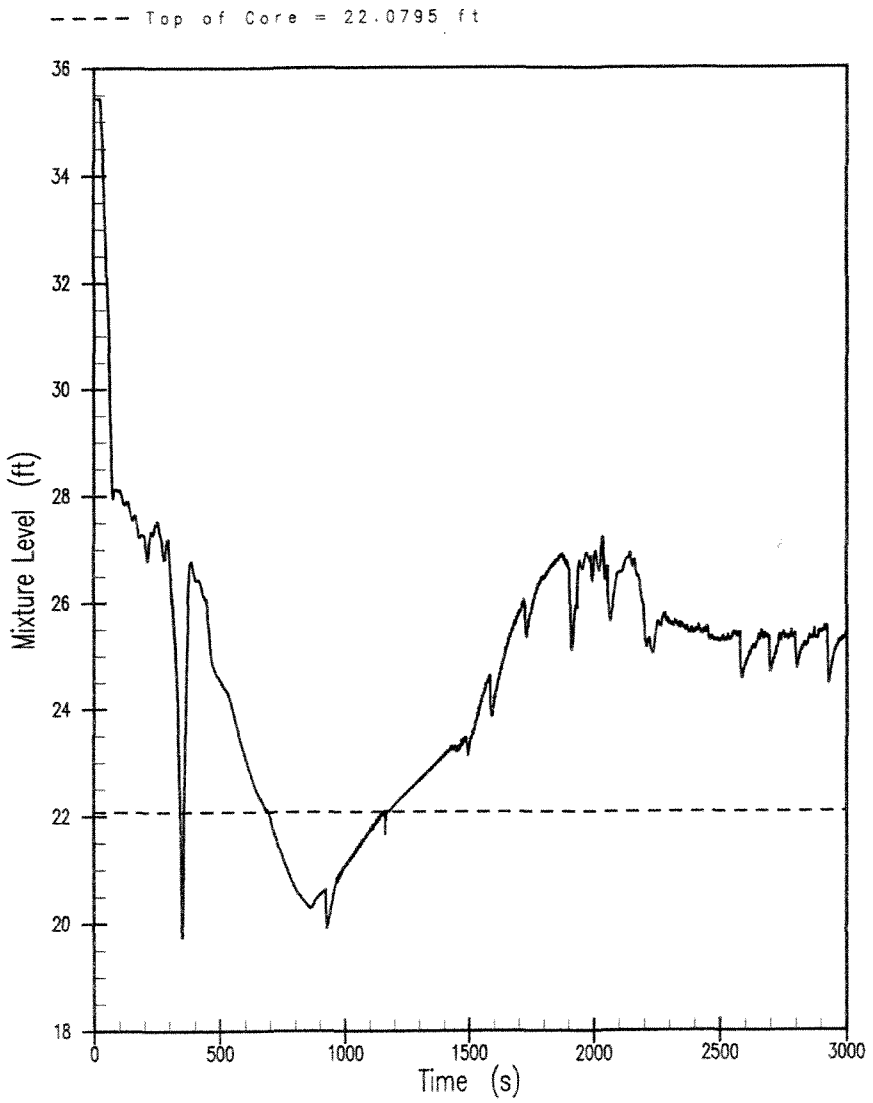
INDIAN POINT UNIT No. 2	
2.0" SMALL BREAK LOCA CORE MIXTURE LEVEL	
UFSAR FIGURE 14.3-63	REV. No. 19



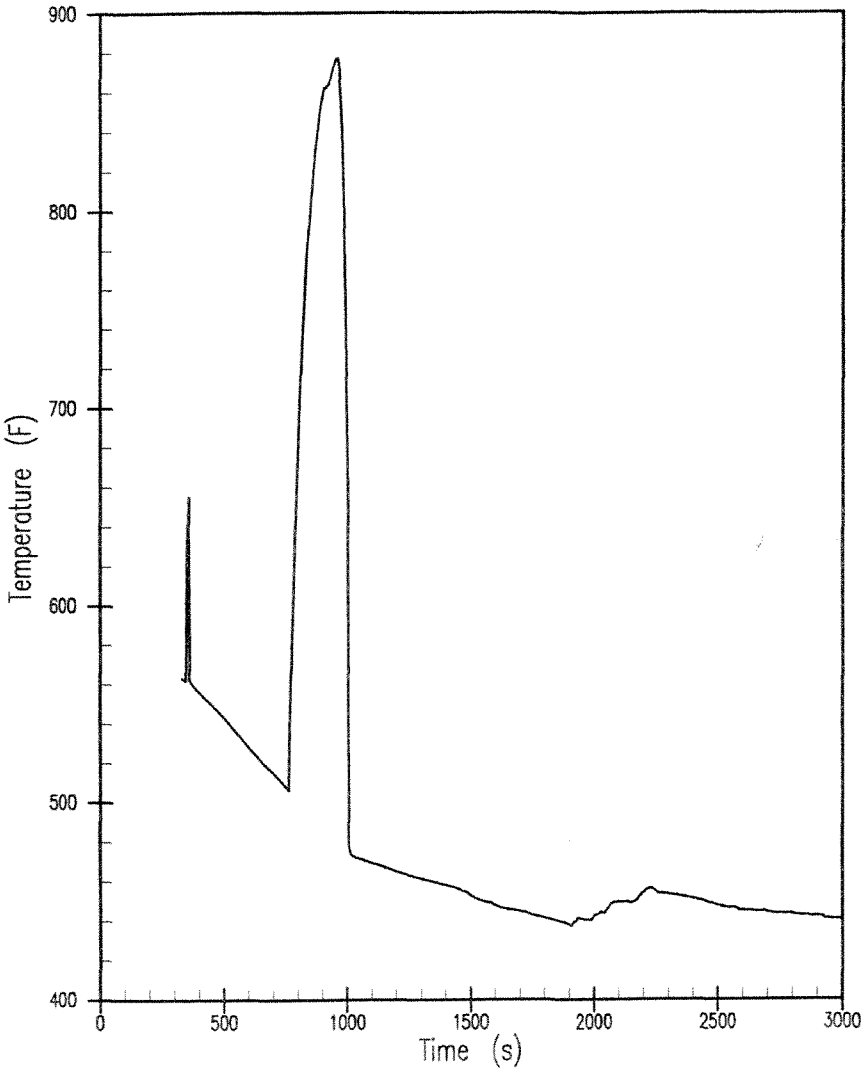
INDIAN POINT UNIT No. 2	
2.0" SMALL BREAK LOCA HOT ROD CLAD AVERAGE TEMPERATURE	
UFSAR FIGURE 14.3-64	REV. No. 19



