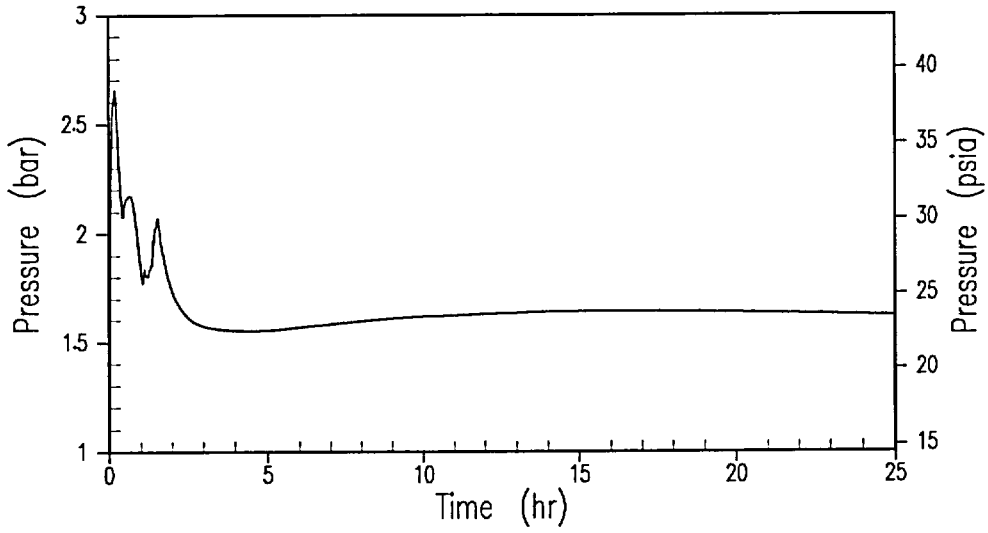
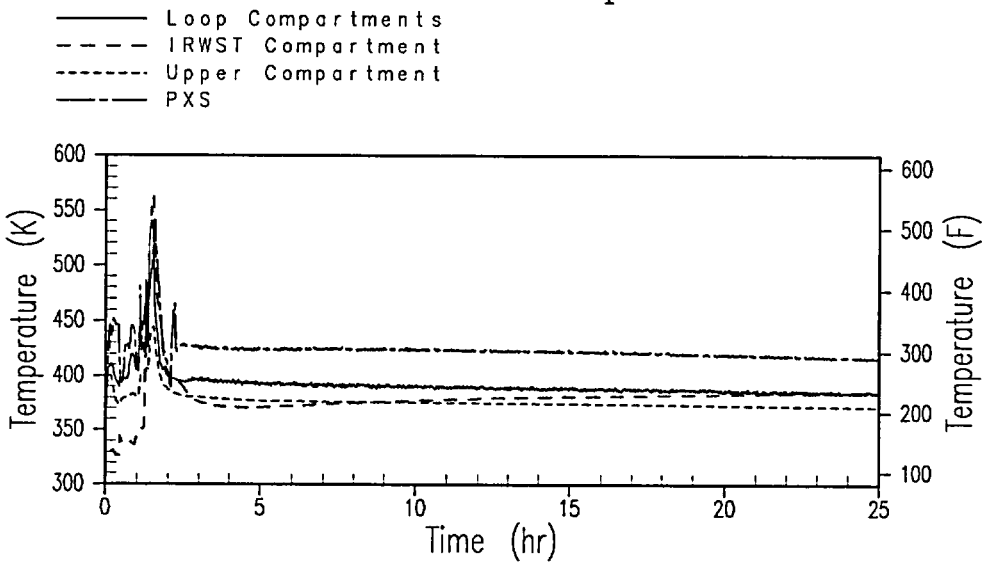
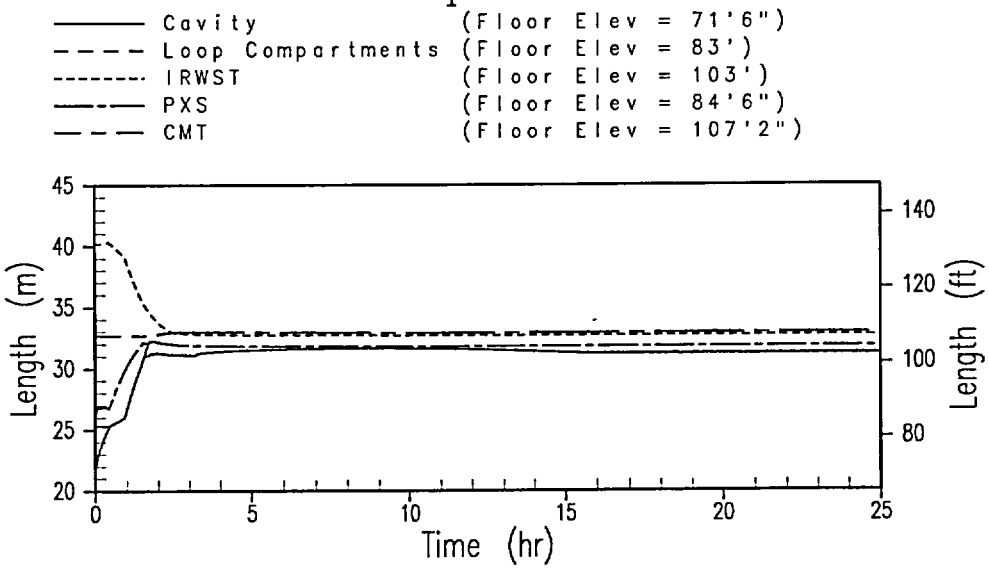
3BE-1: AP1000 DVI Line Break for Cont Water Level (EdF)
Containment Pressure



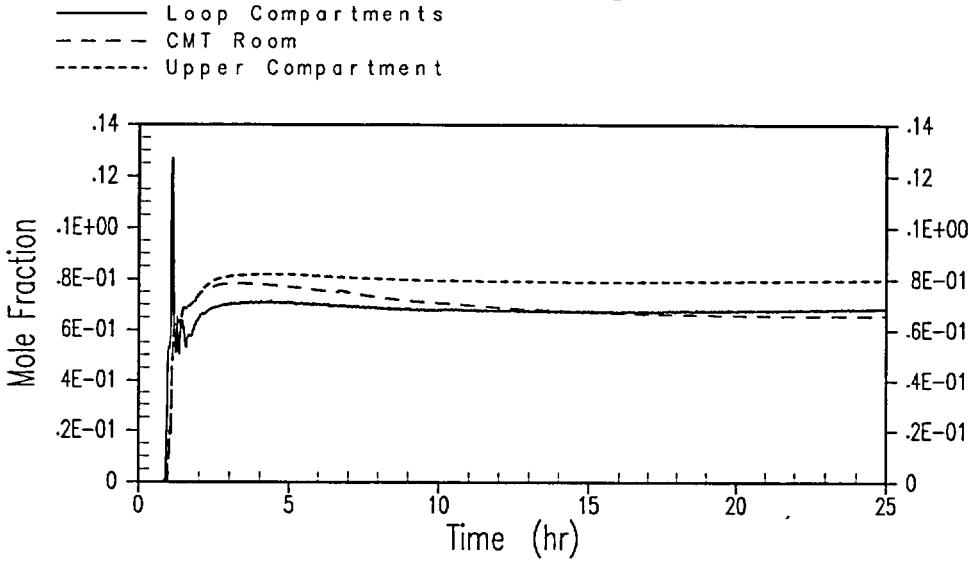
3BE-1: AP1000 DVI Line Break for Cont Water Level (EdF)
Containment Gas Temperature



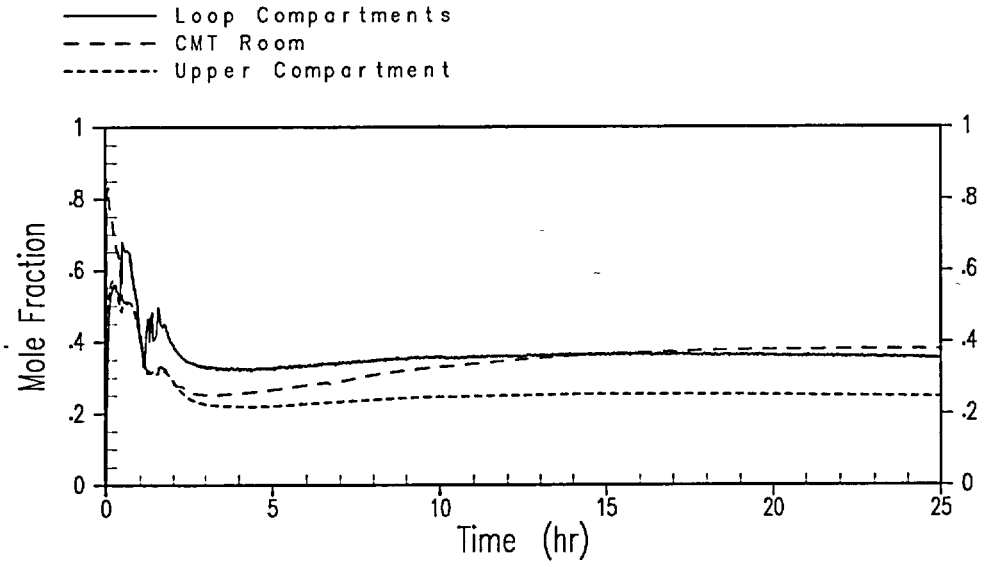
3BE-1: AP1000 DVI Line Break for Cont Water Level (EdF)
Containment Compartments Water Level



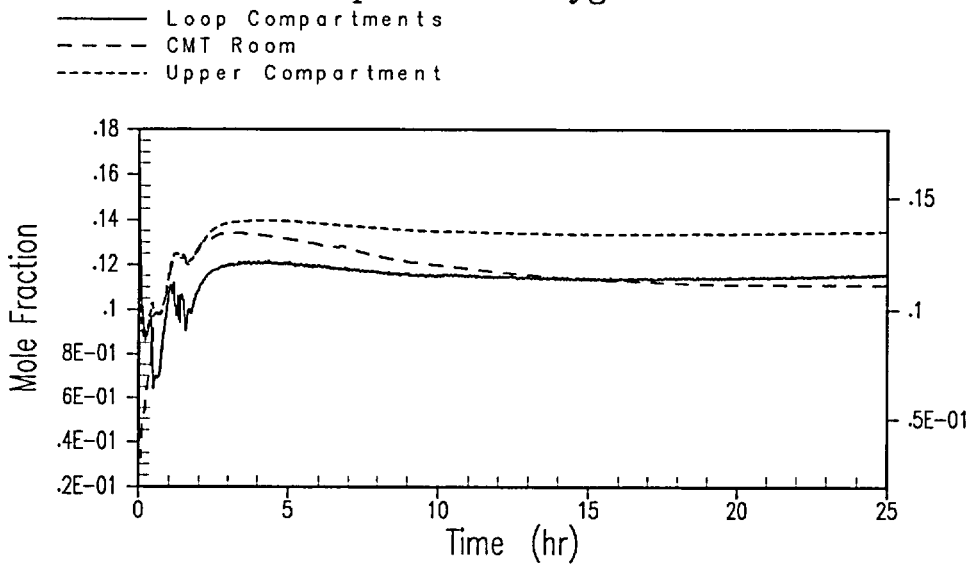
3BE-1: AP1000 DVI Line Break for Cont Water Level (EdF)
Well-Mixed Compartment Hydrogen Concentration



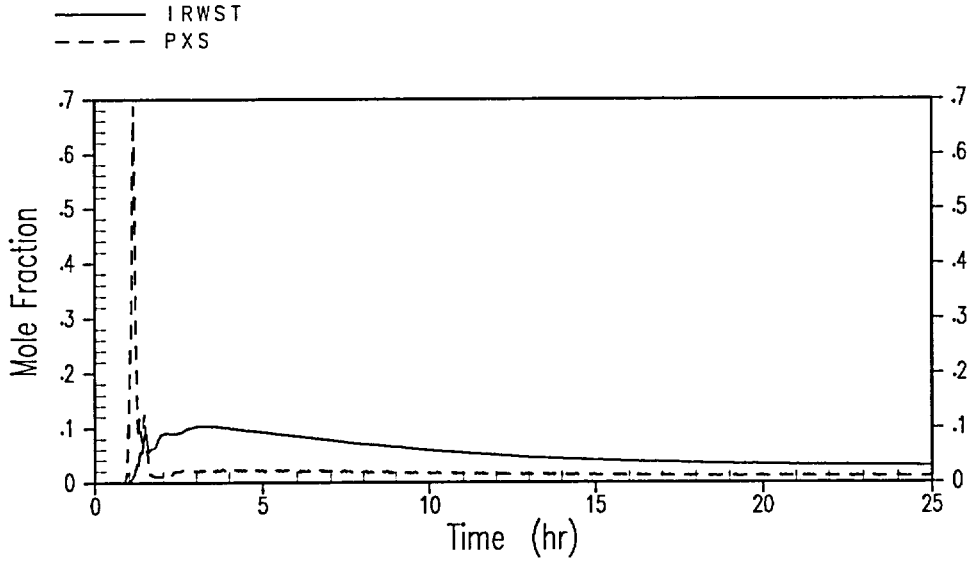
3BE-1: AP1000 DVI Line Break for Cont Water Level (EdF)
Well-Mixed Compartment Steam Concentration



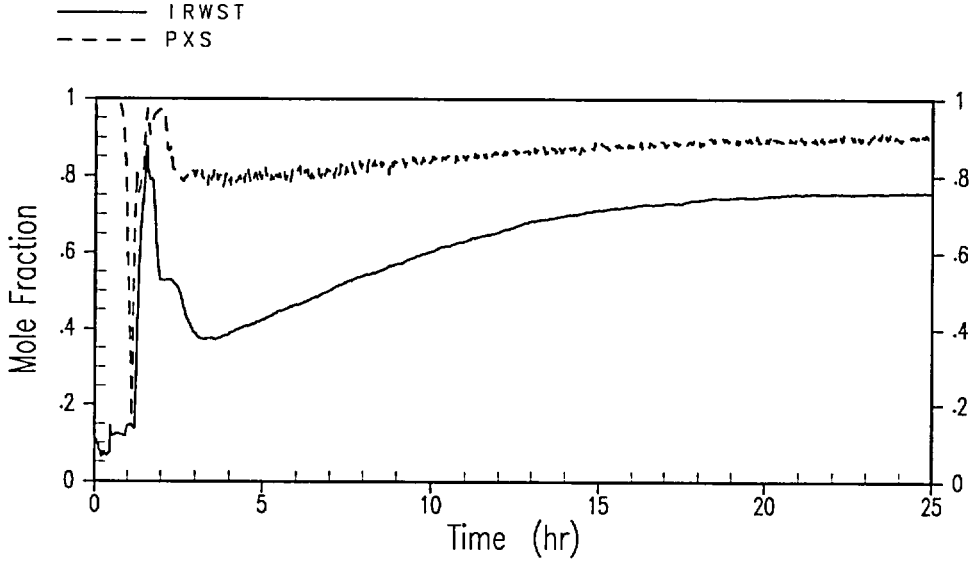
3BE−1: AP1000 DVI Line Break for Cont Water Level (EdF)
Well−Mixed Compartment Oxygen Concentration



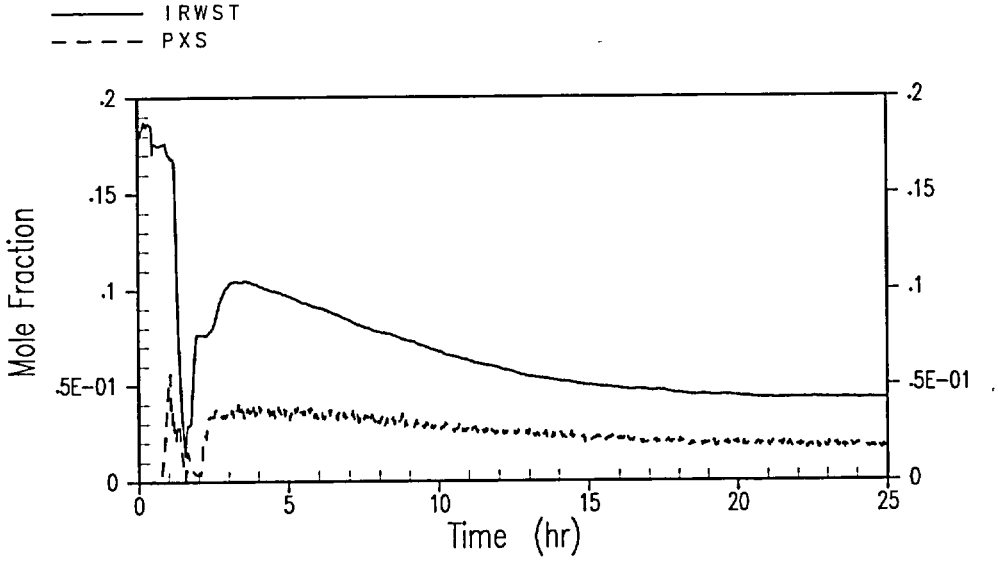
3BE-1: AP1000 DVI Line Break for Cont Water Level (EdF)
Confined Compartment Hydrogen Concentration



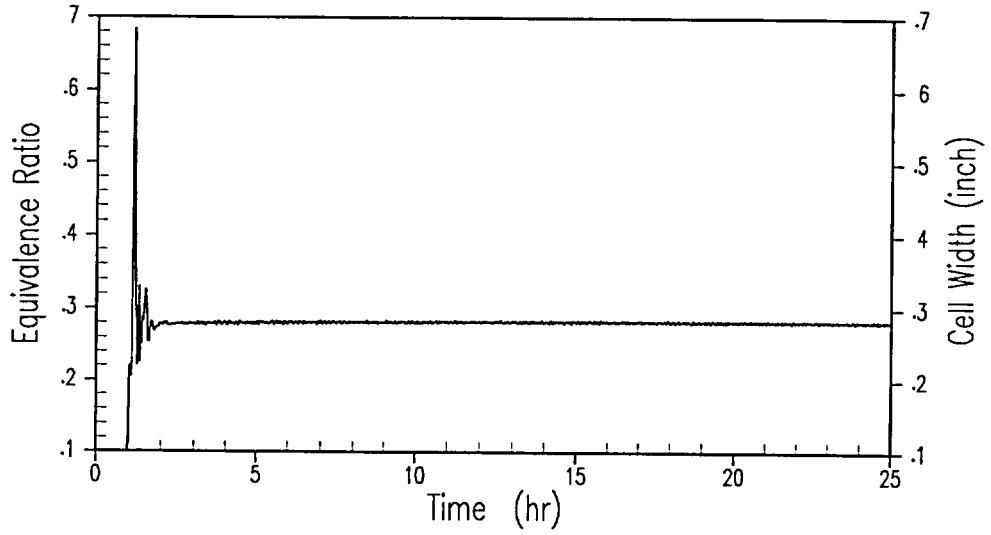
3BE-1: AP1000 DVI Line Break for Cont Water Level (EdF)
Confined Compartment Steam Concentration



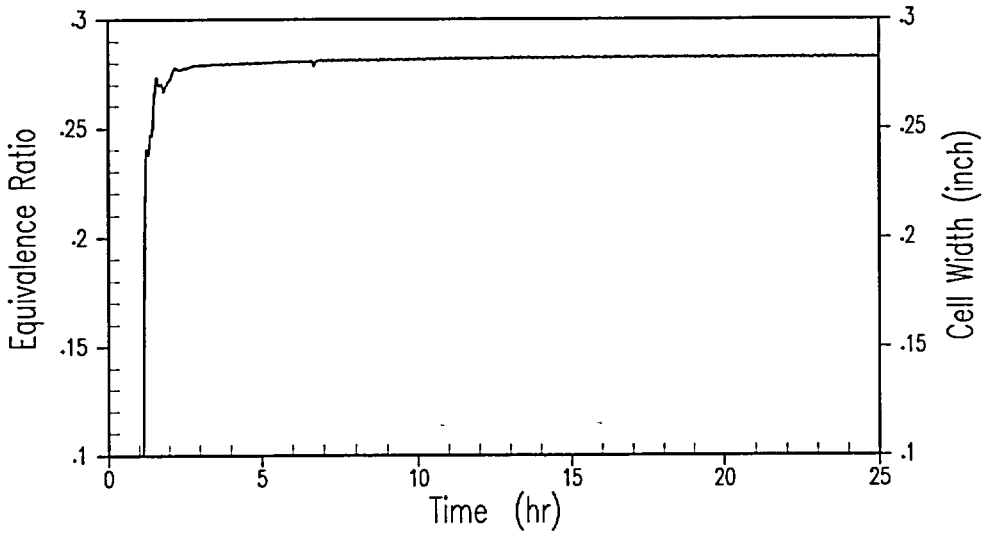
3BE–1: AP1000 DVI Line Break for Cont Water Level (EdF)
Confined Compartment Oxygen Concentration



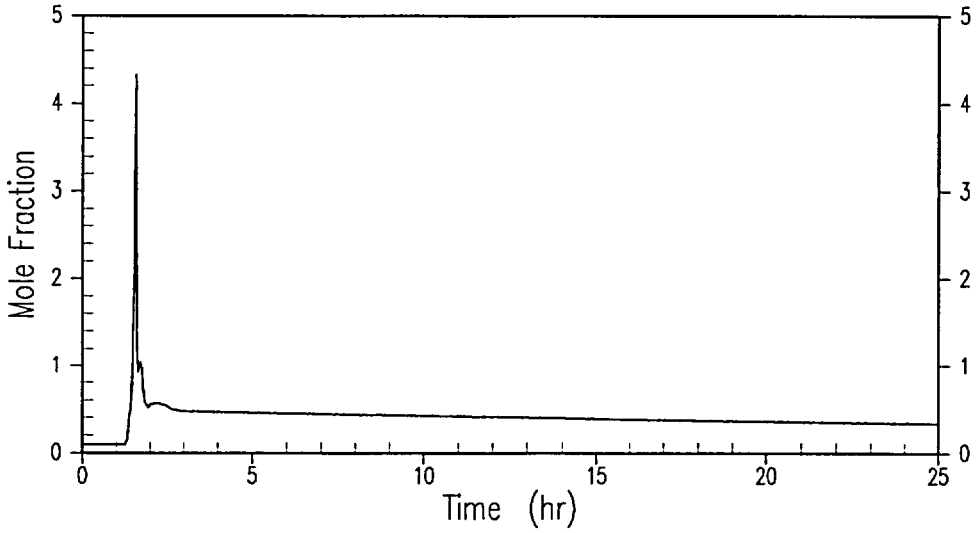
3BE-1: AP1000 DVI Line Break for Cont Water Level (EdF)
Equivalence Ratio in SG Room



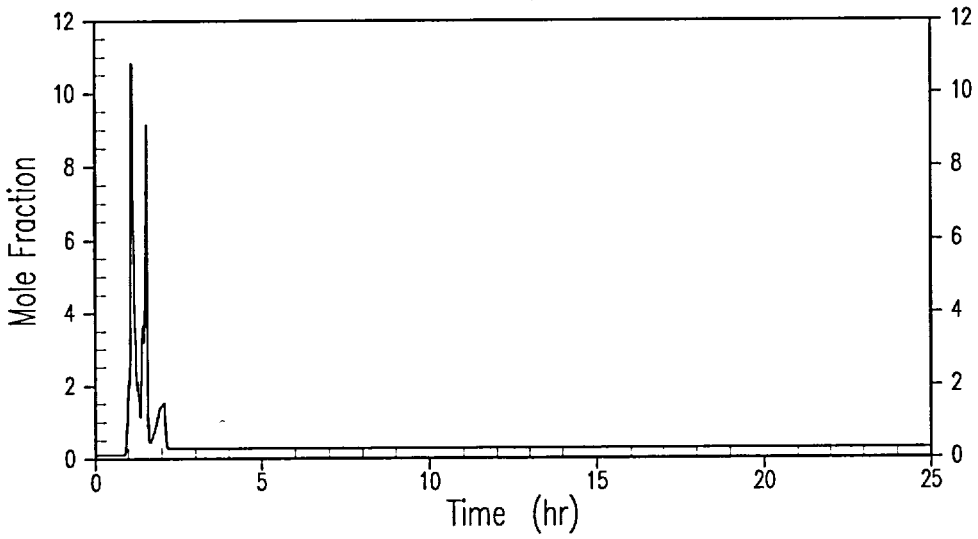
3BE−1: AP1000 DVI Line Break for Cont Water Level (EdF)
Equivalence Ratio in CMT Room



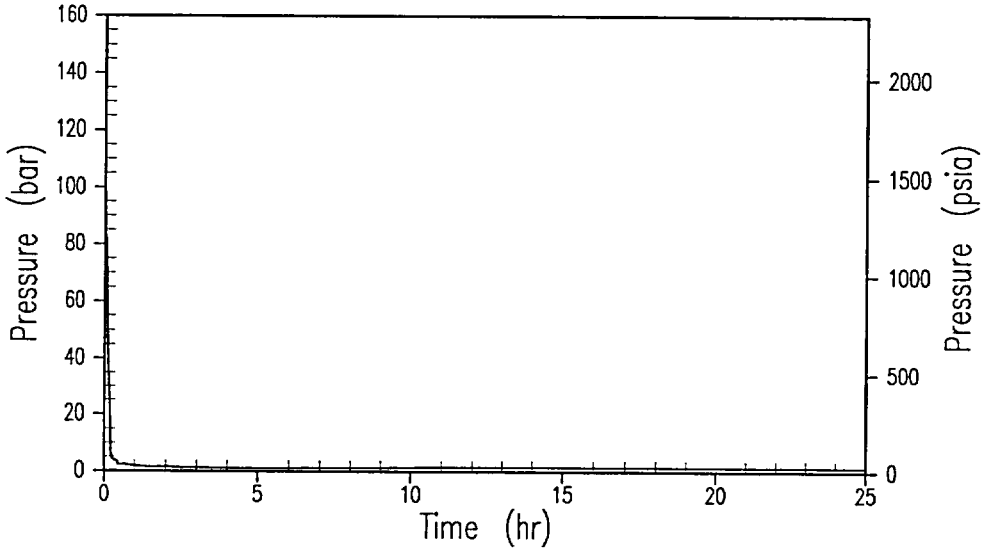
3BE-1: AP1000 DVI Line Break for Cont Water Level (EdF)
Equivalence Ratio in IRWST



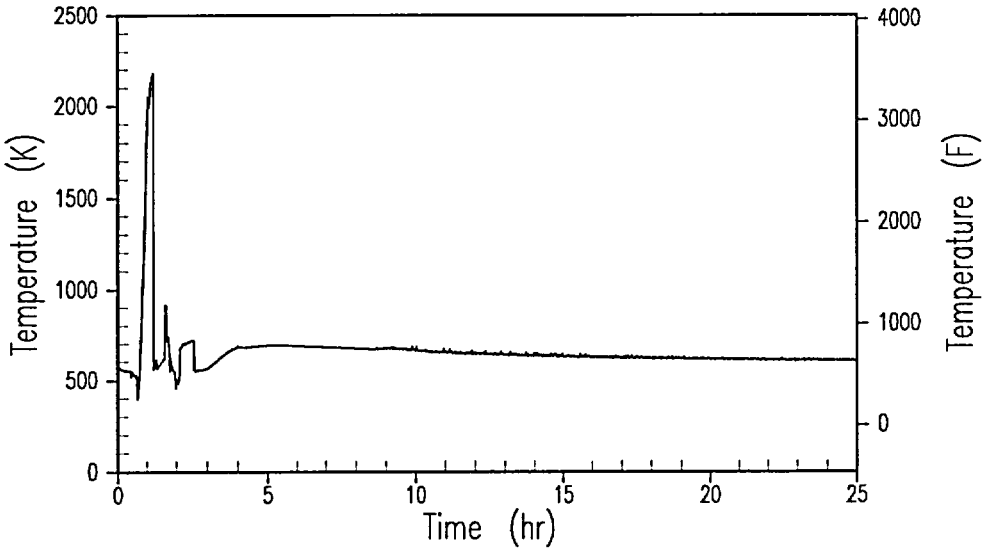
3BE-1: AP1000 DVI Line Break for Cont Water Level (EdF)
Equivalence Ratio in PXS



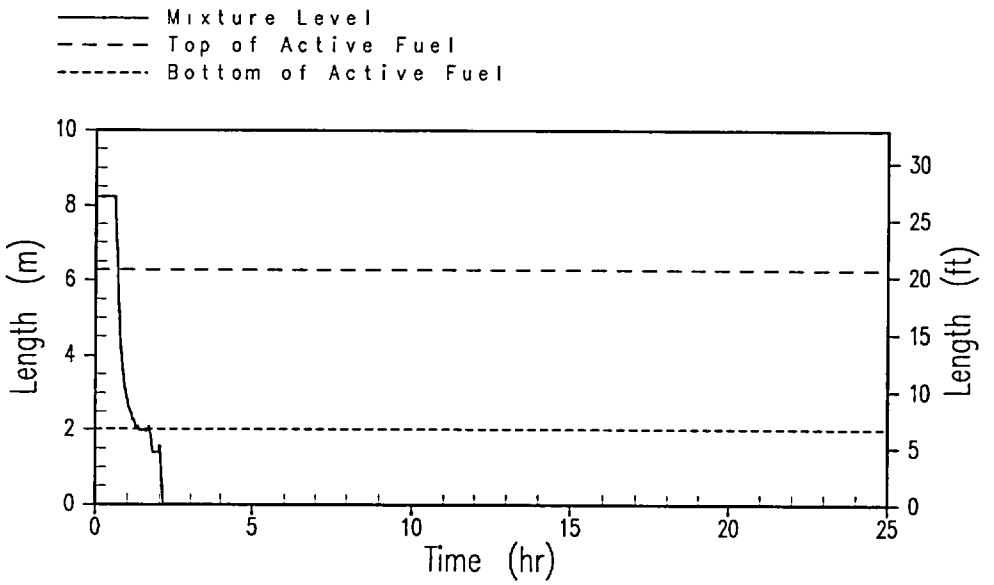
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Reactor Coolant System Pressure



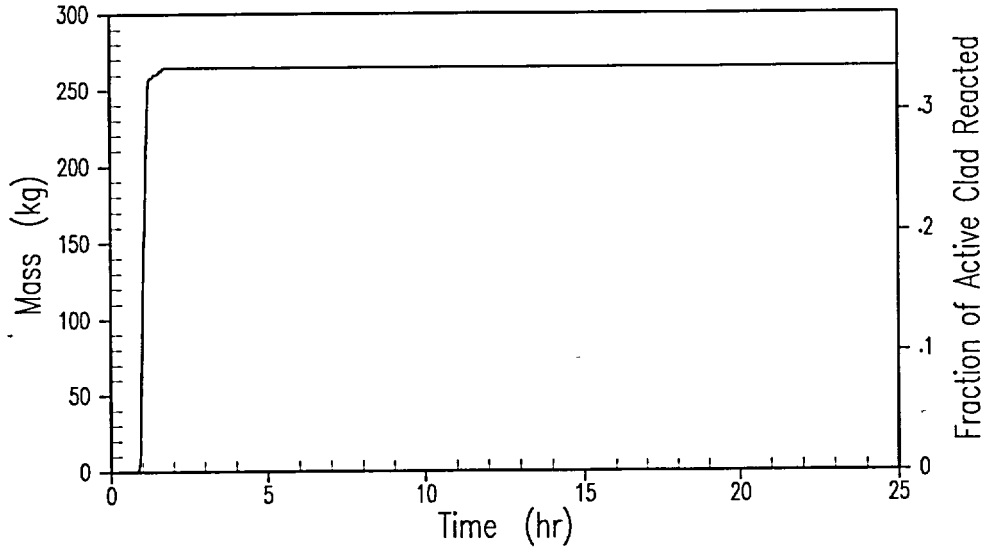
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Core-Exit Gas Temperature



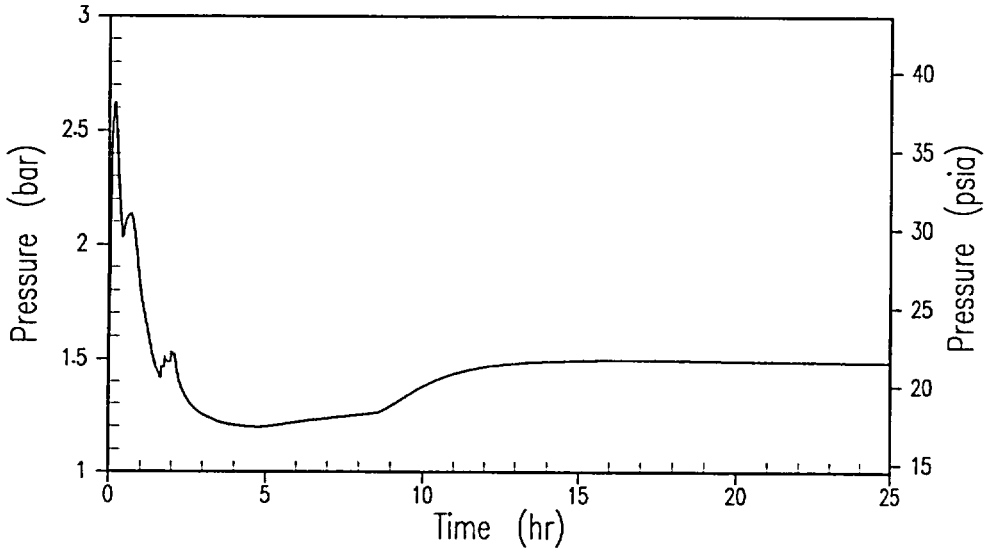
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Reactor Vessel Mixture Level



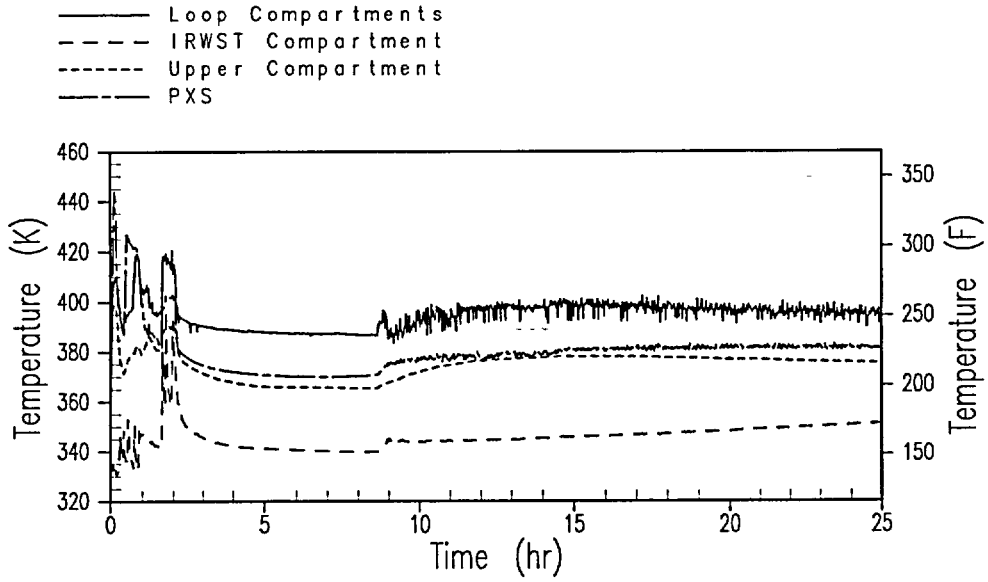
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Hydrogen Generated In-Vessel



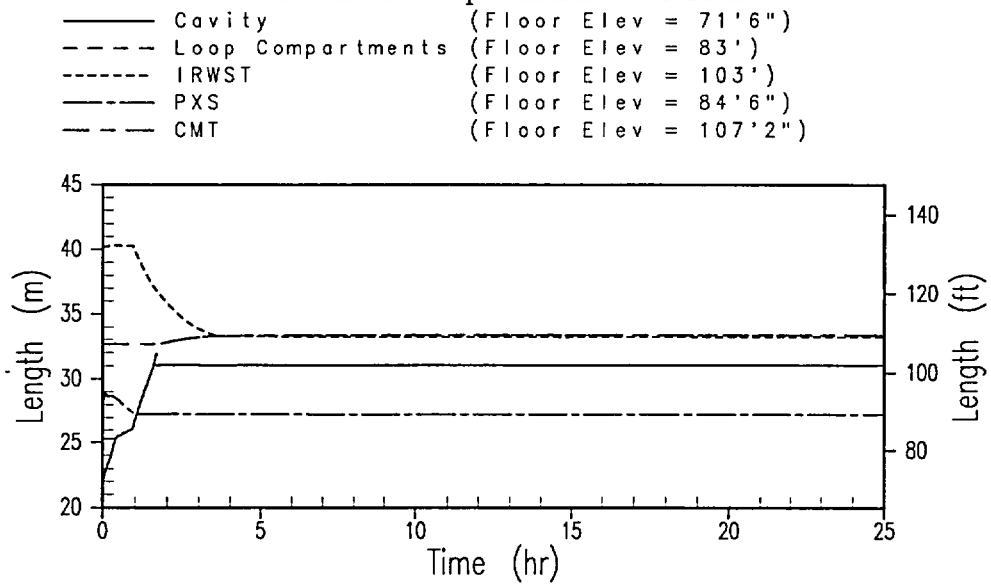
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Containment Pressure



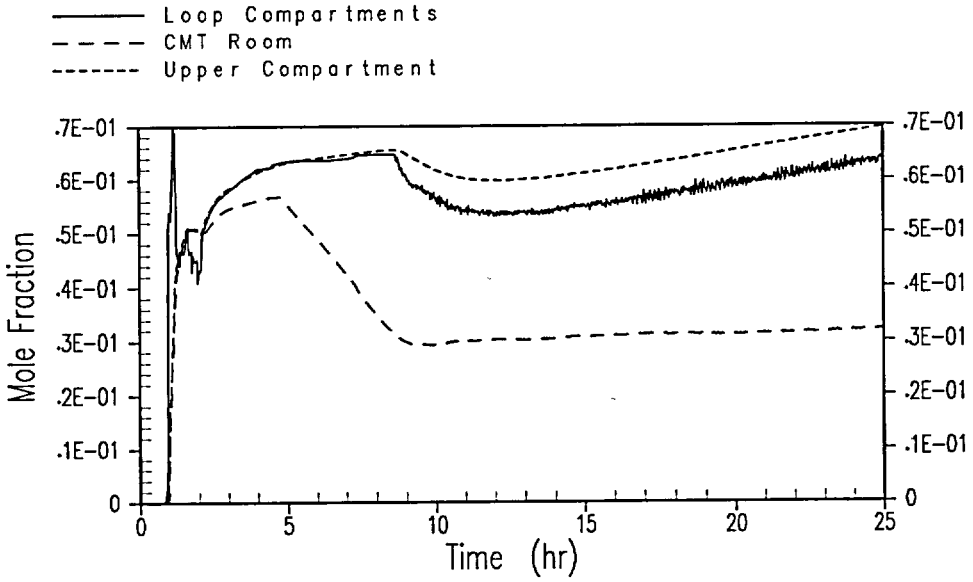
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Containment Gas Temperature



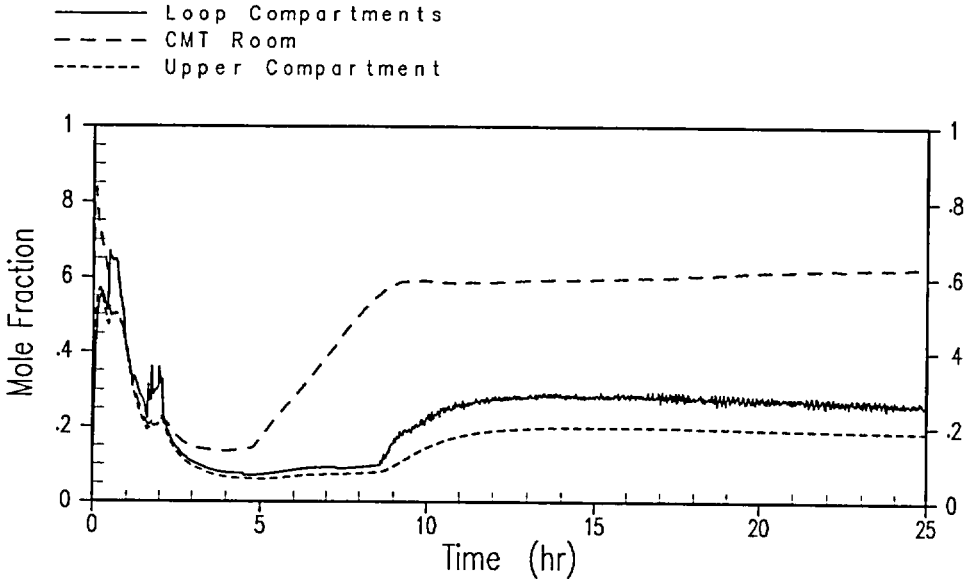
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Containment Compartments Water Level



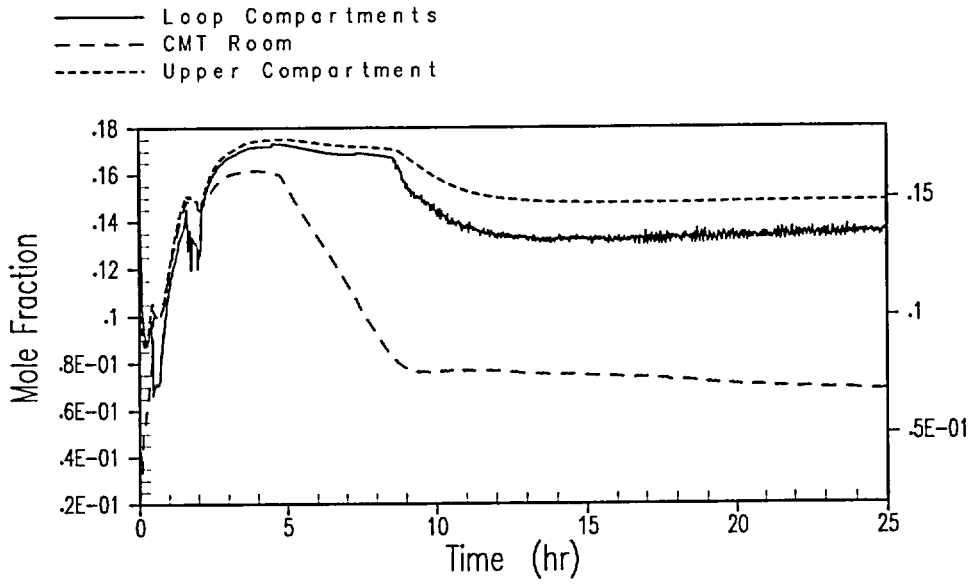
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Well-Mixed Compartment Hydrogen Concentration



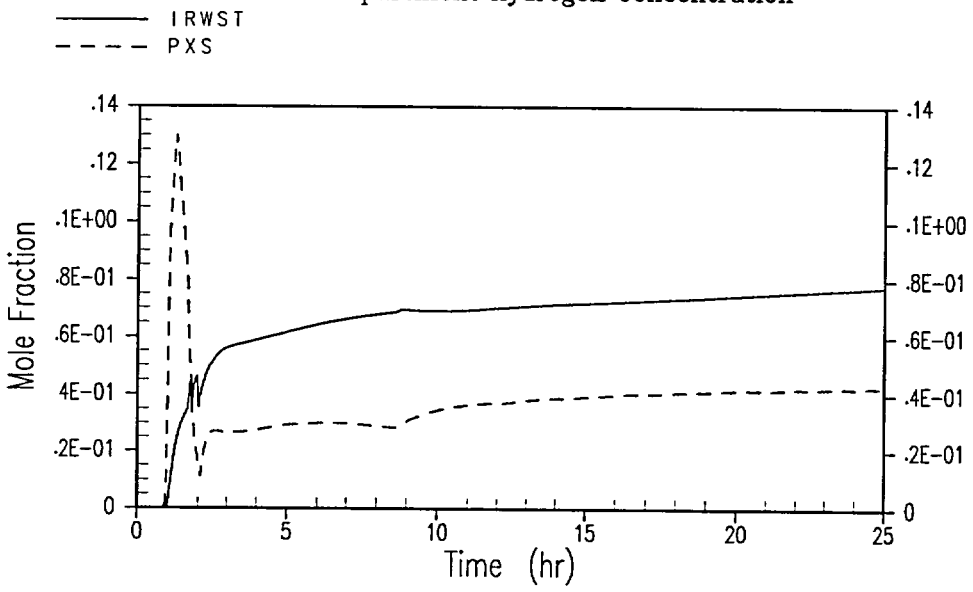
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Well-Mixed Compartment Steam Concentration