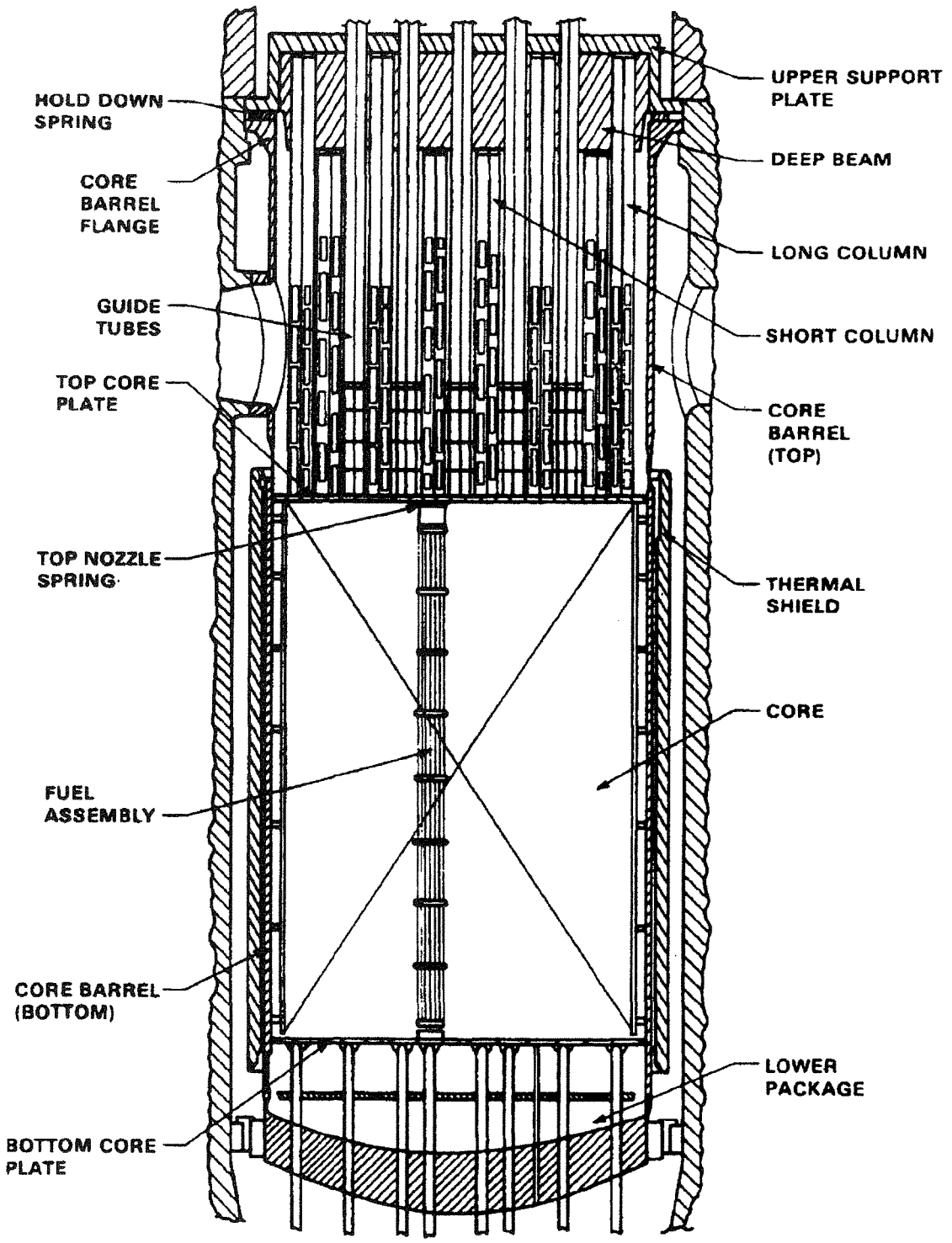
INDIAN POINT UNIT No. 2	
4.0" SMALL BREAK LOCA RCS PRESSURE	
UFSAR FIGURE 14.3-65	REV. No. 19



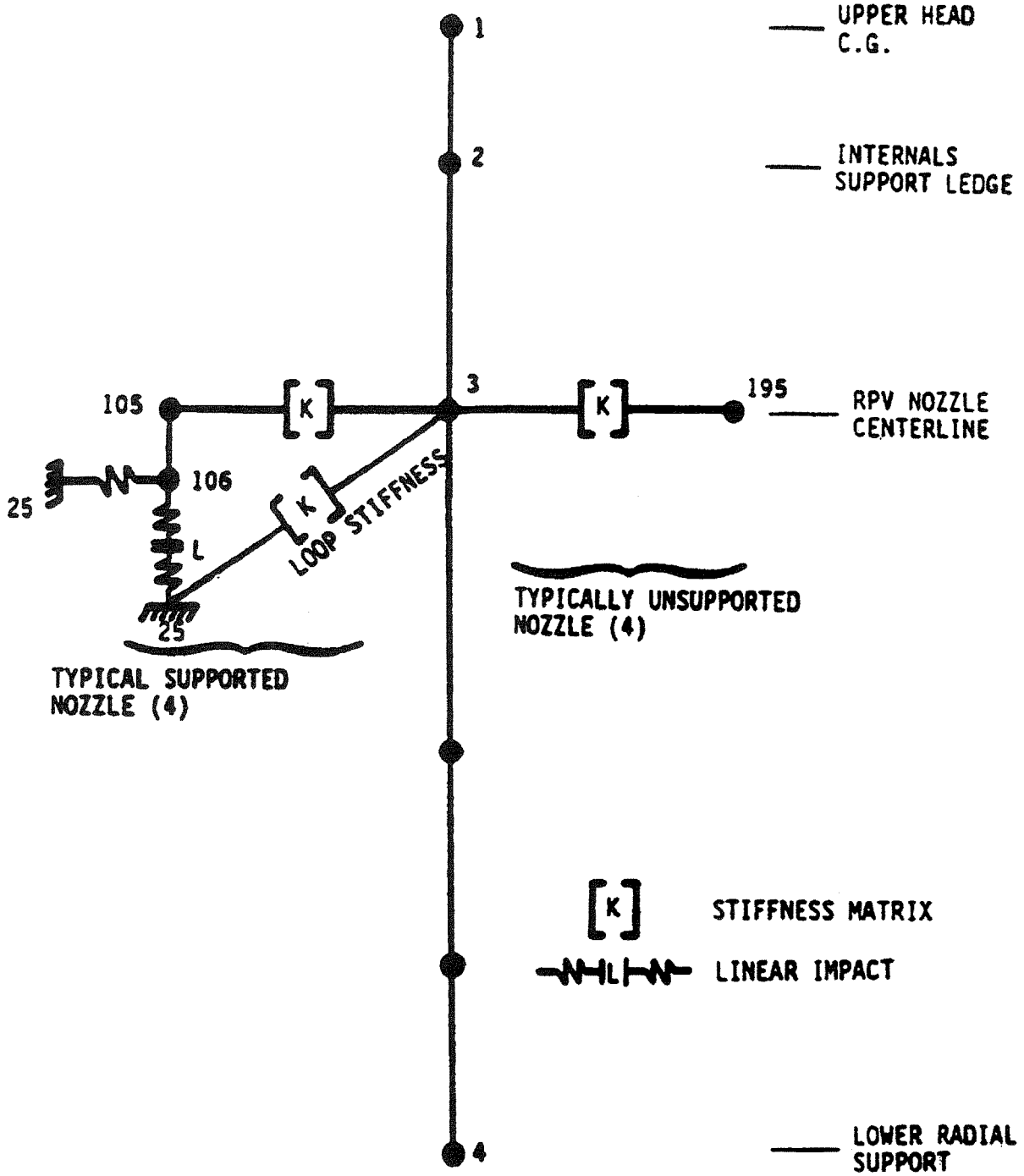
INDIAN POINT UNIT No. 2	
4.0" SMALL BREAK LOCA CORE MIXTURE LEVEL	
UFSAR FIGURE 14.3-66	REV. No. 19



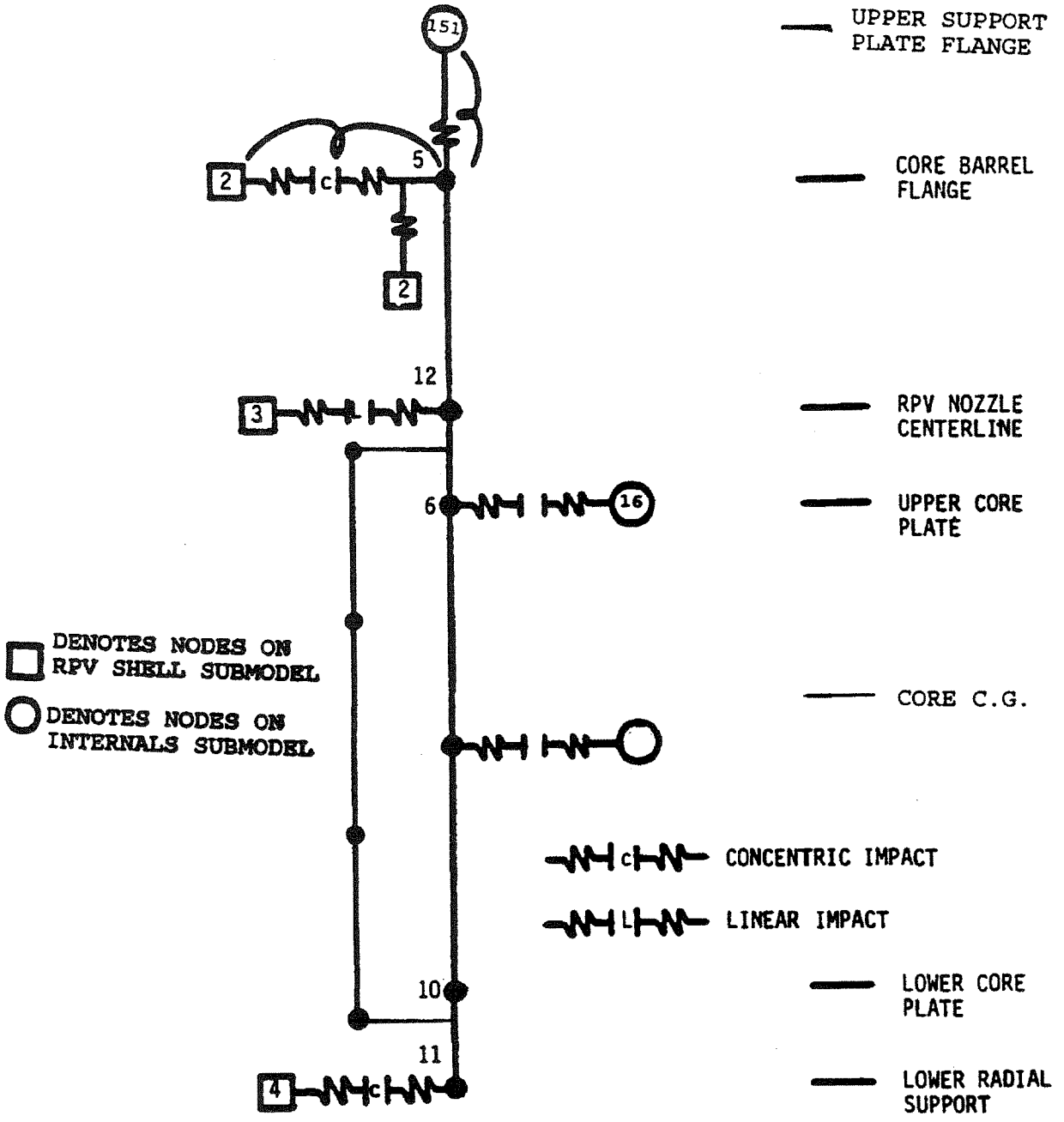
INDIAN POINT UNIT No. 2	
4.0" SMALL BREAK LOCA HOT ROD CLAD AVERAGE TEMPERATURE	
UFSAR FIGURE 14.3-67	REV. No. 19