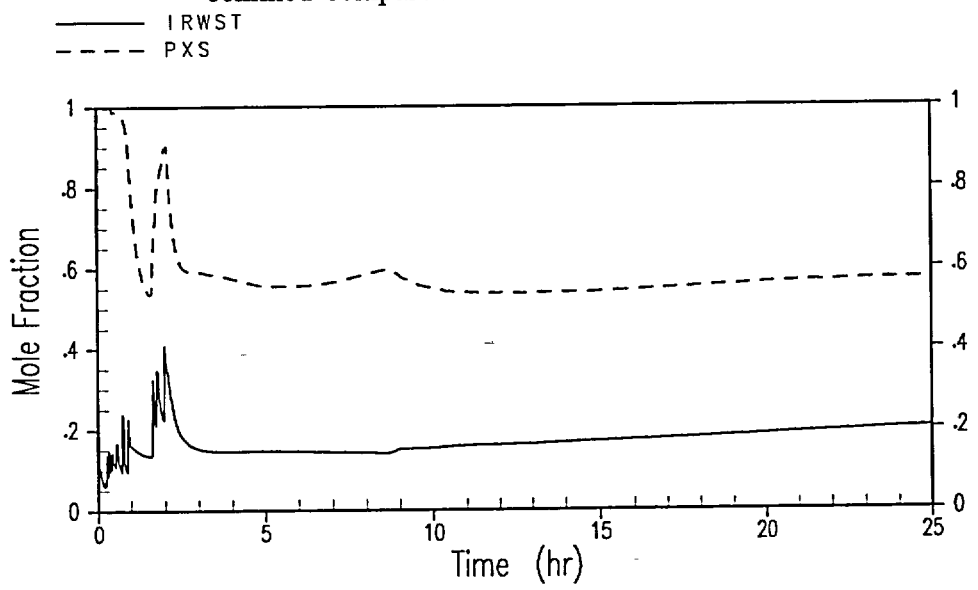
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Well-Mixed Compartment Oxygen Concentration



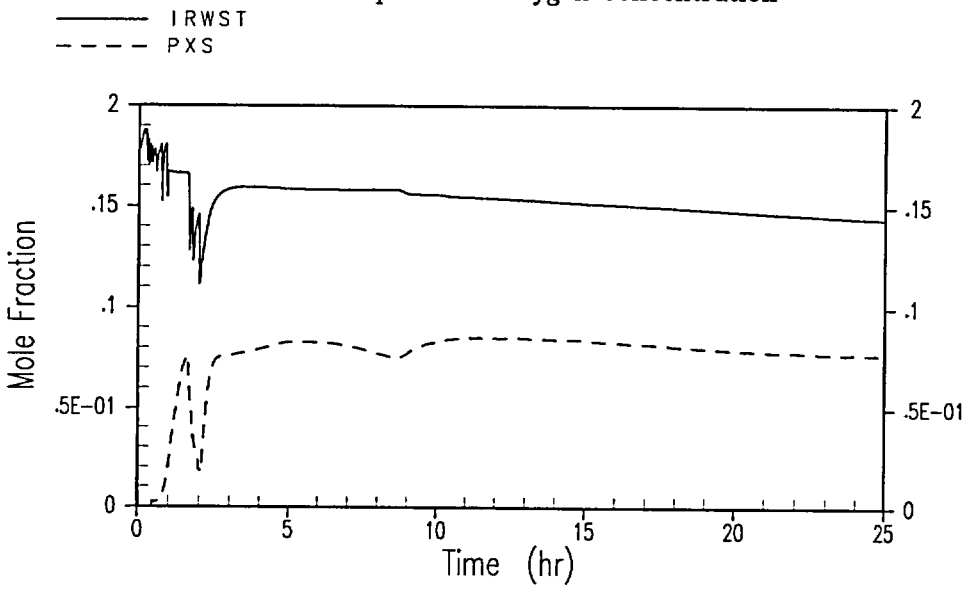
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Confined Compartment Hydrogen Concentration



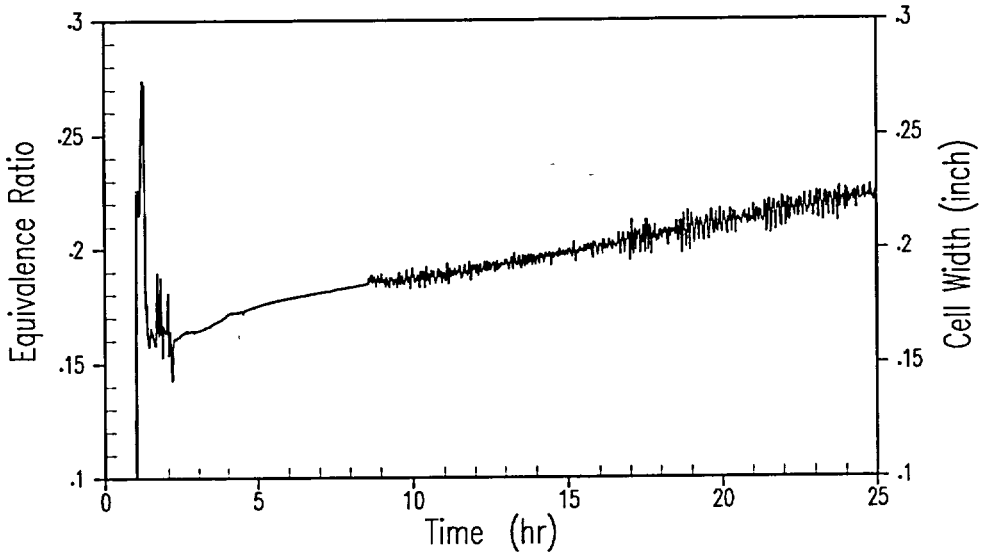
3BE–2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Confined Compartment Steam Concentration



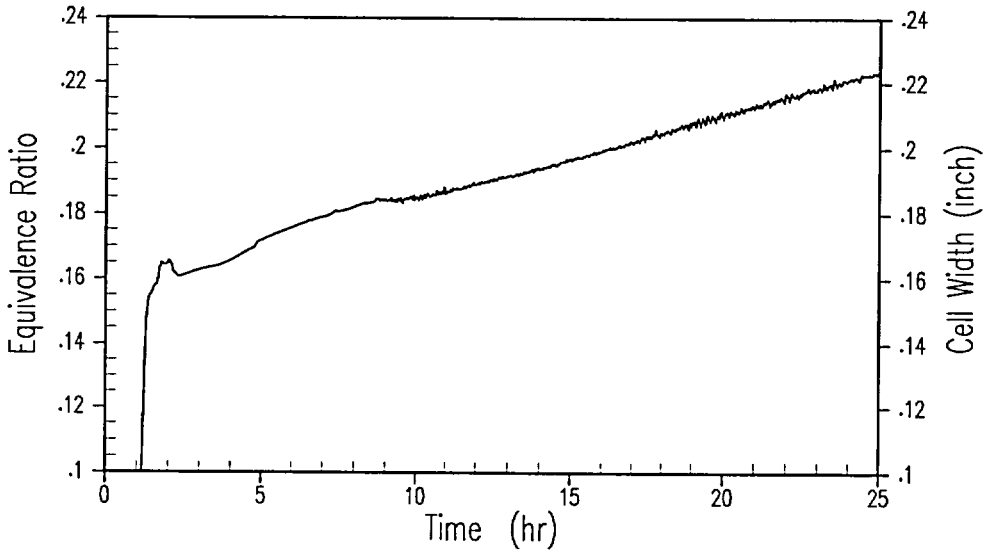
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Confined Compartment Oxygen Concentration



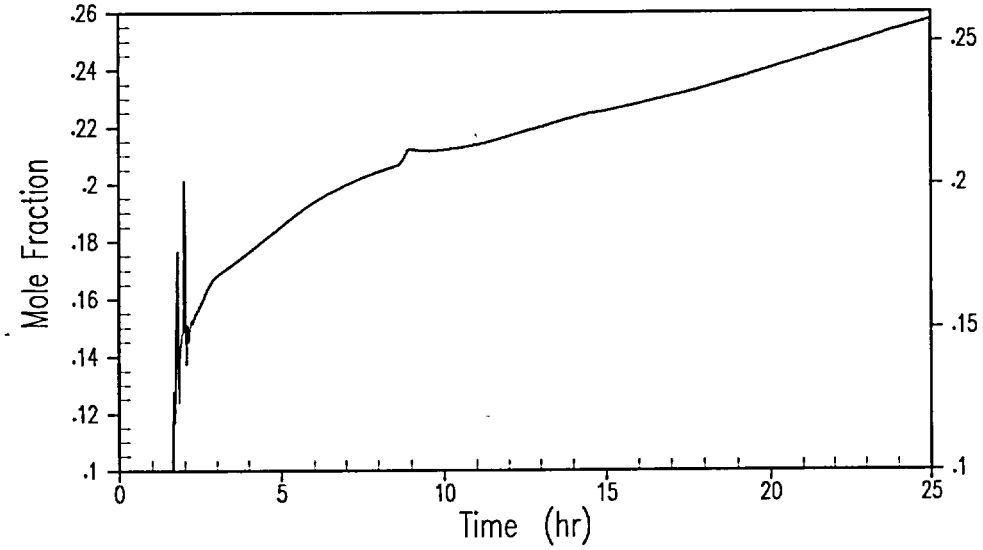
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Equivalence Ratio in SG Room



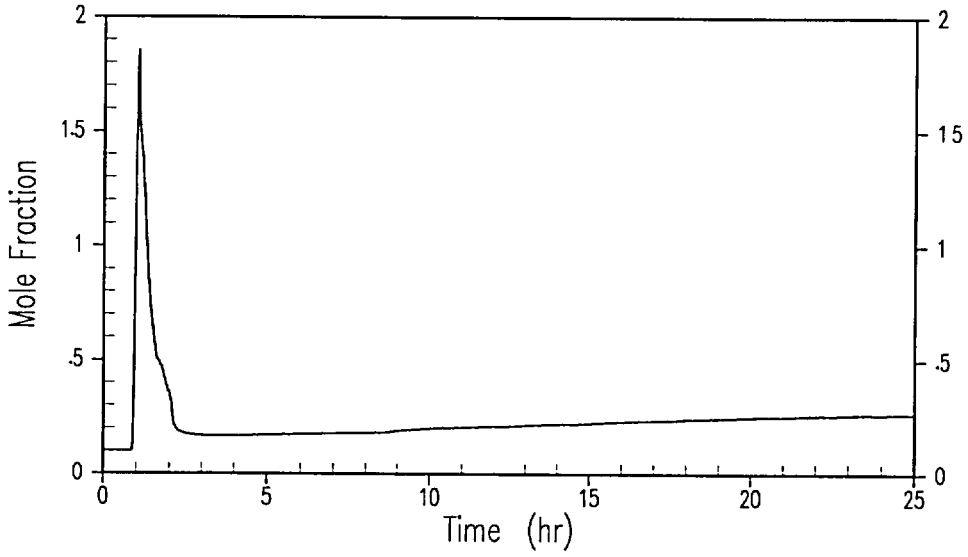
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Equivalence Ratio in CMT Room



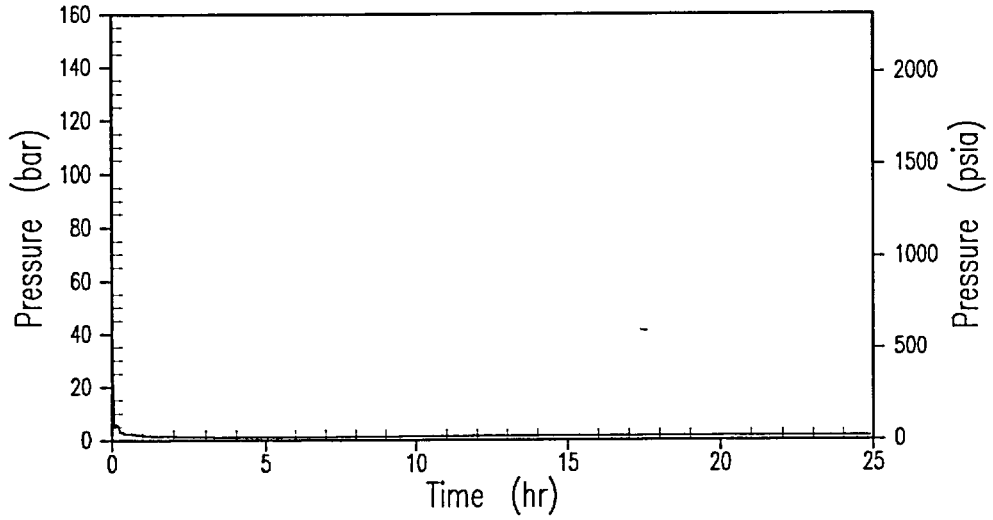
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Equivalence Ratio in IRWST



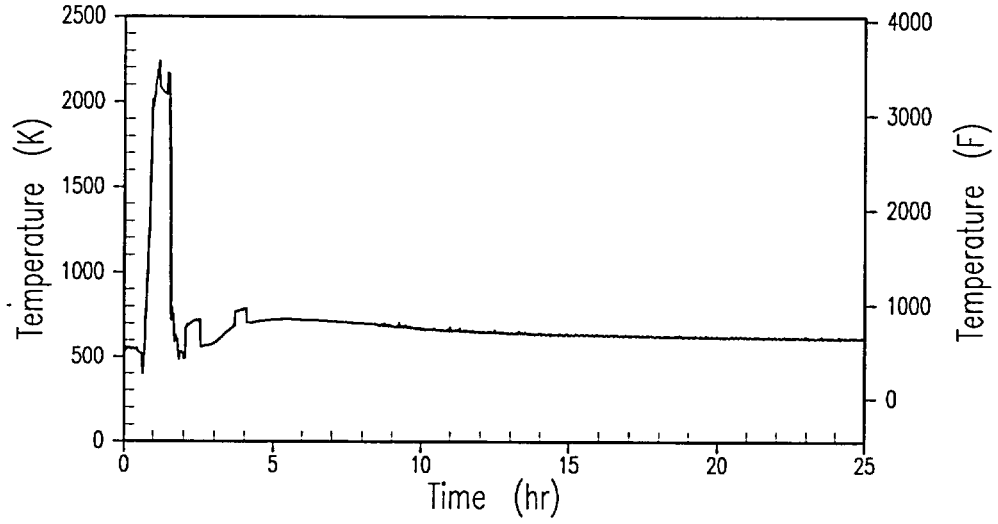
3BE-2: AP1000 DVI Line Break with Failed Grav Inj and No PXS Flooding (EdF)
Equivalence Ratio in PXS



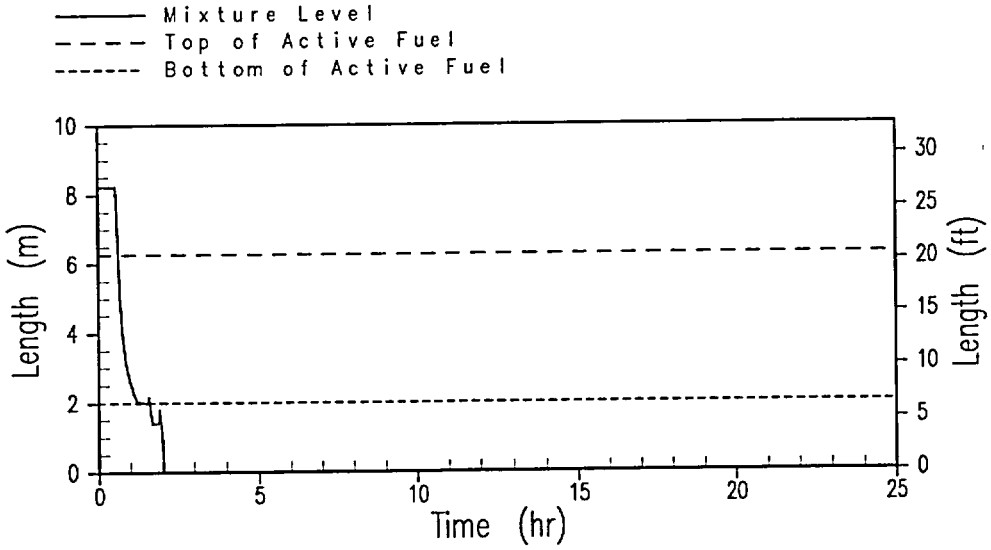
3BE–4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Reactor Coolant System Pressure



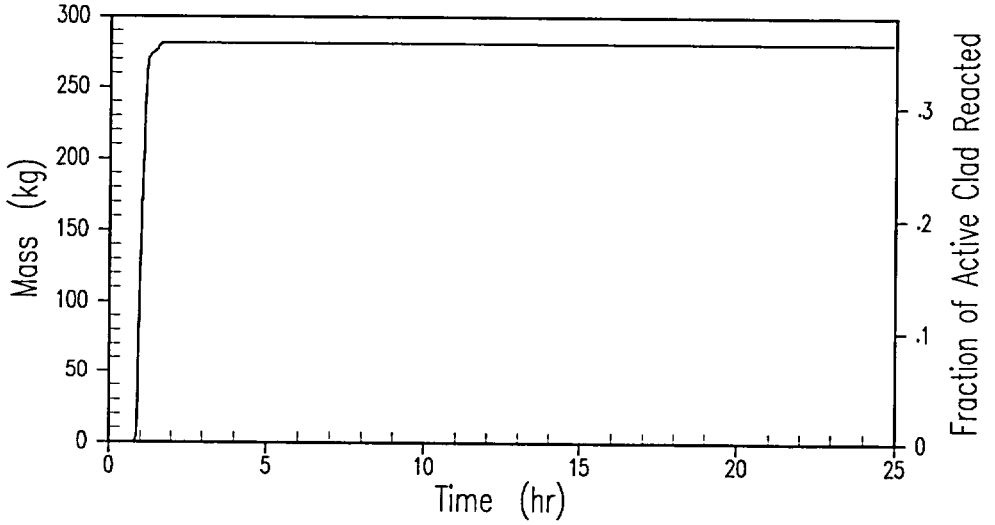
3BE-4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Core-Exit Gas Temperature



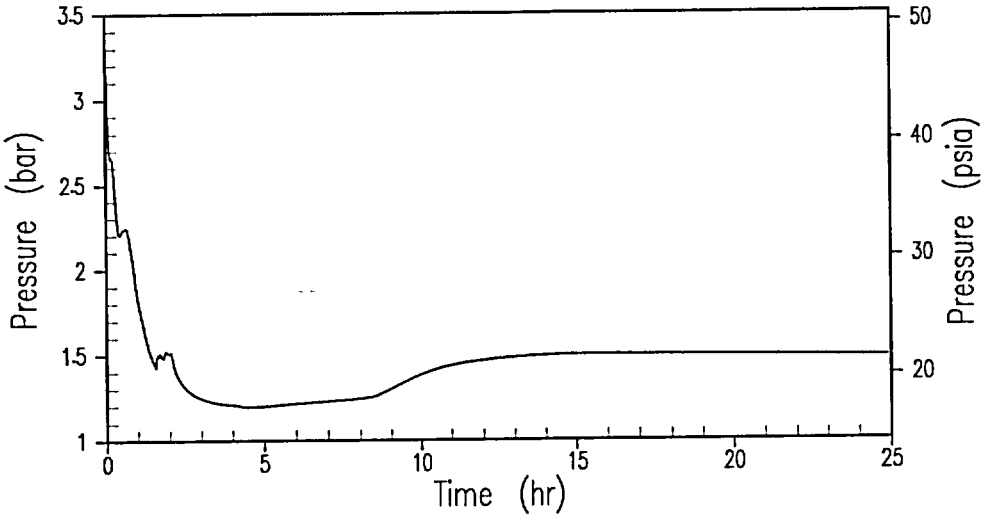
3BE–4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Reactor Vessel Mixture Level



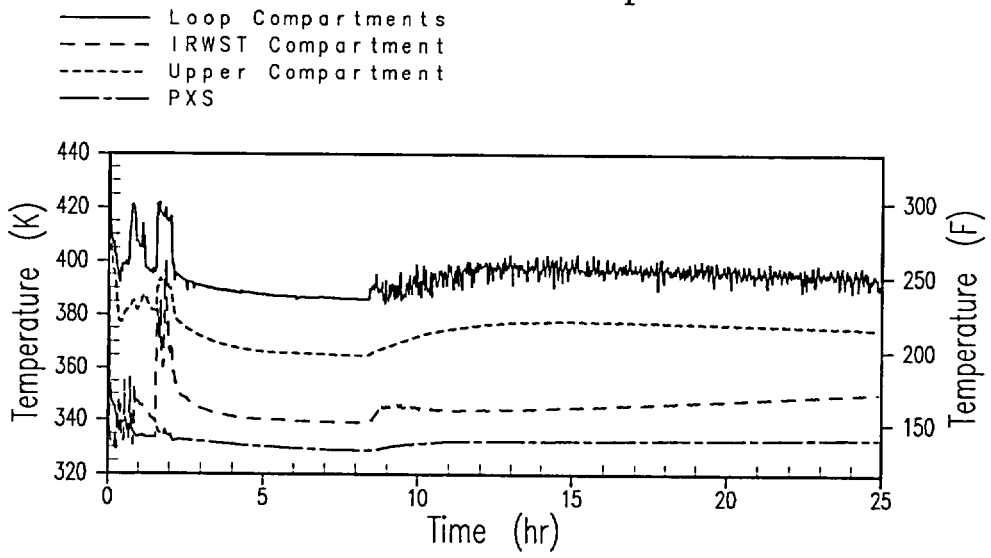
3BE-4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Hydrogen Generated In-Vessel



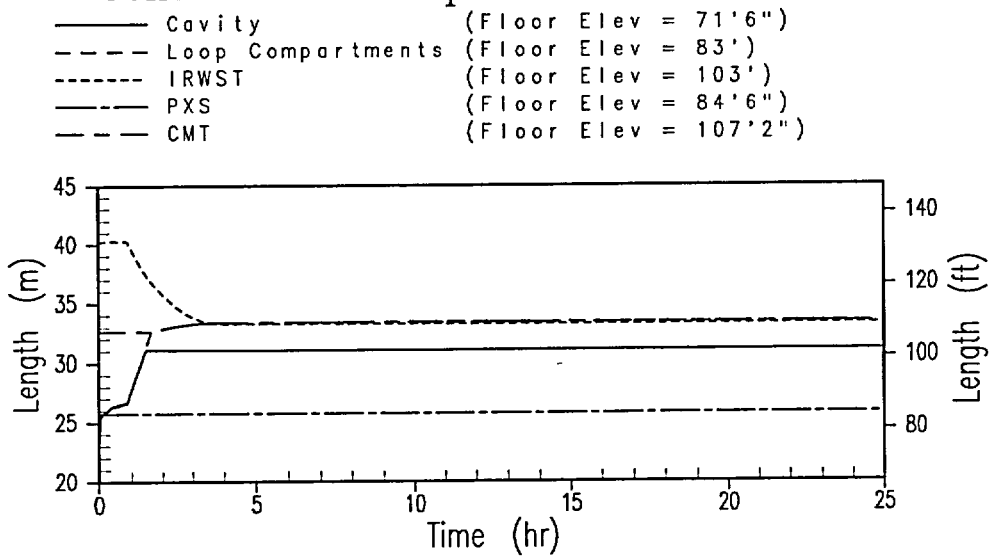
3BE–4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Containment Pressure



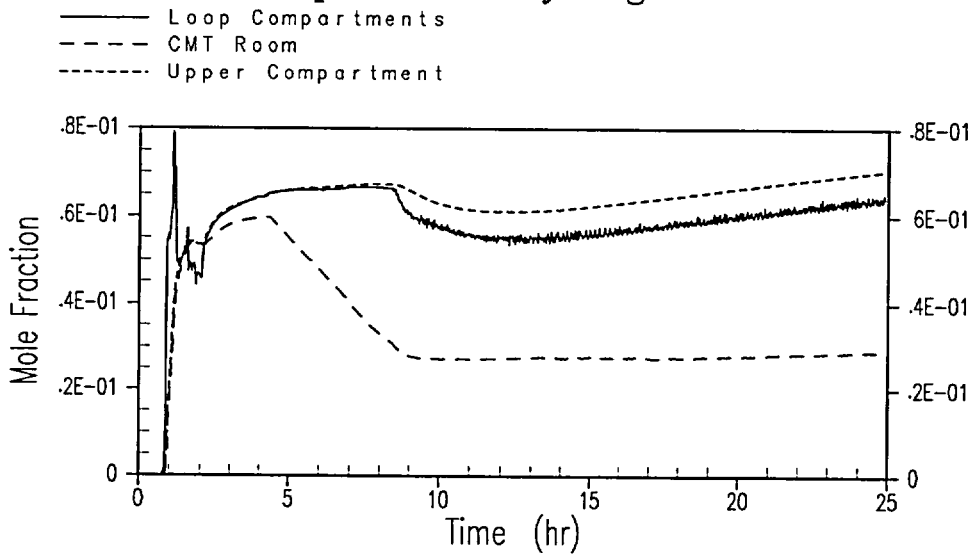
3BE–4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Containment Gas Temperature



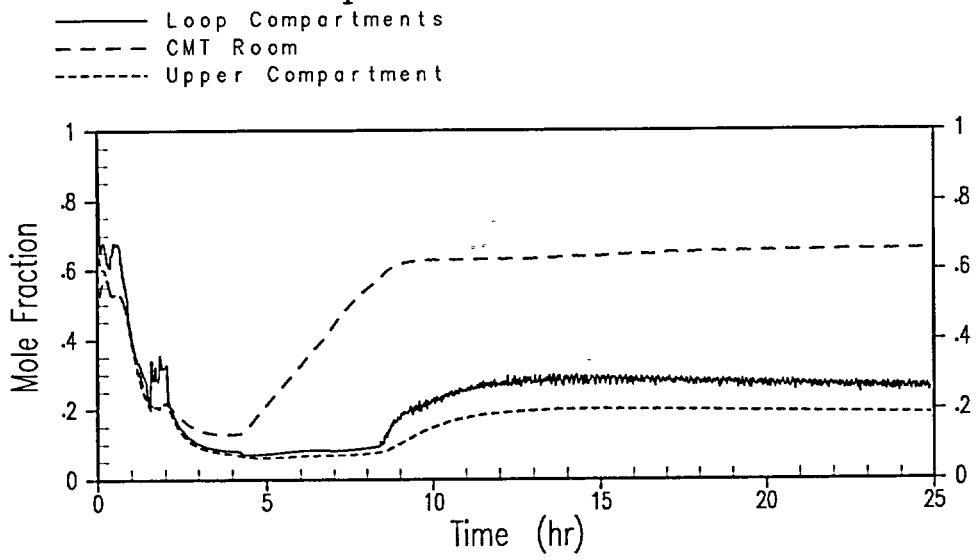
3BE–4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Containment Compartments Water Level



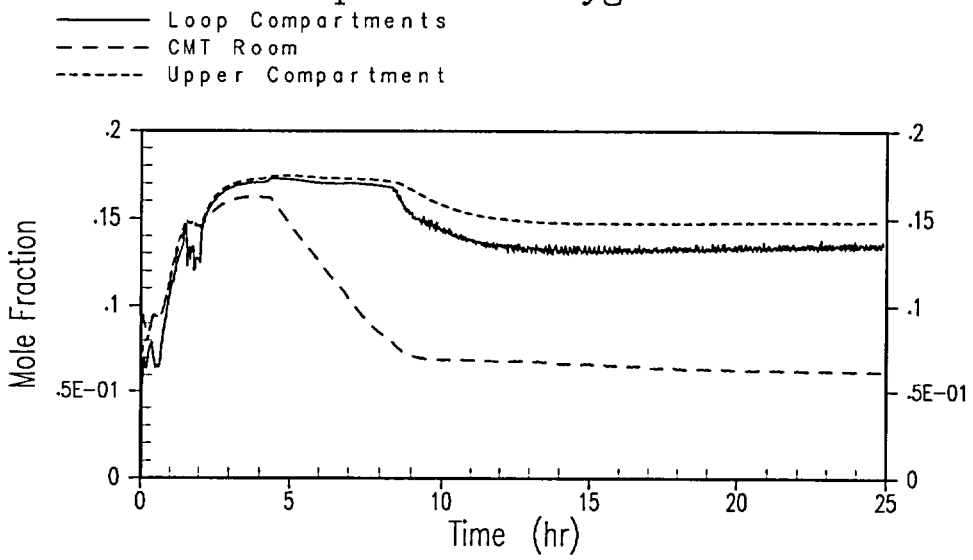
3BE-4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Well-Mixed Compartment Hydrogen Concentration



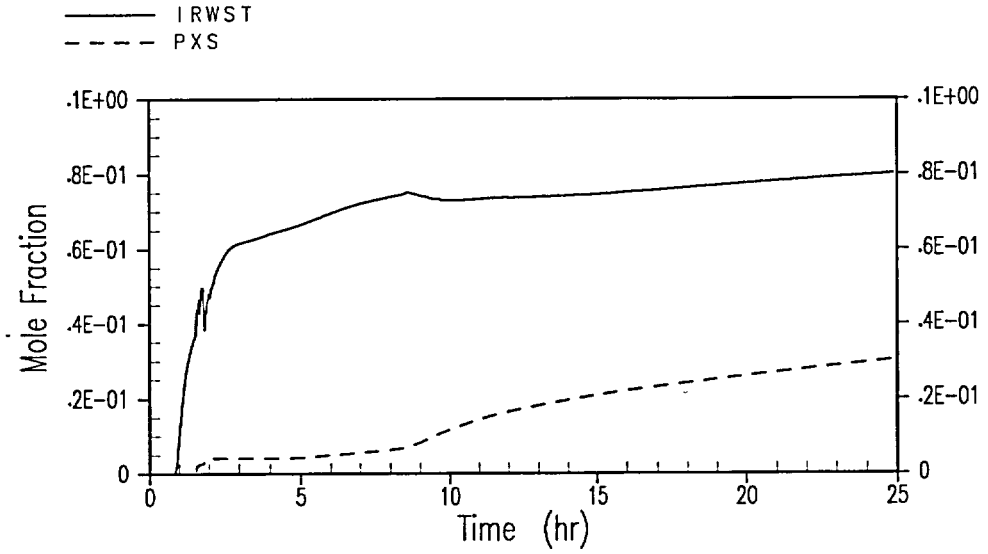
3BE-4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Well-Mixed Compartment Steam Concentration



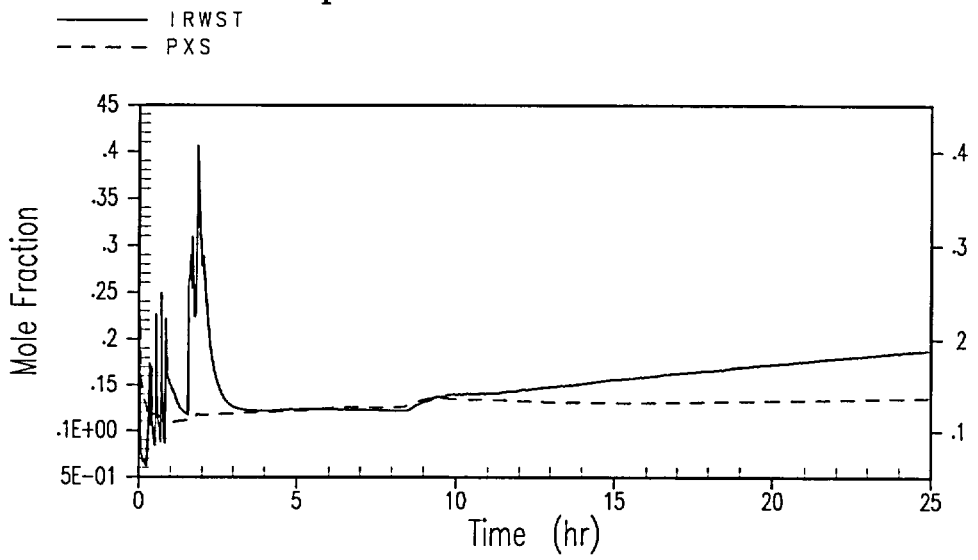
3BE-4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Well-Mixed Compartment Oxygen Concentration



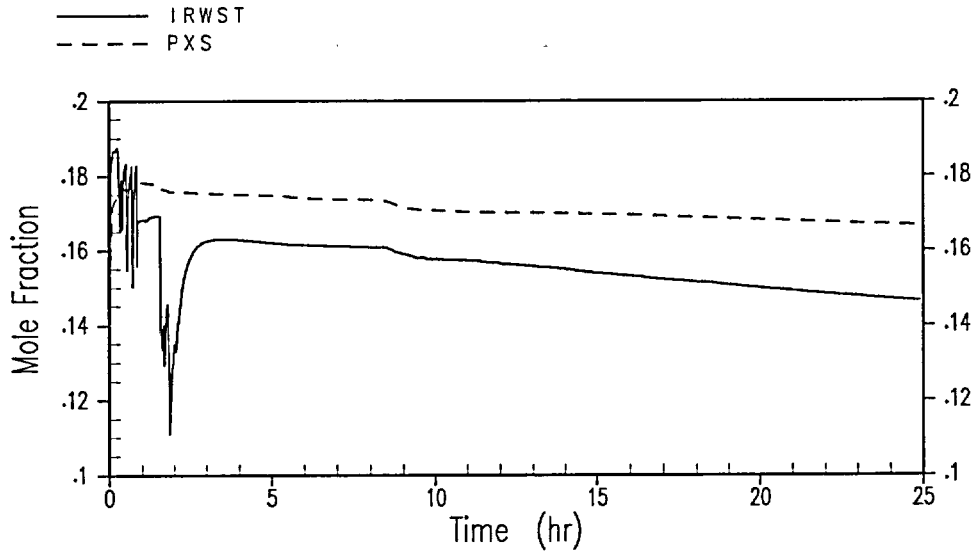
3BE–4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Confined Compartment Hydrogen Concentration



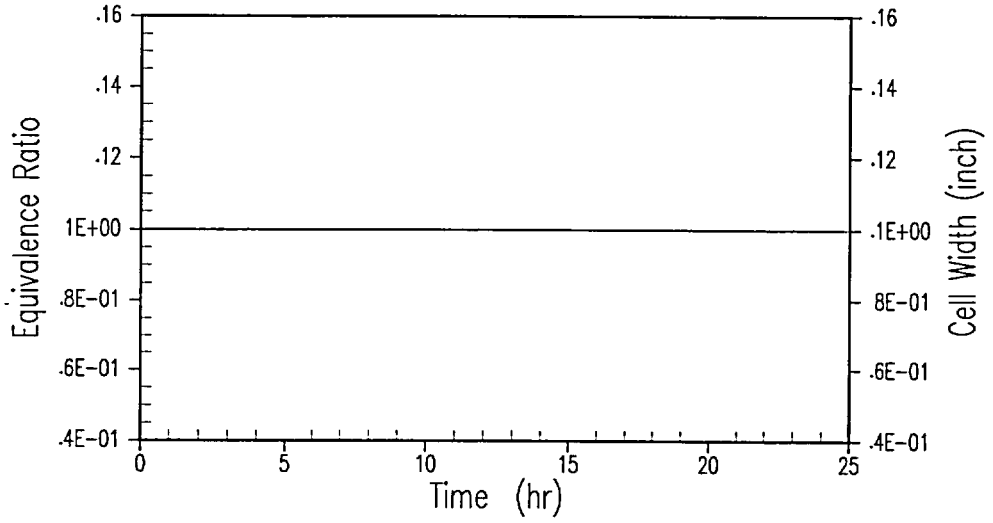
3BE-4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Confined Compartment Steam Concentration



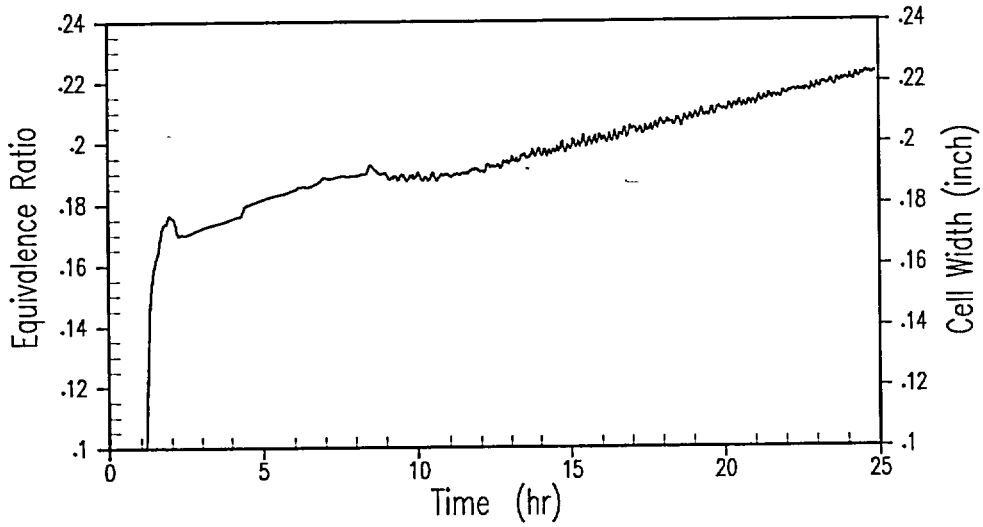
3BE-4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Confined Compartment Oxygen Concentration



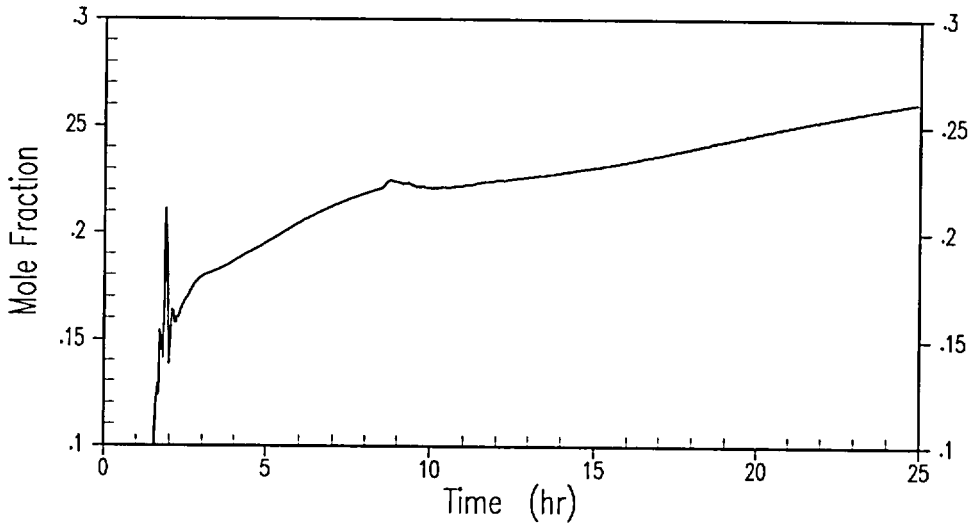
3BE–4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Equivalence Ratio in SG Room



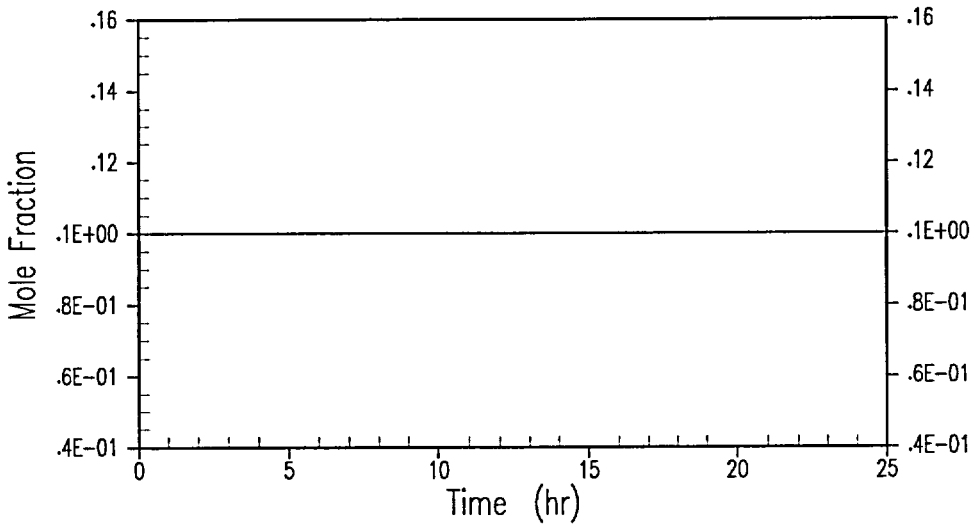
3BE–4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Equivalence Ratio in CMT Room



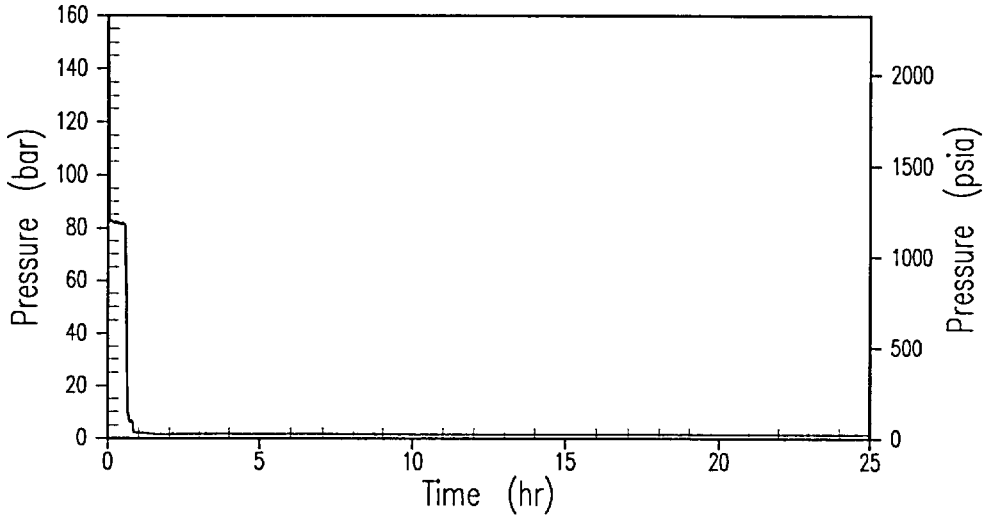
3BE-4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Equivalence Ratio in IRWST



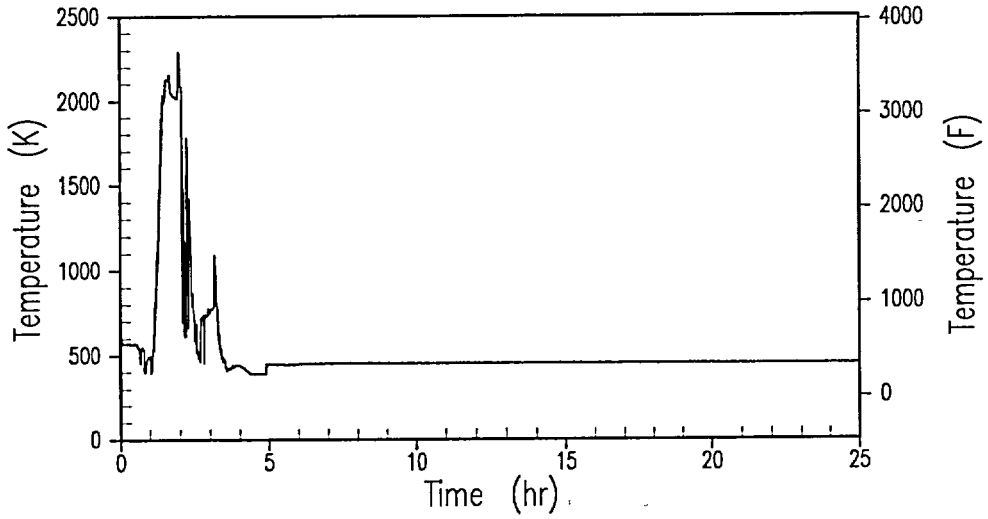
3BE-4: AP1000 Spurious ADS, Failed Grav Inj (EdF)
Equivalence Ratio in PXS