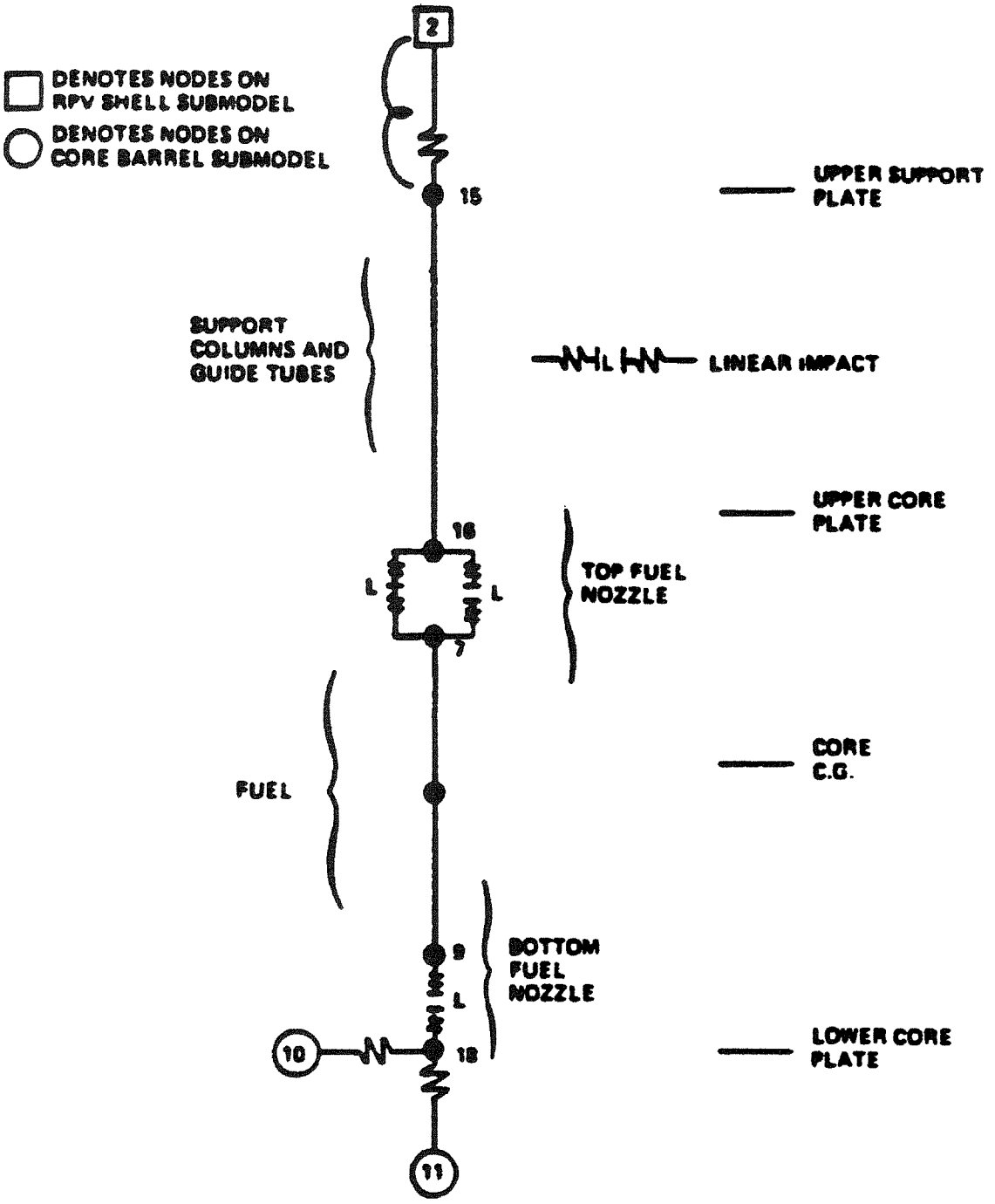
INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3–101 REACTOR VESSEL INTERNALS	
MIC. No. 2000MC4300	REV. No. 17A



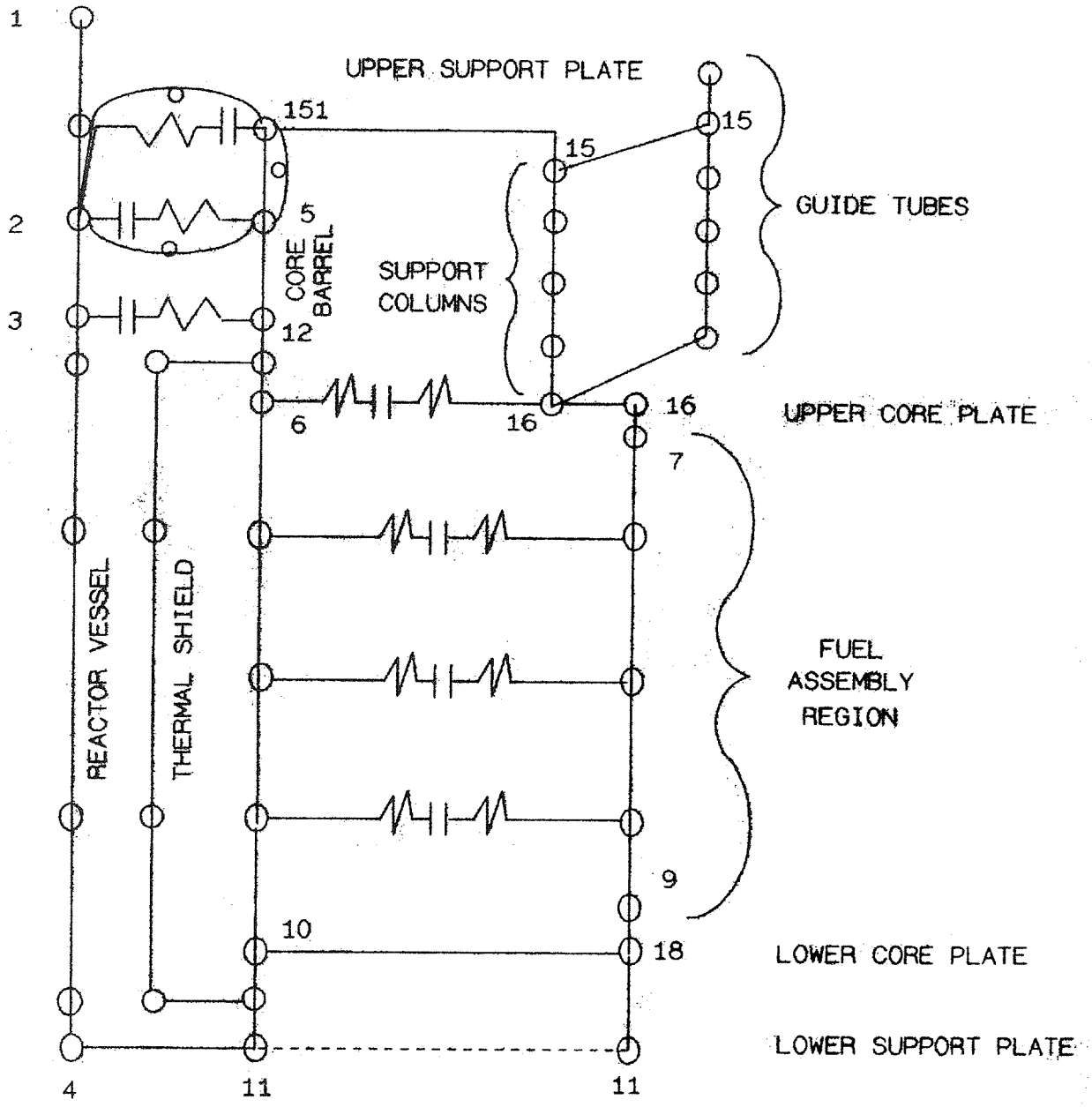
INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3-102 RPV SHELL AND SUPPORT SYSTEM	
MIC. No. 2000MC4301	REV. No. 17A