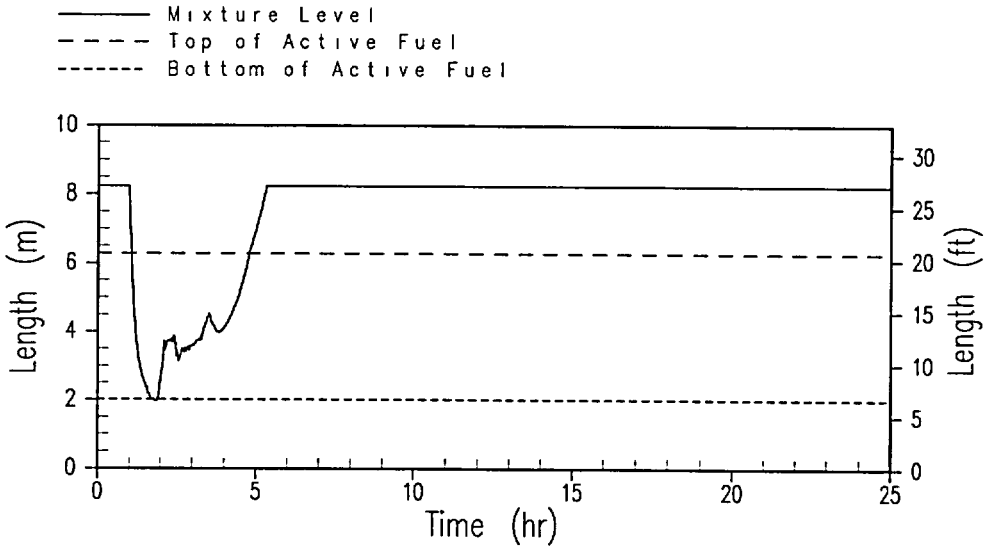
3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Reactor Coolant System Pressure



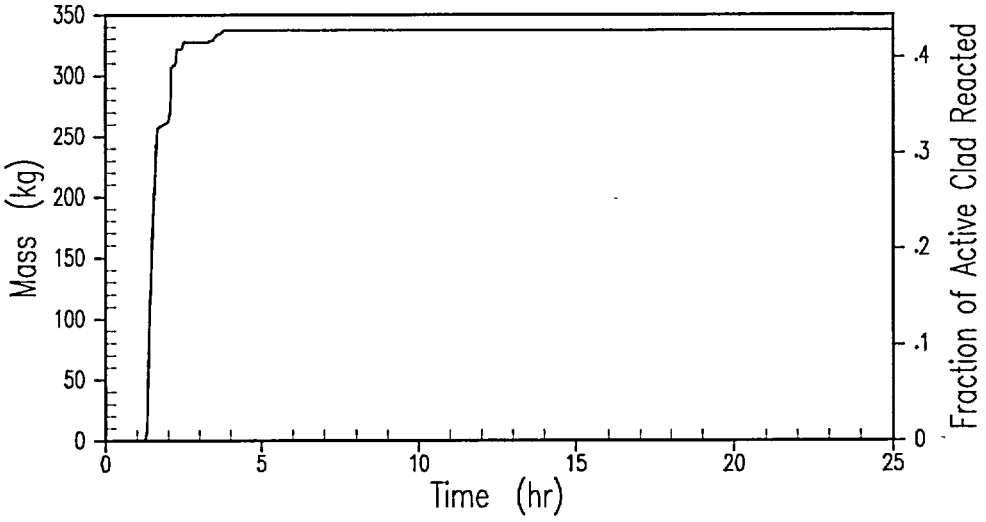
3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Core–Exit Gas Temperature



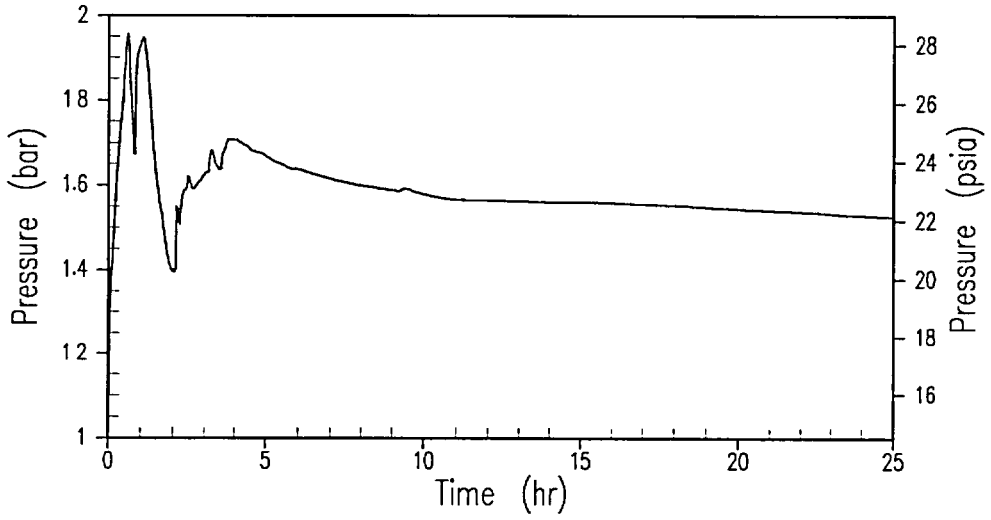
3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Reactor Vessel Mixture Level



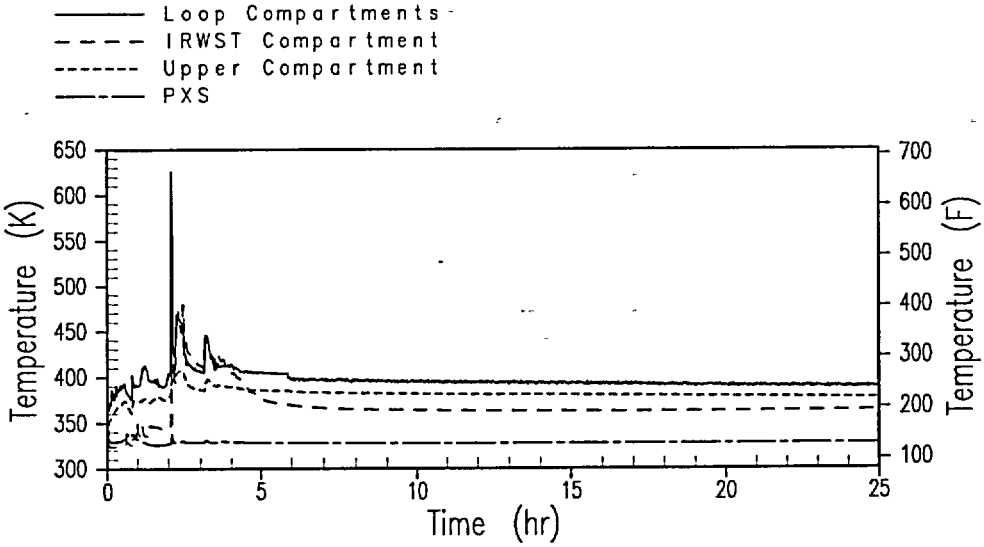
3BE-5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Hydrogen Generated In-Vessel



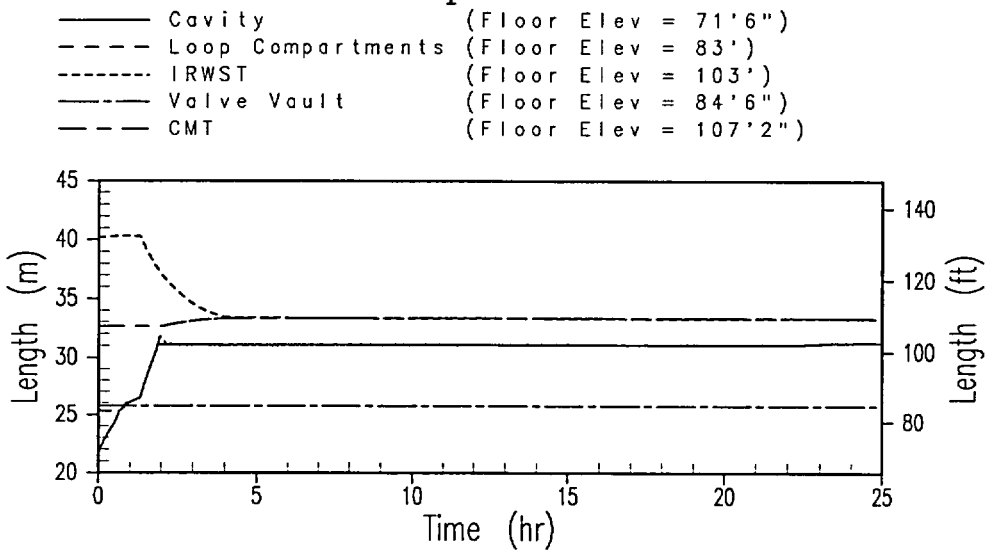
3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Containment Pressure



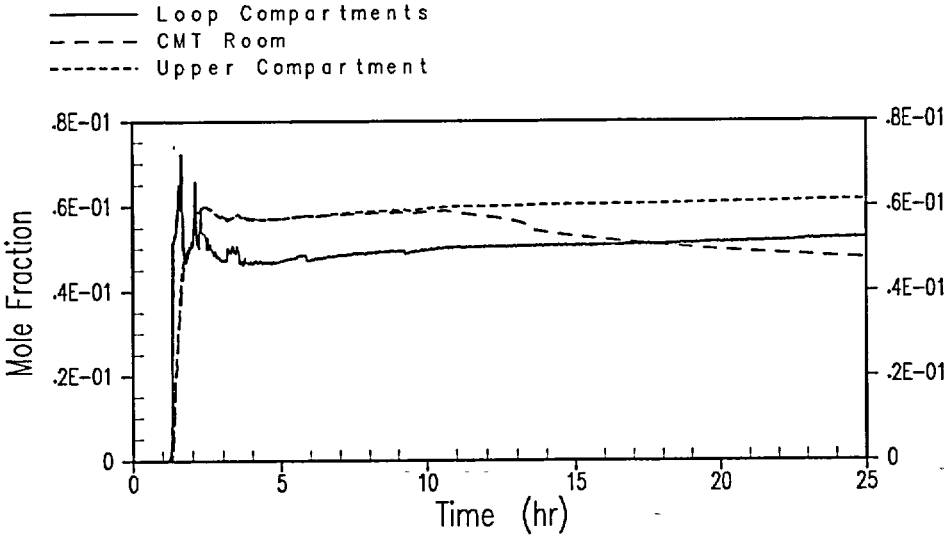
3BE-5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Containment Gas Temperature



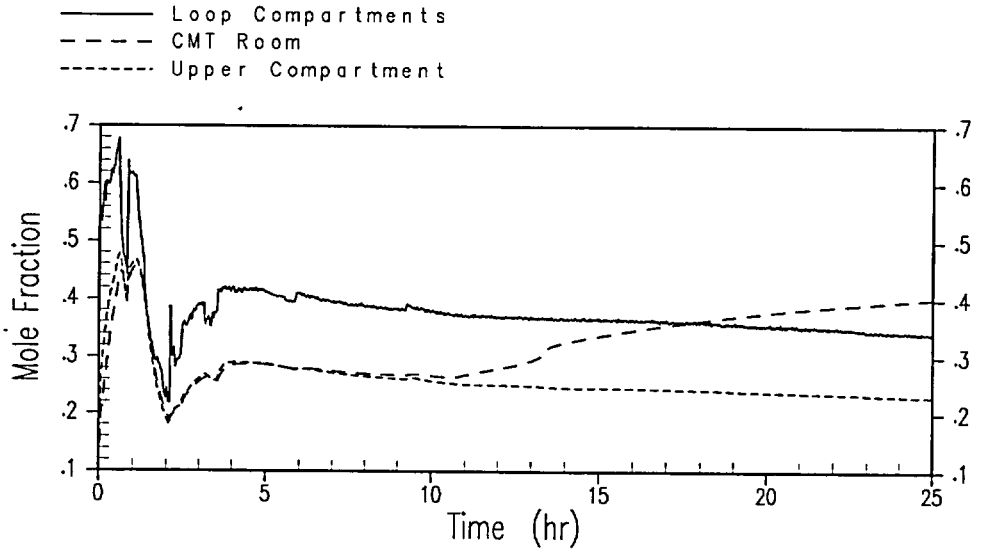
3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Containment Compartments Water Level



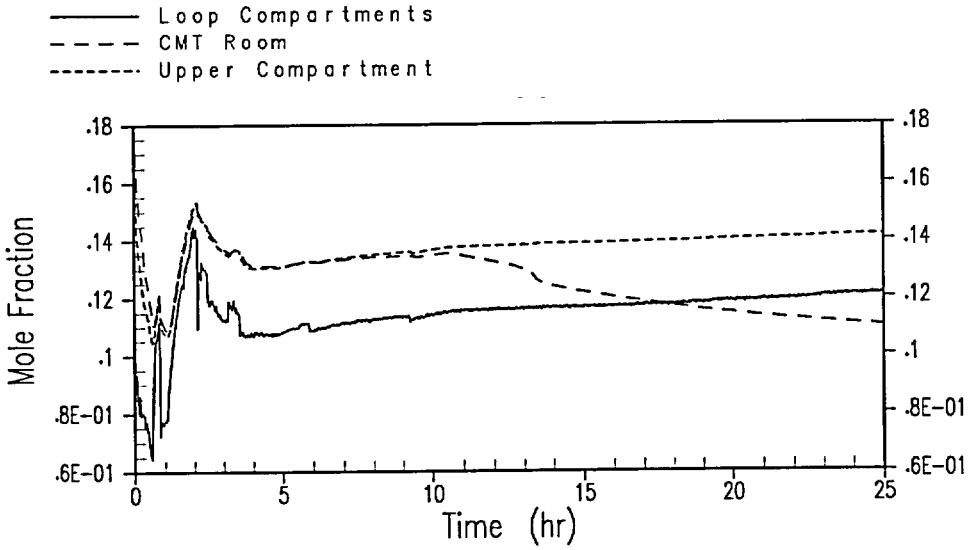
3BE-5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Well-Mixed Compartment Hydrogen Concentration



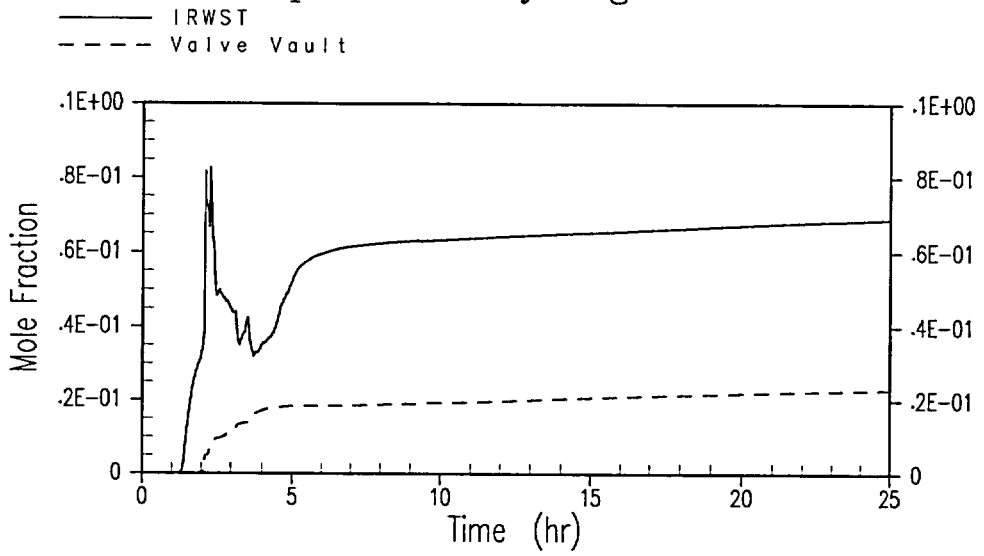
3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Well–Mixed Compartment Steam Concentration



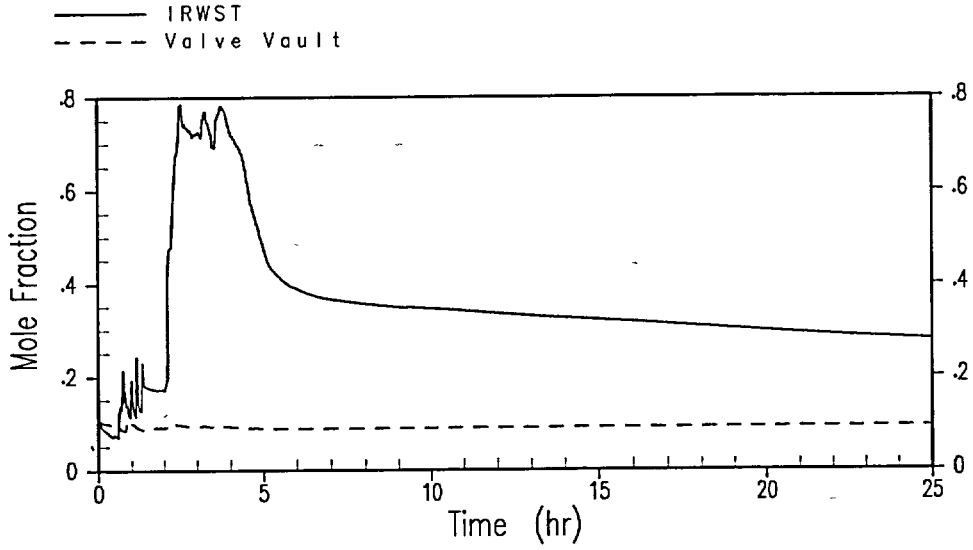
3BE-5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Well-Mixed Compartment Oxygen Concentration



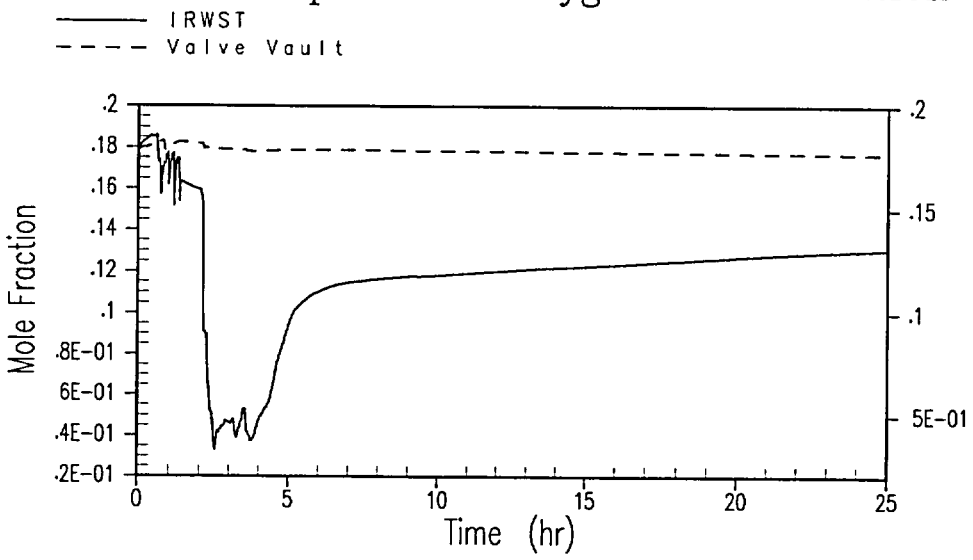
3BE−5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Confined Compartment Hydrogen Concentration



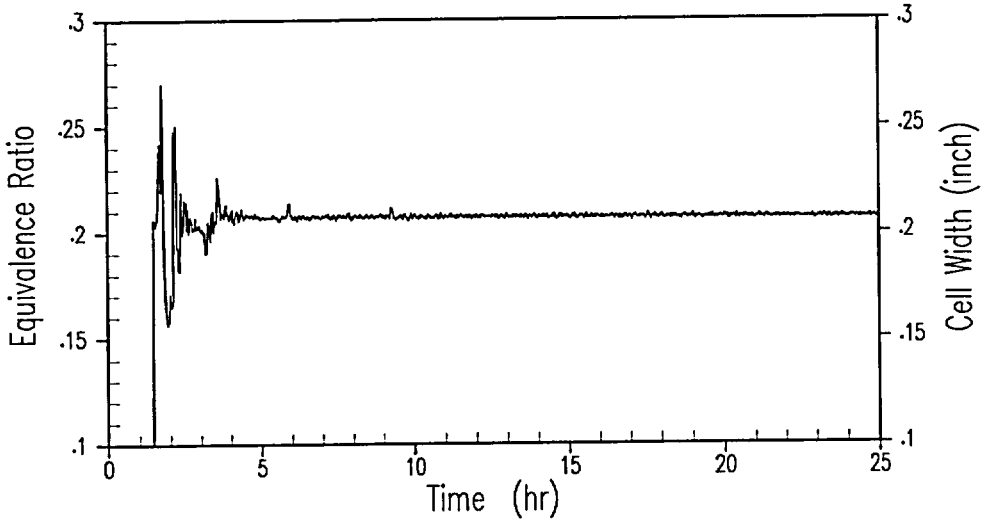
3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Confined Compartment Steam Concentration



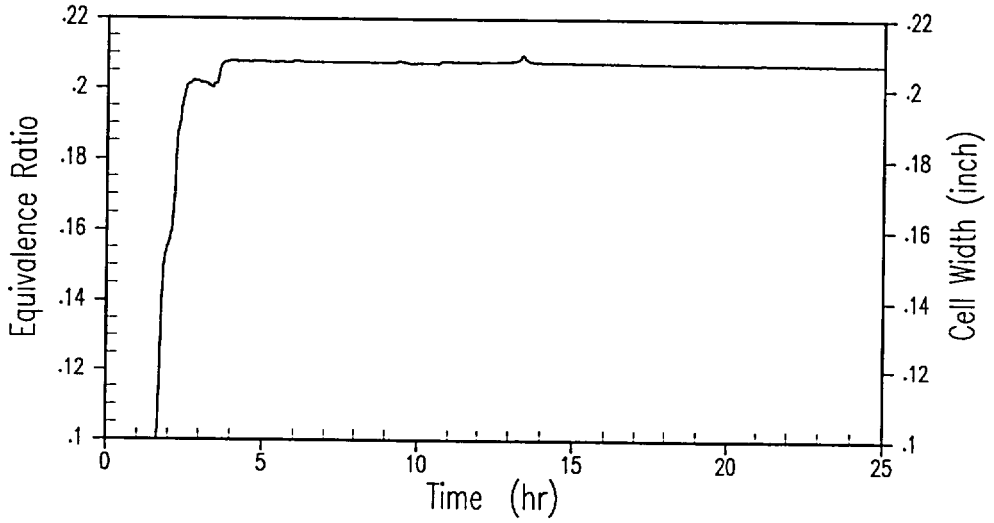
3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Confined Compartment Oxygen Concentration



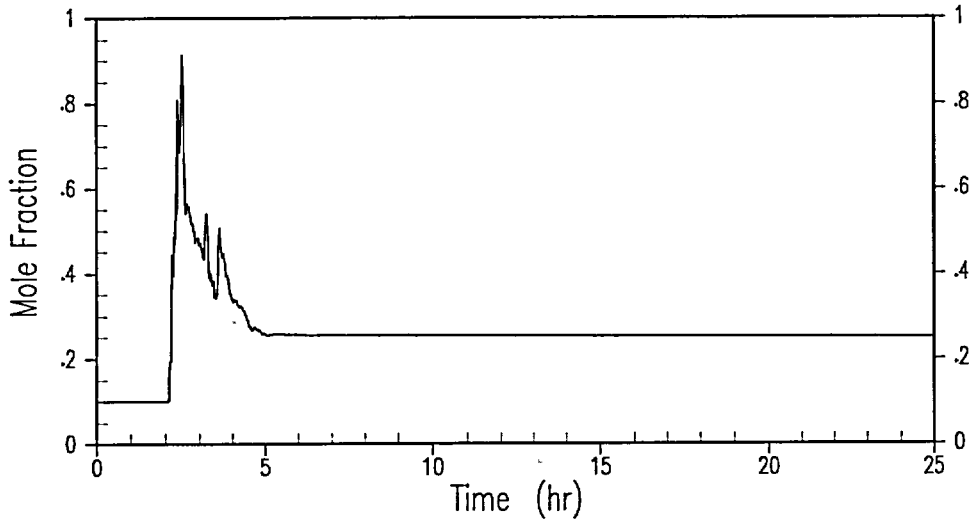
3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Equivalence Ratio in SG Room

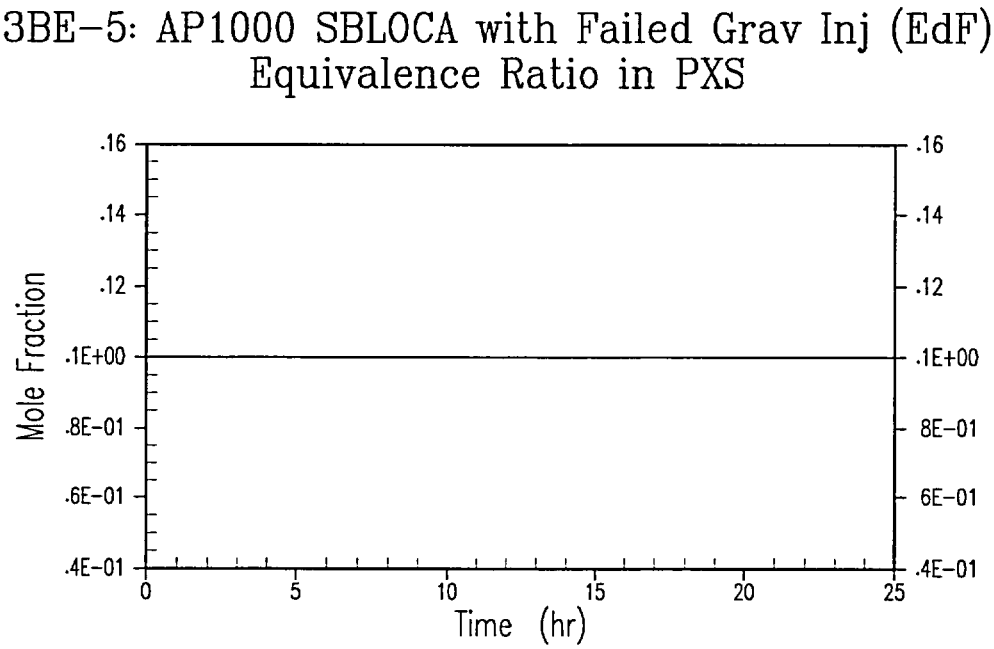


3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Equivalence Ratio in CMT Room

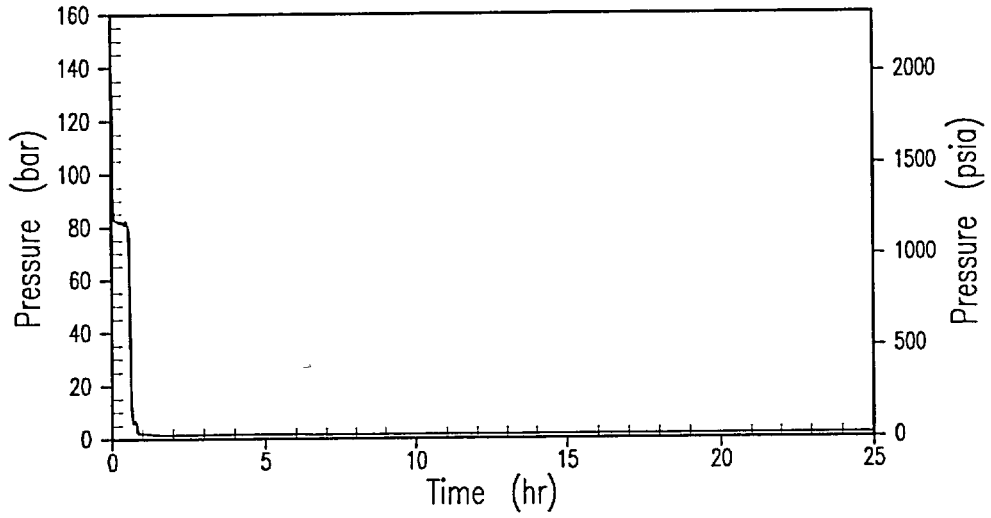


3BE–5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Equivalence Ratio in IRWST

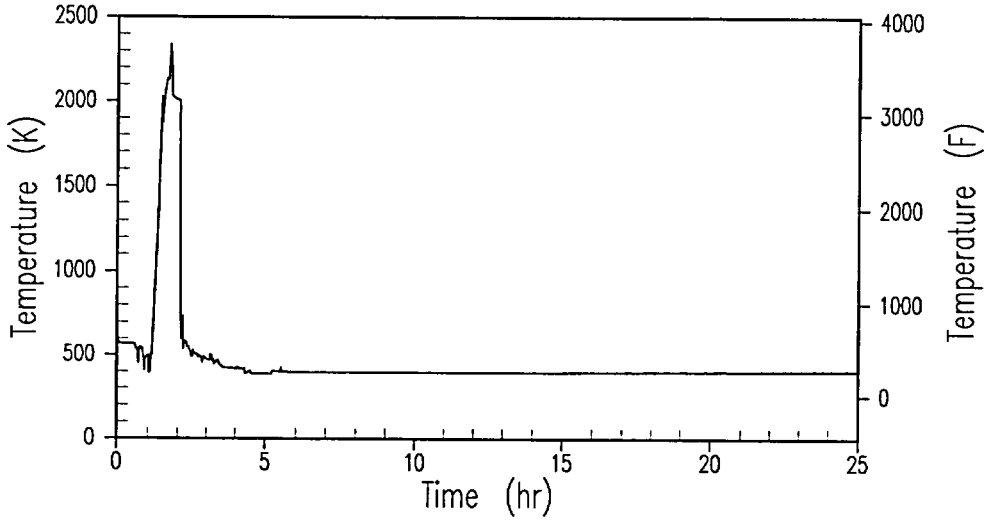



3BE-5: AP1000 SBLOCA with Failed Grav Inj (EdF)
Equivalence Ratio in PXS
Mole Fraction
.16
.14
.12
.1E+00
.8E-01
.6E-01
.4E-01
0
5
10
15
20
25
Time (hr)

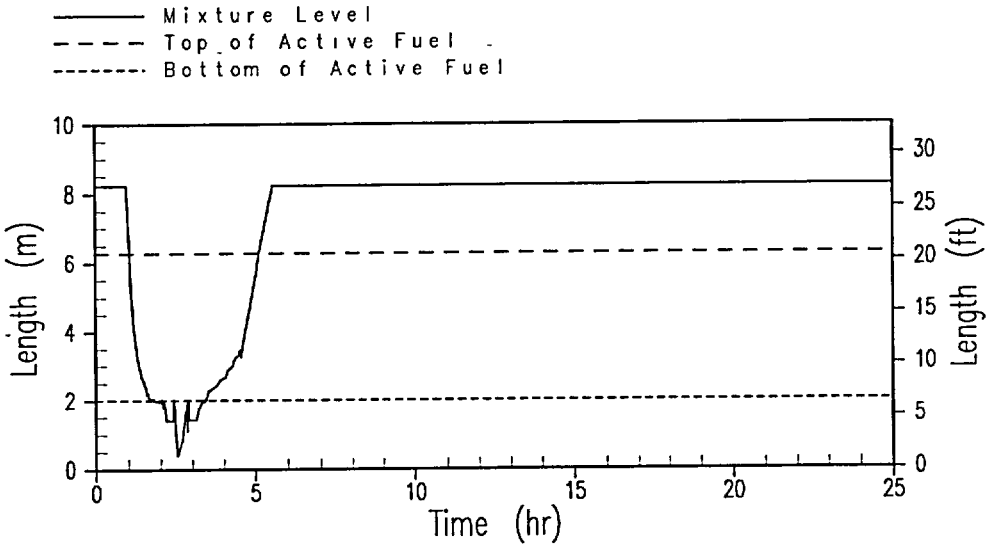
3BE–6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Reactor Coolant System Pressure



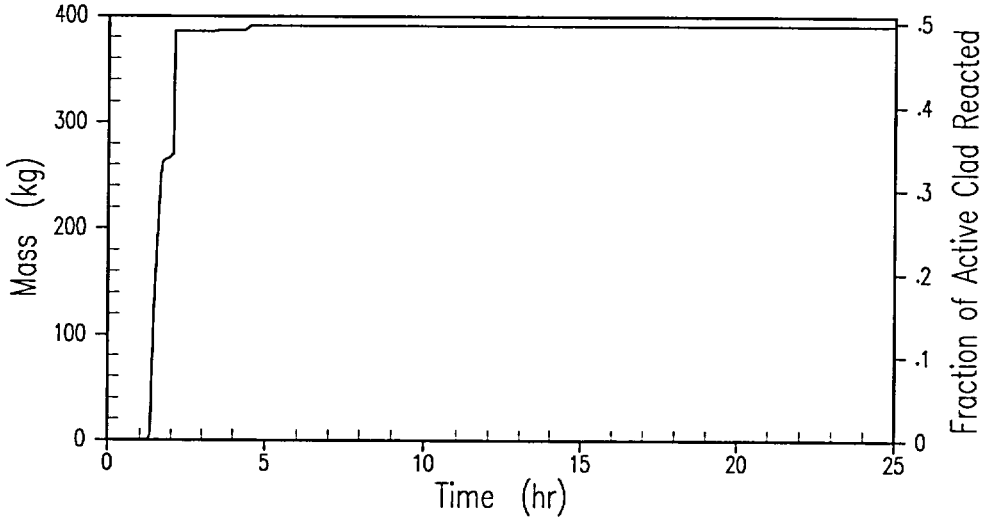
3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Core-Exit Gas Temperature



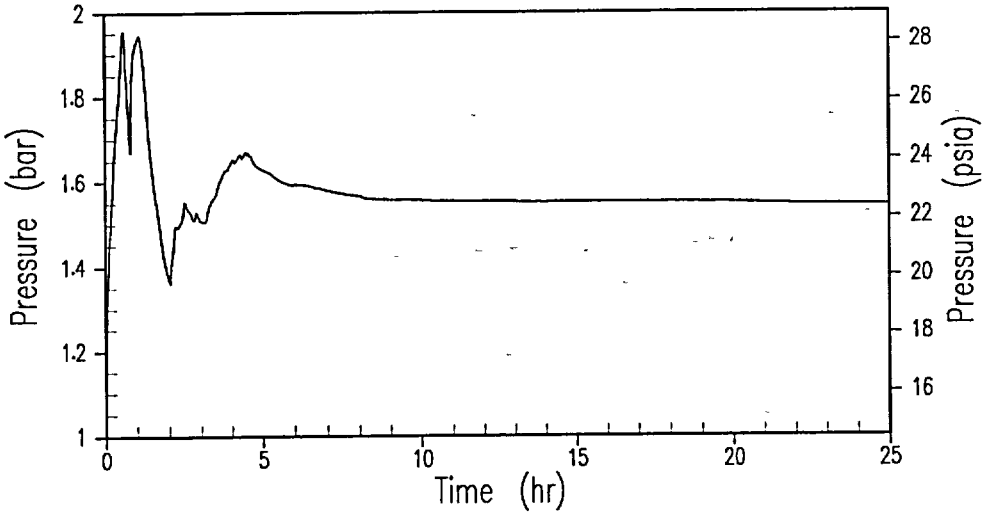
3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Reactor Vessel Mixture Level



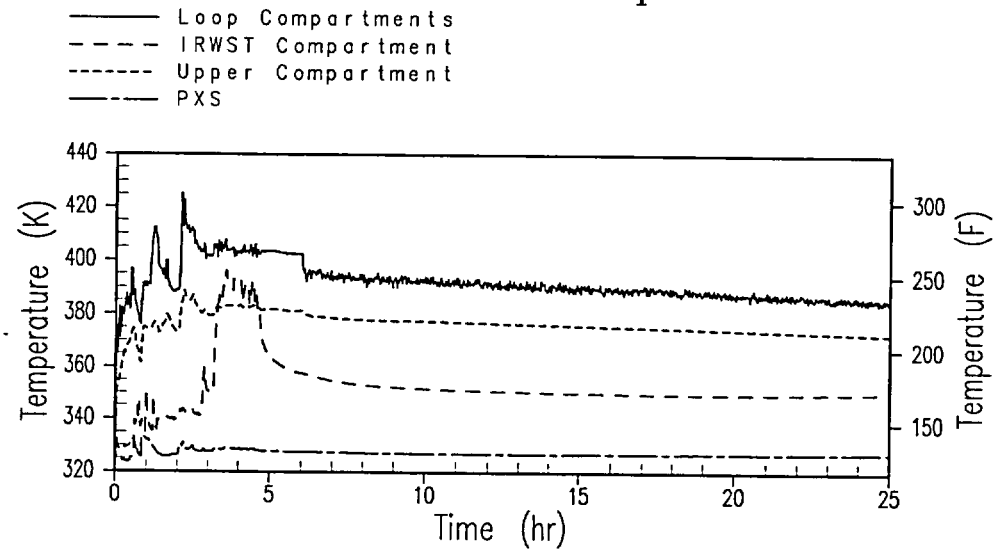
3BE–6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Hydrogen Generated In–Vessel



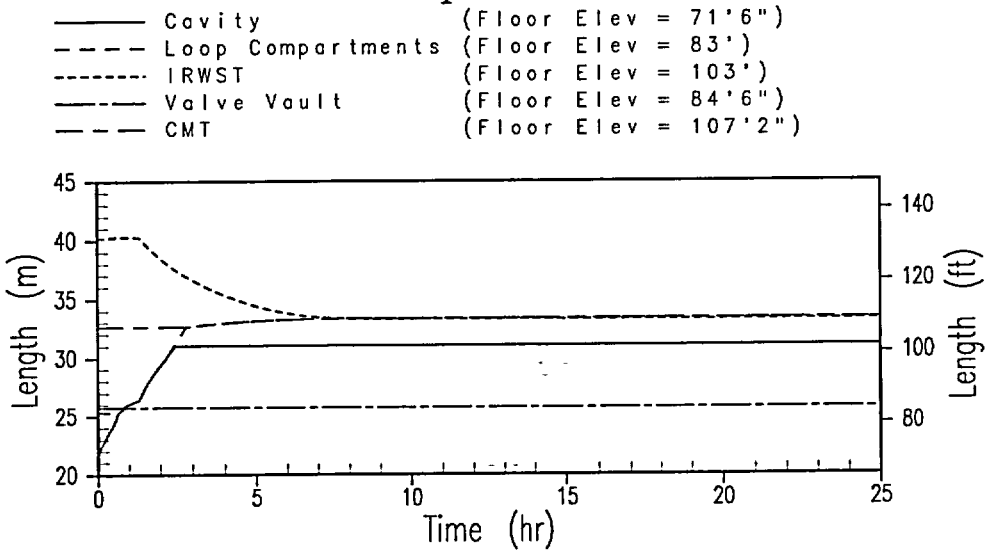
3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Containment Pressure



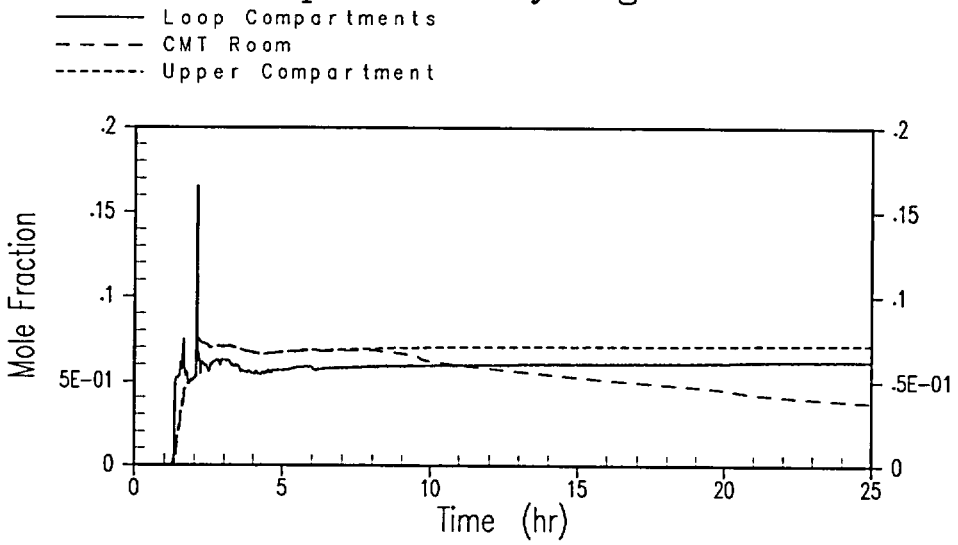
3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Containment Gas Temperature

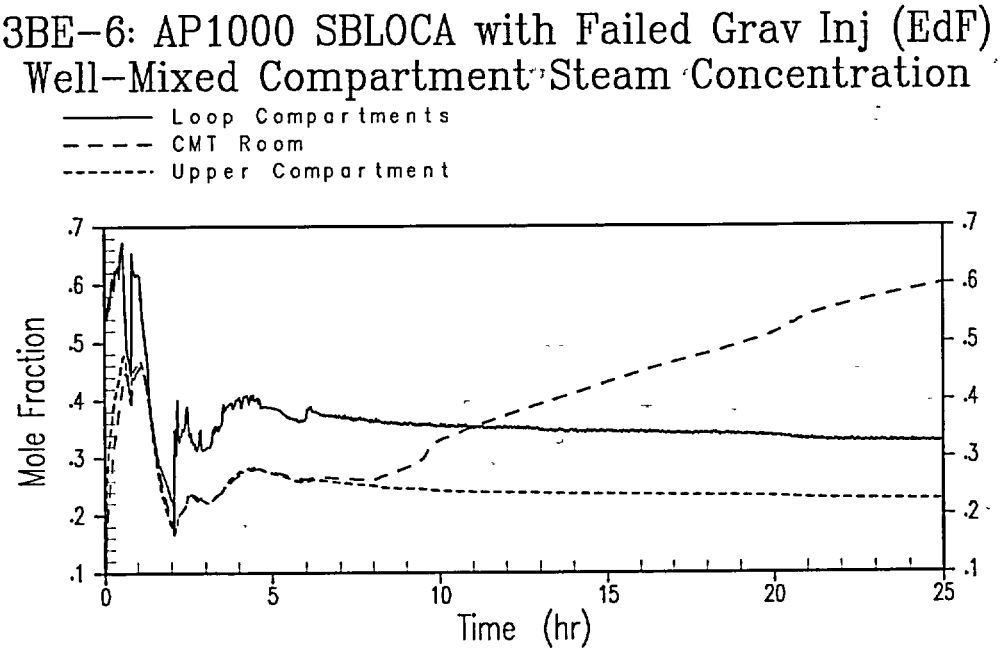


3BE–6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Containment Compartments Water Level

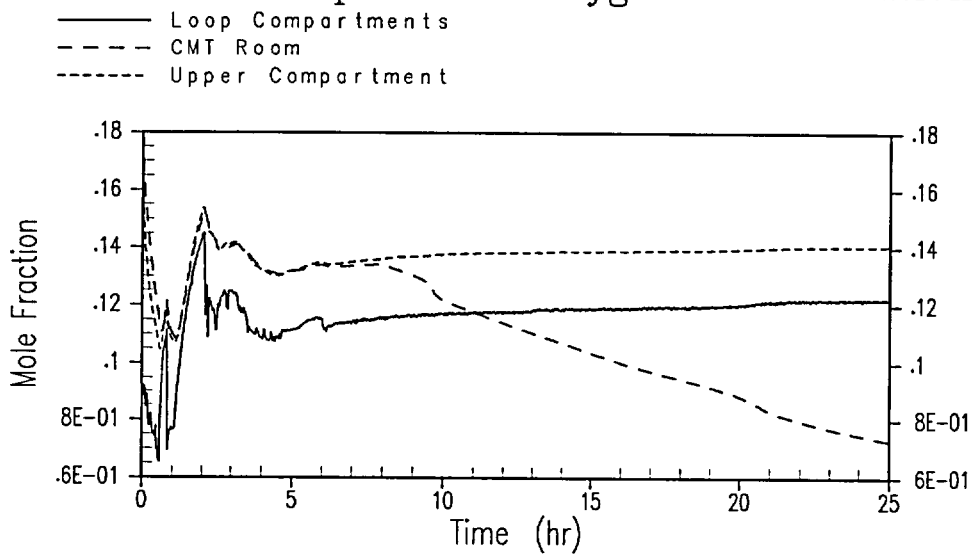


3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Well-Mixed Compartment Hydrogen Concentration

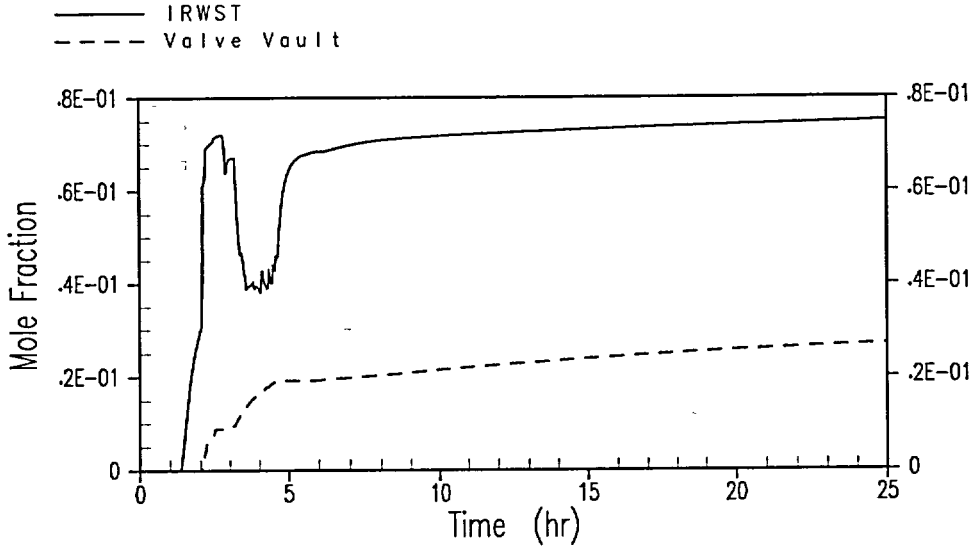



3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Well-Mixed Compartment Steam Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
.7
.6
.5
.4
.3
.2
.1
0
5
10
15
20
25
Time (hr)

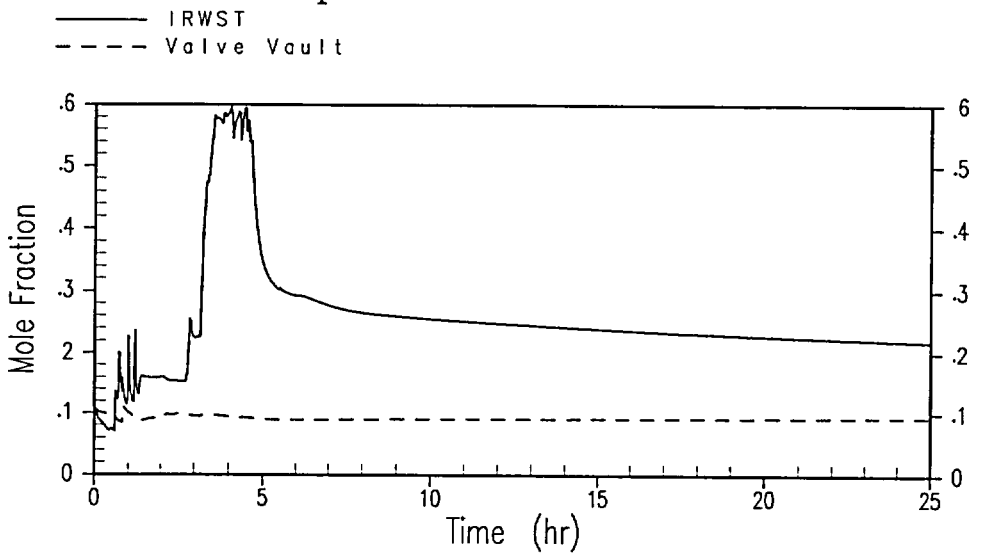
3BE–6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Well–Mixed Compartment Oxygen Concentration



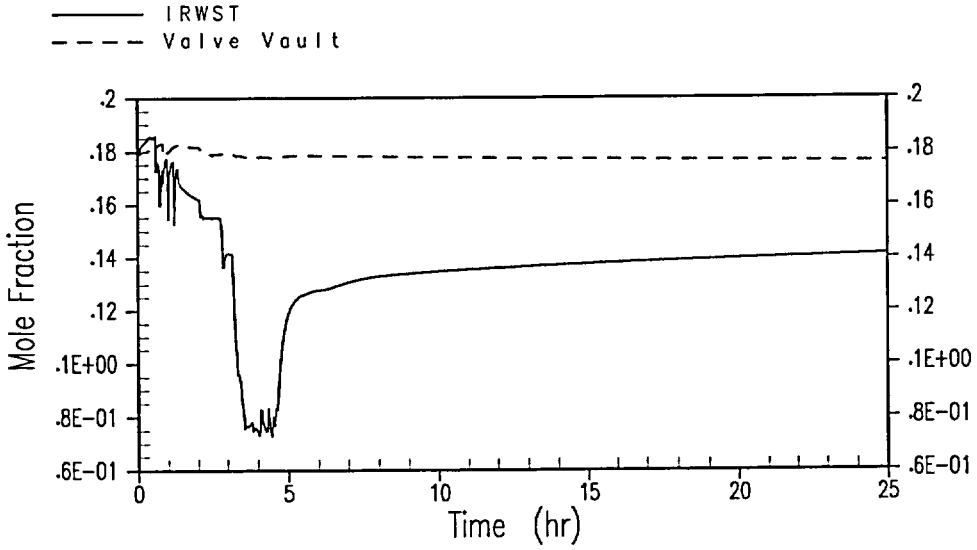
3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Confined Compartment Hydrogen Concentration



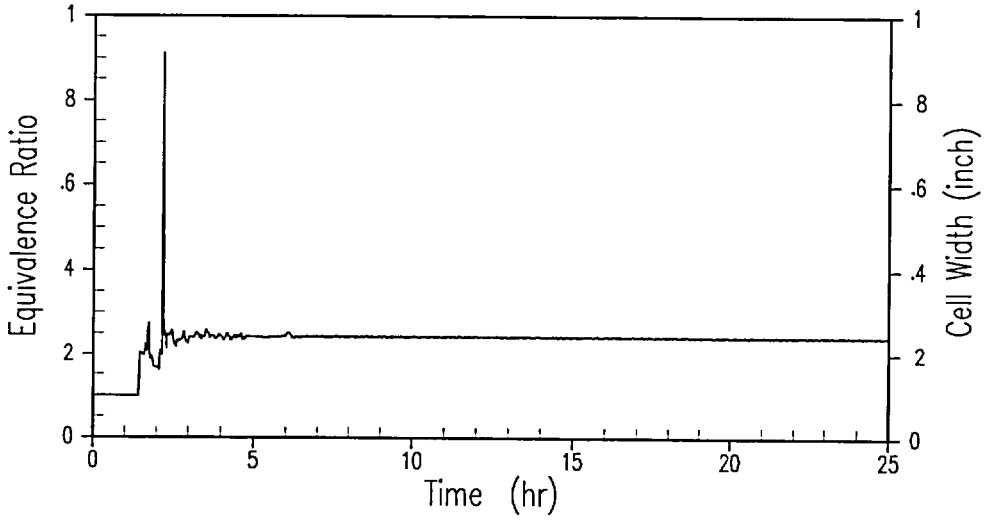
3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Confined Compartment Steam Concentration



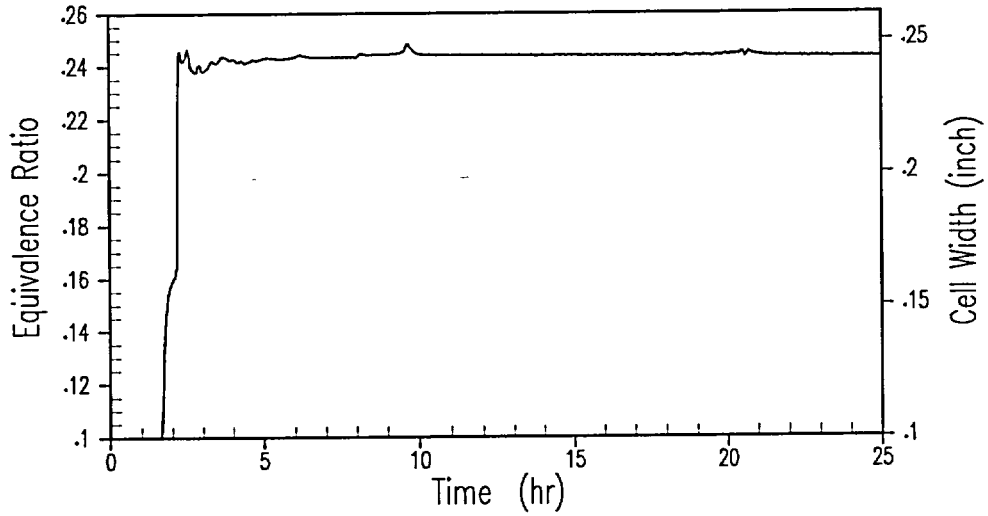
3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Confined Compartment Oxygen Concentration



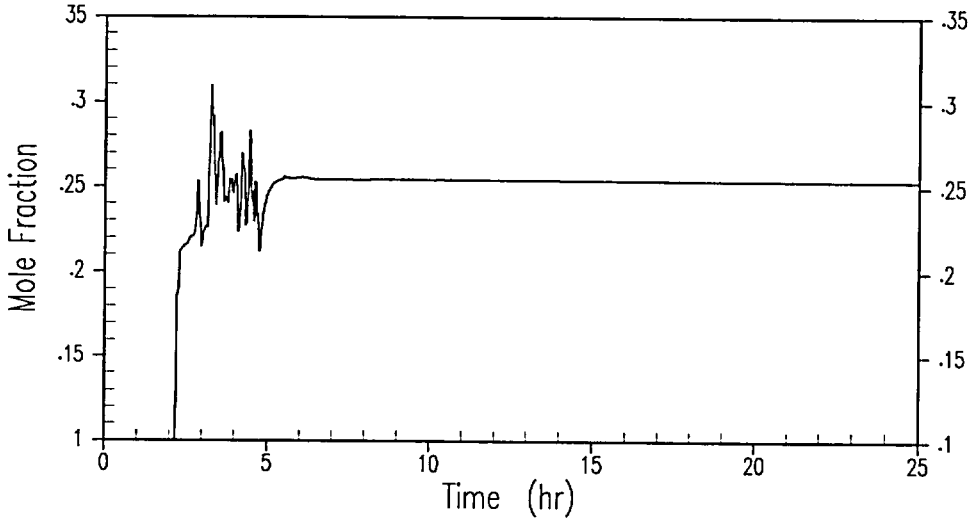
3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Equivalence Ratio in SG Room



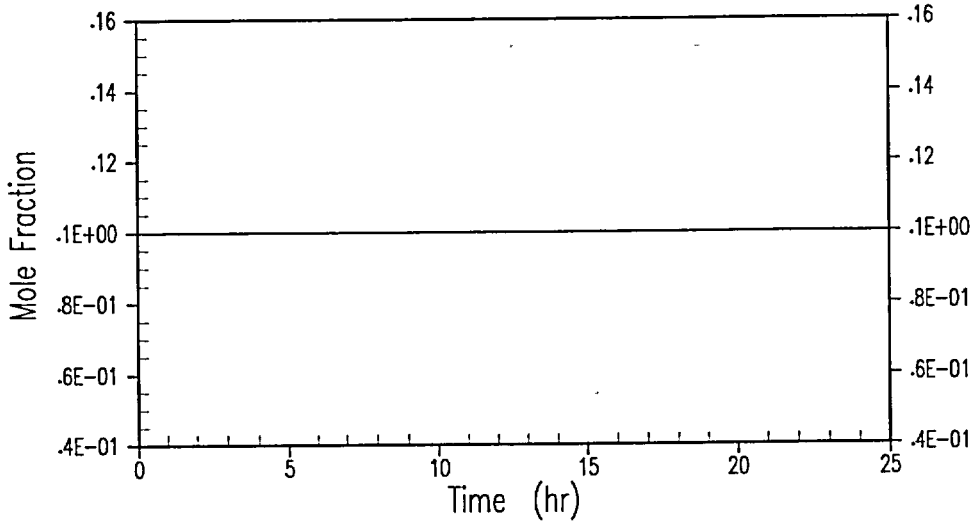
3BE–6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Equivalence Ratio in CMT Room

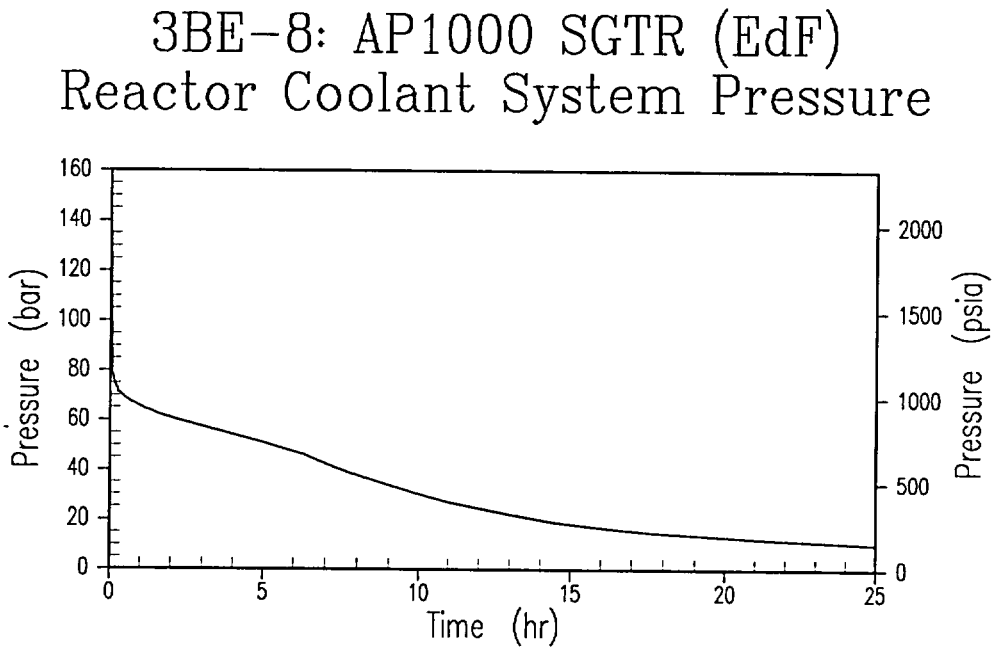


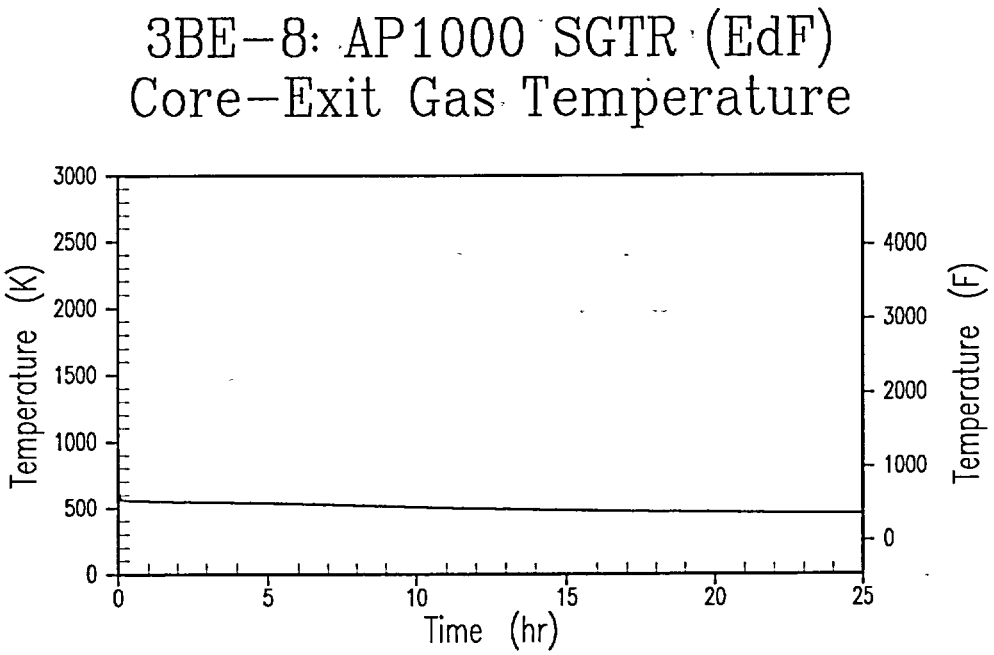
3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Equivalence Ratio in IRWST

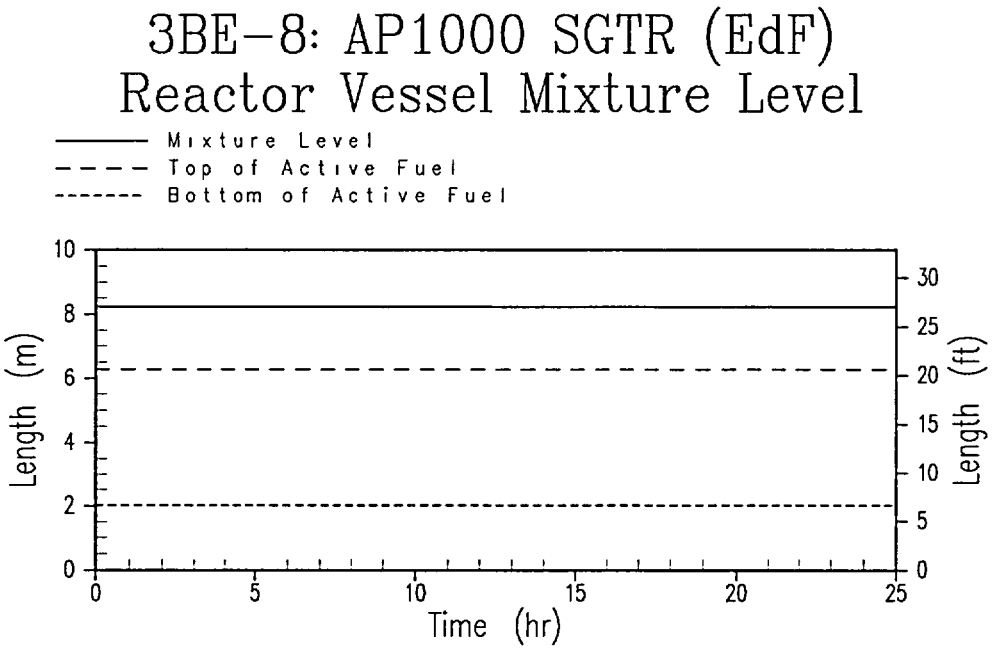


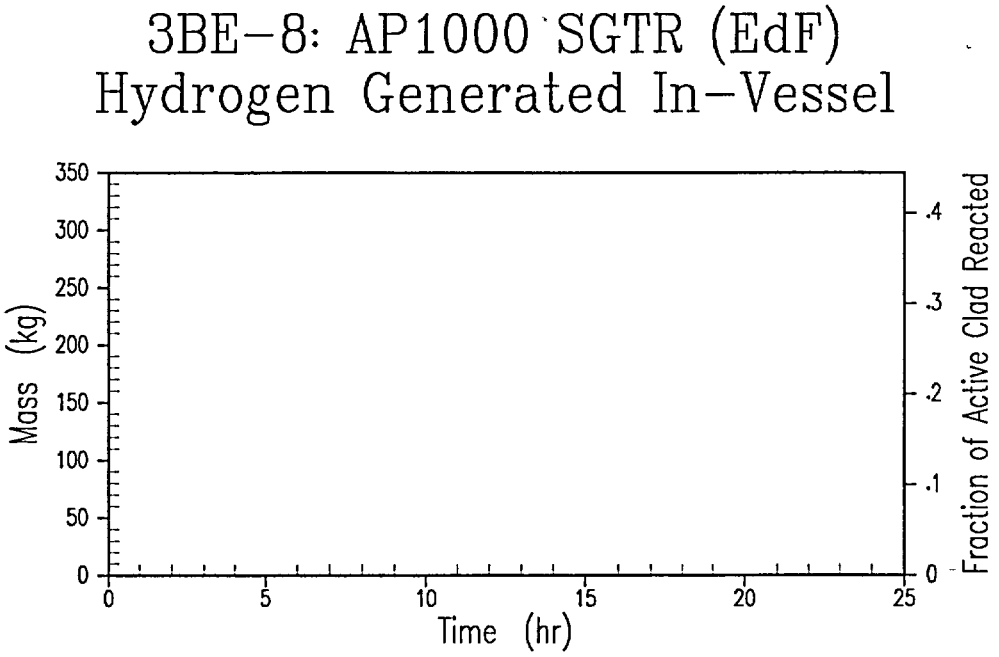
3BE-6: AP1000 SBLOCA with Failed Grav Inj (EdF)
Equivalence Ratio in PXS

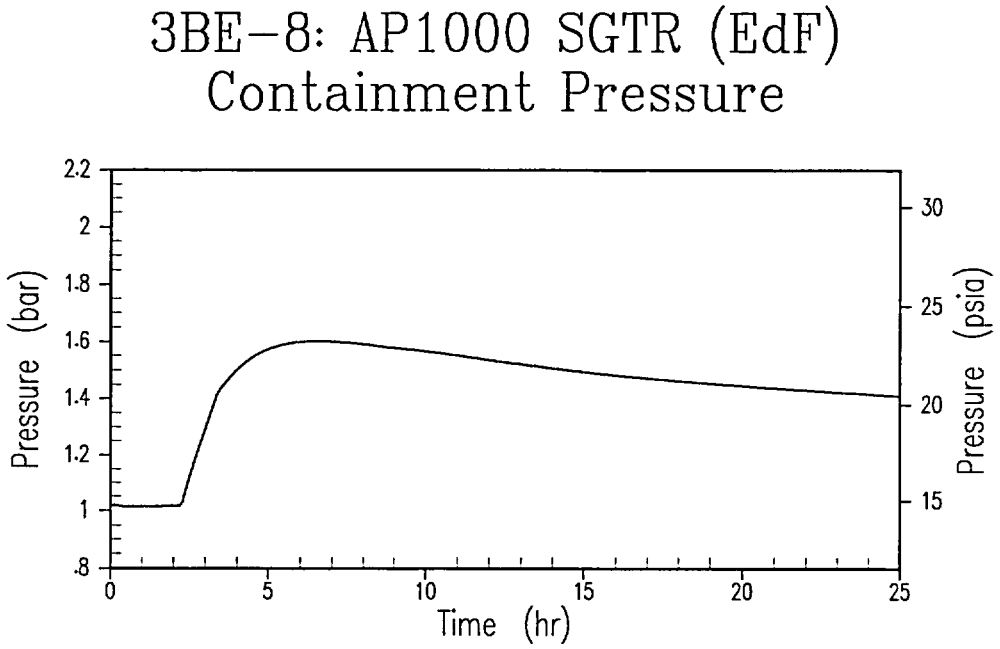


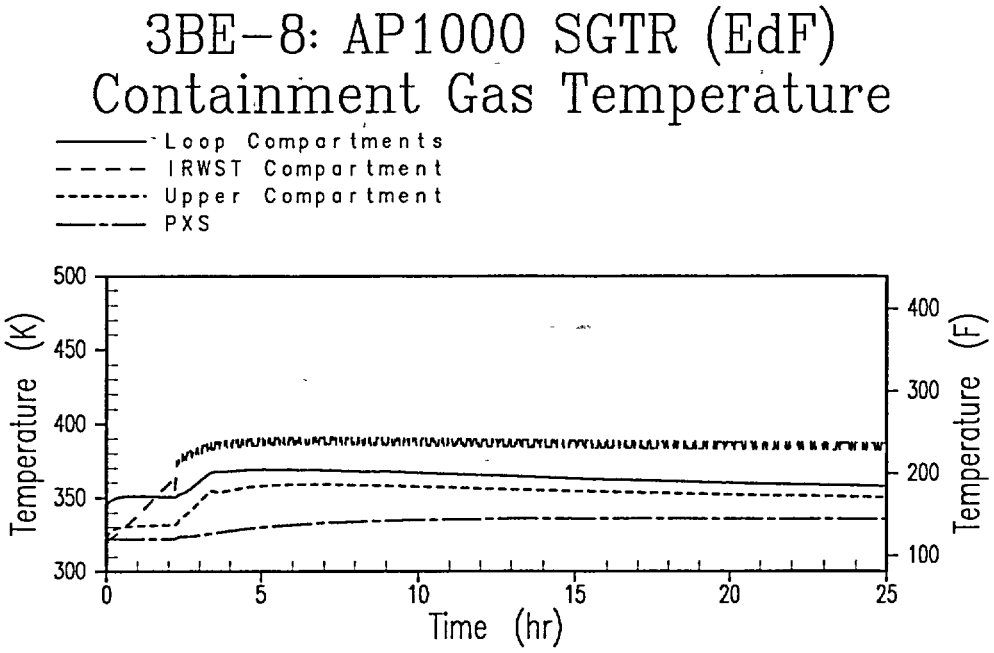

3BE-8: AP1000 SGTR (EdF)
Reactor Coolant System Pressure
Pressure (bar)
160
140
120
100
80
60
40
20
0
Pressure (psia)
2000
1500
1000
500
0
0
5
10
15
20
25
Time (hr)

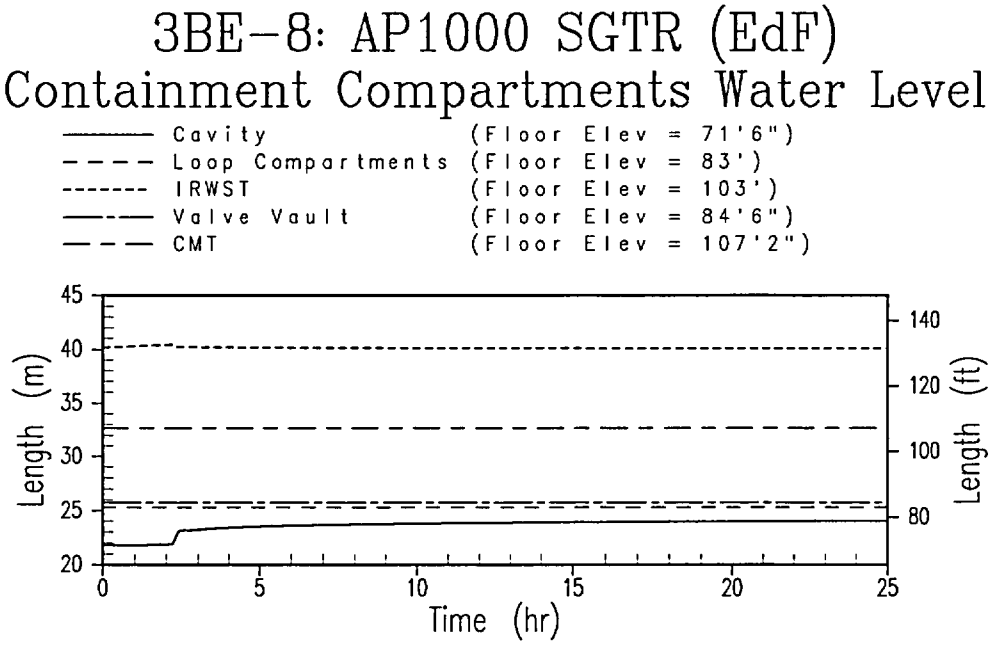

3BE-8: AP1000 SGTR (EdF)
Core-Exit Gas Temperature
Temperature (K)
3000
2500
2000
1500
1000
500
0
Temperature (F)
4000
3000
2000
1000
0
0
5
10
15
20
25
Time (hr)

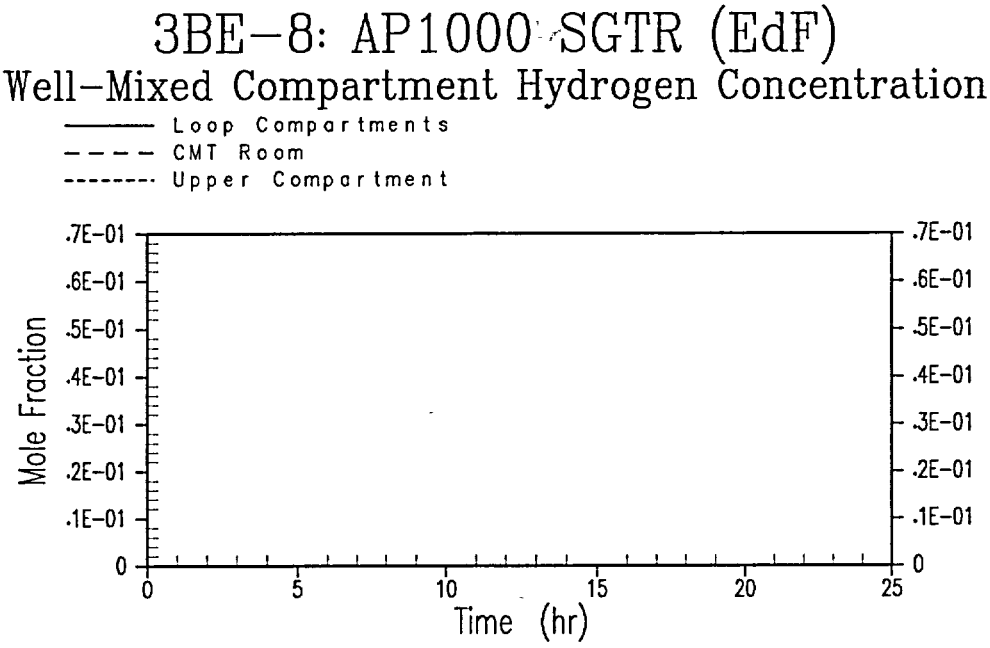

3BE-8: AP1000 SGTR (EdF)
Reactor Vessel Mixture Level
Mixture Level
Top of Active Fuel
Bottom of Active Fuel
Length (m)
Length (ft)
Time (hr)
0
2
4
6
8
10
0
5
10
15
20
25
30

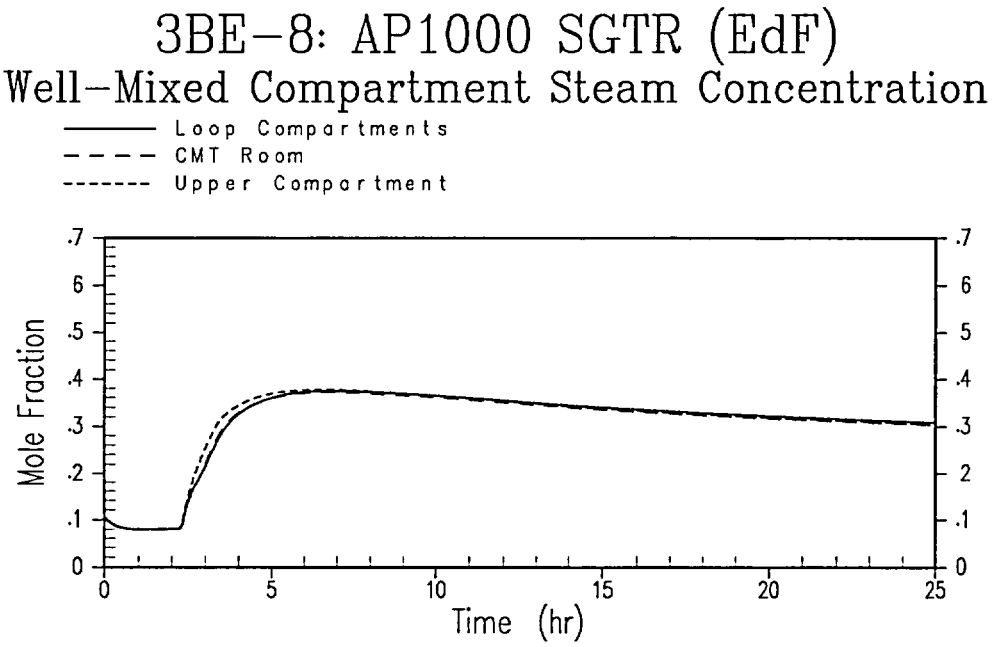

3BE-8: AP1000 SGTR (EdF)
Hydrogen Generated In-Vessel
Mass (kg)
350
300
250
200
150
100
50
0
Time (hr)
0
5
10
15
20
25
Fraction of Active Clad Reacted
.4
.3
.2
.1
0

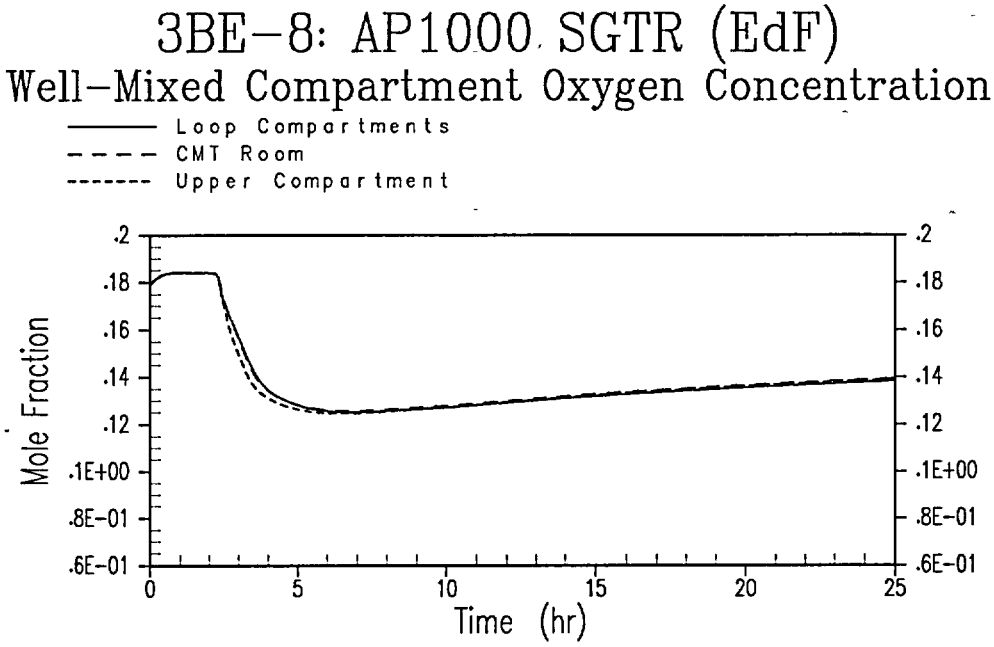

3BE-8: AP1000 SGTR (EdF)
Containment Pressure
Pressure (bar)
2.2
2
1.8
1.6
1.4
1.2
1
.8
Pressure (psia)
30
25
20
15
0
5
10
15
20
25
Time (hr)

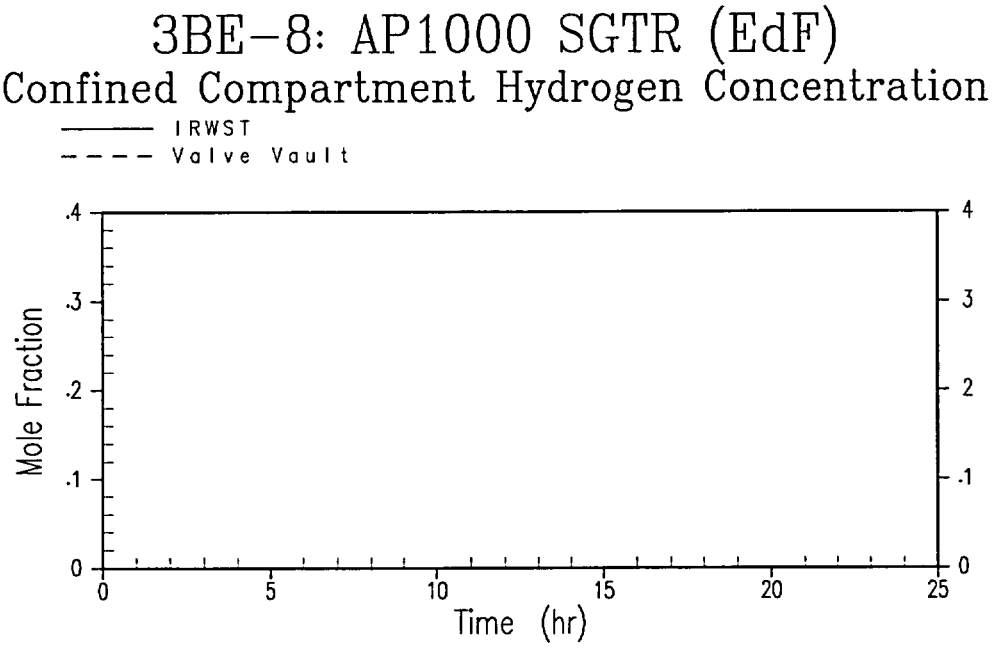

3BE-8: AP1000 SGTR (EdF)
Containment Gas Temperature
Loop Compartments
IRWST Compartment
Upper Compartment
PXS
Temperature (K)
Temperature (F)
Time (hr)
500
450
400
350
300
400
300
200
100
0
5
10
15
20
25

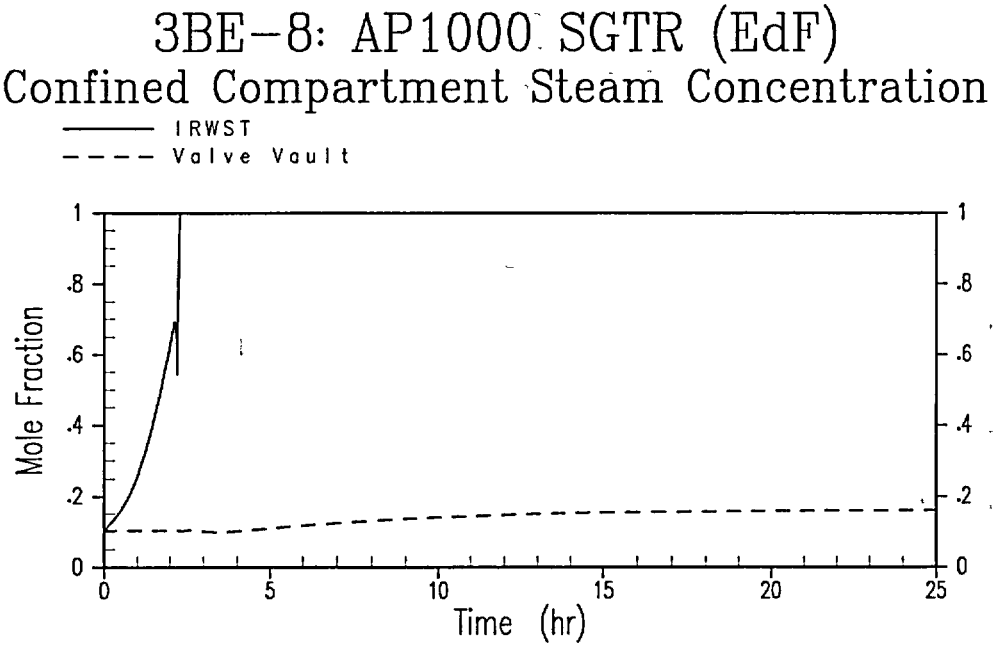

3BE-8: AP1000 SGTR (EdF)
Containment Compartments Water Level
Cavity (Floor Elev = 71'6")
Loop Compartments (Floor Elev = 83')
IRWST (Floor Elev = 103')
Valve Vault (Floor Elev = 84'6")
CMT (Floor Elev = 107'2")
Length (m)
Length (ft)
Time (hr)
45
40
35
30
25
20
140
120
100
80
0
5
10
15
20
25

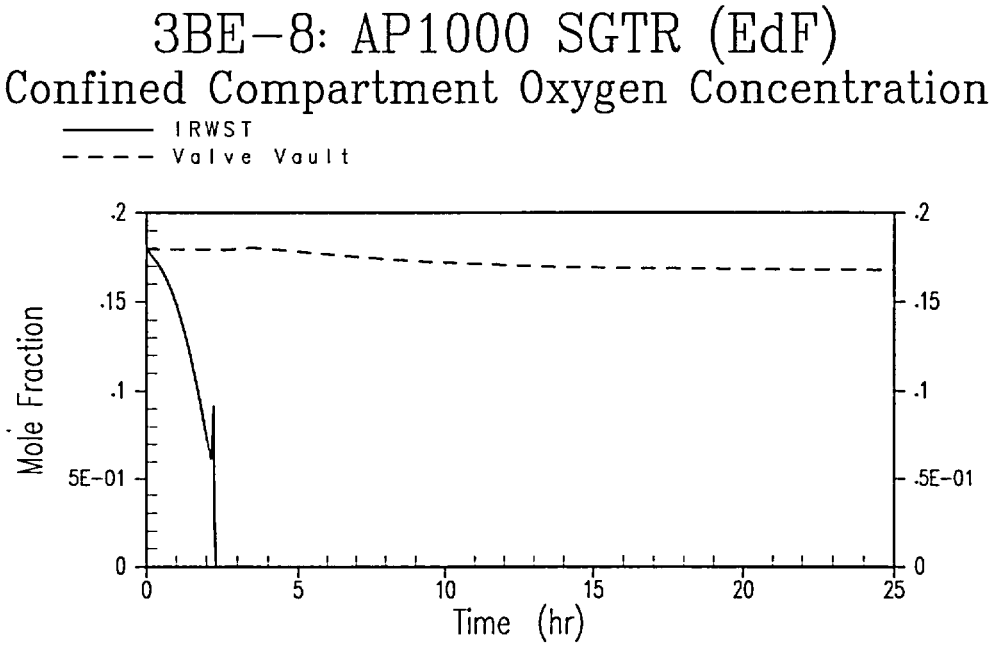

3BE-8: AP1000 SGTR (EdF)
Well-Mixed Compartment Hydrogen Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
.7E-01
.6E-01
.5E-01
.4E-01
.3E-01
.2E-01
.1E-01
0
0
5
10
15
20
25
Time (hr)

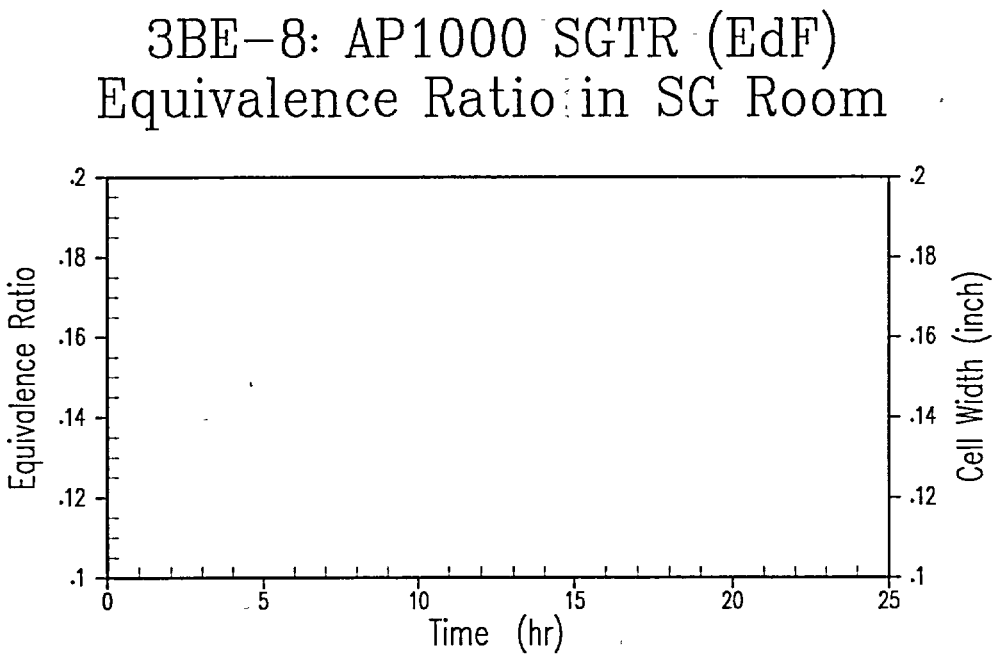

3BE-8: AP1000 SGTR (EdF)
Well-Mixed Compartment Steam Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
Time (hr)
0
.1
.2
.3
.4
.5
6
.7
5
10
15
20
25