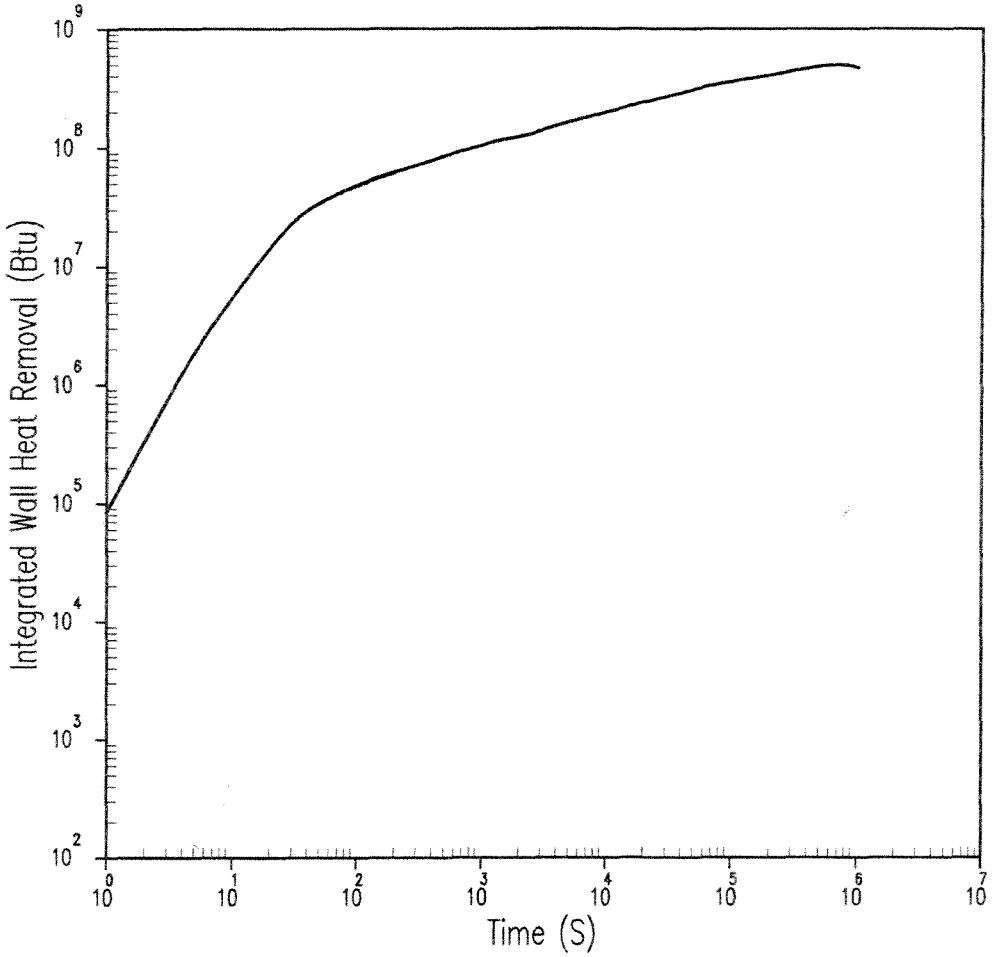
INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3–103A REACTOR VESSEL INTERNALS CORE BARREL ASSEMBLY	
MIC. No. 2001MB1166	REV. No. 17A



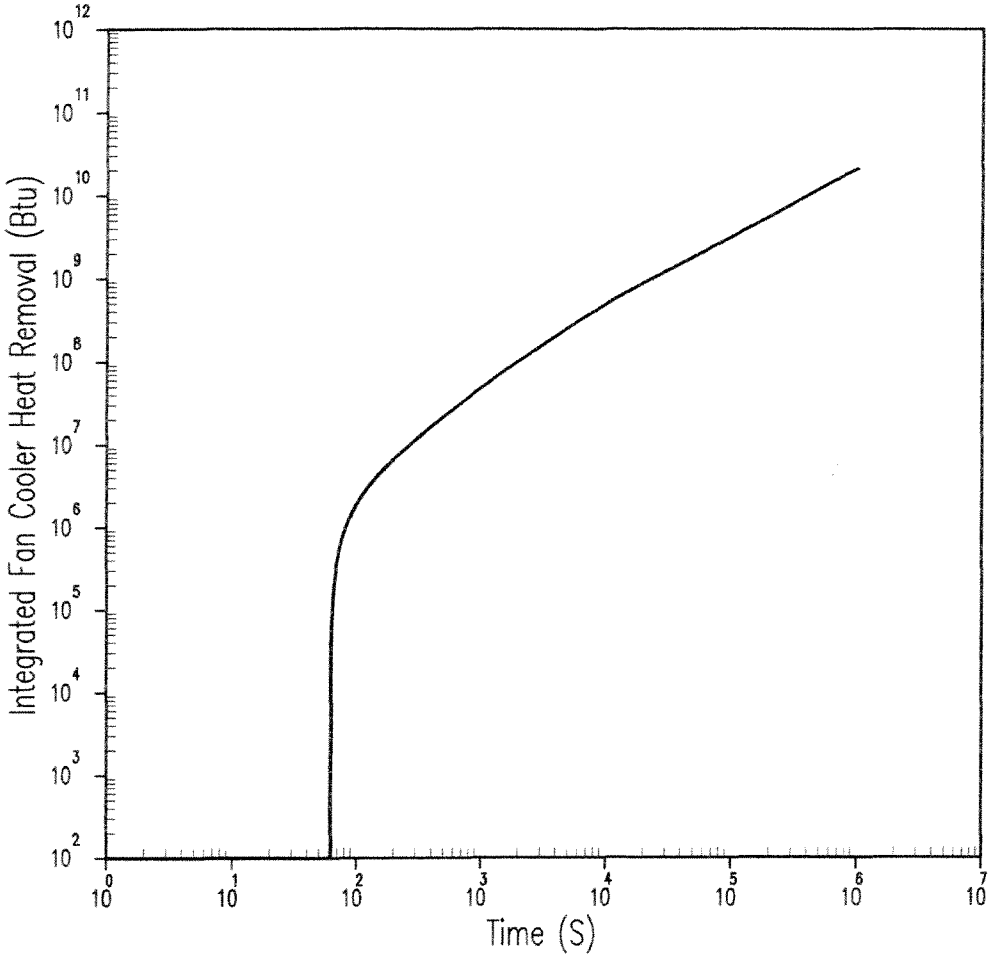
INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3–103B REACTOR INTERNALS AND FUEL	
MIC. No. 2001MB1167	REV. No. 17A