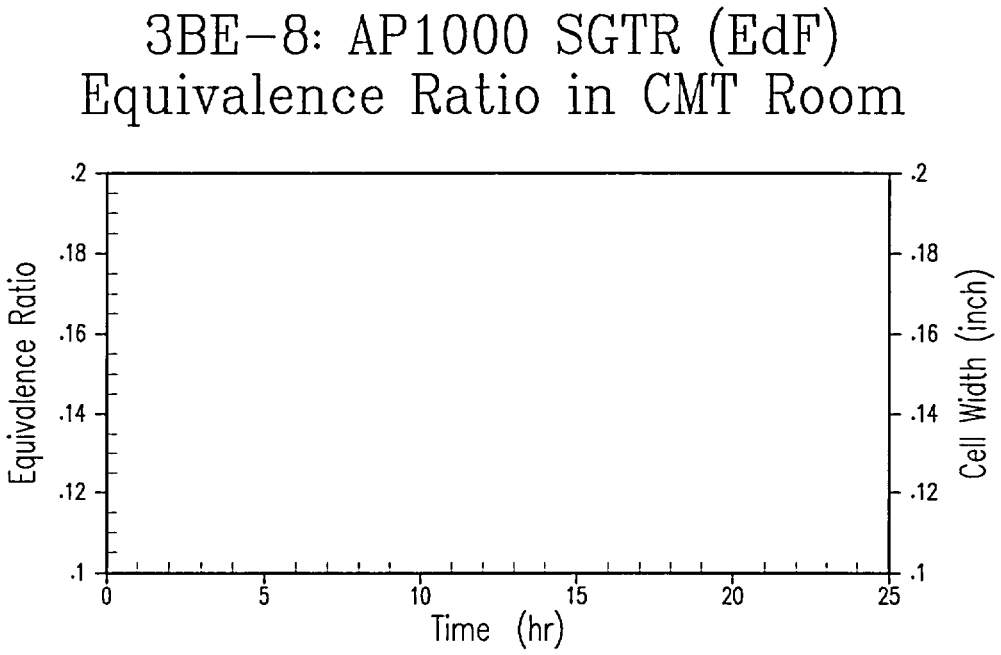

3BE-8: AP1000 SGTR (EdF)
Well-Mixed Compartment Oxygen Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
.2
.18
.16
.14
.12
.1E+00
.8E-01
.6E-01
0
5
10
15
20
25
Time (hr)

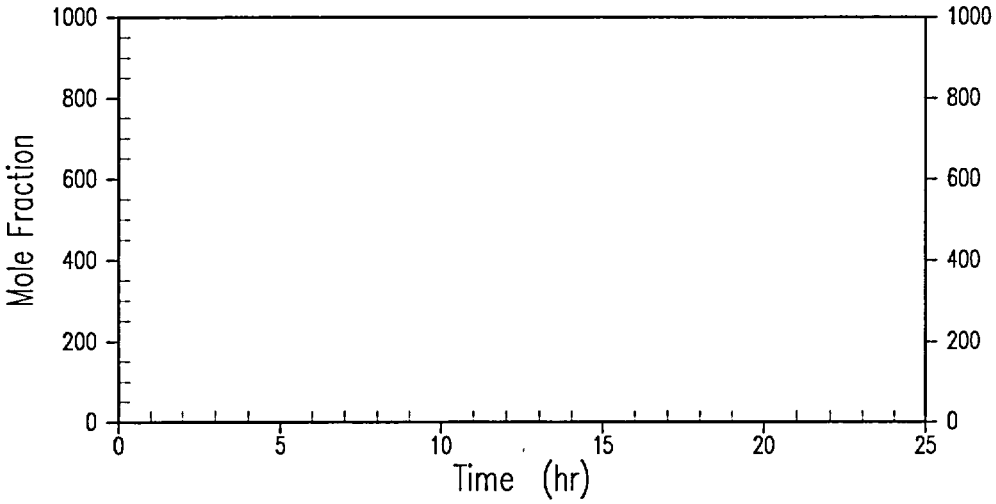

3BE-8: AP1000 SGTR (EdF)
Confined Compartment Hydrogen Concentration
IRWST
Valve Vault
Mole Fraction
.4
.3
.2
.1
0
4
3
2
.1
0
0
5
10
15
20
25
Time (hr)

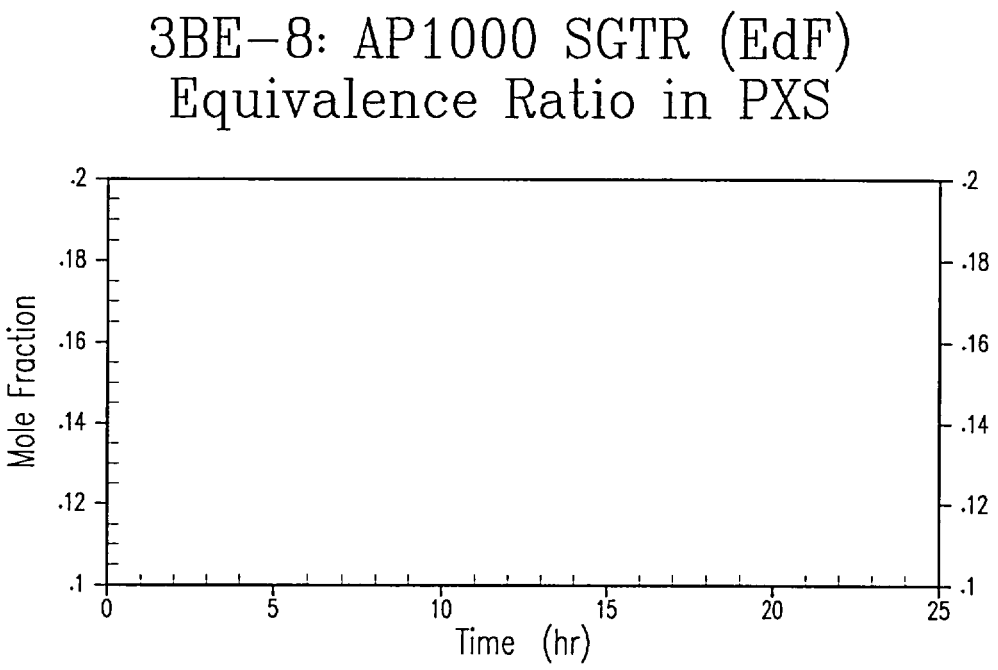

3BE-8: AP1000 SGTR (EdF)
Confined Compartment Steam Concentration
IRWST
Valve Vault
Mole Fraction
Time (hr)
0
.2
.4
.6
.8
1
0
5
10
15
20
25


3BE-8: AP1000 SGTR (EdF)
Confined Compartment Oxygen Concentration
IRWST
Valve Vault
Mole Fraction
.2
.15
.1
5E-01
0
0
5
10
15
20
25
Time (hr)
.2
.15
.1
.5E-01
0

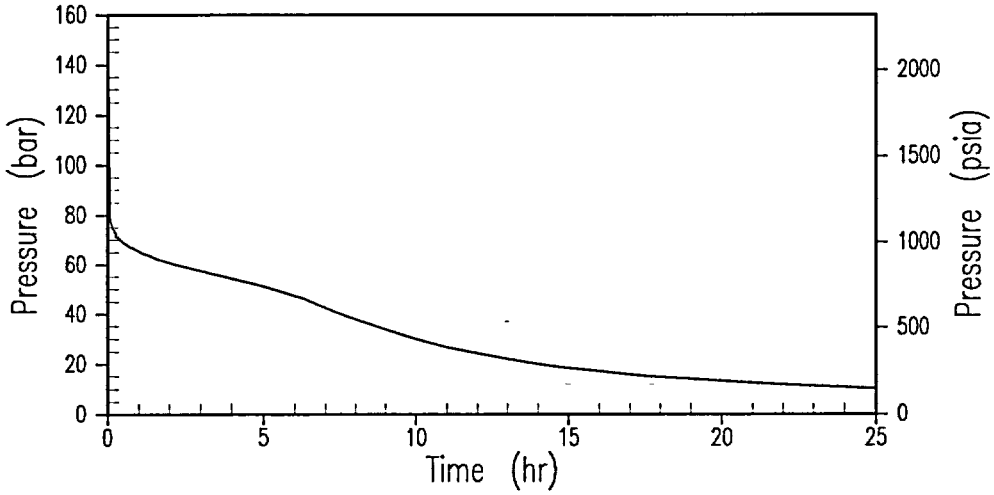

3BE-8: AP1000 SGTR (EdF)
Equivalence Ratio in SG Room
Equivalence Ratio
Cell Width (inch)
.2
.18
.16
.14
.12
.1
0
5
10
15
20
25
Time (hr)

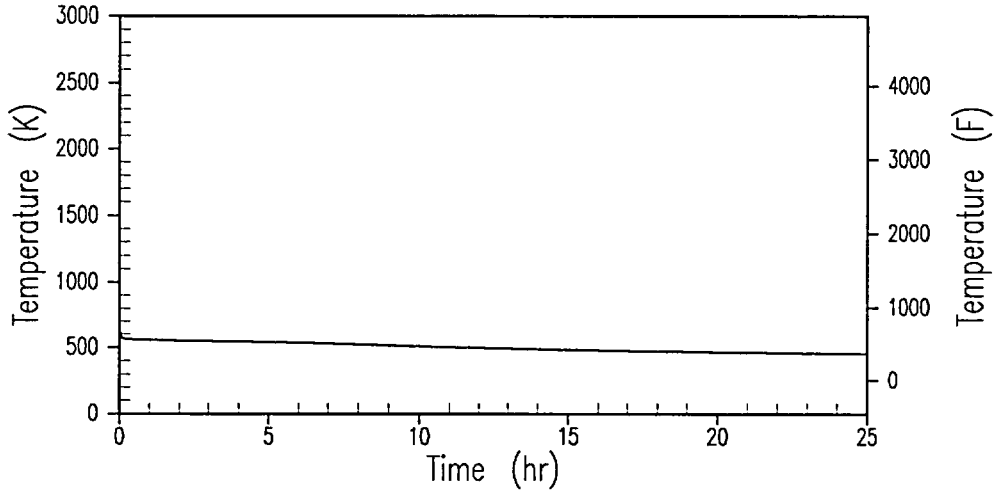

3BE-8: AP1000 SGTR (EdF)
Equivalence Ratio in CMT Room
Equivalence Ratio
Cell Width (inch)
.2
.18
.16
.14
.12
.1
0
5
10
15
20
25
Time (hr)

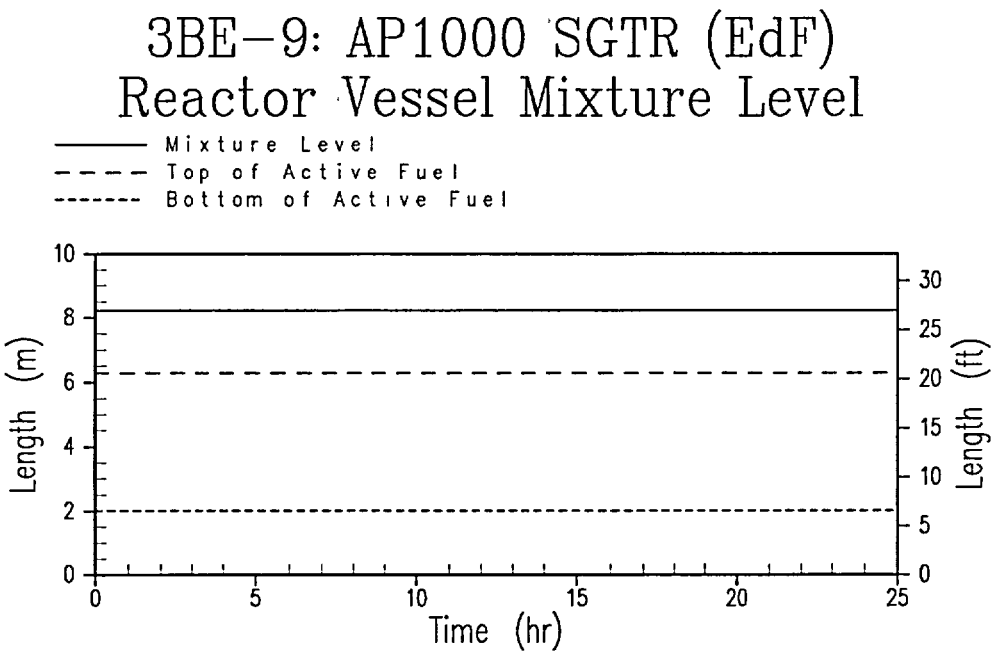

3BE-8: AP1000 SGTR (EdF)
Equivalence Ratio in IRWST
Mole Fraction
1000
800
600
400
200
0
0
5
10
15
20
25
Time (hr)

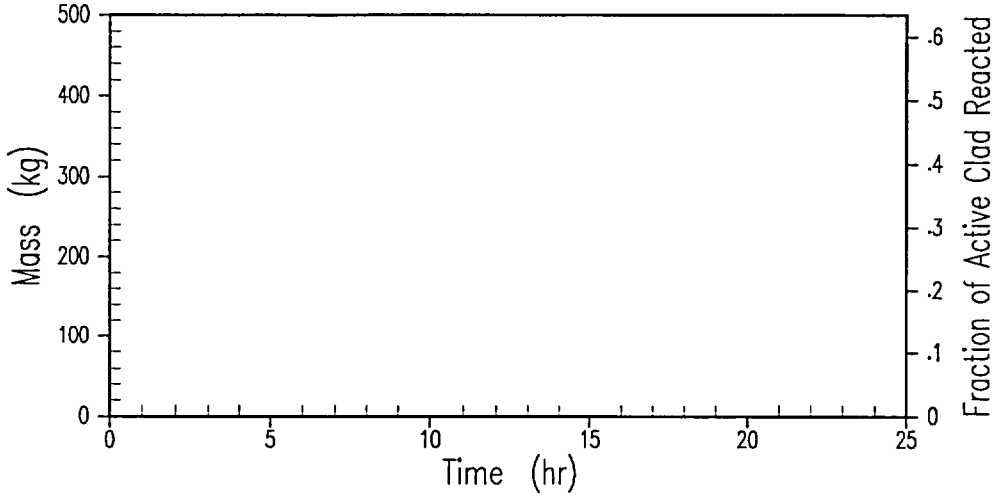

3BE-8: AP1000 SGTR (EdF)
Equivalence Ratio in PXS
Mole Fraction
.2
.18
.16
.14
.12
.1
0
5
10
15
20
25
Time (hr)

3BE-9: AP1000 SGTR (EdF)
Reactor Coolant System Pressure

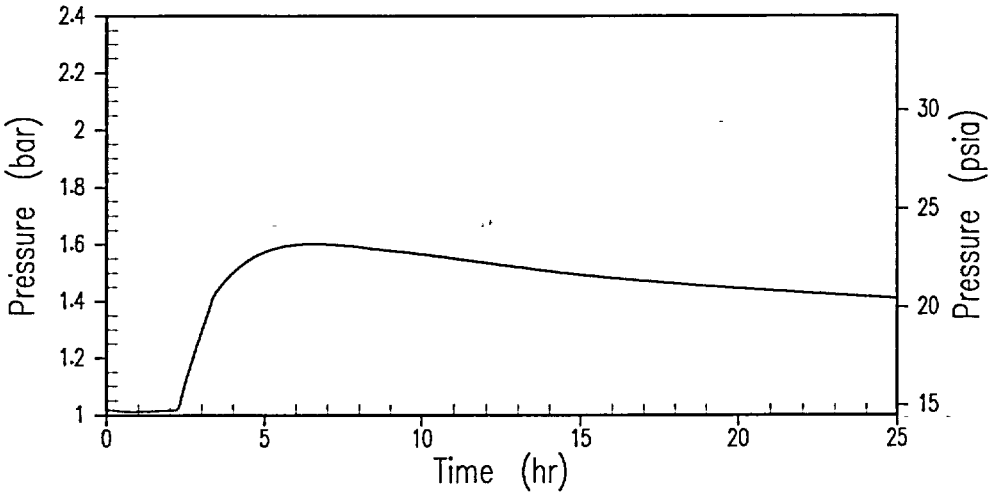


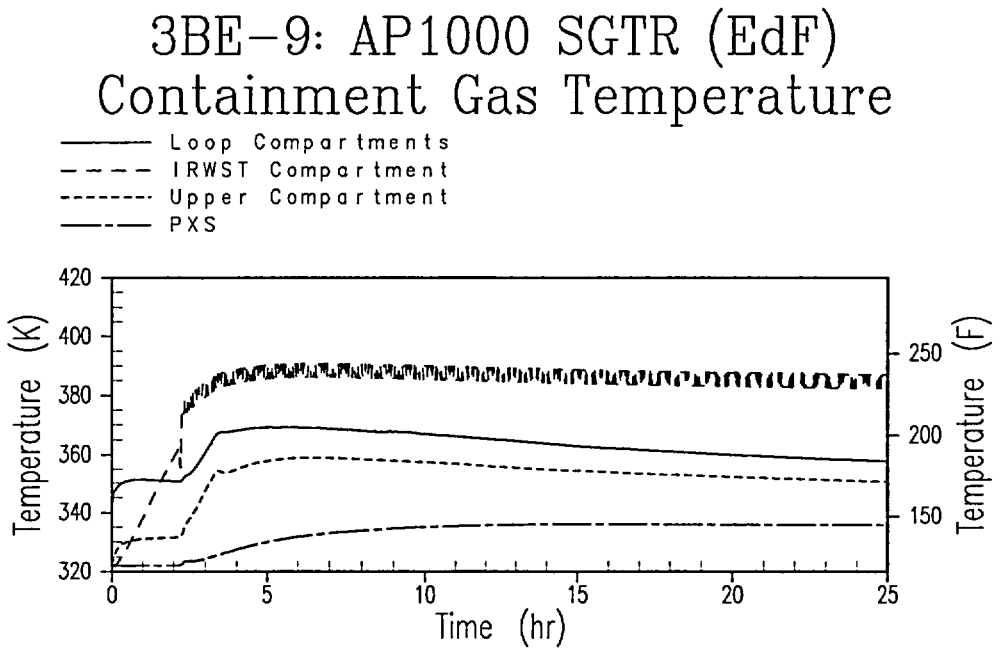

3BE-9: AP1000 SGTR (EdF)
Core-Exit Gas Temperature
Temperature (K)
3000
2500
2000
1500
1000
500
0
Temperature (F)
4000
3000
2000
1000
0
0
5
10
15
20
25
Time (hr)

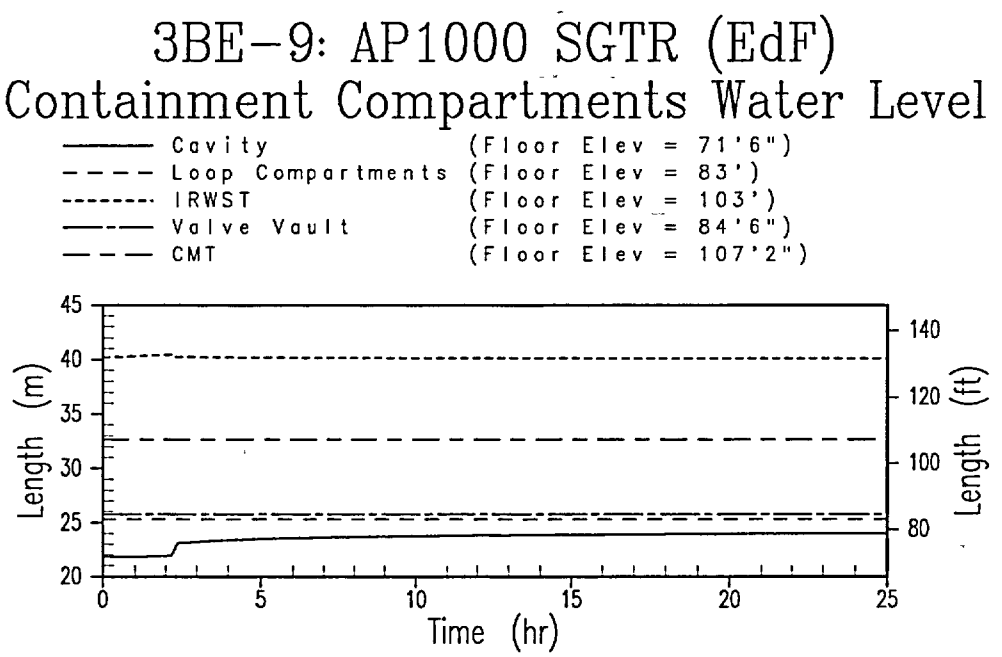

3BE-9: AP1000 SGTR (EdF)
Reactor Vessel Mixture Level
Mixture Level
Top of Active Fuel
Bottom of Active Fuel
Length (m)
Length (ft)
Time (hr)
0
2
4
6
8
10
0
5
10
15
20
25
30

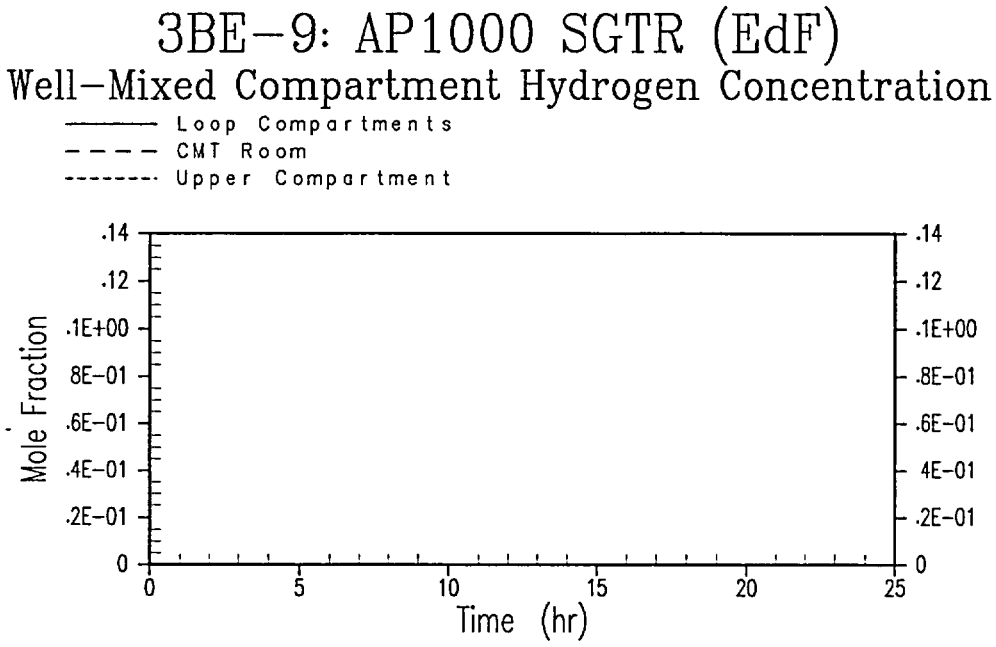

3BE-9: AP1000 SGTR (EdF)
Hydrogen Generated In-Vessel
Mass (kg)
500
400
300
200
100
0
0
5
10
15
20
25
Time (hr)
.6
.5
.4
.3
.2
.1
0
Fraction of Active Clad Reacted

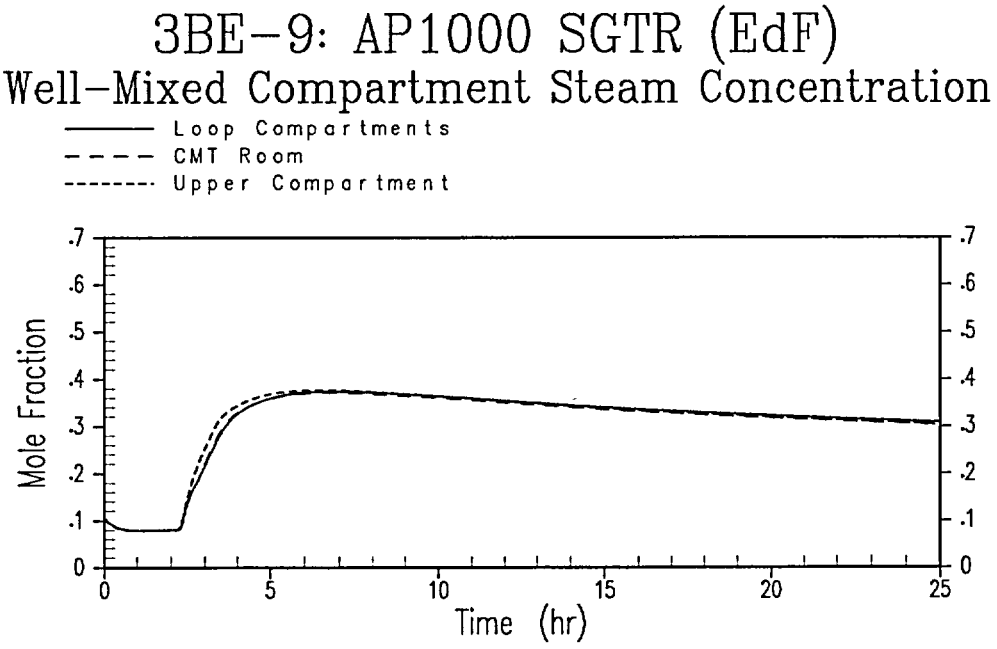
3BE-9: AP1000 SGTR (EdF) Containment Pressure

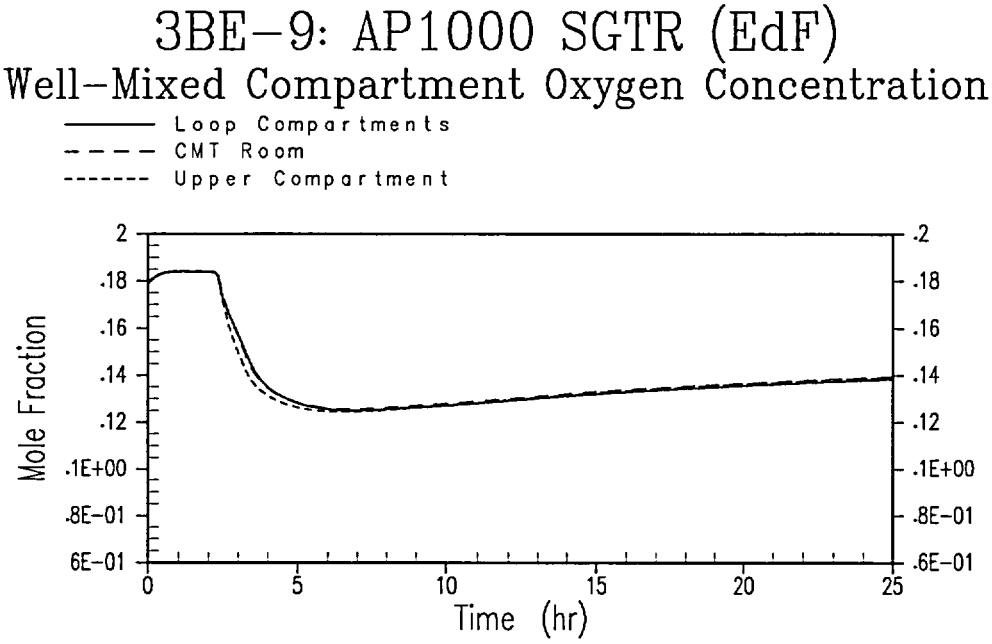


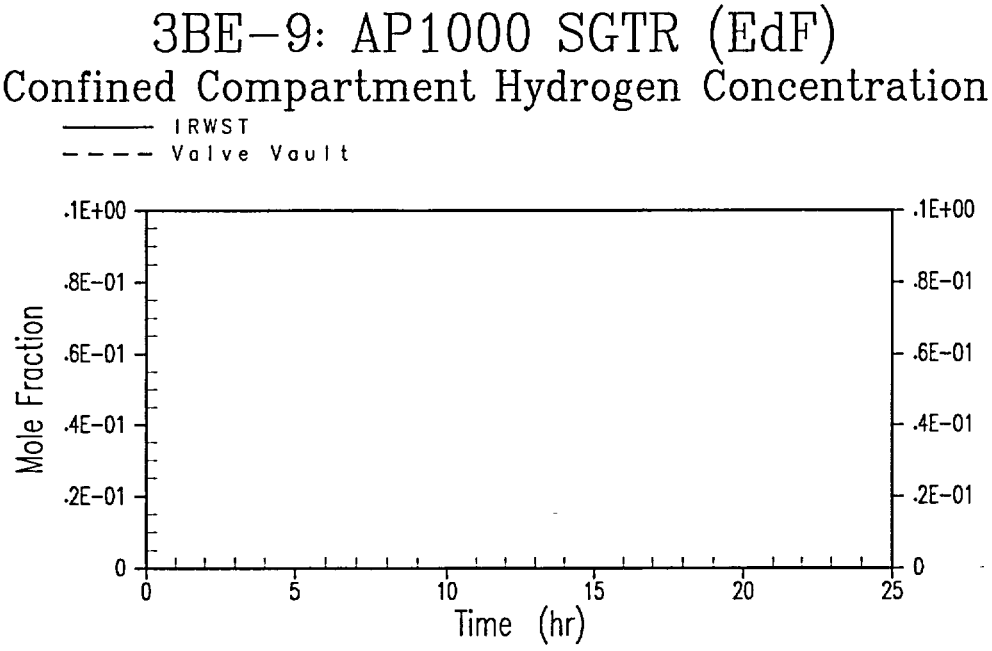

3BE-9: AP1000 SGTR (EdF)
Containment Gas Temperature
Loop Compartments
IRWST Compartment
Upper Compartment
PXS
Temperature (K)
420
400
380
360
340
320
Temperature (F)
250
200
150
0
5
10
15
20
25
Time (hr)

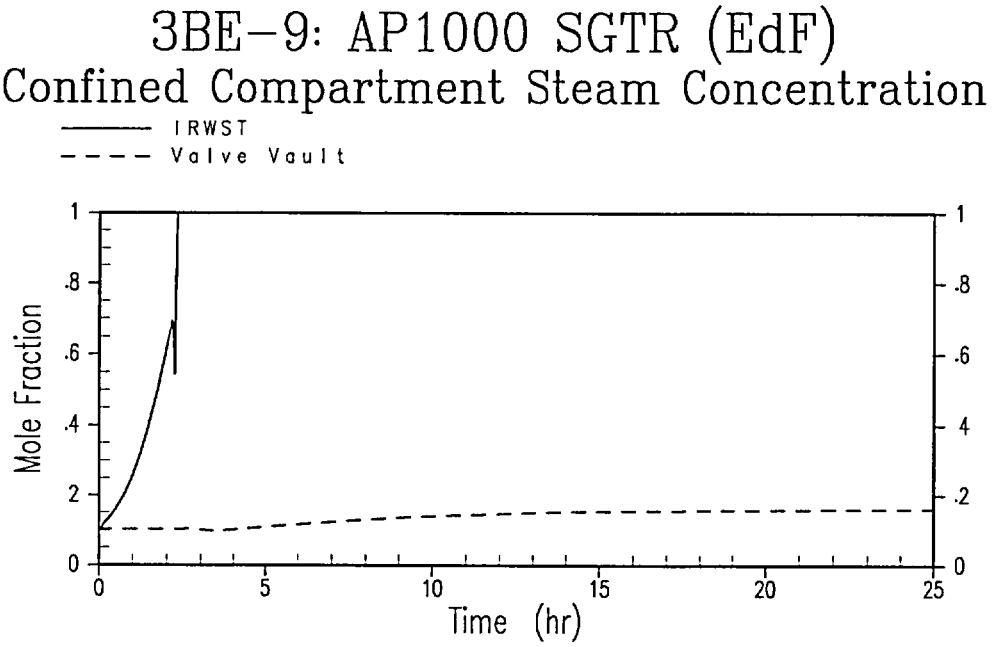

3BE-9: AP1000 SGTR (EdF)
Containment Compartments Water Level
Cavity (Floor Elev = 71'6")
Loop Compartments (Floor Elev = 83')
IRWST (Floor Elev = 103')
Valve Vault (Floor Elev = 84'6")
CMT (Floor Elev = 107'2")
Length (m)
Length (ft)
Time (hr)
45
40
35
30
25
20
140
120
100
80
0
5
10
15
20
25

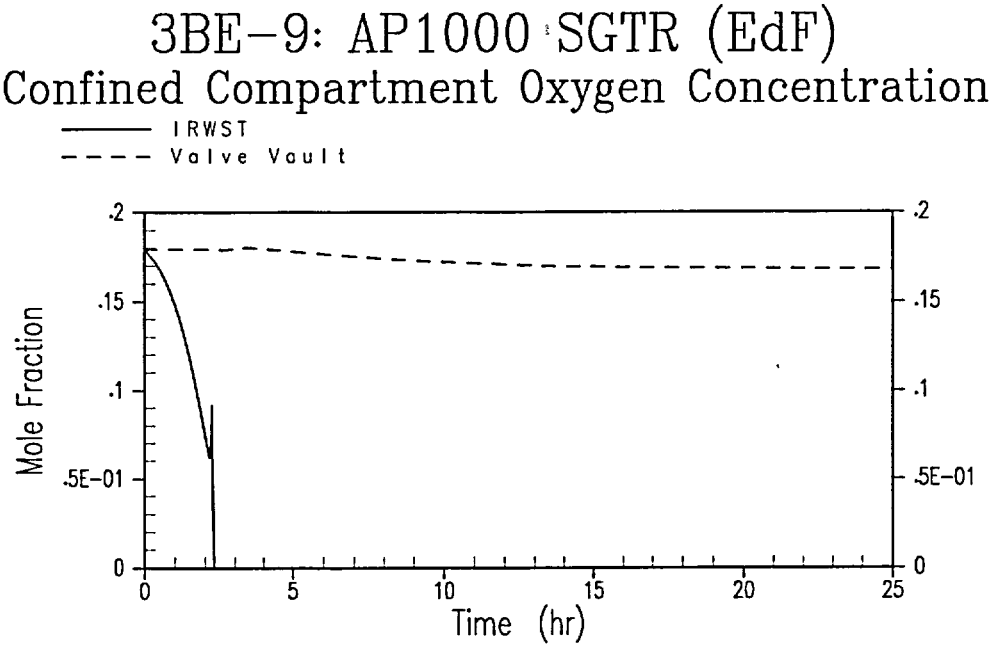

3BE-9: AP1000 SGTR (EdF)
Well-Mixed Compartment Hydrogen Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
.14
.12
.1E+00
8E-01
.6E-01
.4E-01
.2E-01
0
0
5
10
15
20
25
Time (hr)

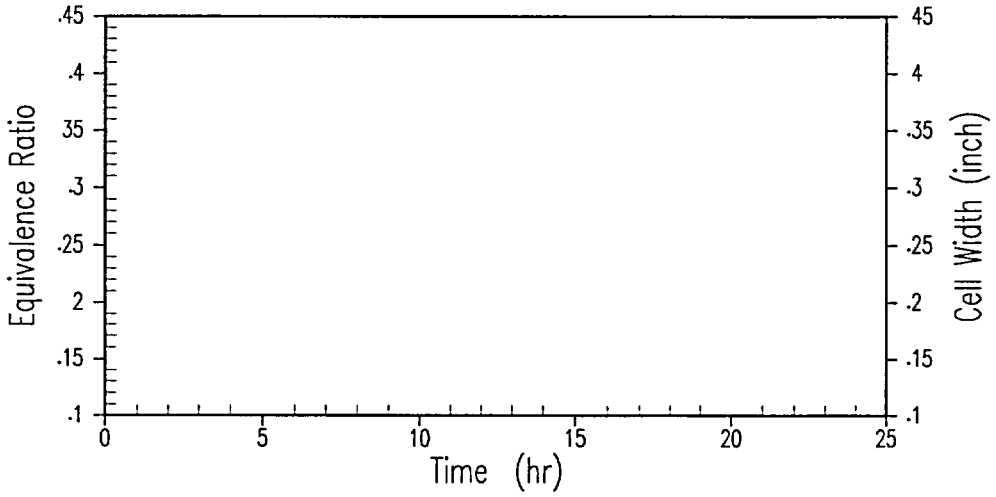

3BE-9: AP1000 SGTR (EdF)
Well-Mixed Compartment Steam Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
Time (hr)
0
.1
.2
.3
.4
.5
.6
.7
0
5
10
15
20
25

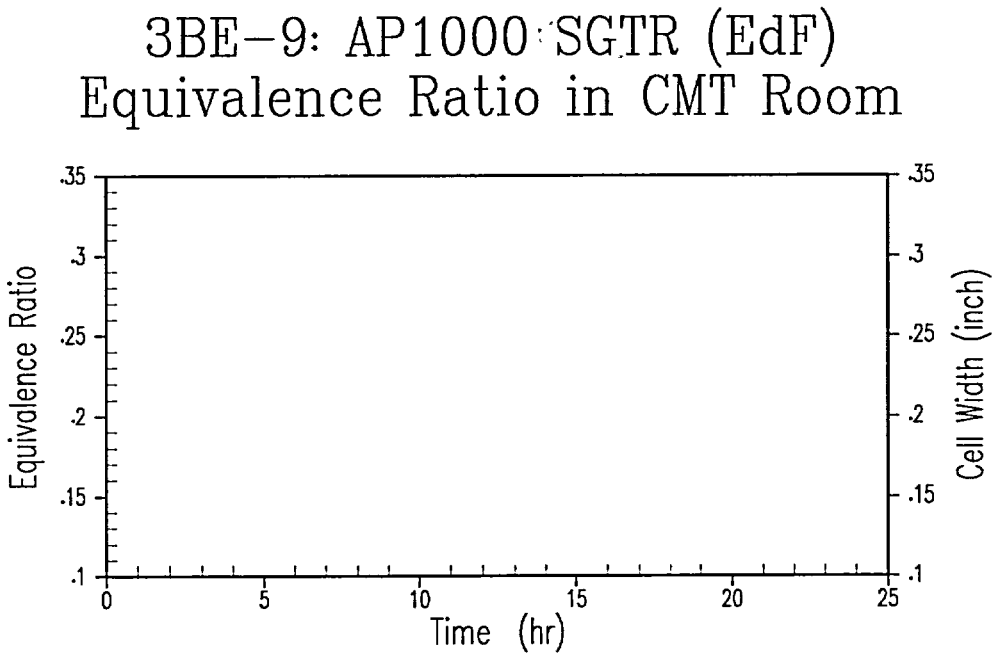

3BE-9: AP1000 SGTR (EdF)
Well-Mixed Compartment Oxygen Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
2
.18
.16
.14
.12
.1E+00
.8E-01
6E-01
.2
.18
.16
.14
.12
.1E+00
.8E-01
.6E-01
0
5
10
15
20
25
Time (hr)

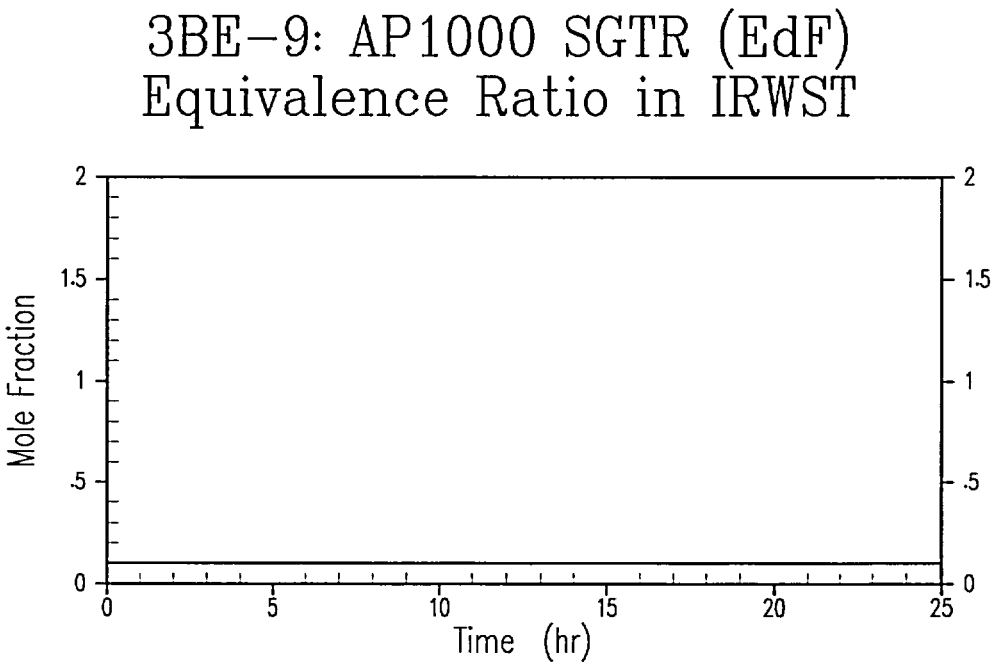

3BE-9: AP1000 SGTR (EdF)
Confined Compartment Hydrogen Concentration
IRWST
Valve Vault
.1E+00
.8E-01
.6E-01
.4E-01
.2E-01
0
Mole Fraction
0
5
10
15
20
25
Time (hr)

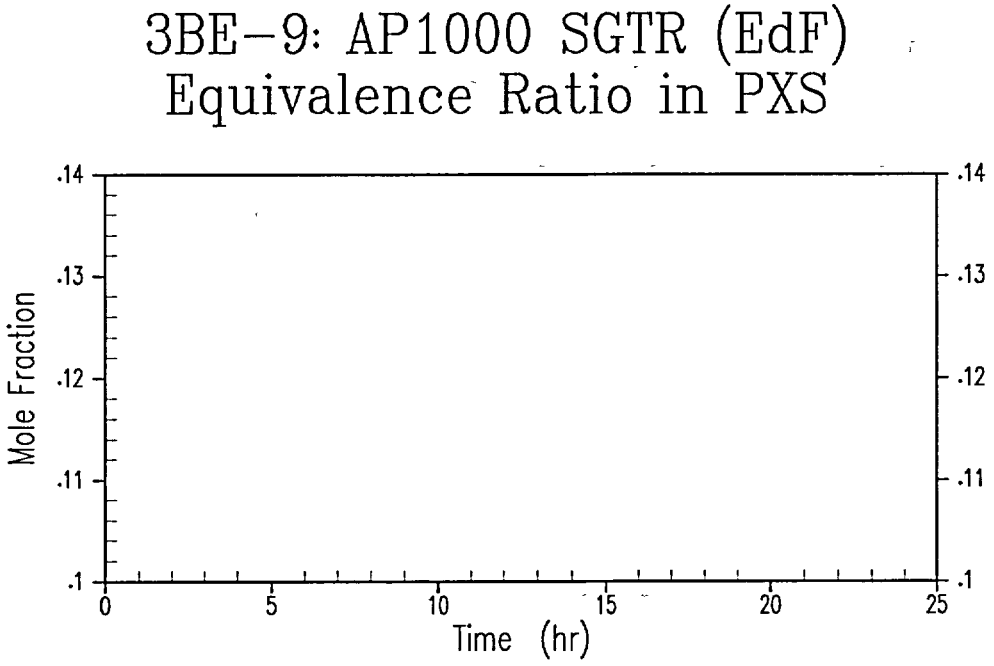

3BE-9: AP1000 SGTR (EdF)
Confined Compartment Steam Concentration
IRWST
Valve Vault
Mole Fraction
Time (hr)
0
.2
.4
.6
.8
1
0
5
10
15
20
25


3BE-9: AP1000 SGTR (EdF)
Confined Compartment Oxygen Concentration
IRWST
Valve Vault
Mole Fraction
.2
.15
.1
.5E-01
0
0
5
10
15
20
25
Time (hr)

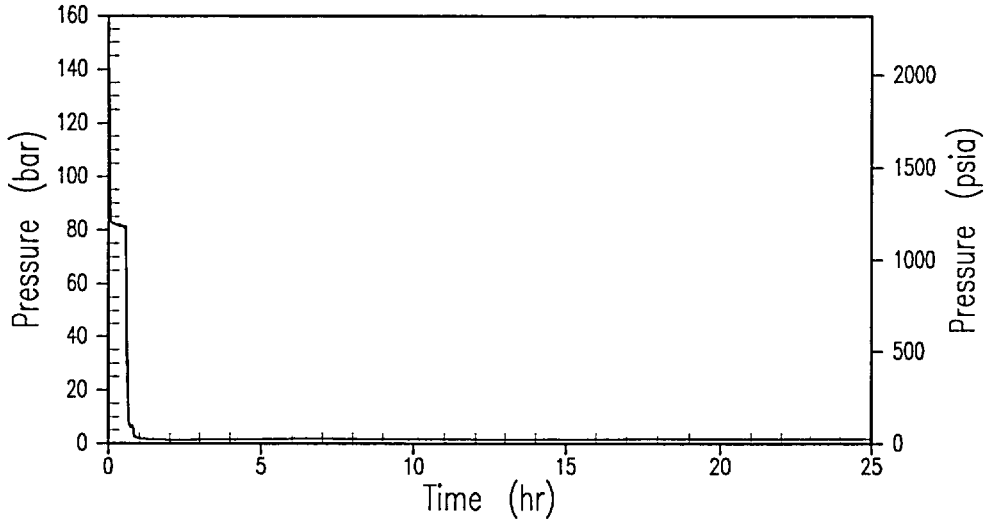

3BE-9: AP1000 SGTR (EdF)
Equivalence Ratio in SG Room
Equivalence Ratio
.45
.4
.35
.3
.25
.2
.15
.1
Cell Width (inch)
45
4
.35
.3
.25
.2
.15
.1
0
5
10
15
20
25
Time (hr)