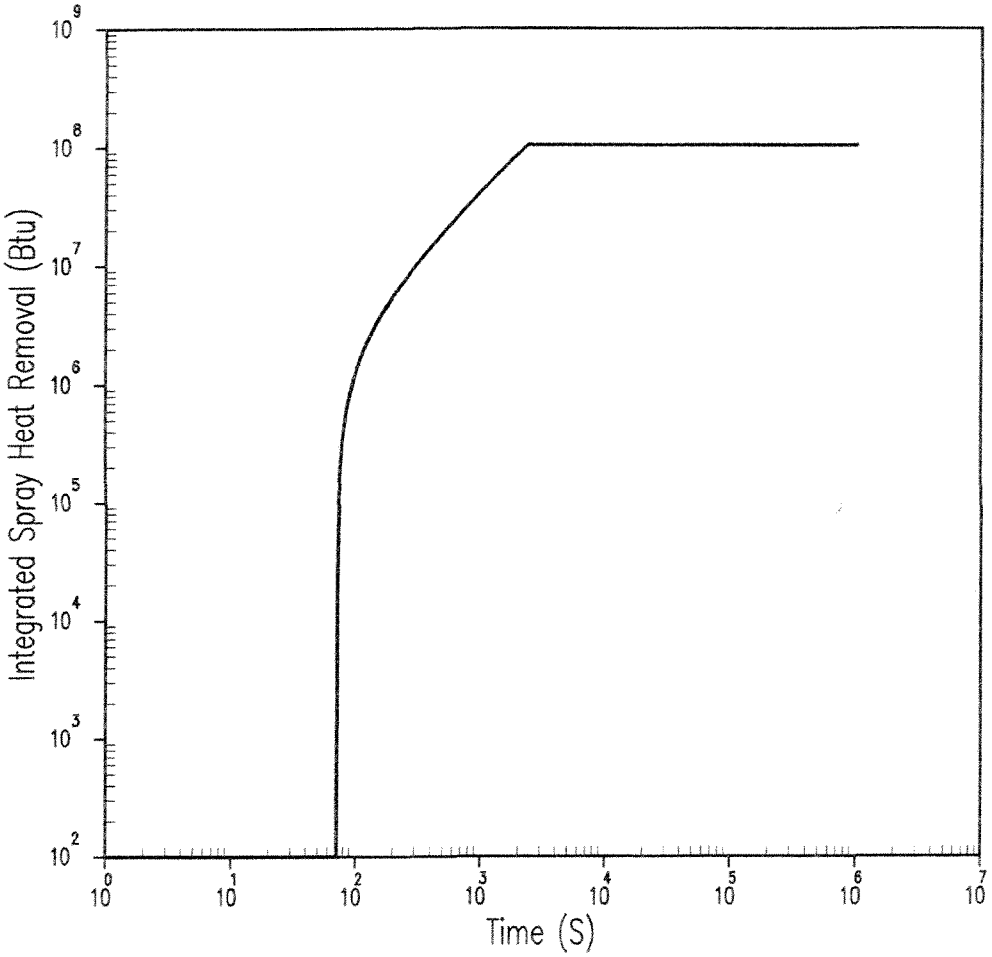
INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3-104 RPV SYSTEM MODEL	
MIC. No. 2000MC4303	REV. No. 17A



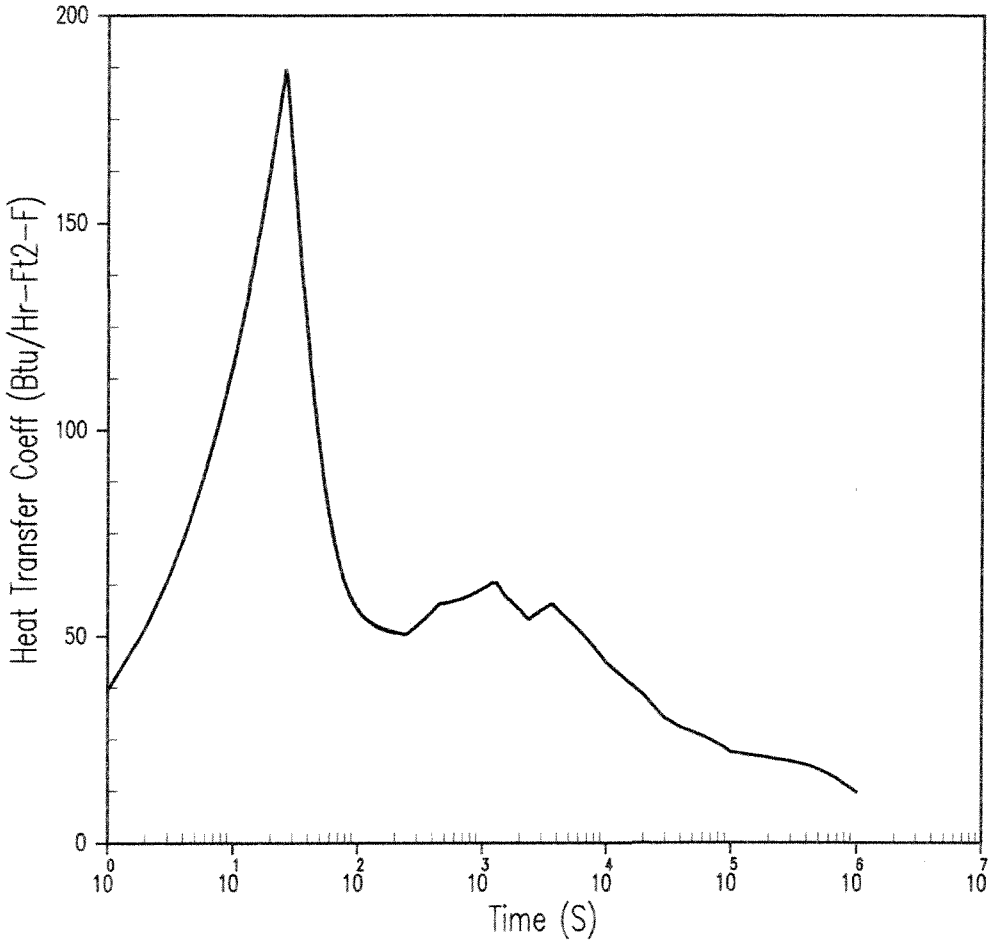
INDIAN POINT UNIT No. 2	
DOUBLE-ENDED PUMP SUCTION BREAK FOR 3216 MWt MINIMUM SAFEGUARDS INTEGRATED WALL HEAT REMOVAL	
UFSAR FIGURE 14.3-105	REV. No. 19



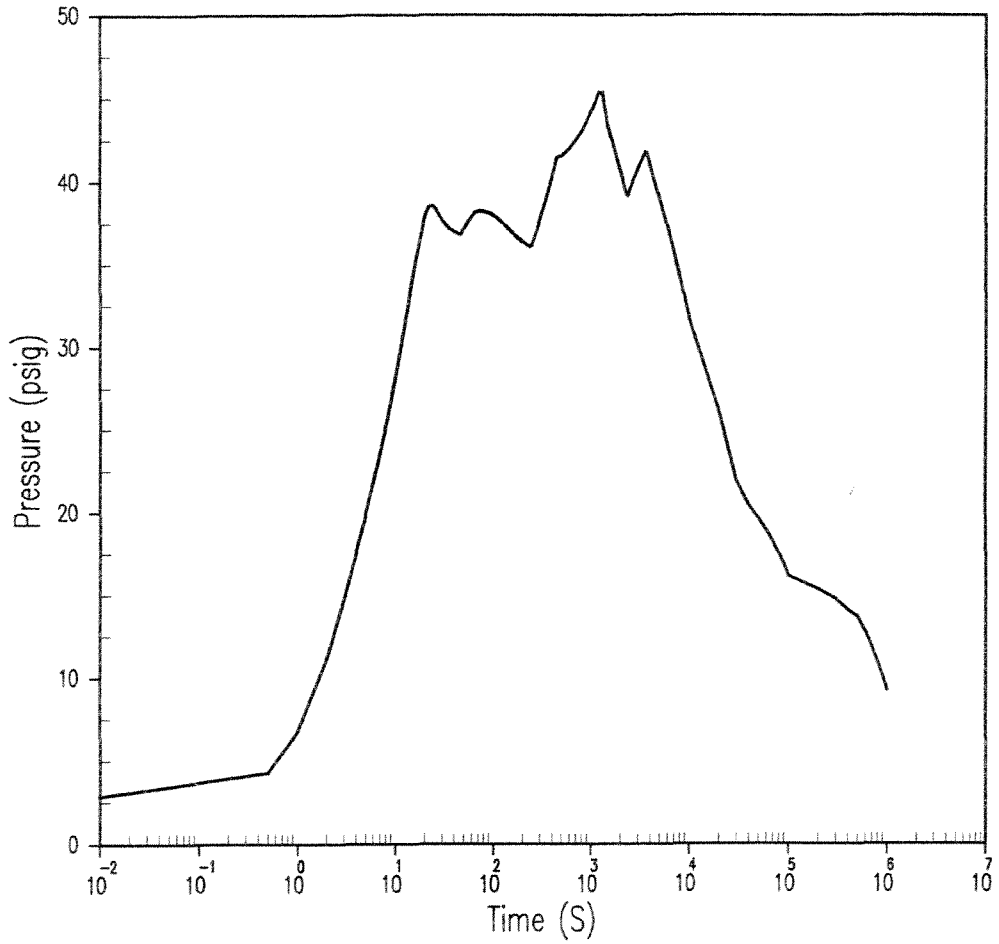
INDIAN POINT UNIT No. 2	
DOUBLE-ENDED PUMP SUCTION BREAK FOR 3216 MWt MINIMUM SAFEGUARDS INTEGRATED FAN COOLER HEAT REMOVAL	
UFSAR FIGURE 14.3-106	REV. No. 19



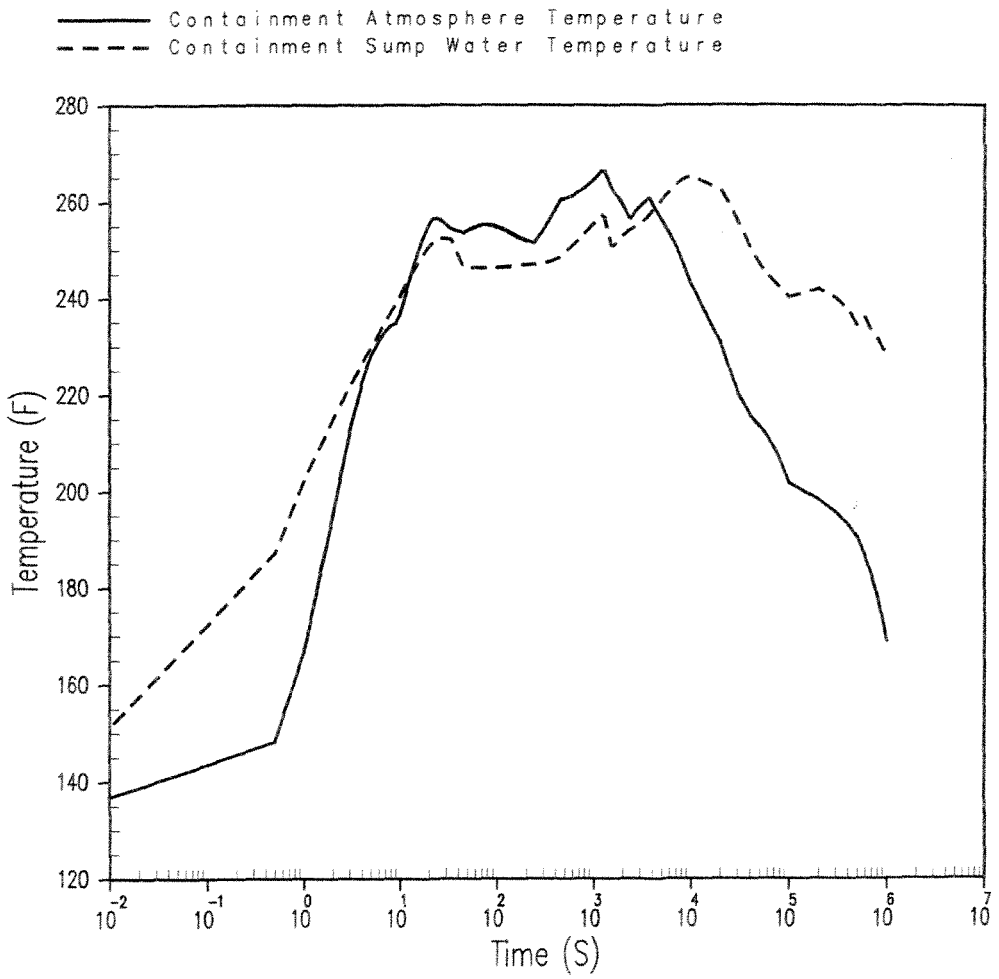
INDIAN POINT UNIT No. 2	
DOUBLE-ENDED PUMP SUCTION BREAK FOR 3216 MWt MINIMUM SAFEGUARDS INTEGRATED SPRAY HEAT REMOVAL	
UFSAR FIGURE 14.3-107	REV. No. 19



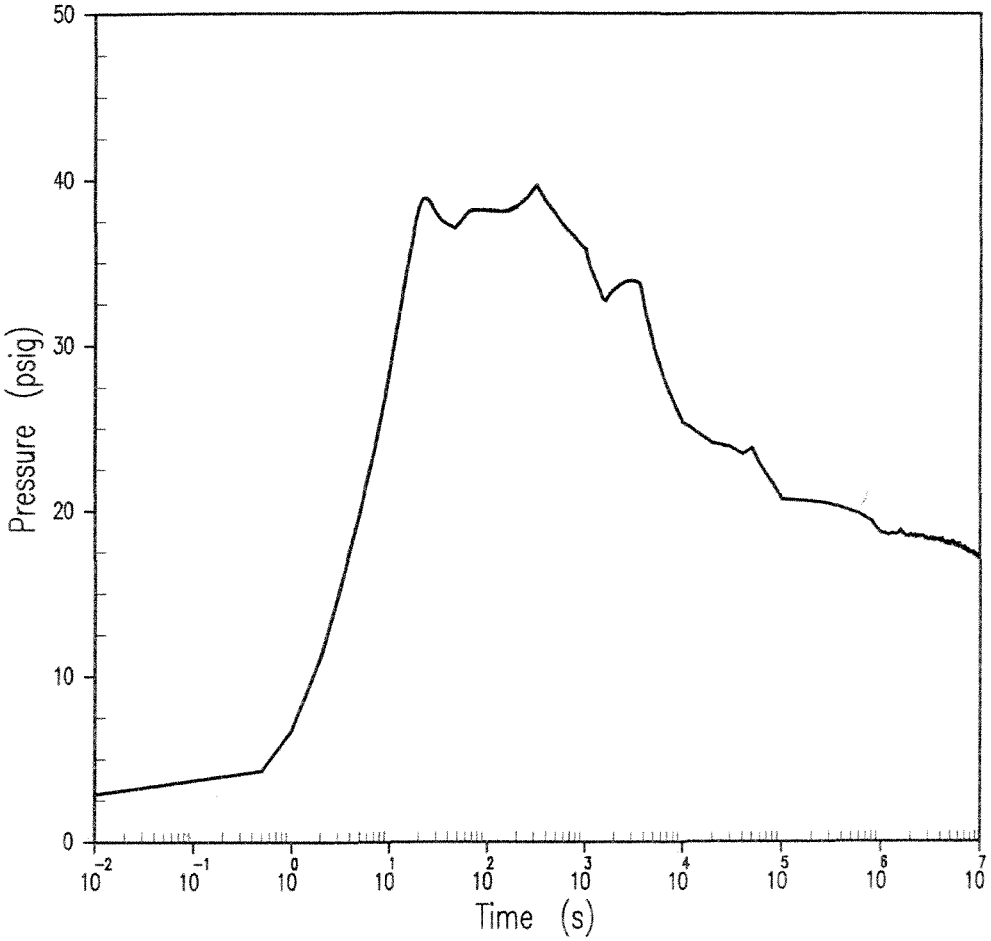
INDIAN POINT UNIT No. 2	
DOUBLE-ENDED PUMP SUCTION BREAK FOR 3216 MWt MINIMUM SAFEGUARDS STRUCTURAL HEAT TRANSFER COEFFICIENT	
UFSAR FIGURE 14.3-108	REV. No. 19