3BE-9: AP1000 SGTR (EdF)
Equivalence Ratio in CMT Room
Equivalence Ratio
Cell Width (inch)
.35
.3
.25
.2
.15
.1
0
5
10
15
20
25
Time (hr)

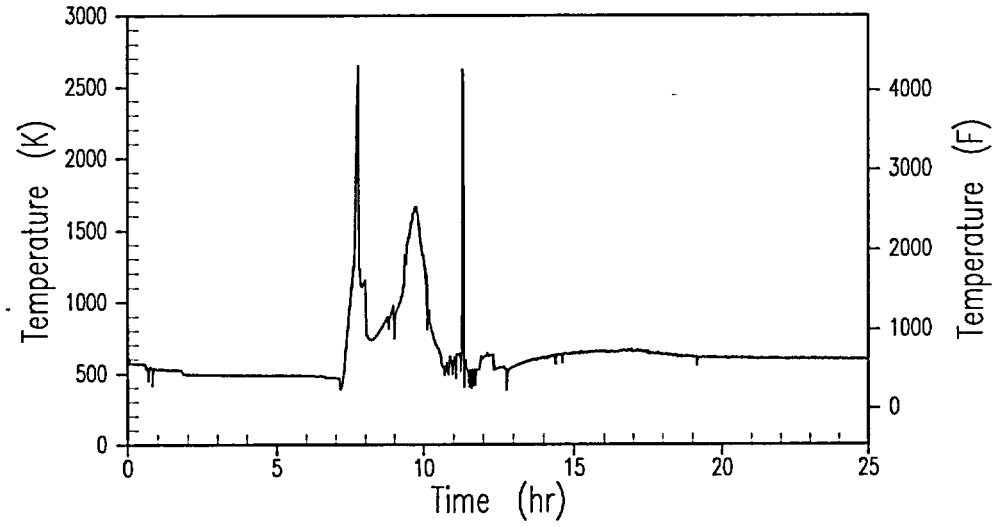

3BE-9: AP1000 SGTR (EdF)
Equivalence Ratio in IRWST
Mole Fraction
2
1.5
1
.5
0
0
5
10
15
20
25
Time (hr)


3BE-9: AP1000 SGTR (EdF)
Equivalence Ratio in PXS
Mole Fraction
.14
.13
.12
.11
.1
0
5
10
15
20
25
Time (hr)

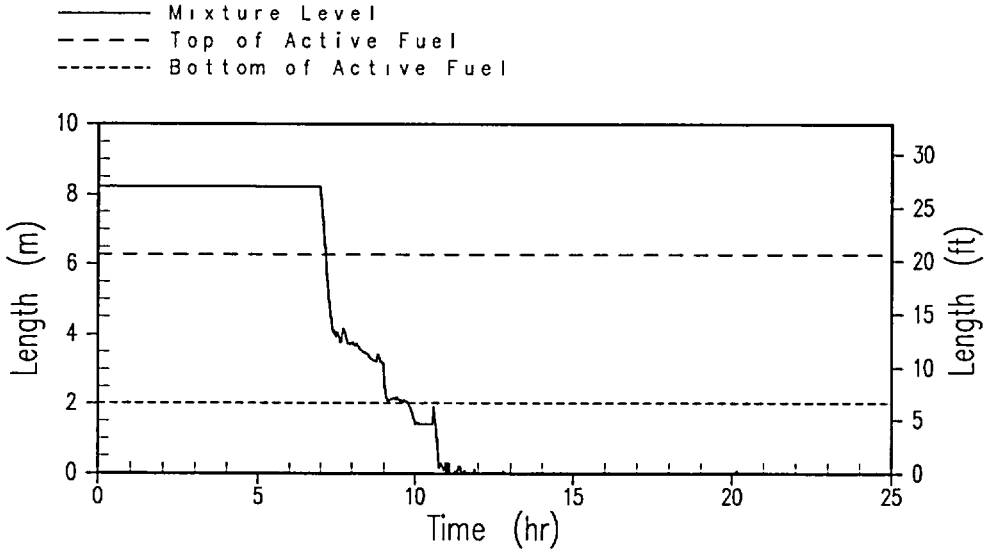
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Reactor Coolant System Pressure



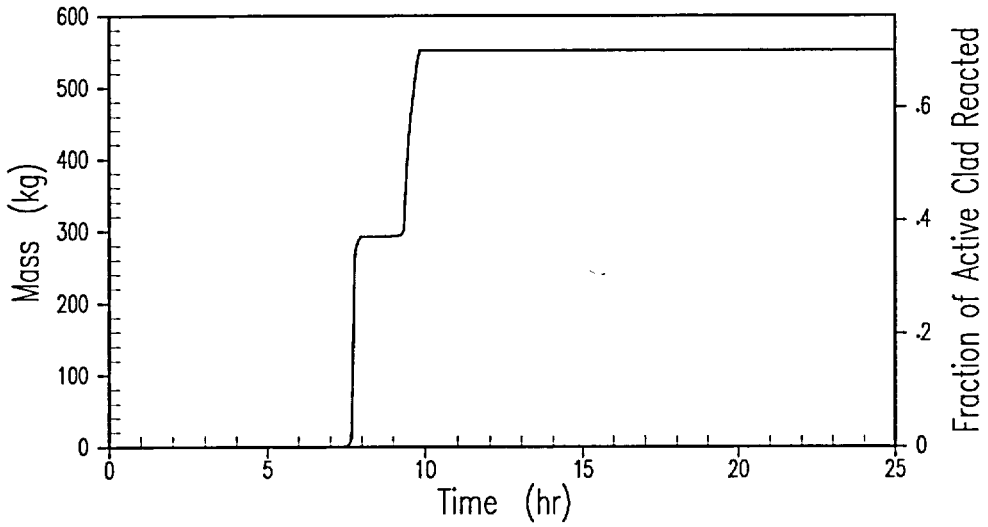
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Core-Exit Gas Temperature



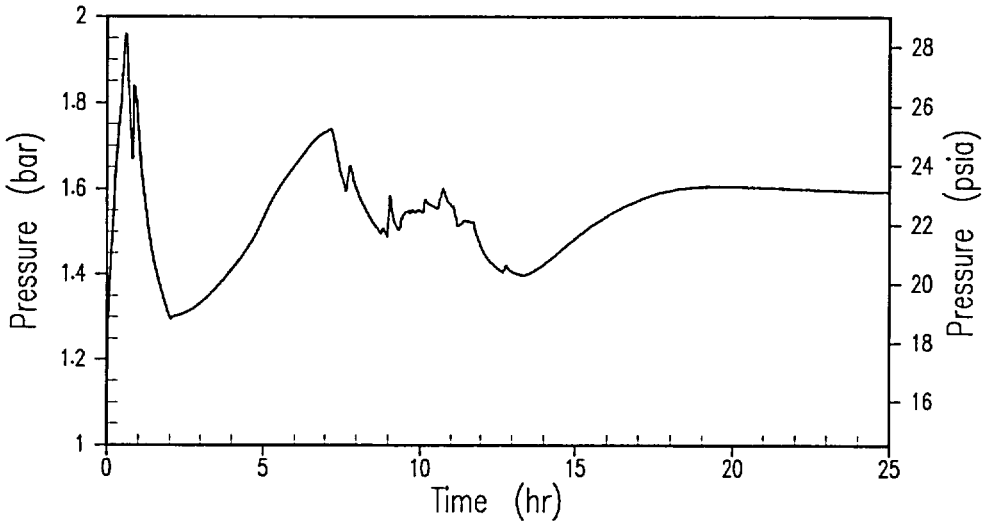
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Reactor Vessel Mixture Level



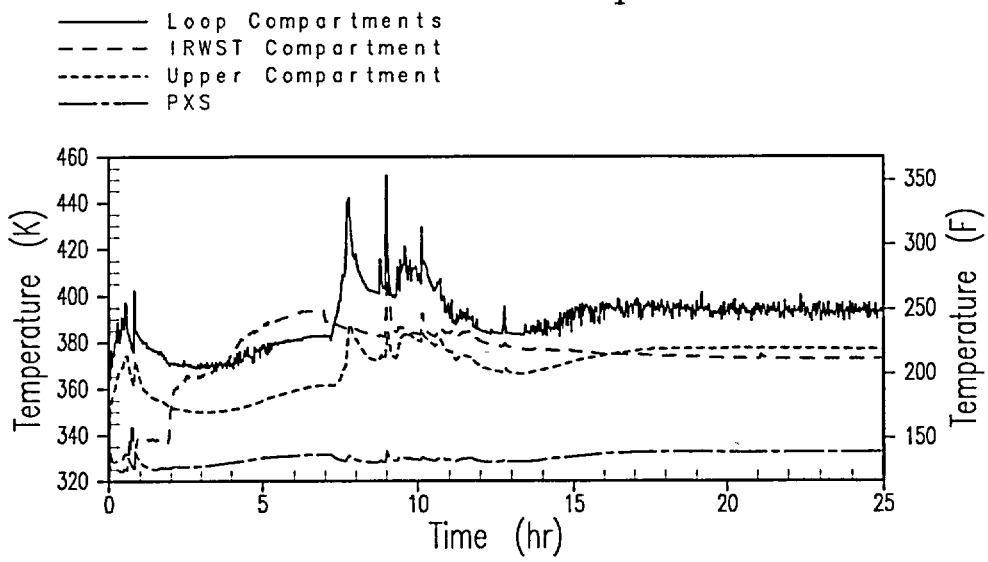
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Hydrogen Generated In-Vessel



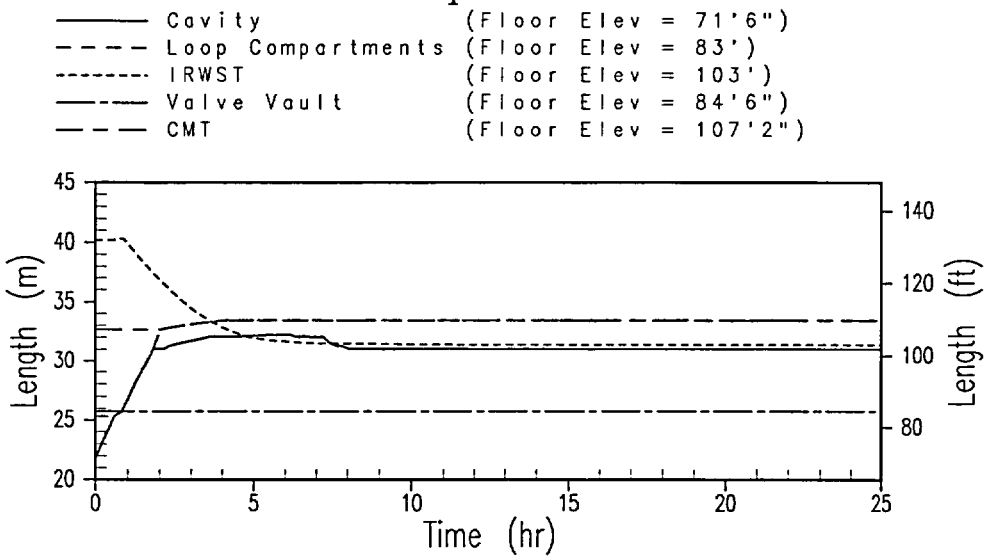
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Containment Pressure



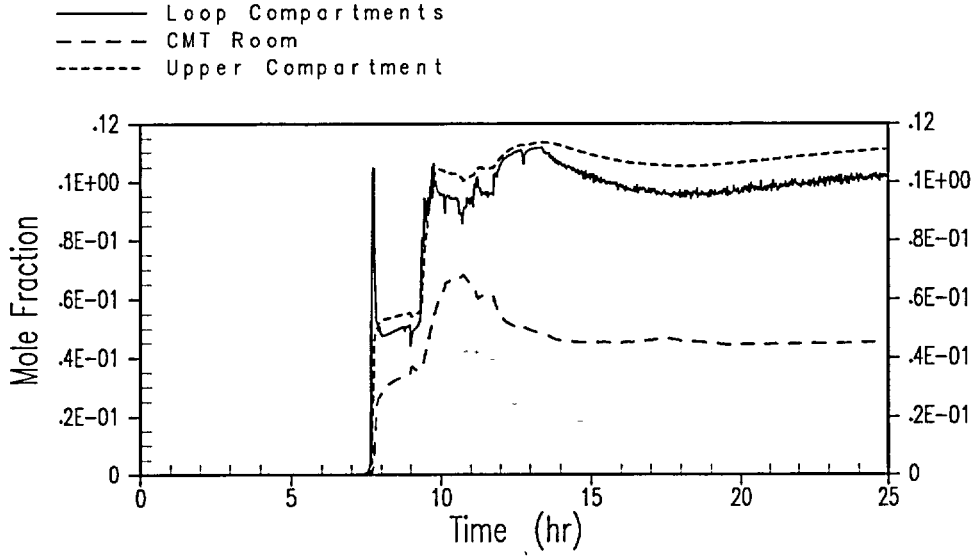
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Containment Gas Temperature



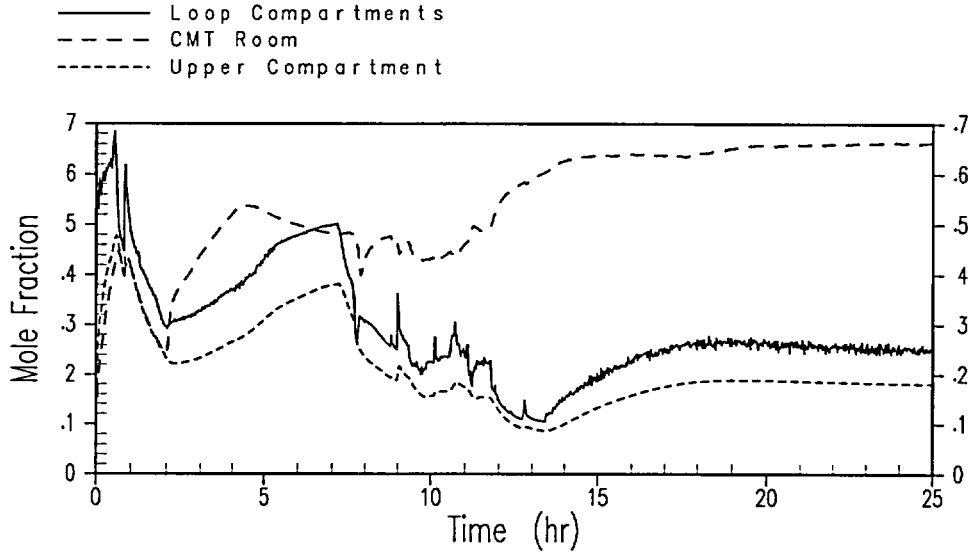
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Containment Compartments Water Level

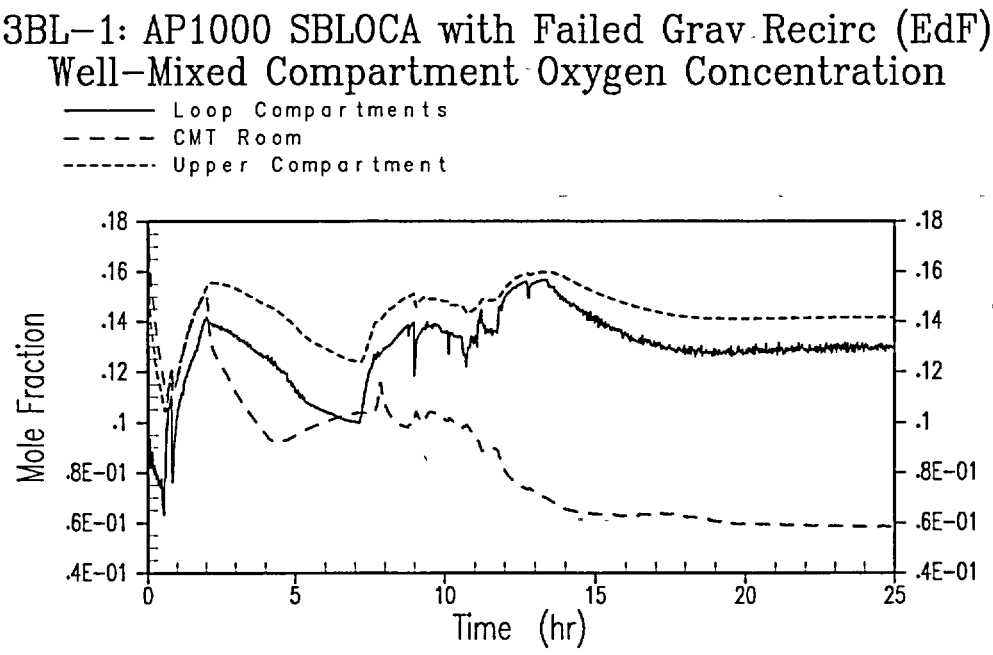


3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Well-Mixed Compartment Hydrogen Concentration

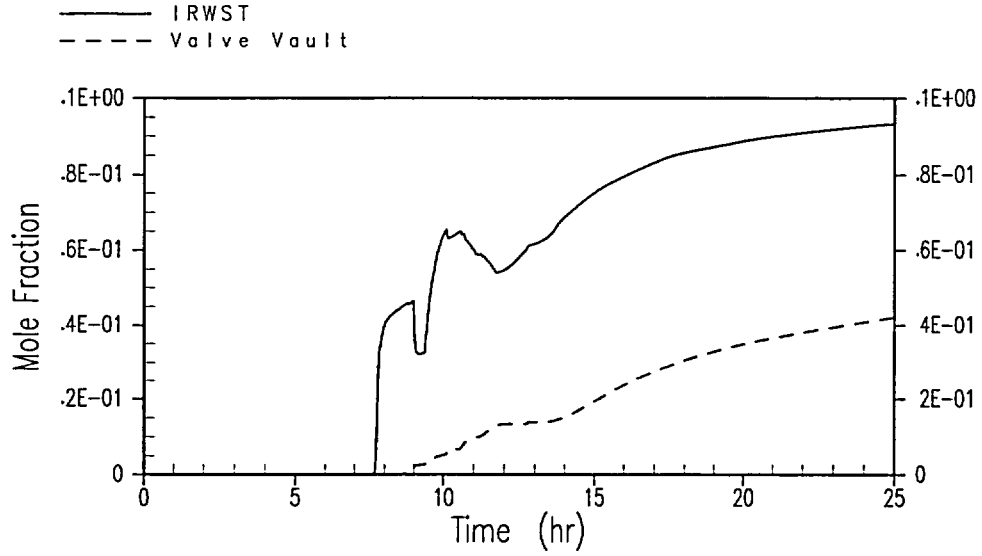


3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Well-Mixed Compartment Steam Concentration

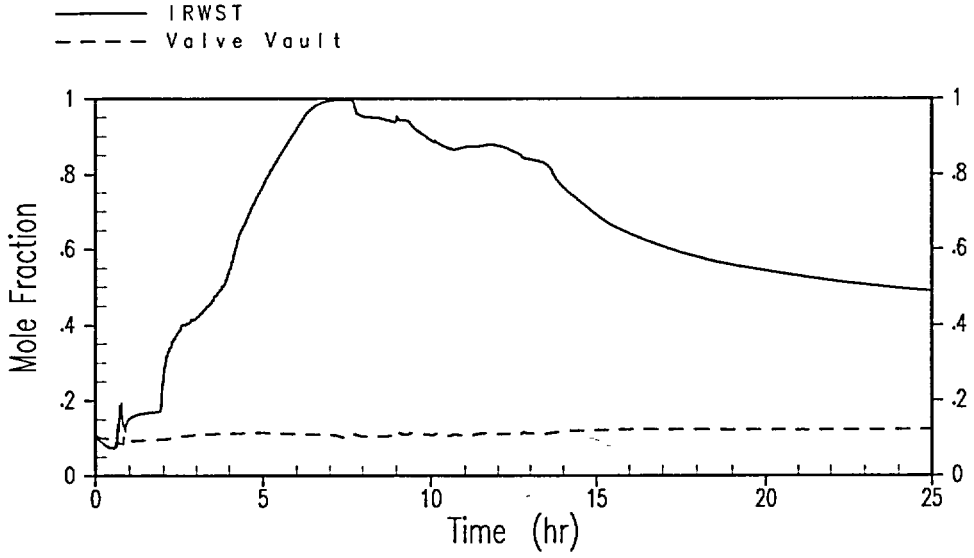



3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Well-Mixed Compartment Oxygen Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
.18
.16
.14
.12
.1
.8E-01
.6E-01
.4E-01
0
5
10
15
20
25
Time (hr)

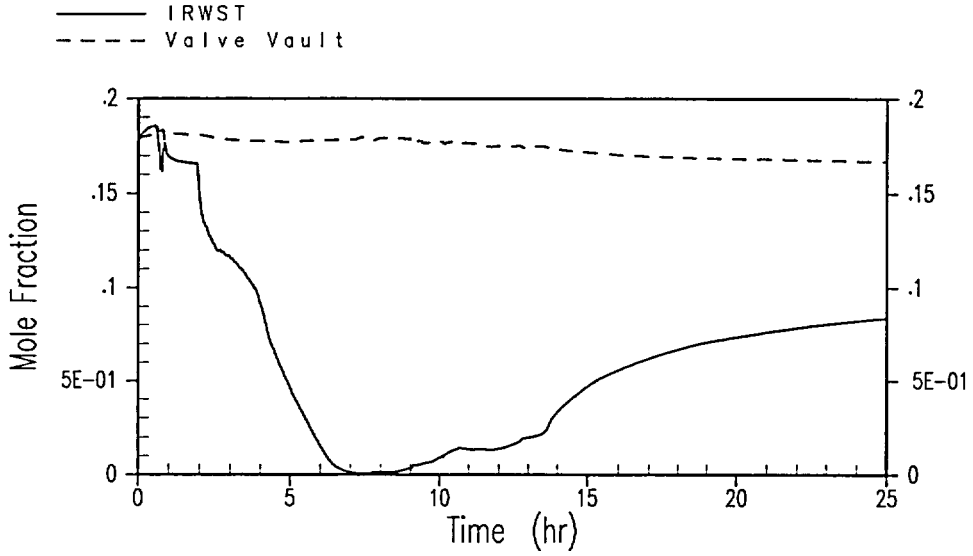
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Confined Compartment Hydrogen Concentration



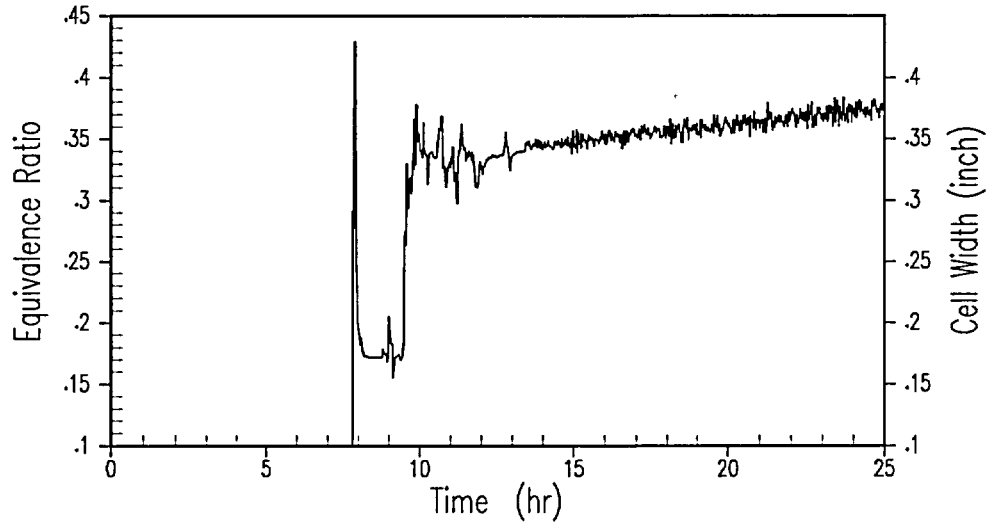
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Confined Compartment Steam Concentration



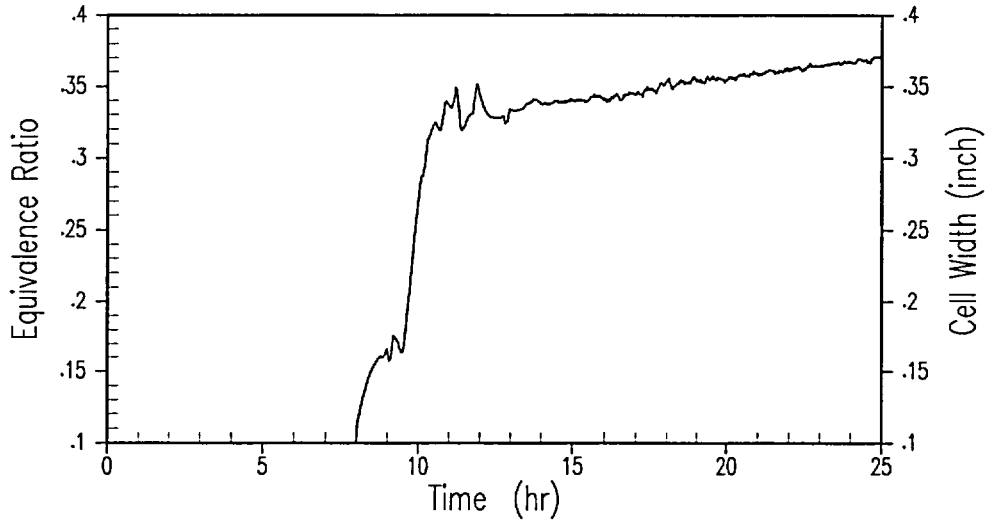
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Confined Compartment Oxygen Concentration



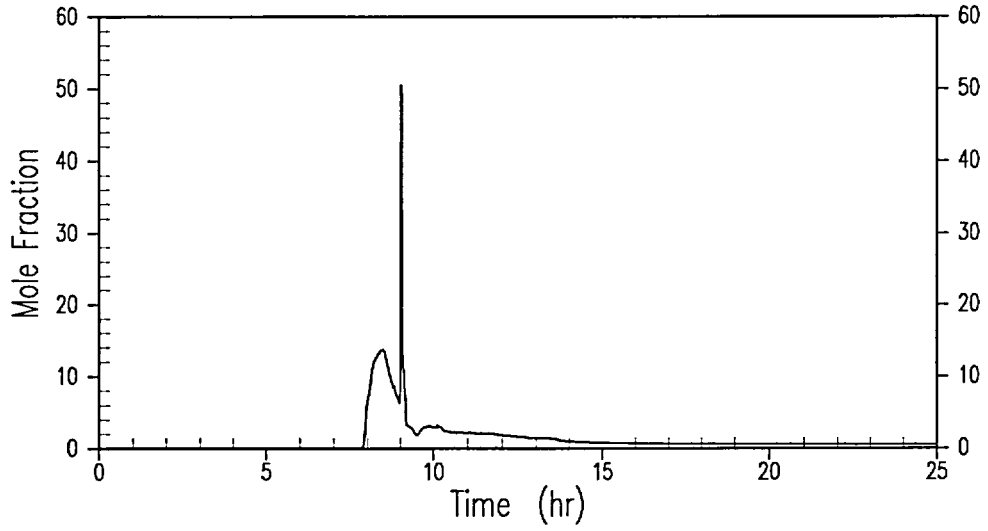
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Equivalence Ratio in SG Room



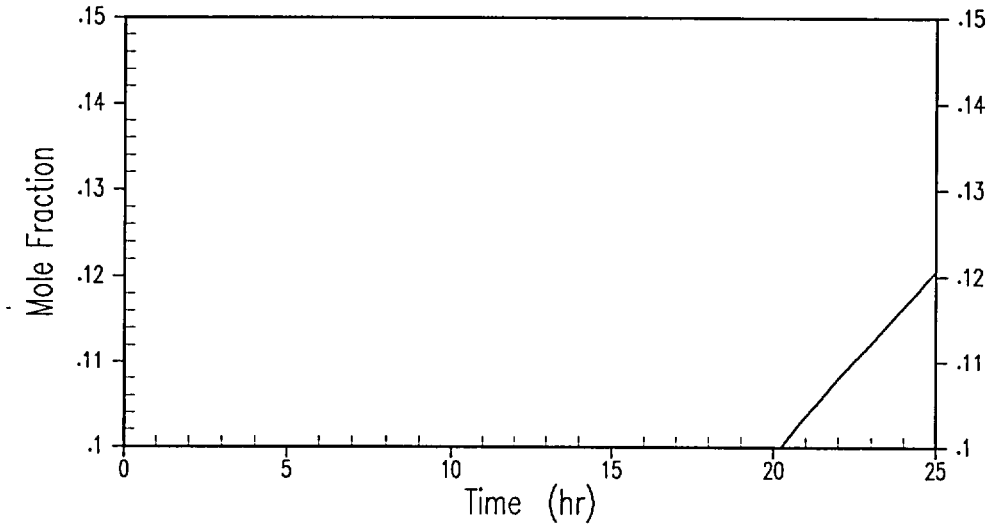
3BL–1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Equivalence Ratio in CMT Room



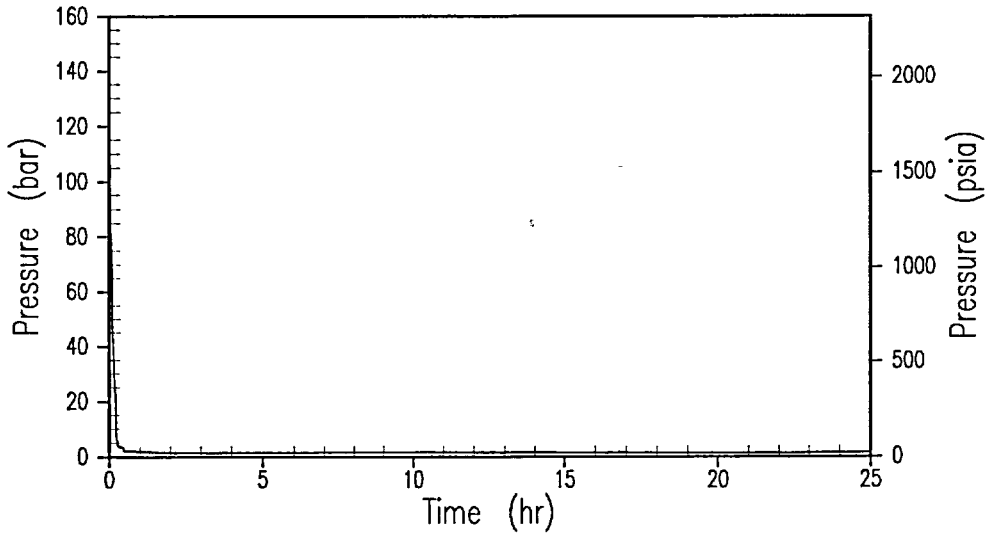
3BL−1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Equivalence Ratio in IRWST



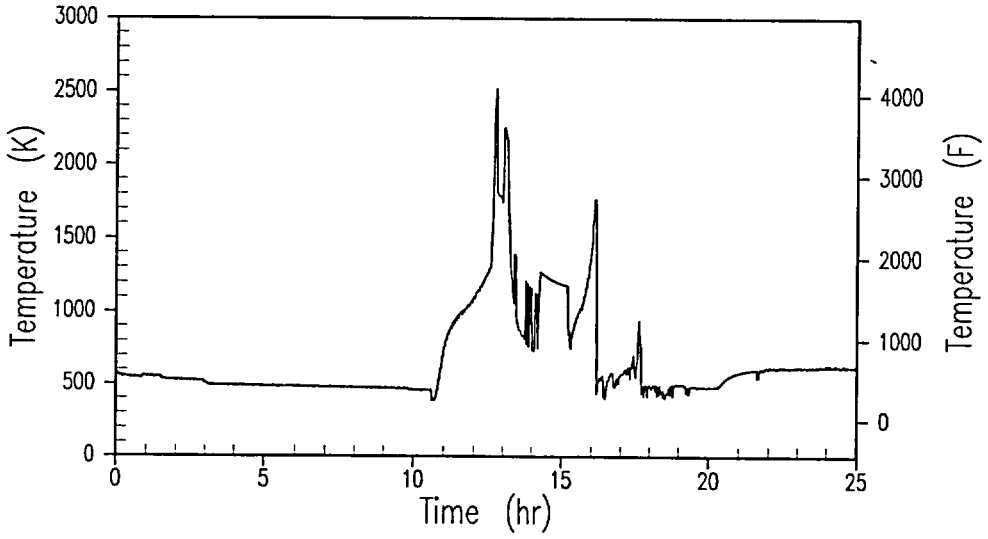
3BL-1: AP1000 SBLOCA with Failed Grav Recirc (EdF)
Equivalence Ratio in PXS



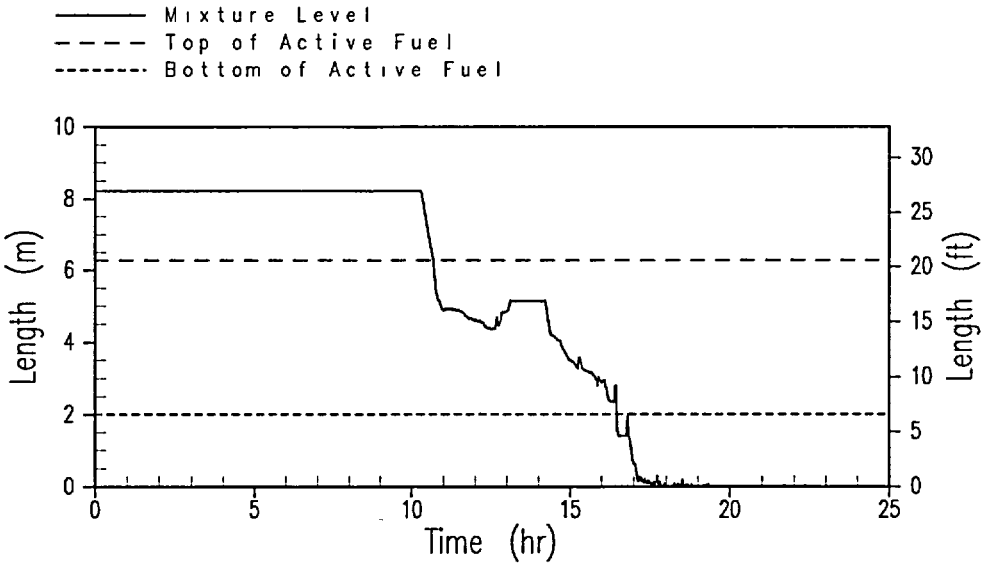
3BL–2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Reactor Coolant System Pressure



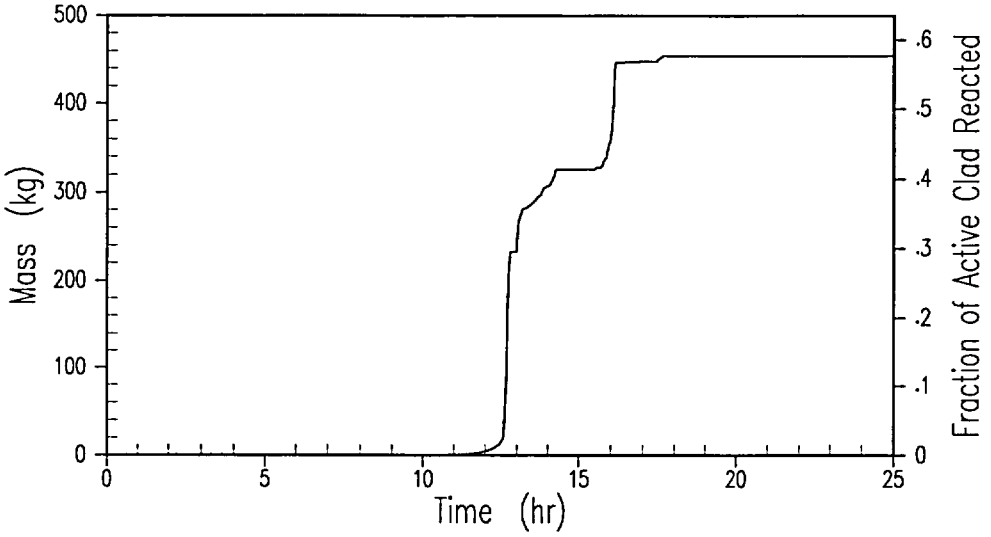
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Core-Exit Gas Temperature



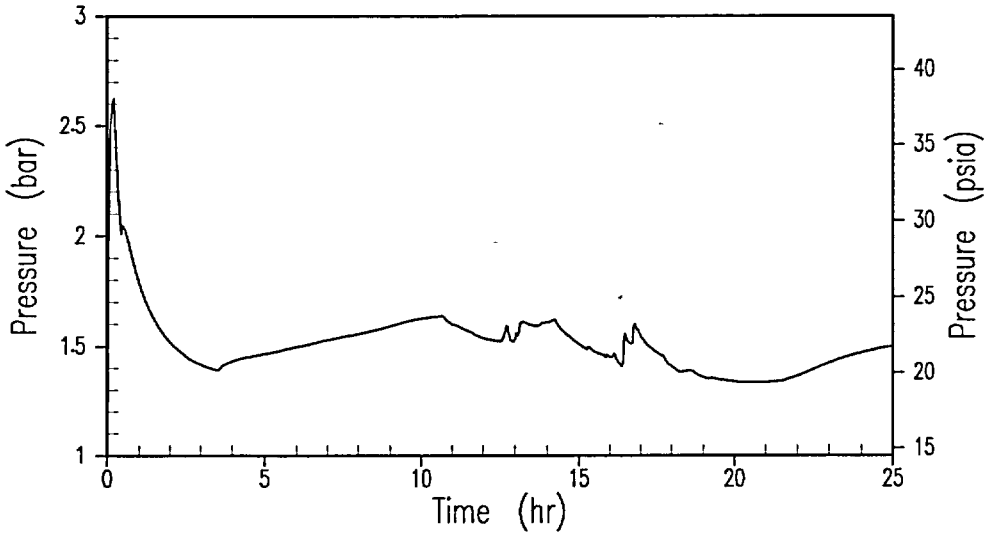
3BL–2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Reactor Vessel Mixture Level



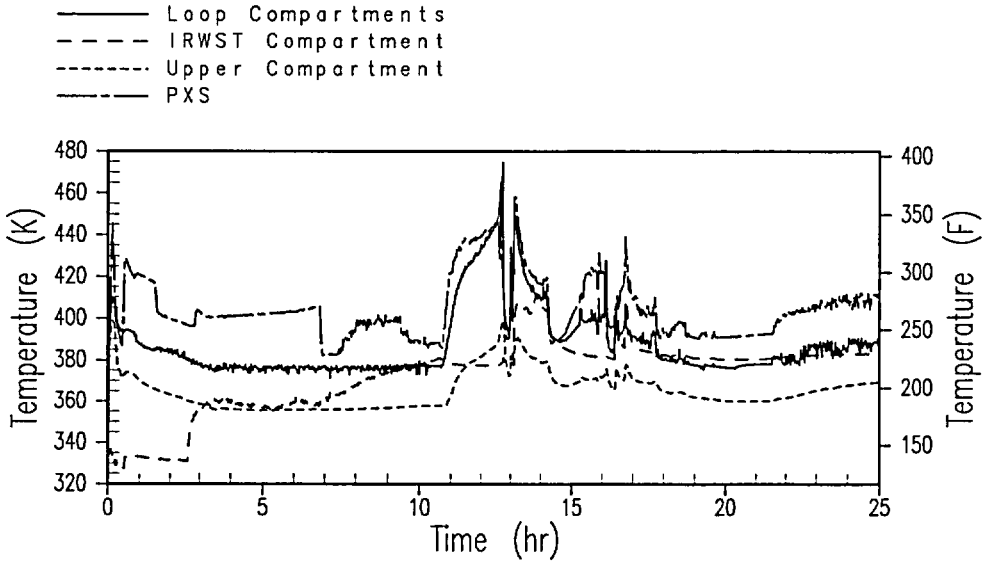
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Hydrogen Generated In-Vessel



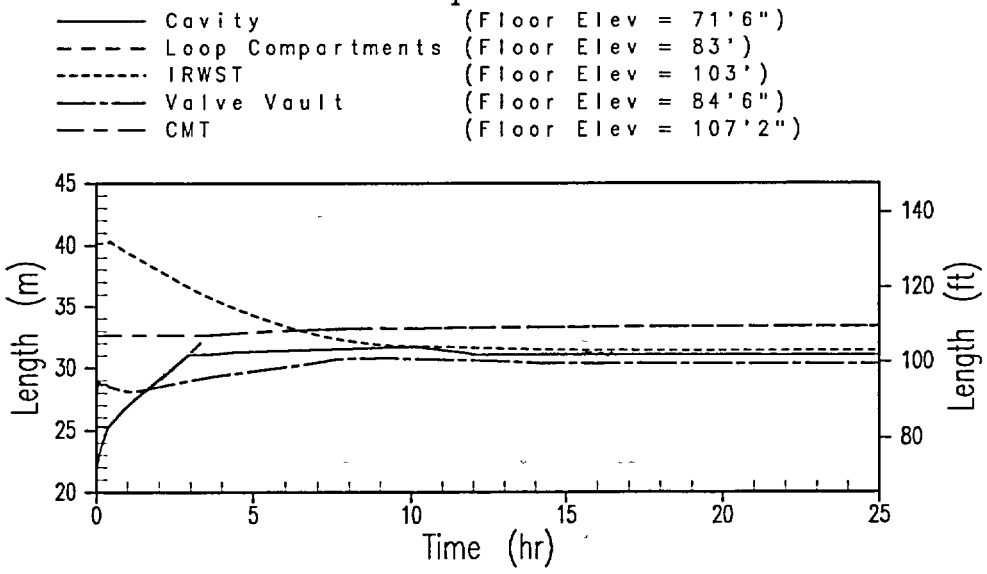
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Containment Pressure



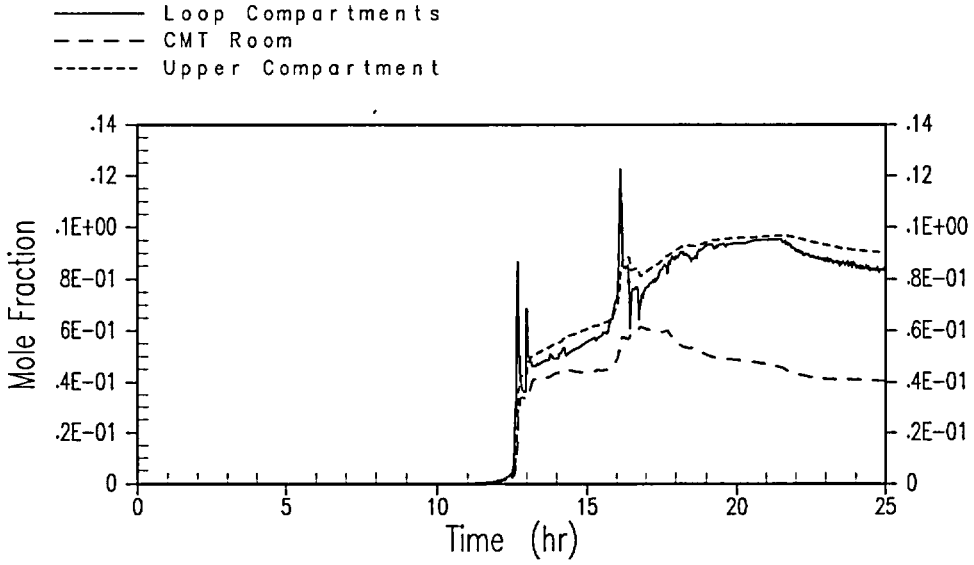
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Containment Gas Temperature