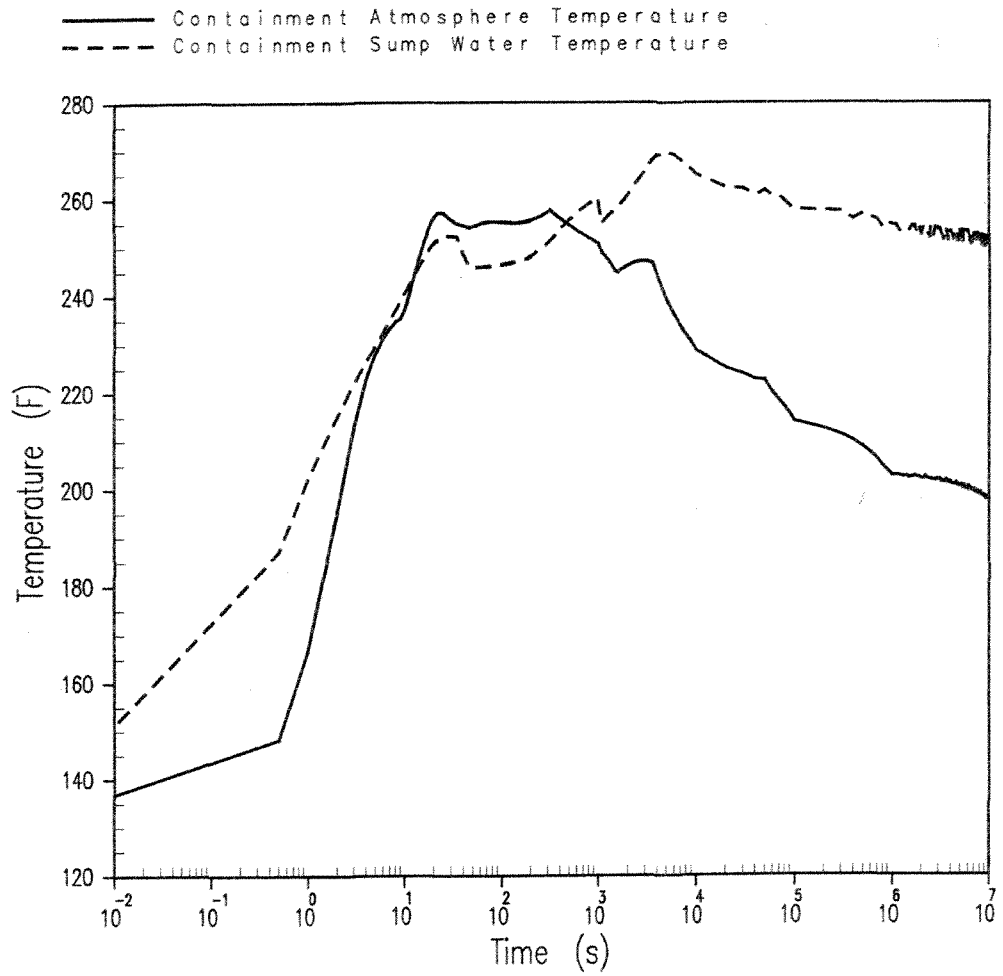
INDIAN POINT UNIT No. 2	
DOUBLE-ENDED PUMP SUCTION BREAK FOR 3216 MWt MINIMUM SAFEGUARDS CONTAINMENT PRESSURE	
UFSAR FIGURE 14.3-109	REV. No. 19



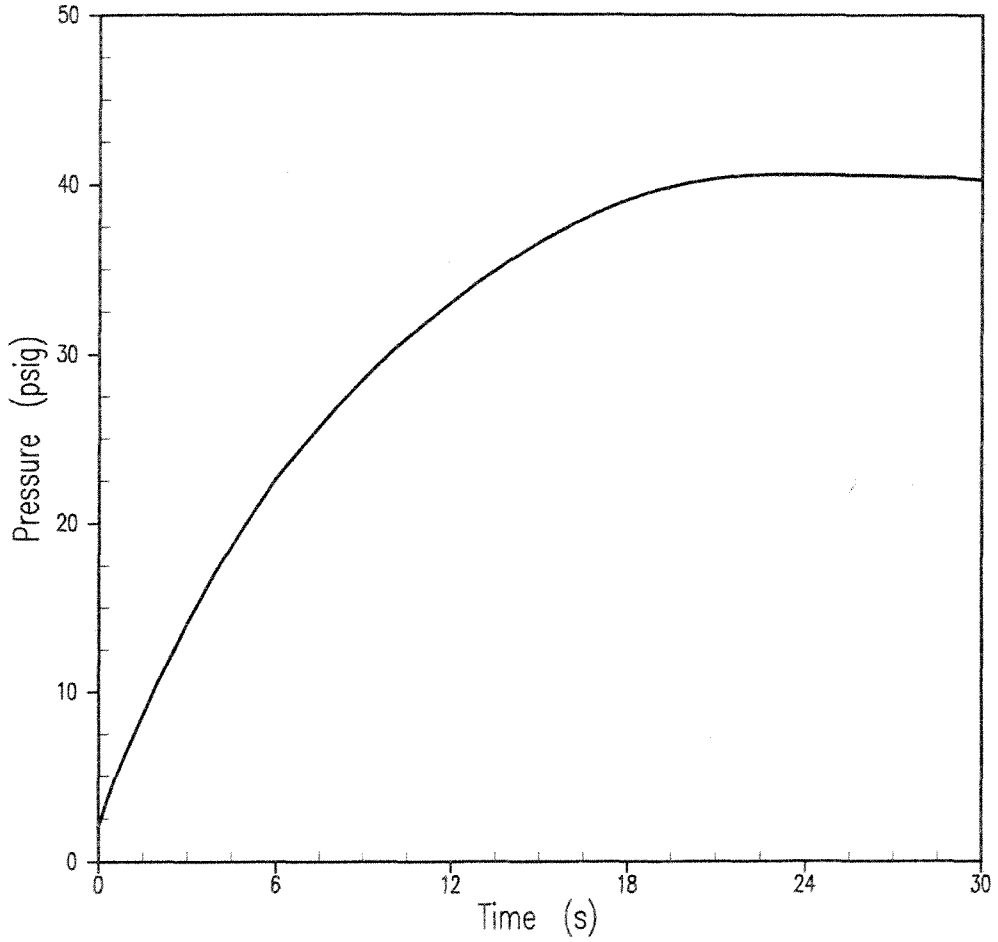
INDIAN POINT UNIT No. 2	
DOUBLE-ENDED PUMP SUCTION BREAK FOR 3216 MWt MINIMUM SAFEGUARDS CONTAINMENT TEMPERATURE	
UFSAR FIGURE 14.3-110	REV. No. 19



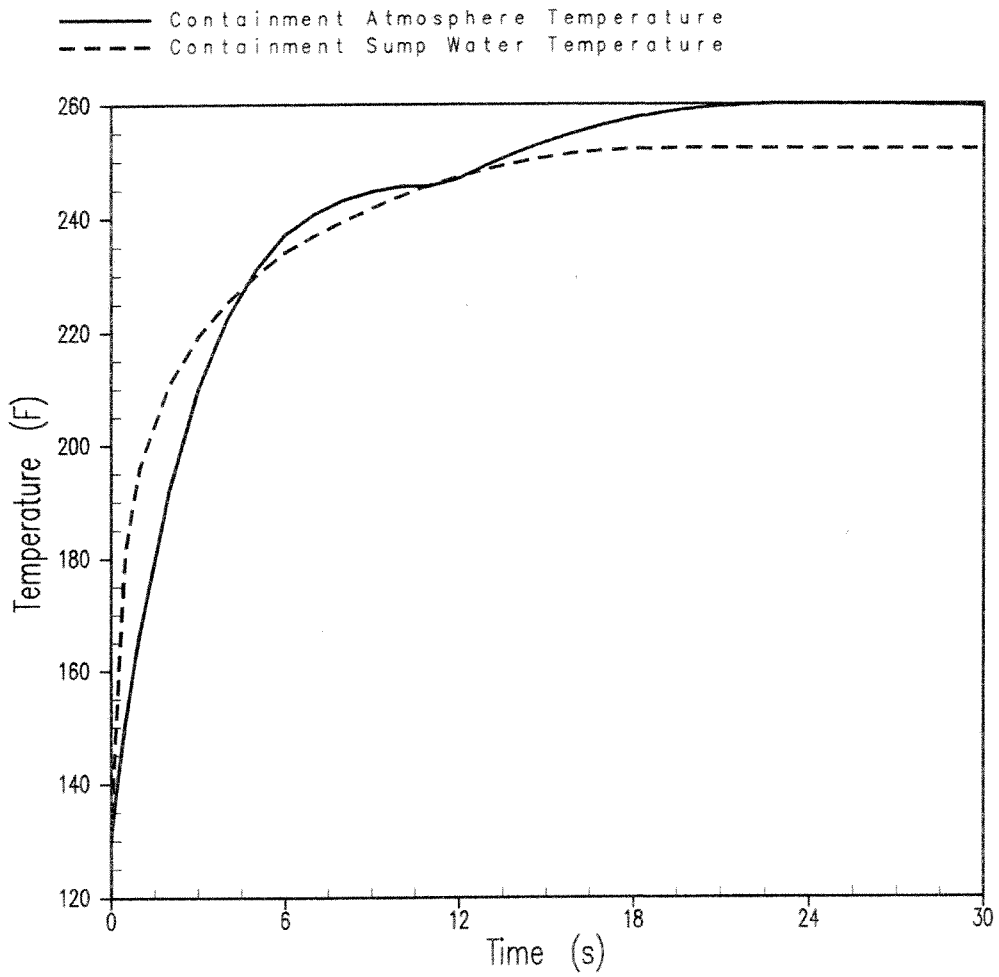
INDIAN POINT UNIT No. 2	
DOUBLE-ENDED PUMP SUCTION BREAK FOR 3216 MWt MAXIMUM SAFEGUARDS CONTAINMENT PRESSURE	
UFSAR FIGURE 14.3-111	REV. No. 19