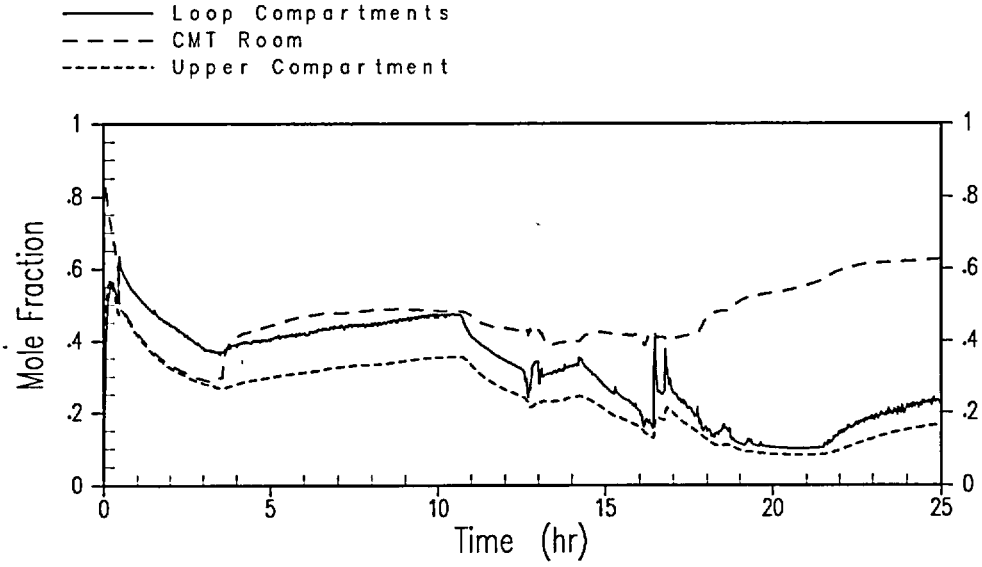
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Containment Compartments Water Level



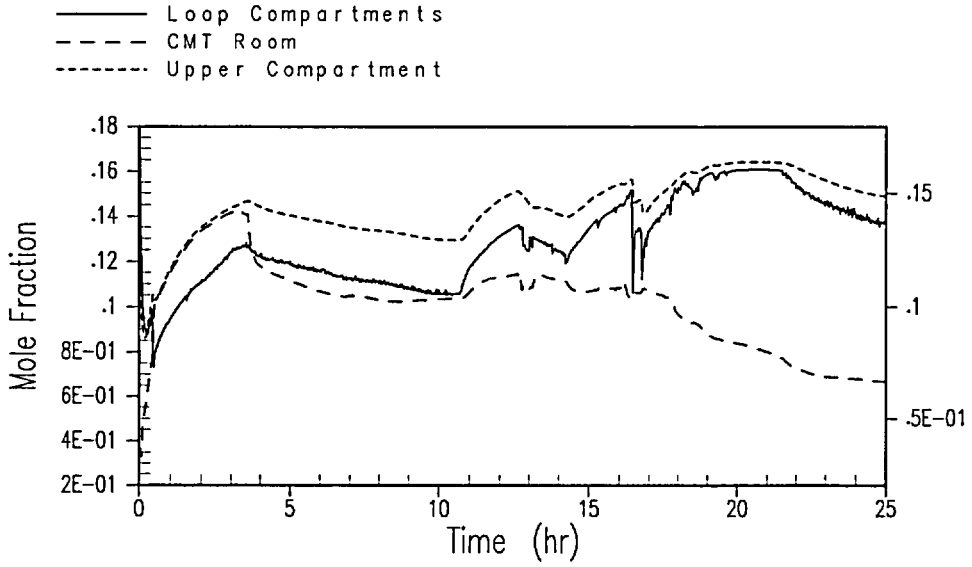
3BL–2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Well–Mixed Compartment Hydrogen Concentration



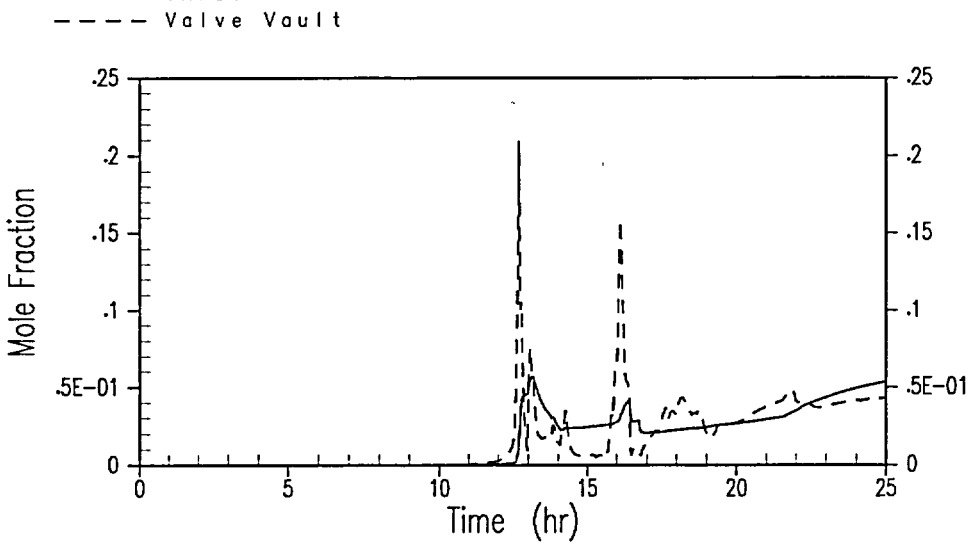
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Well-Mixed Compartment Steam Concentration



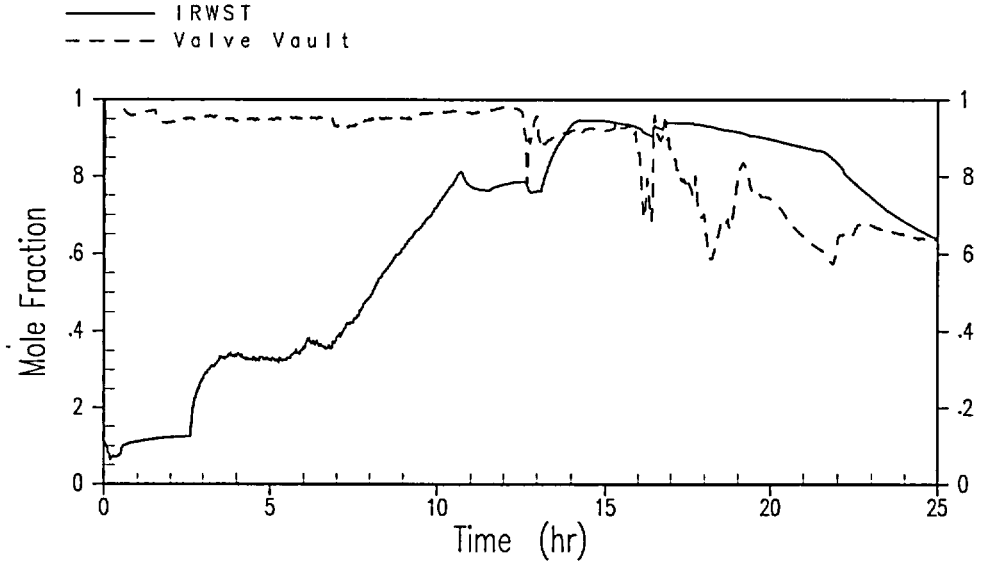
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Well-Mixed Compartment Oxygen Concentration



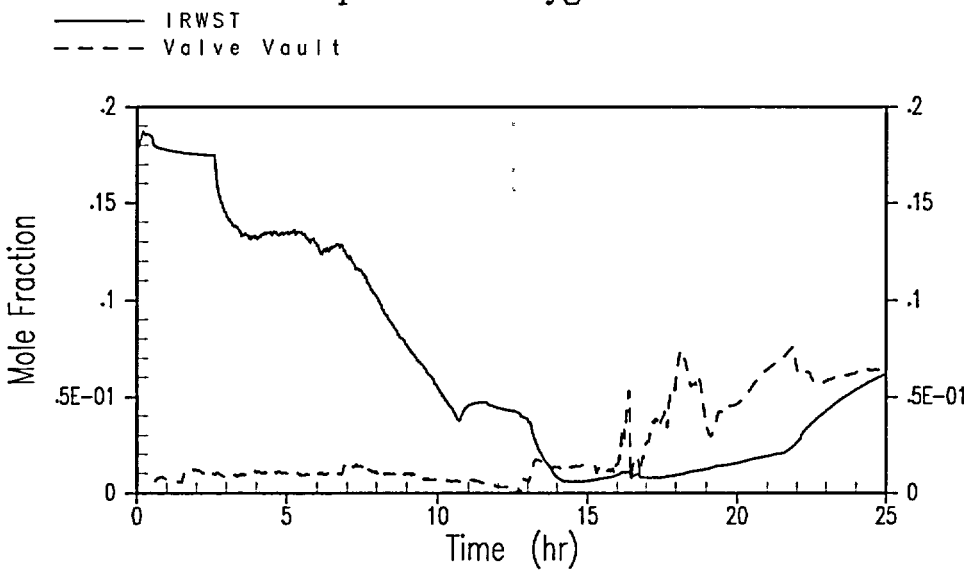
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Confined Compartment Hydrogen Concentration



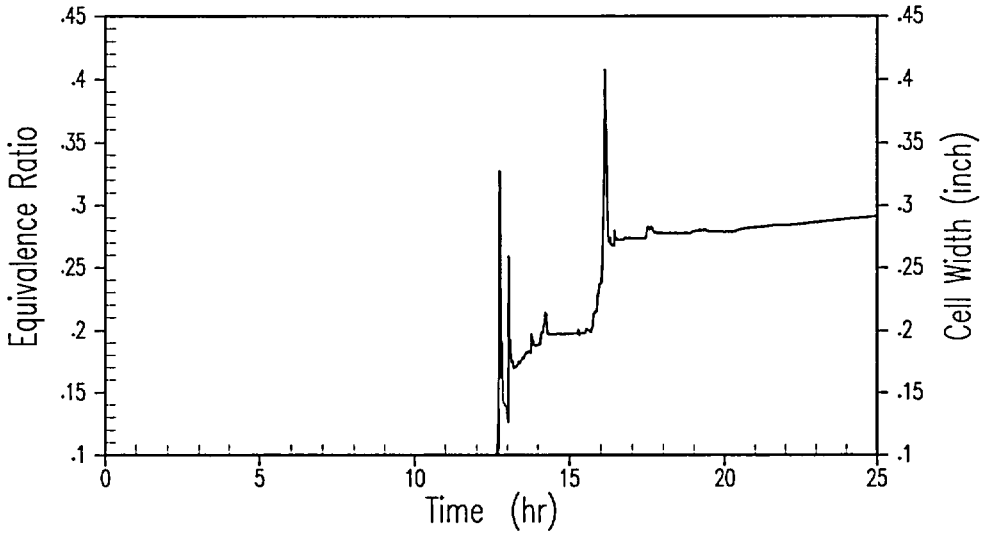
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Confined Compartment Steam Concentration



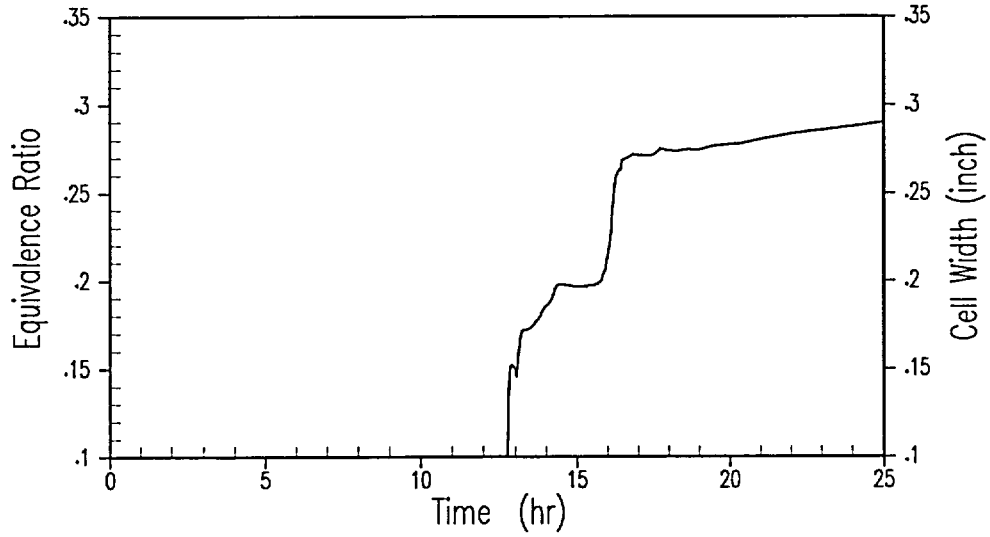
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Confined Compartment Oxygen Concentration



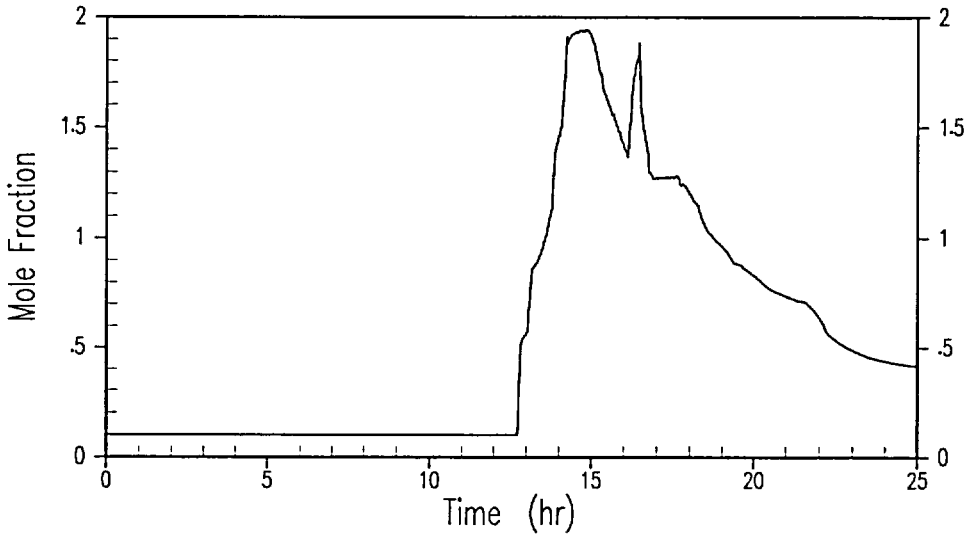
3BL–2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Equivalence Ratio in SG Room



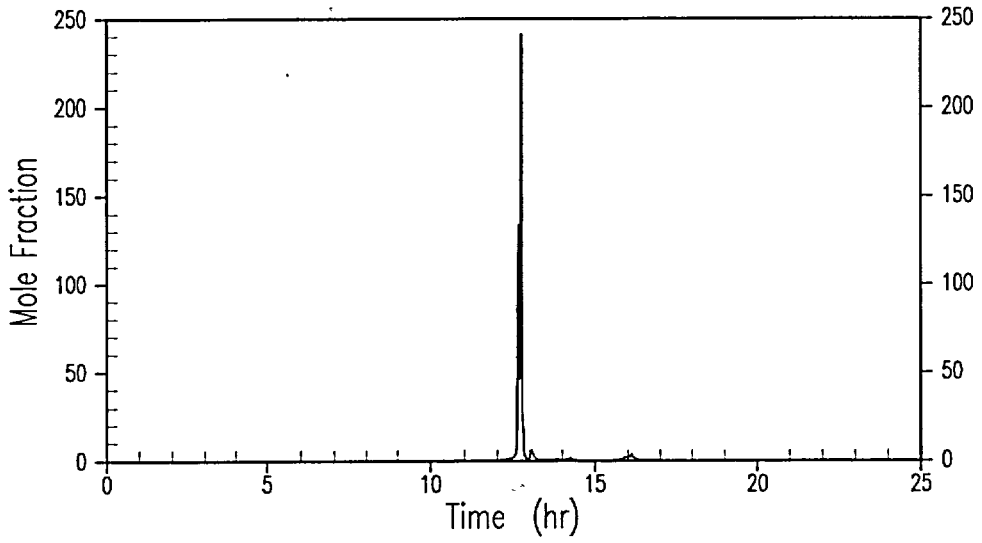
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Equivalence Ratio in CMT Room



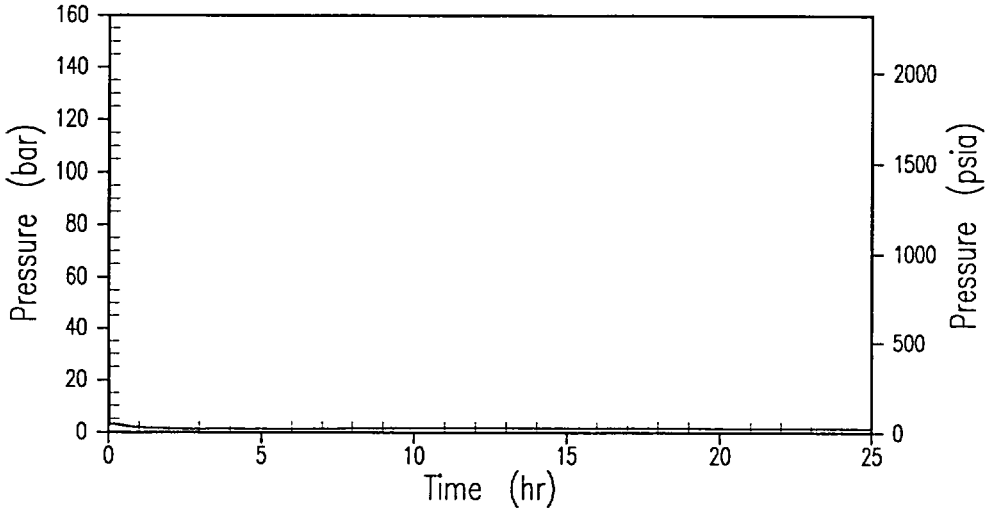
3BL–2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Equivalence Ratio in IRWST



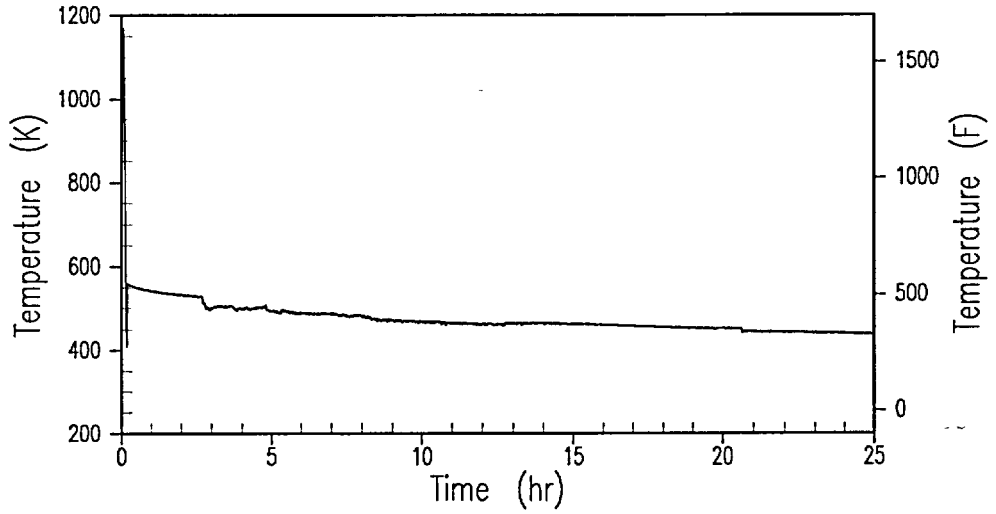
3BL-2: AP1000 DVI Line Break with Failed Grav Recirc (EdF)
Equivalence Ratio in PXS

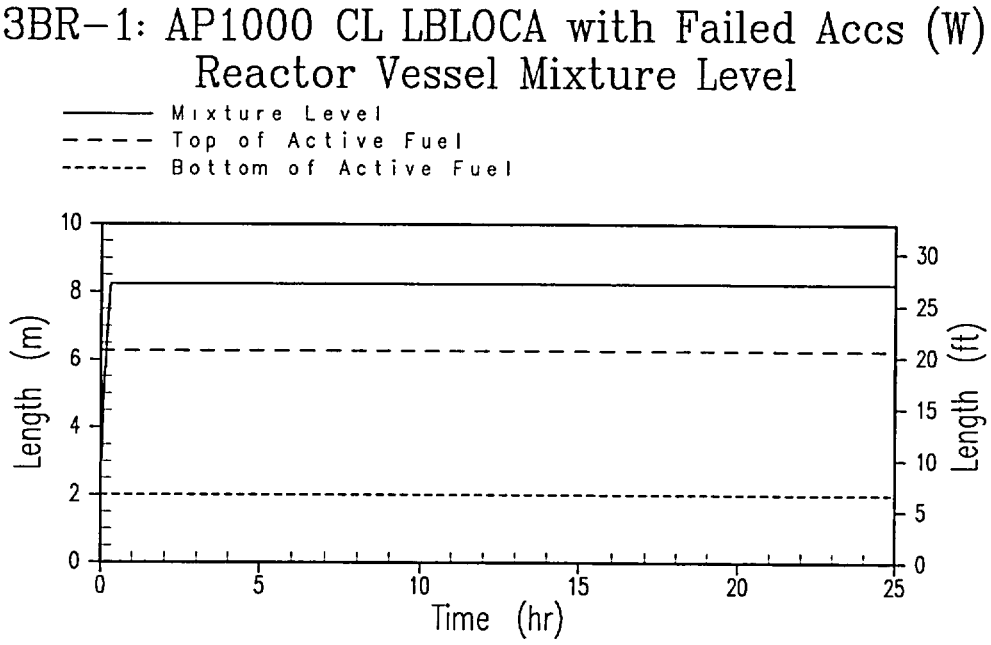


3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Reactor Coolant System Pressure

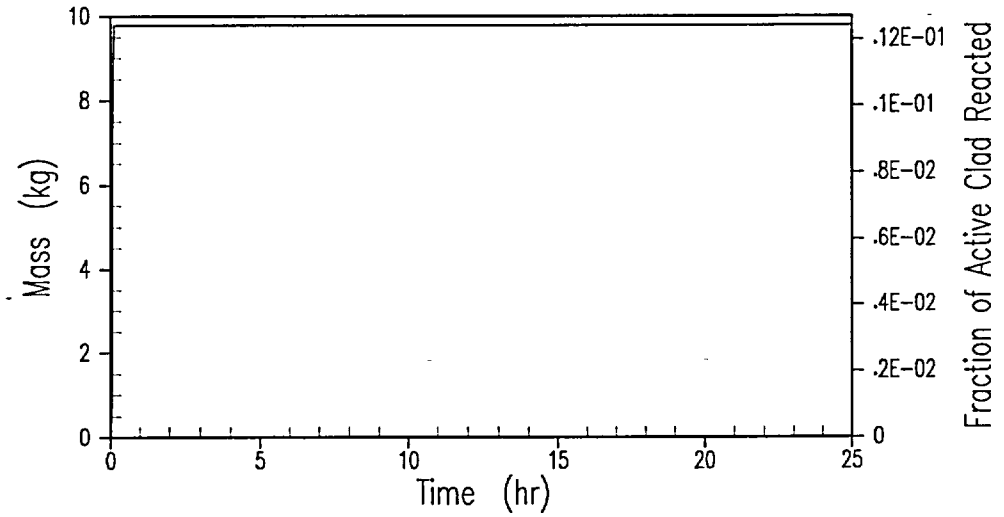


3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Core-Exit Gas Temperature

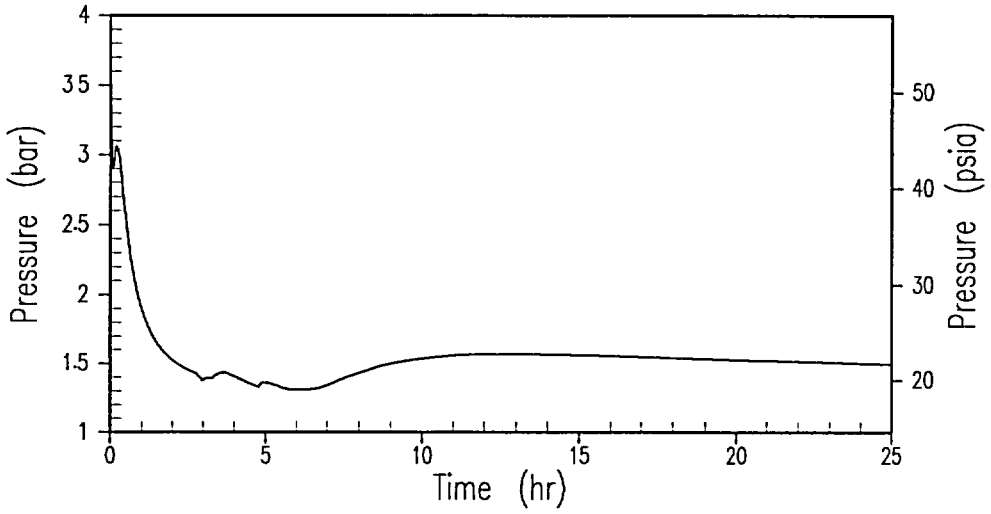



3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Reactor Vessel Mixture Level
Mixture Level
Top of Active Fuel
Bottom of Active Fuel
Length (m)
Length (ft)
Time (hr)
0
2
4
6
8
10
0
5
10
15
20
25
30

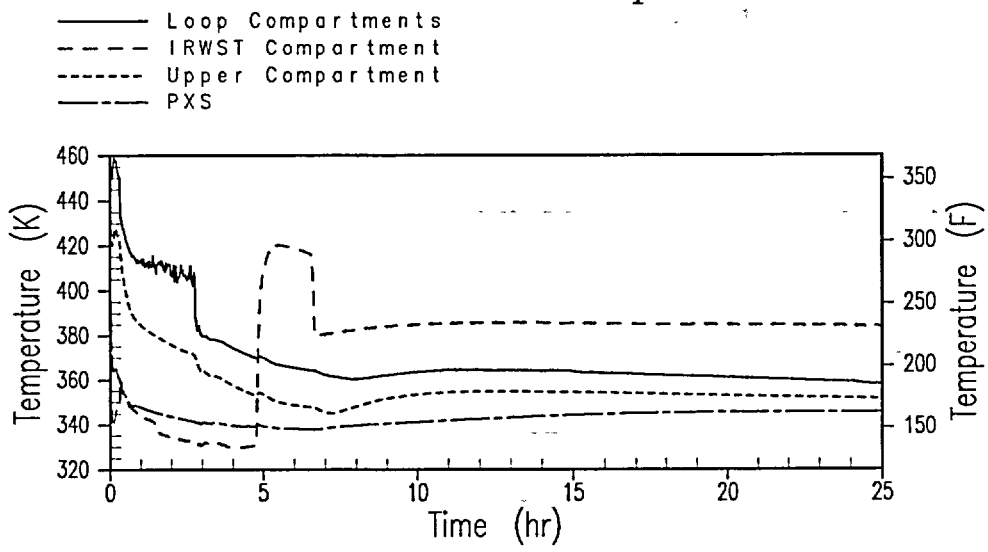
3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Hydrogen Generated In-Vessel

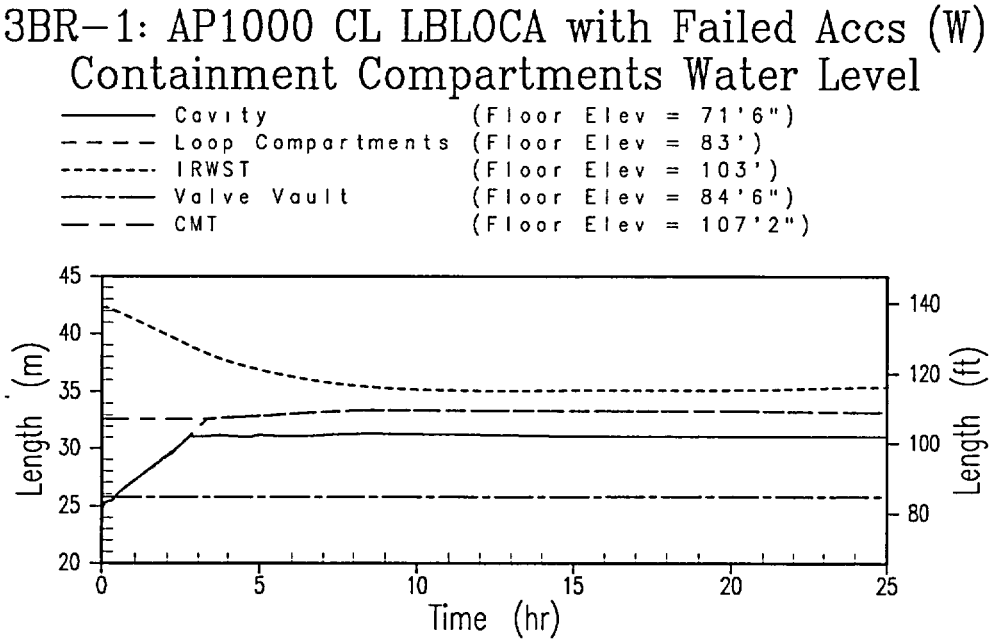


3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Containment Pressure

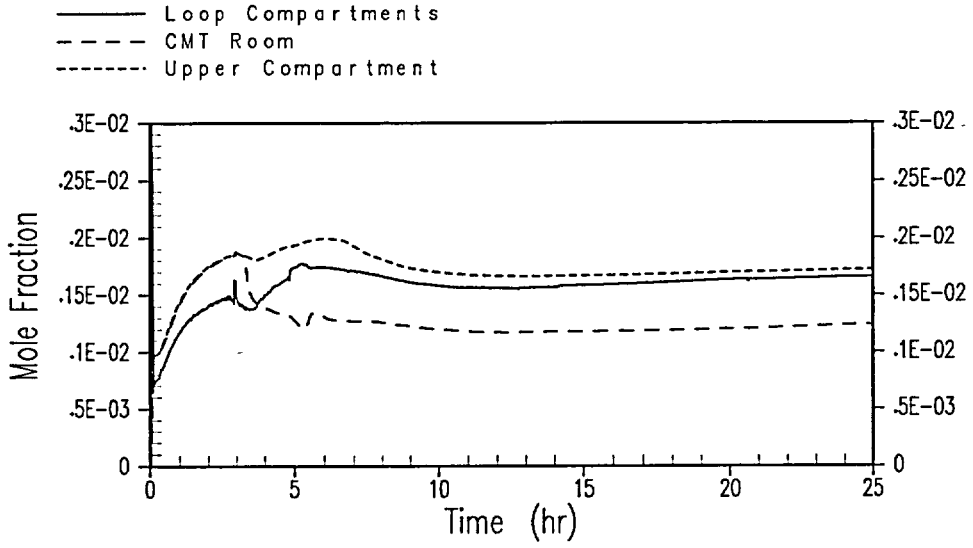


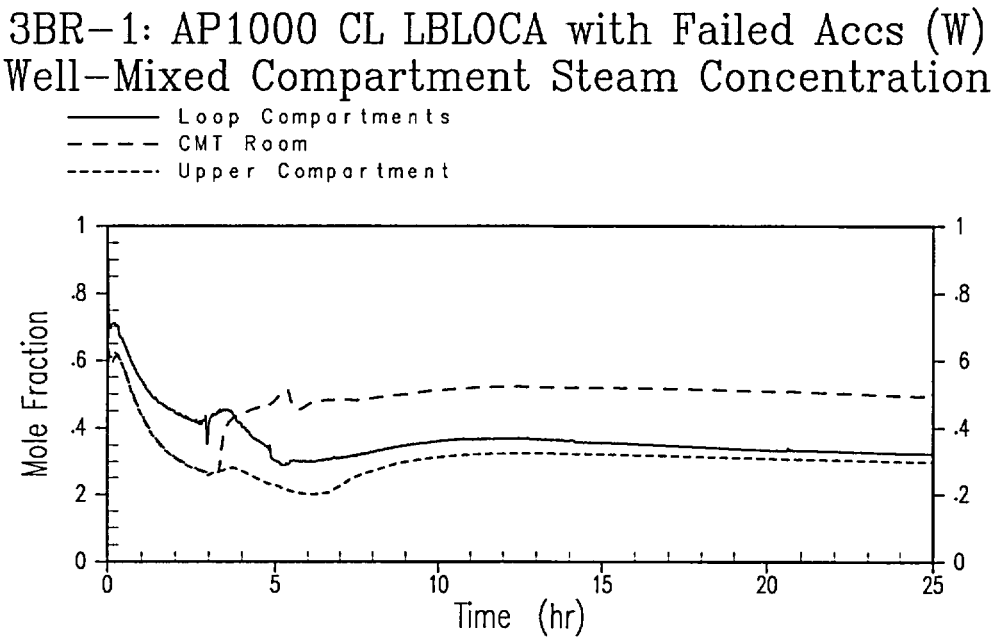
3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Containment Gas Temperature

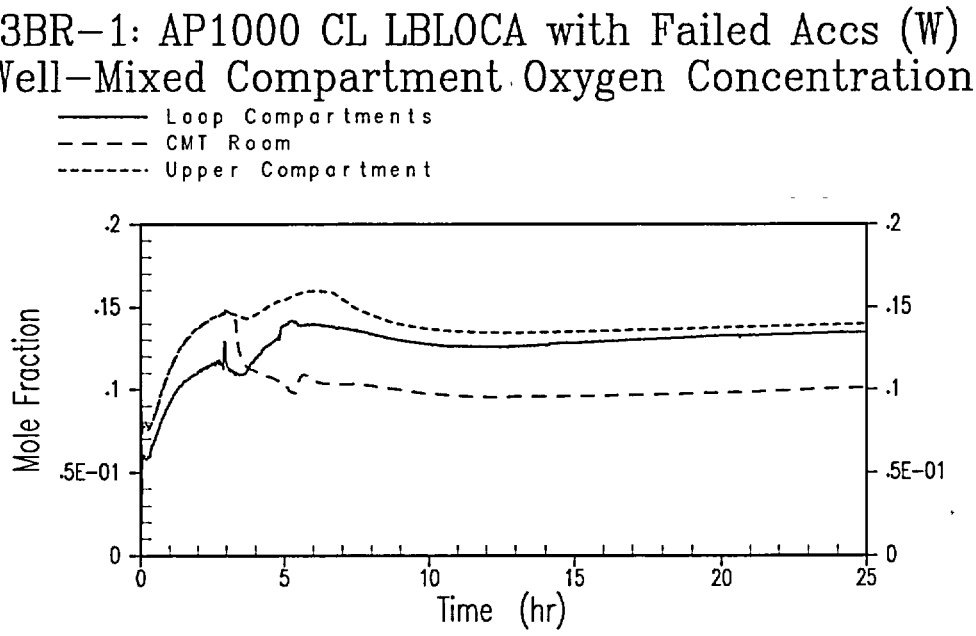



3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Containment Compartments Water Level
Cavity (Floor Elev = 71'6")
Loop Compartments (Floor Elev = 83')
IRWST (Floor Elev = 103')
Valve Vault (Floor Elev = 84'6")
CMT (Floor Elev = 107'2")
Length (m)
Length (ft)
Time (hr)
45
40
35
30
25
20
140
120
100
80
0
5
10
15
20
25

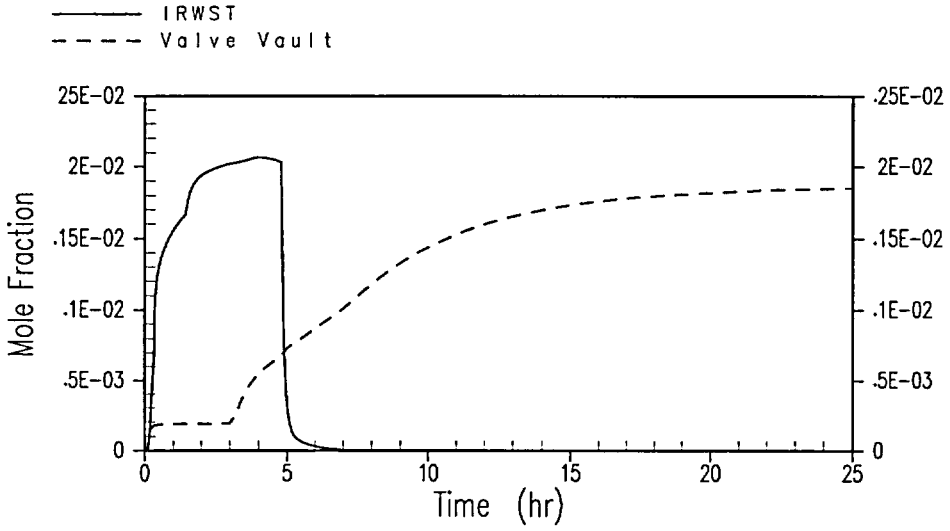
3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Well-Mixed Compartment Hydrogen Concentration

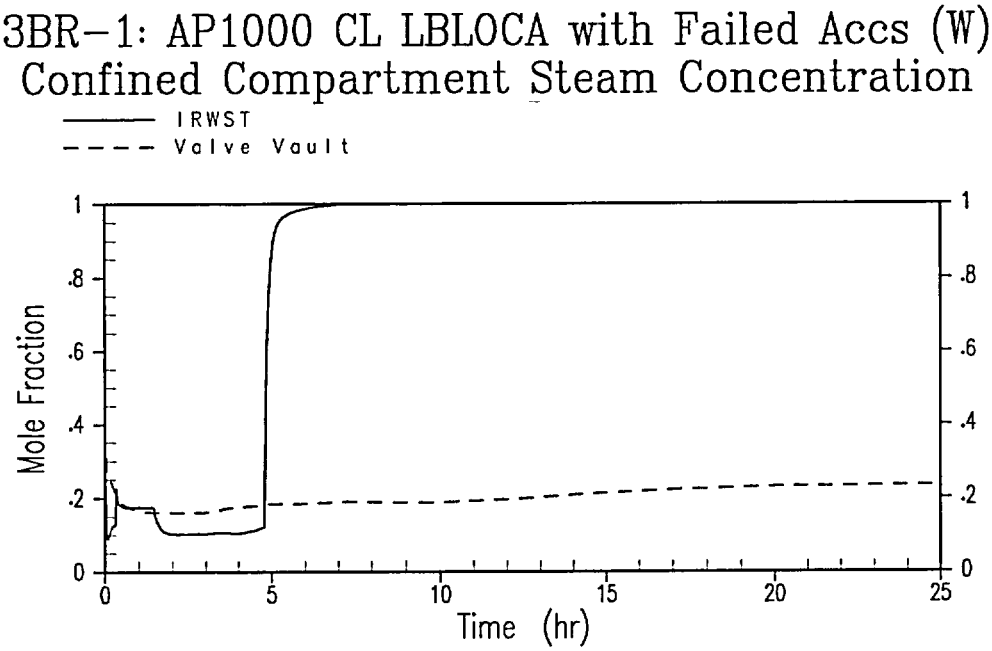


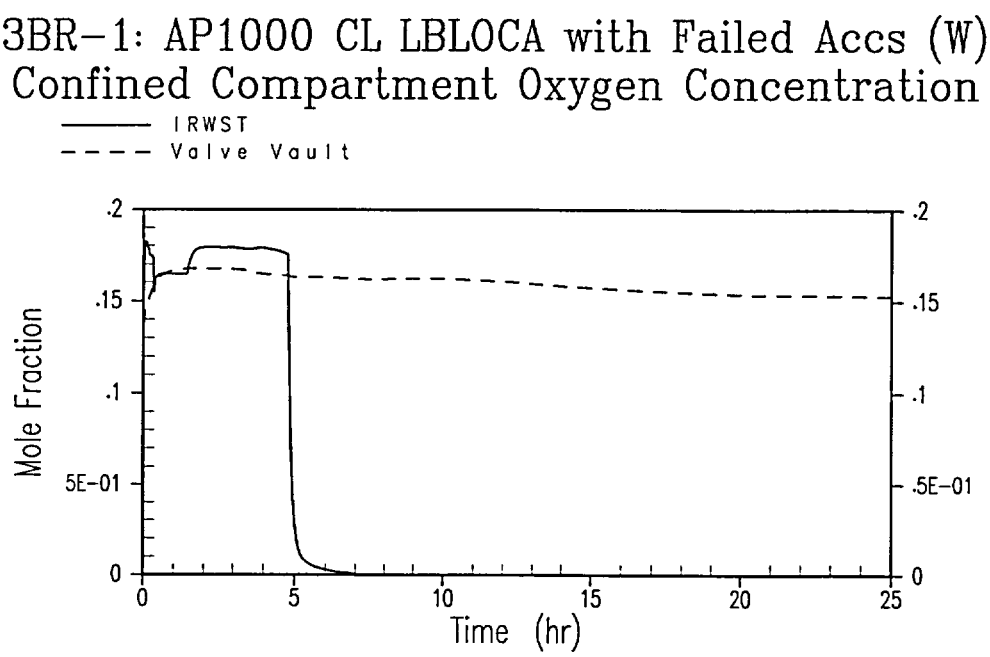

3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Well-Mixed Compartment Steam Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
Time (hr)
0
.2
.4
.6
.8
1
5
10
15
20
25
6


3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Well-Mixed Compartment Oxygen Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
.2
.15
.1
.5E-01
0
0
5
10
15
20
25
Time (hr)

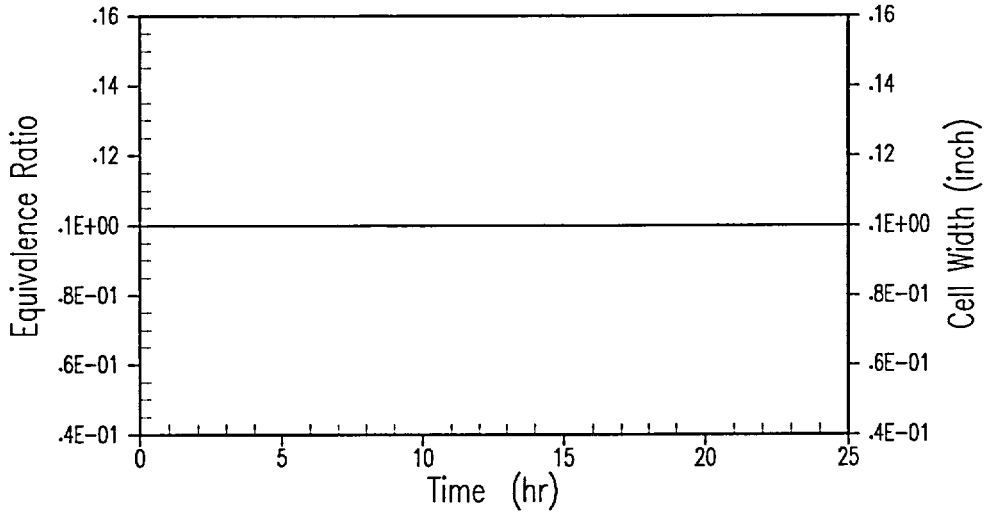
3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Confined Compartment Hydrogen Concentration



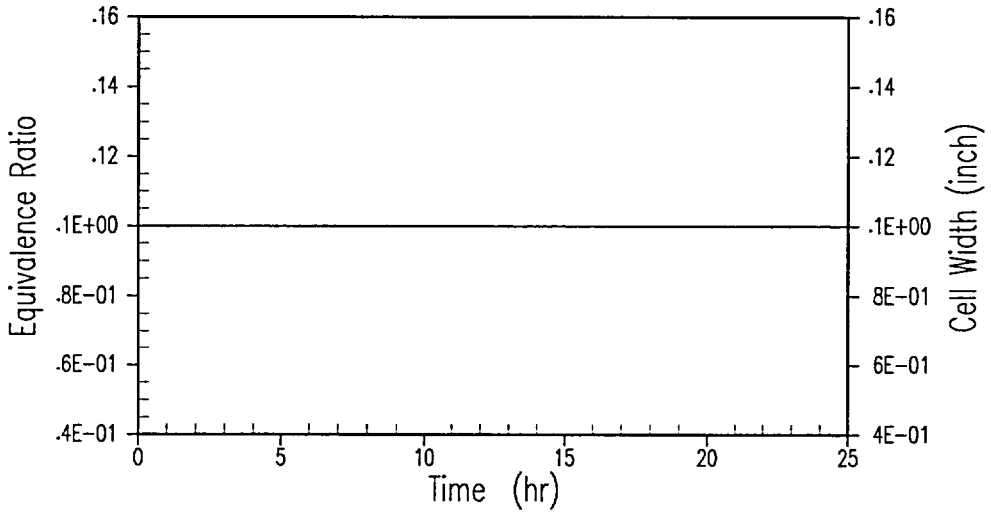

3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Confined Compartment Steam Concentration
IRWST
Valve Vault
Mole Fraction
Time (hr)
0
.2
.4
.6
.8
1
0
5
10
15
20
25