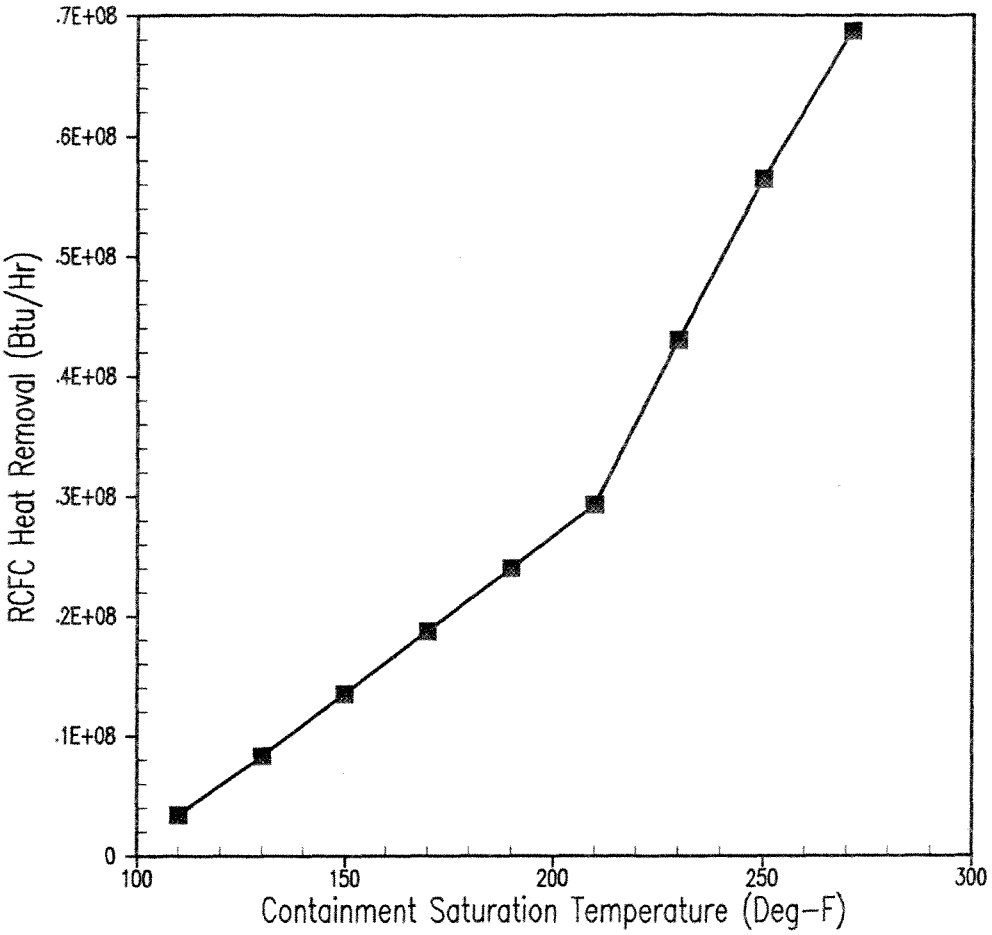
INDIAN POINT UNIT No. 2	
DOUBLE-ENDED PUMP SUCTION BREAK FOR 3216 MWt MAXIMUM SAFEGUARDS CONTAINMENT TEMPERATURE	
UFSAR FIGURE 14.3-112	REV. No. 19



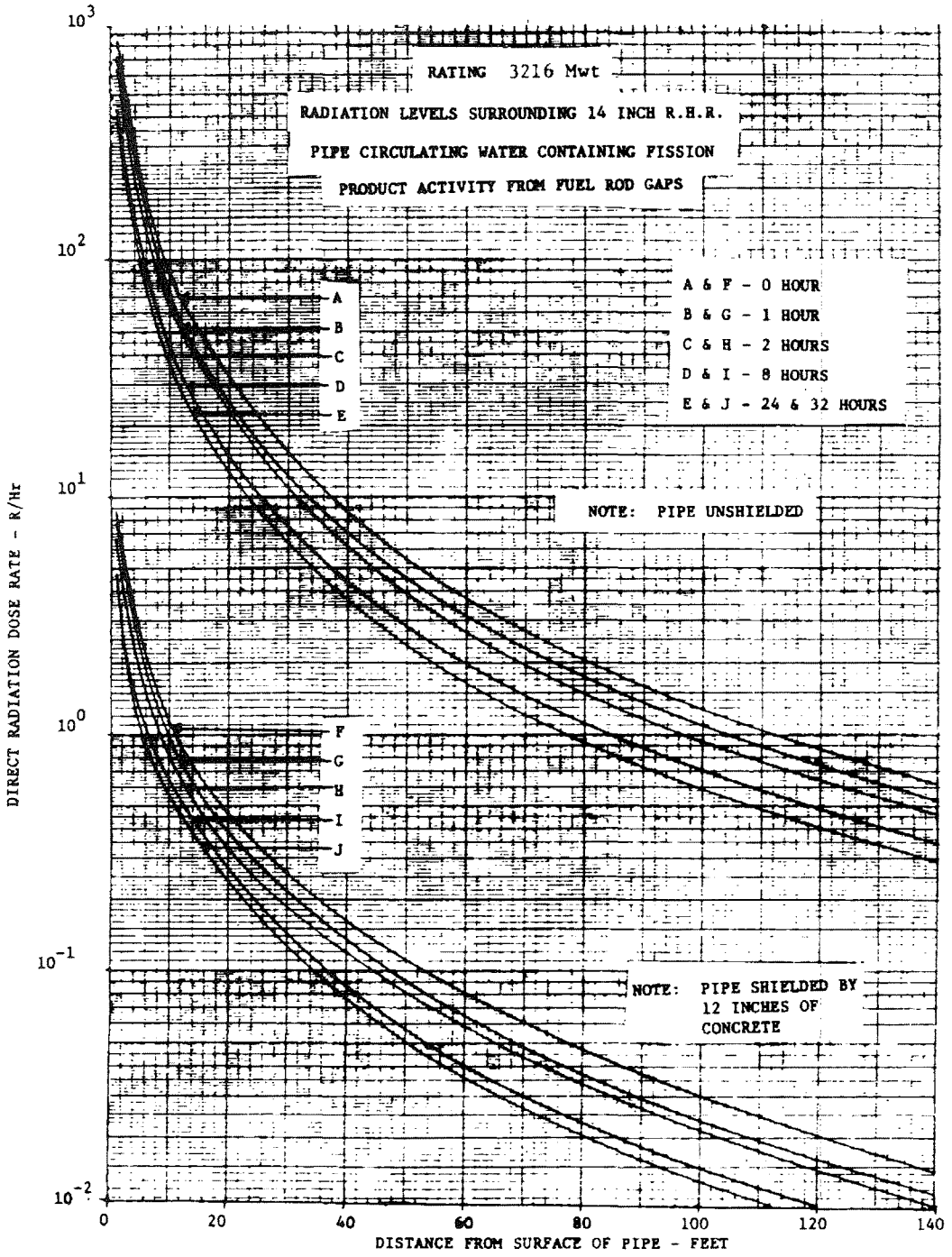
INDIAN POINT UNIT No. 2	
DOUBLE-ENDED HOT LEG BREAK FOR 3216 MWt CONTAINMENT PRESSURE	
UFSAR FIGURE 14.3-113	REV. No. 19



INDIAN POINT UNIT No. 2	
DOUBLE-ENDED HOT LEG BREAK FOR 3216 MWt CONTAINMENT TEMPERATURE	
UFSAR FIGURE 14.3-114	REV. No. 19



INDIAN POINT UNIT No. 2	
FAN COOLER HEAT REMOVAL AS A FUNCTION OF CONTAINMENT TEMPERATURE 95°F SERVICE WATER, 1600 GPM SW FLOW	
UFSAR FIGURE 14.3-115	REV. No. 19



INDIAN POINT UNIT No. 2	
UFSAR FIGURE 14.3–129 RADIATION LEVELS SURROUNDING 14–INCH RESIDUAL HEAT REMOVAL PIPE (FIGURE RETAINED FOR HISTORICAL PURPOSES)	
MIC. No. 2000MC4342	REV. No. 17A