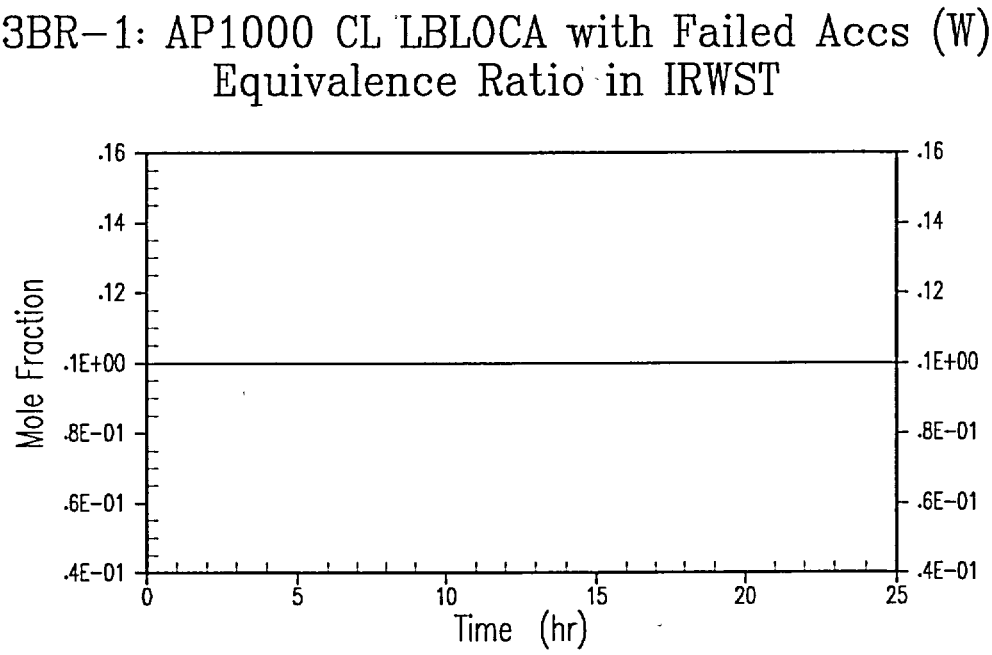

3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Confined Compartment Oxygen Concentration
IRWST
Valve Vault
Mole Fraction
.2
.15
.1
5E-01
0
0
5
10
15
20
25
Time (hr)

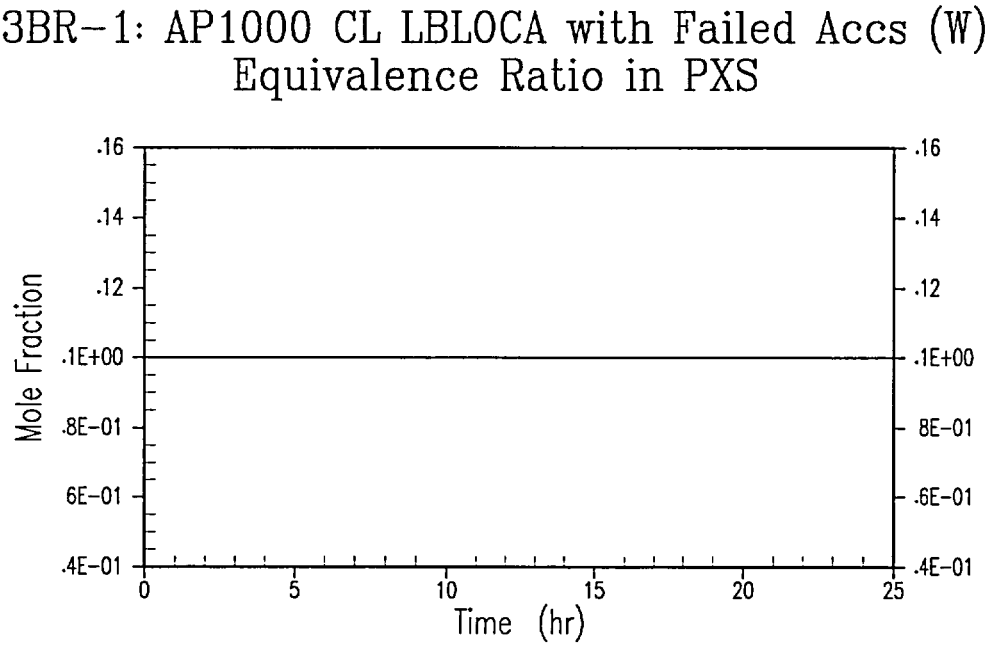
3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Equivalence Ratio in SG Room



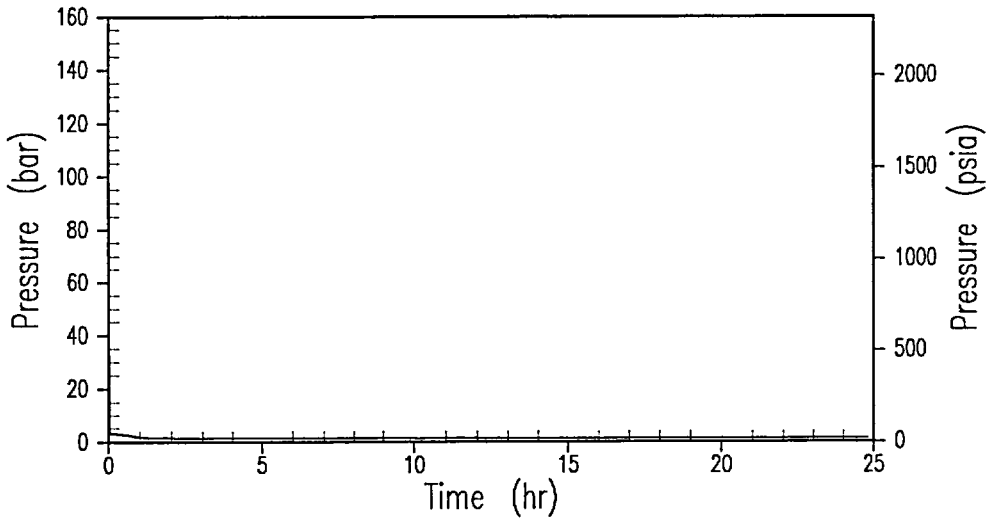
3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Equivalence Ratio in CMT Room



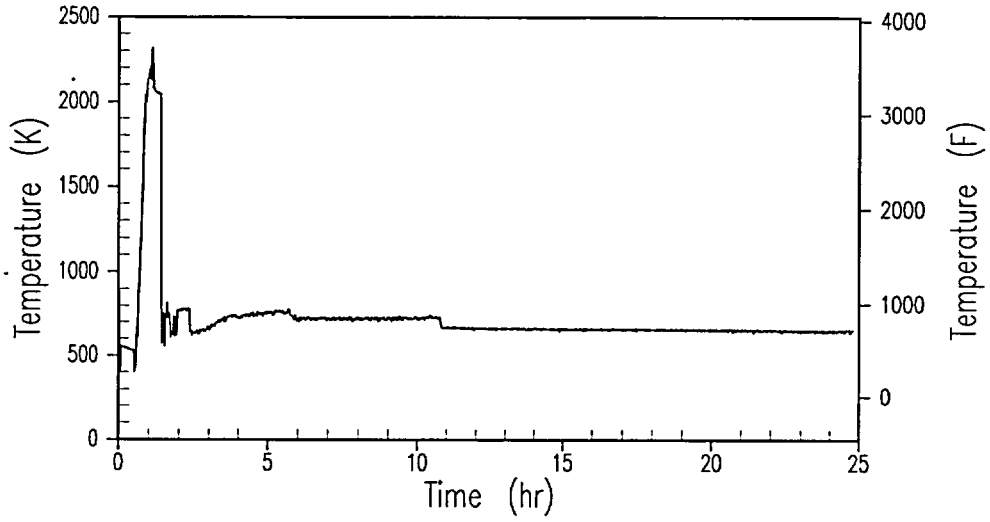

3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Equivalence Ratio in IRWST
Mole Fraction
.16
.14
.12
.1E+00
.8E-01
.6E-01
.4E-01
0
5
10
15
20
25
Time (hr)

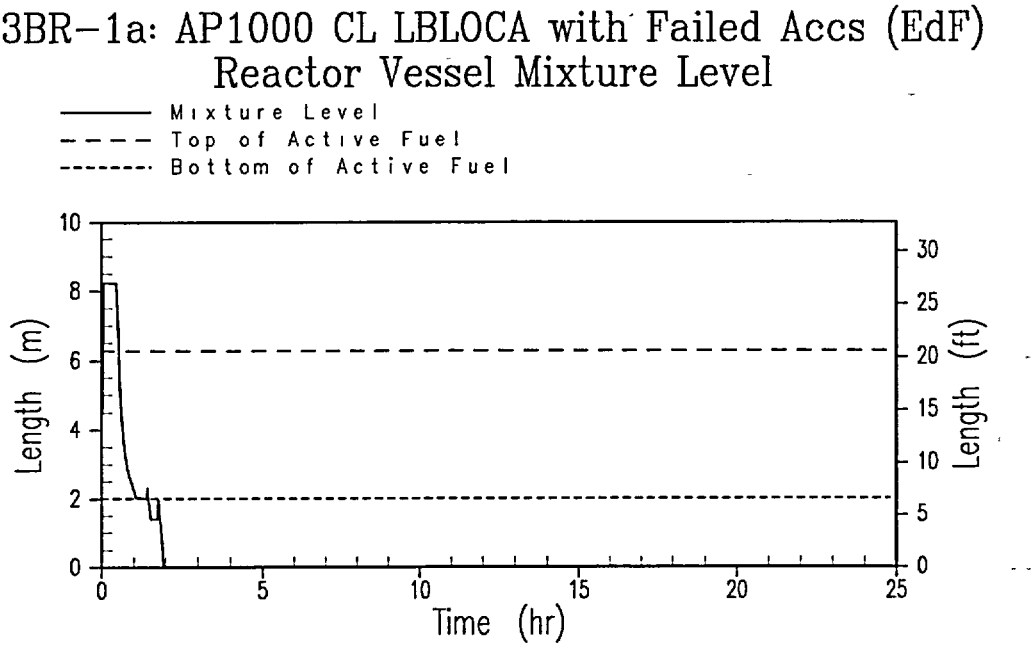

3BR-1: AP1000 CL LBLOCA with Failed Accs (W)
Equivalence Ratio in PXS
Mole Fraction
.16
.14
.12
.1E+00
.8E-01
6E-01
.4E-01
0
5
10
15
20
25
Time (hr)

3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Reactor Coolant System Pressure

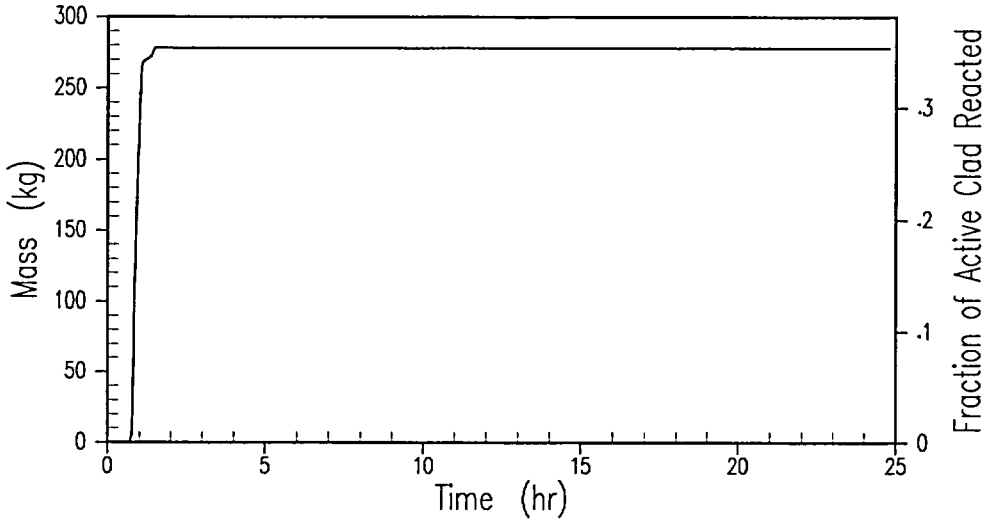


3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Core-Exit Gas Temperature

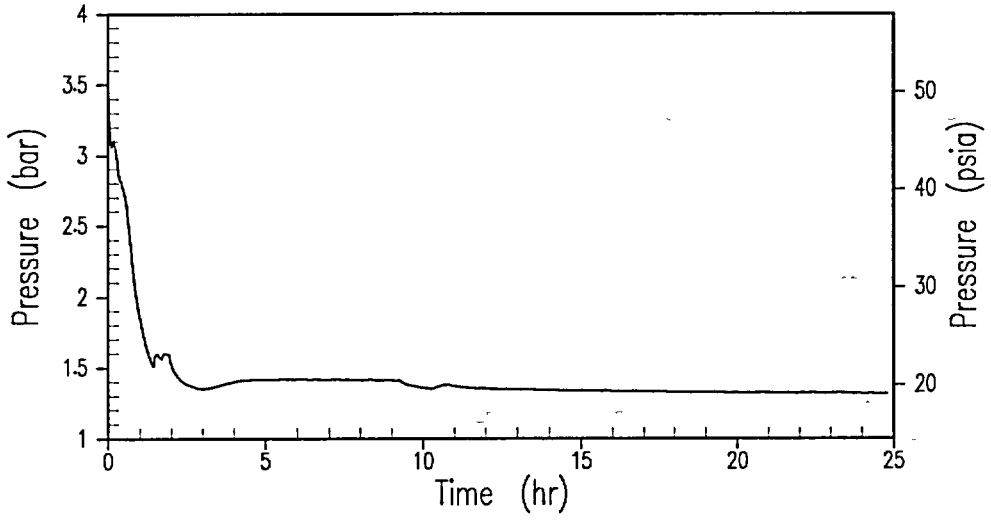



3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Reactor Vessel Mixture Level
Mixture Level
Top of Active Fuel
Bottom of Active Fuel
Length (m)
Length (ft)
Time (hr)
0
2
4
6
8
10
0
5
10
15
20
25
30

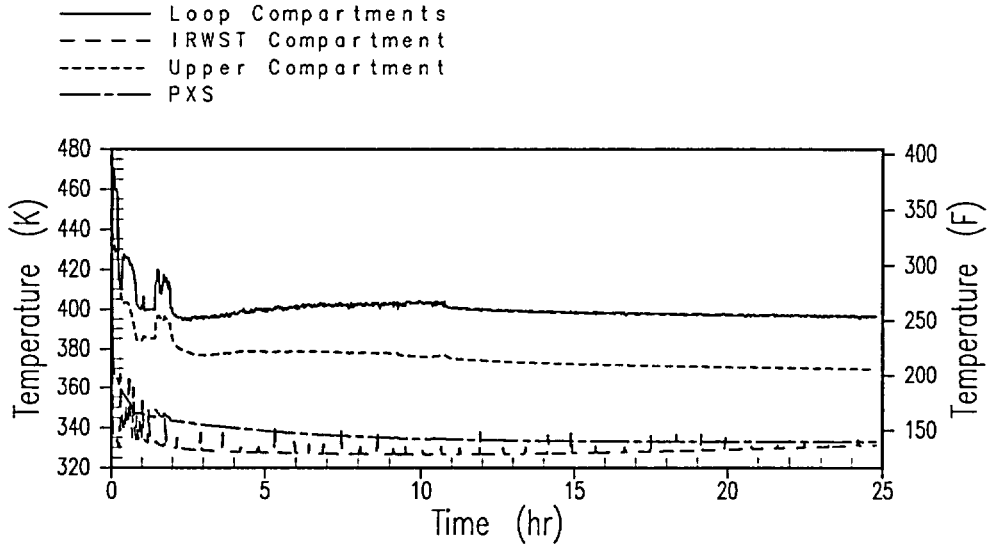
3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Hydrogen Generated In-Vessel

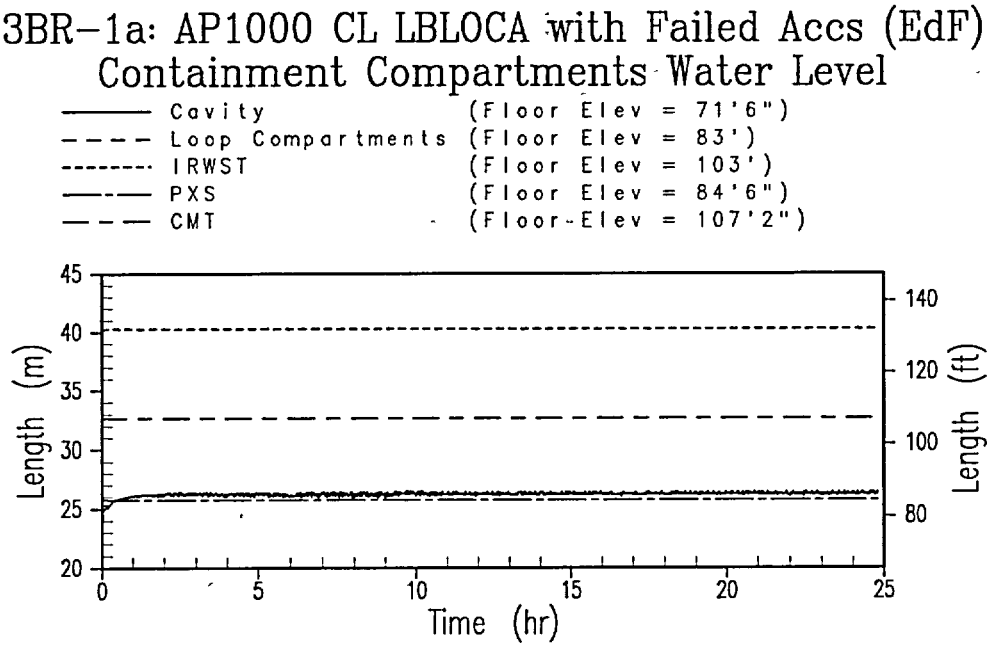


3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Containment Pressure

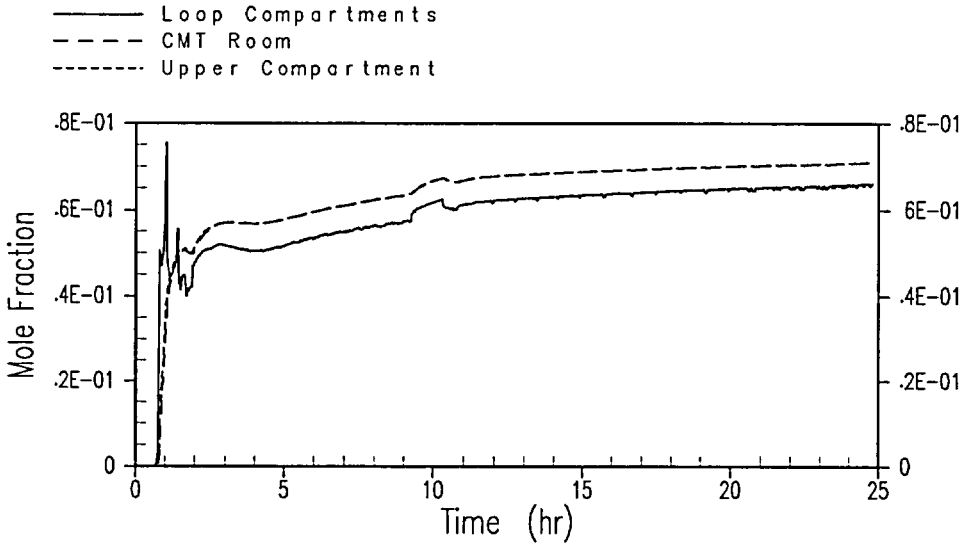


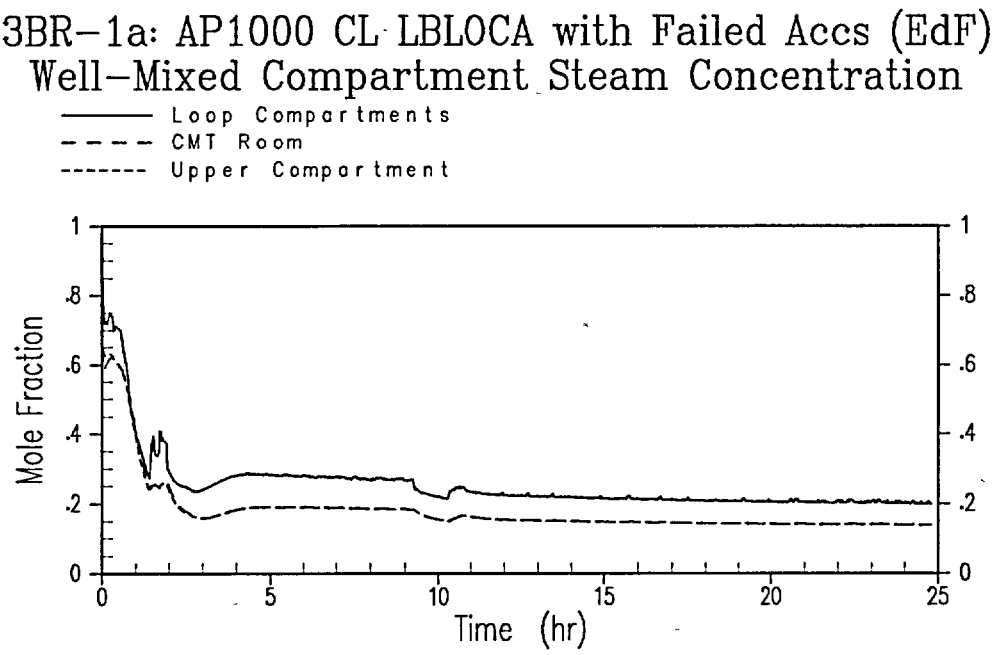
3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Containment Gas Temperature

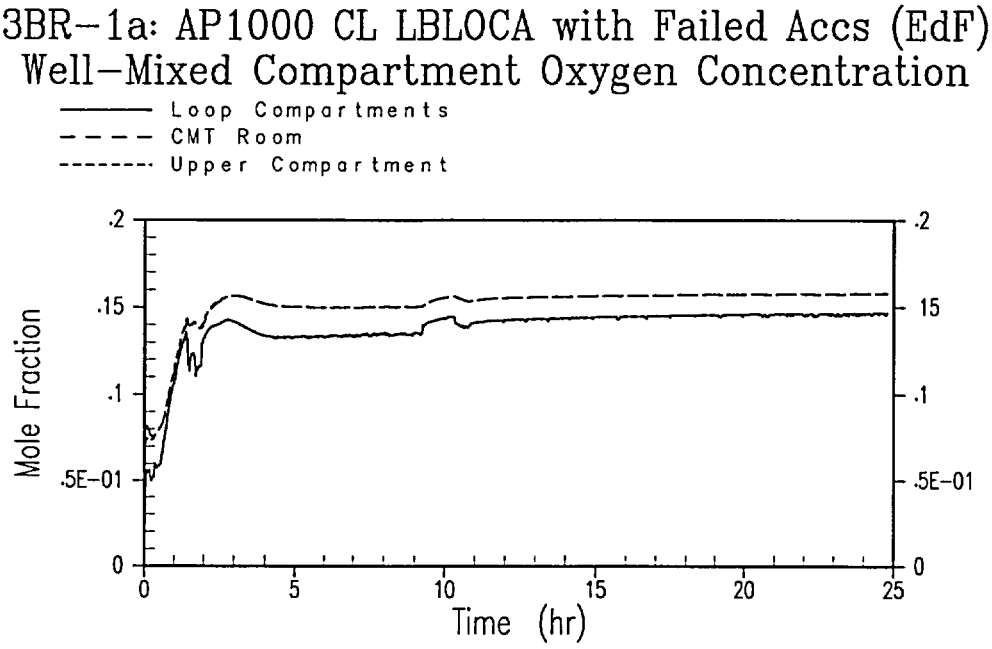



3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Containment Compartments Water Level
Cavity (Floor Elev = 71'6")
Loop Compartments (Floor Elev = 83')
IRWST (Floor Elev = 103')
PXS (Floor Elev = 84'6")
CMT (Floor Elev = 107'2")
Length (m)
Length (ft)
Time (hr)
45
40
35
30
25
20
140
120
100
80
0
5
10
15
20
25

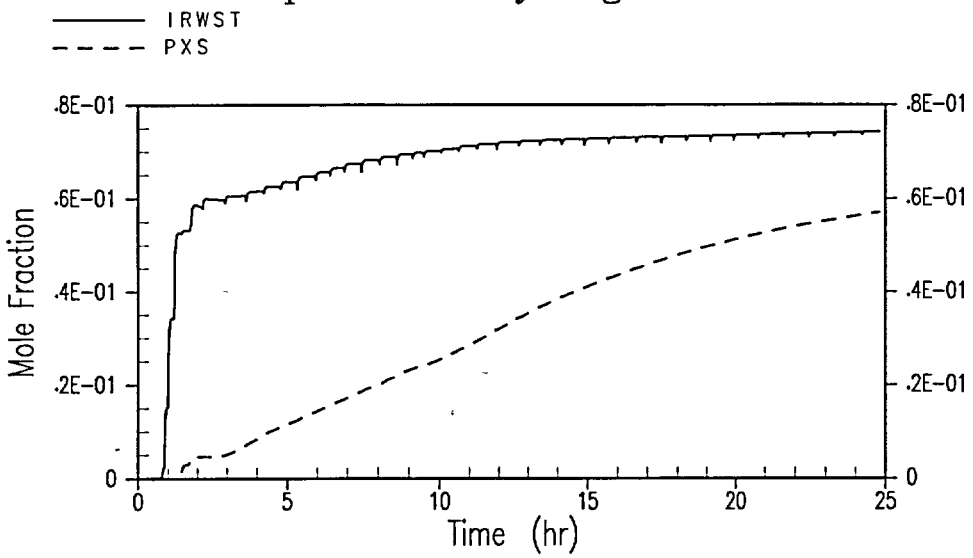
3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Well-Mixed Compartment Hydrogen Concentration



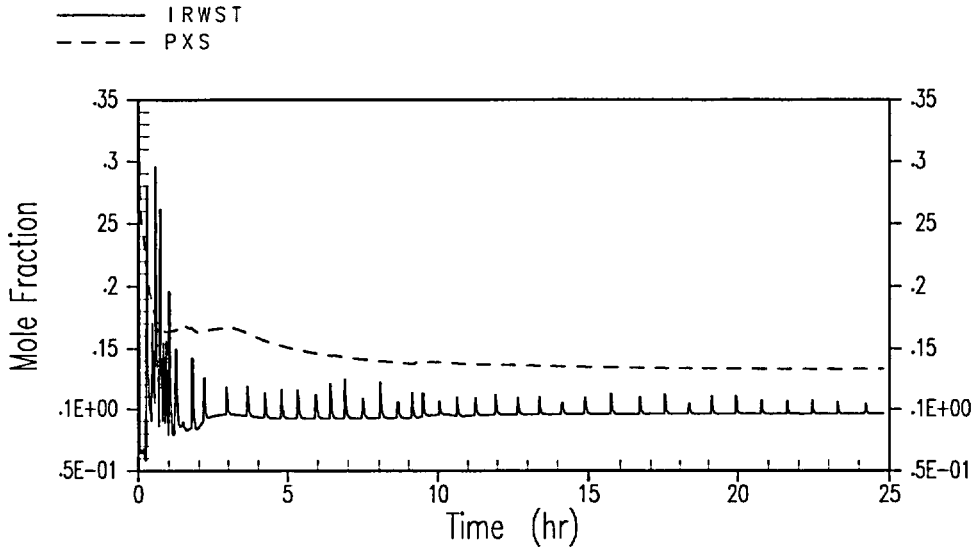

3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Well-Mixed Compartment Steam Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
Time (hr)
0
.2
.4
.6
.8
1
0
5
10
15
20
25


3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Well-Mixed Compartment Oxygen Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
.2
.15
.1
.5E-01
0
15
.5E-01
0
5
10
15
20
25
Time (hr)

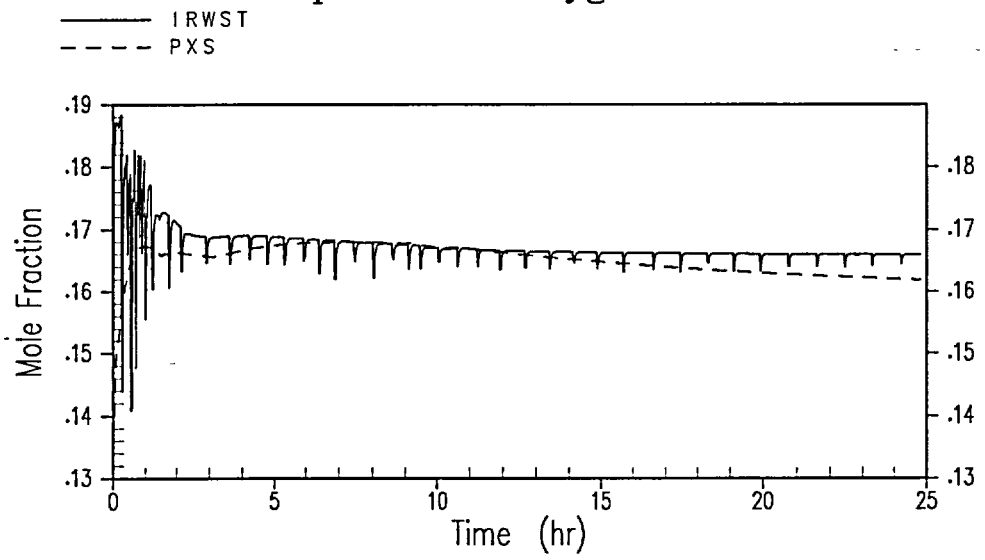
3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Confined Compartment Hydrogen Concentration



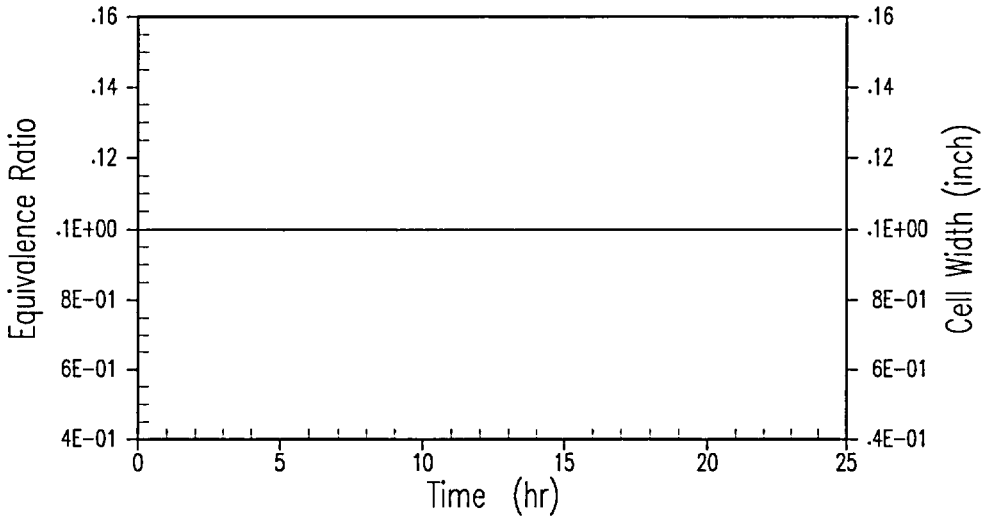
3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Confined Compartment Steam Concentration



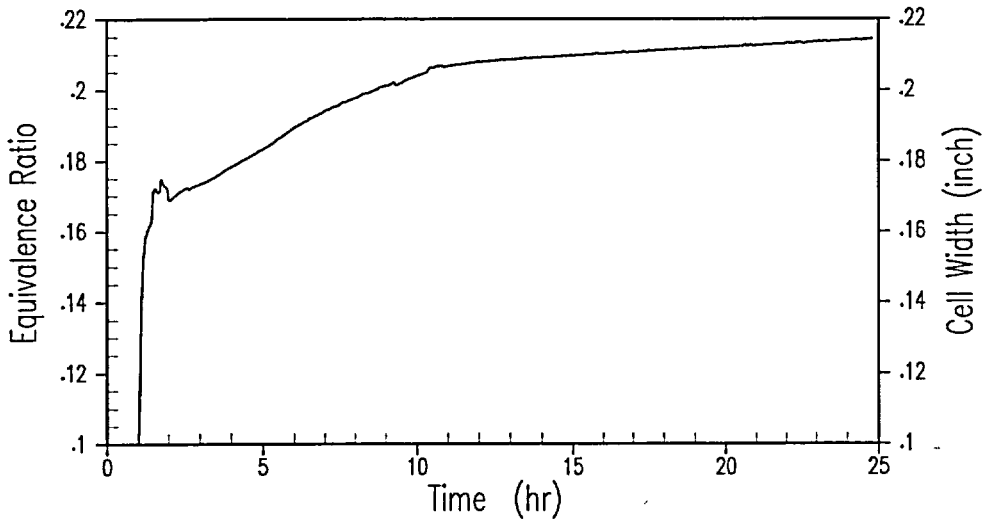
3BR–1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Confined Compartment Oxygen Concentration



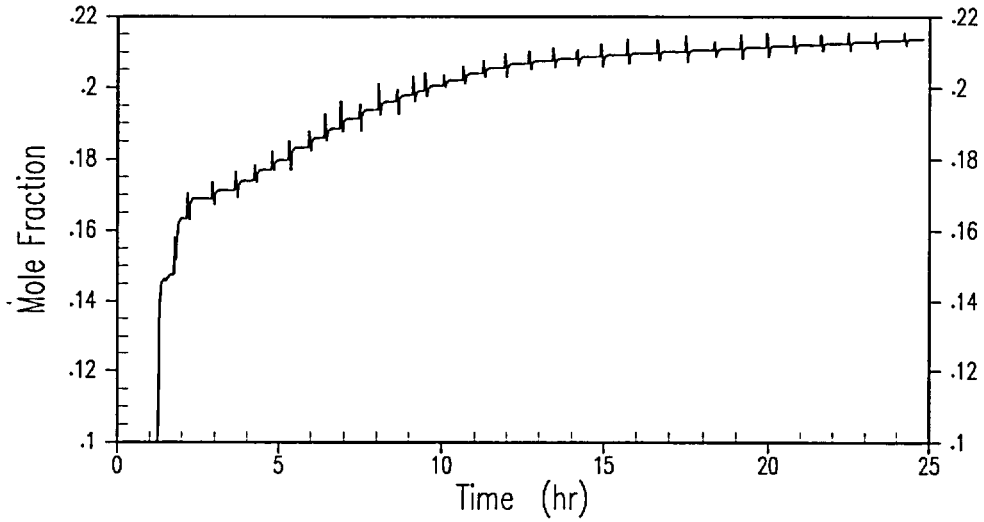
3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Equivalence Ratio in SG Room

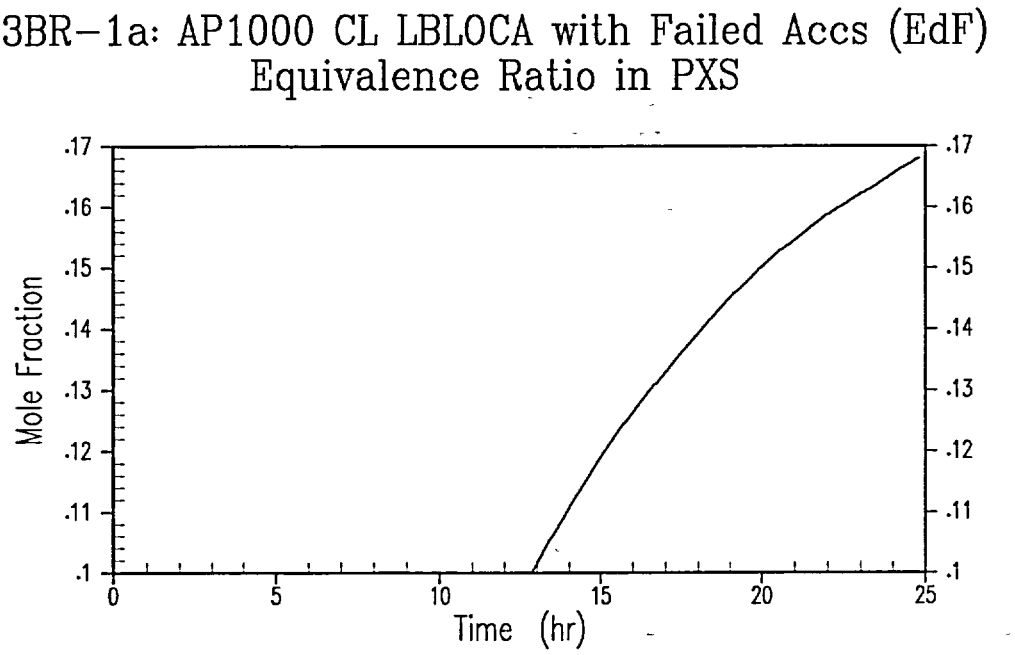


3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Equivalence Ratio in CMT Room

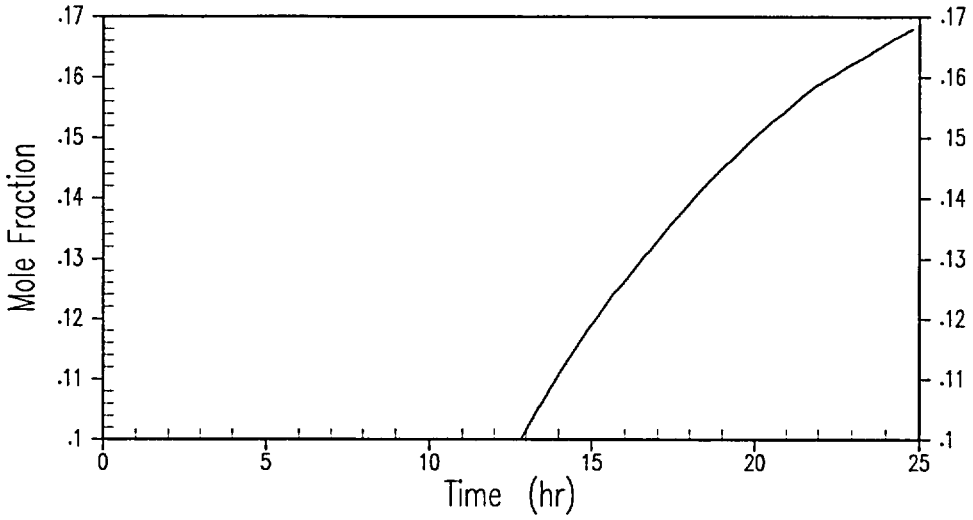


3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Equivalence Ratio in IRWST

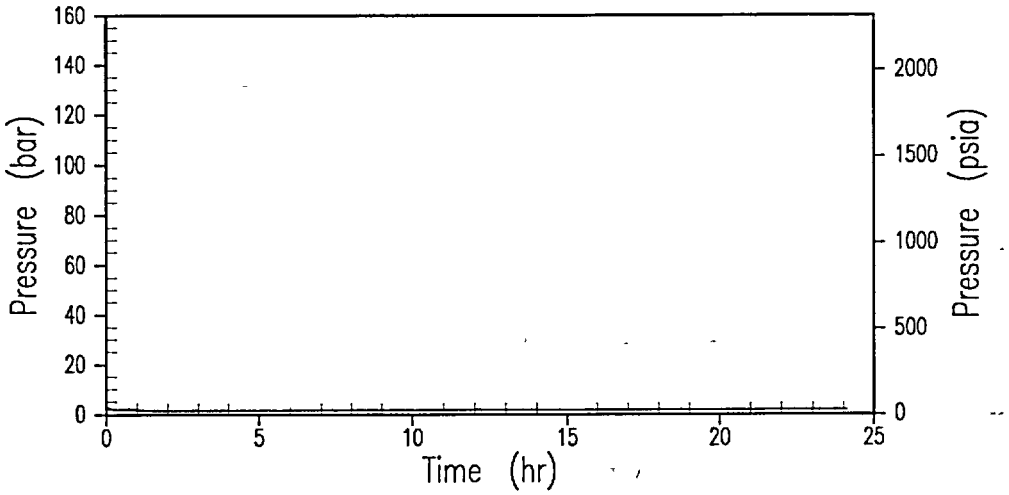



3BR-1a: AP1000 CL LBLOCA with Failed Accs (EdF)
Equivalence Ratio in PXS
Mole Fraction
.17
.16
.15
.14
.13
.12
.11
.1
0
5
10
15
20
25
Time (hr)

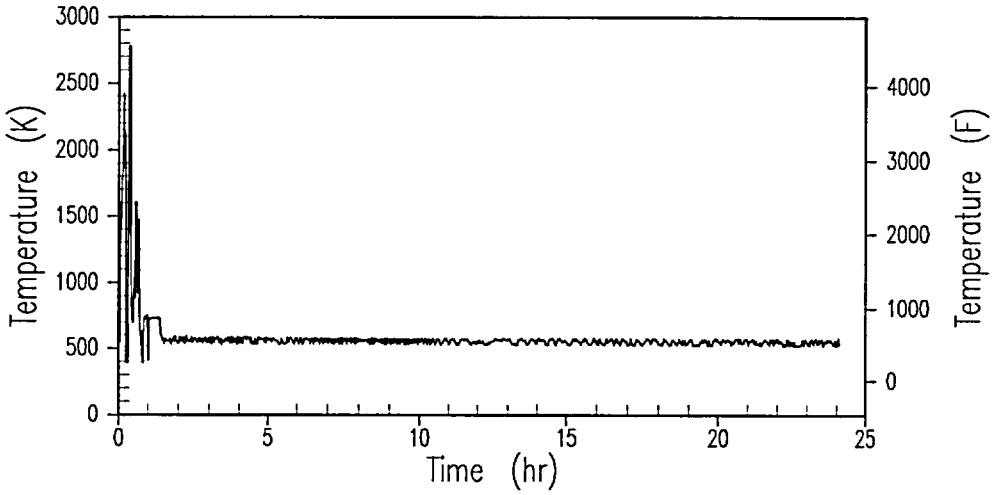
3BR-1: AP1000 CL LBLOCA with Failed Accs (EdF)
Equivalence Ratio in Valve Vault

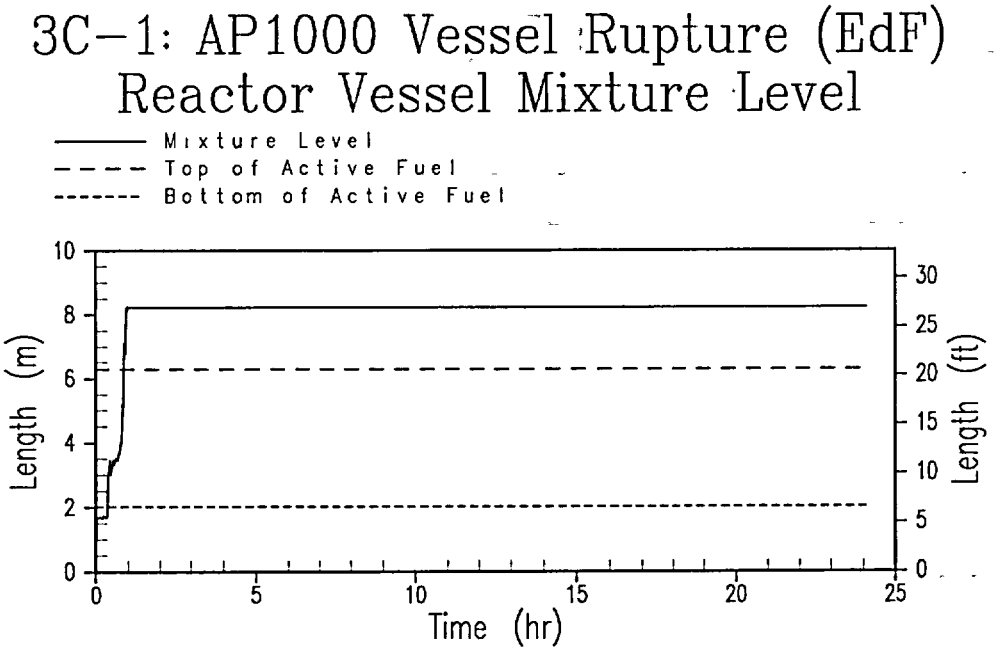


3C-1: AP1000 Vessel Rupture (EdF) Reactor Coolant System Pressure

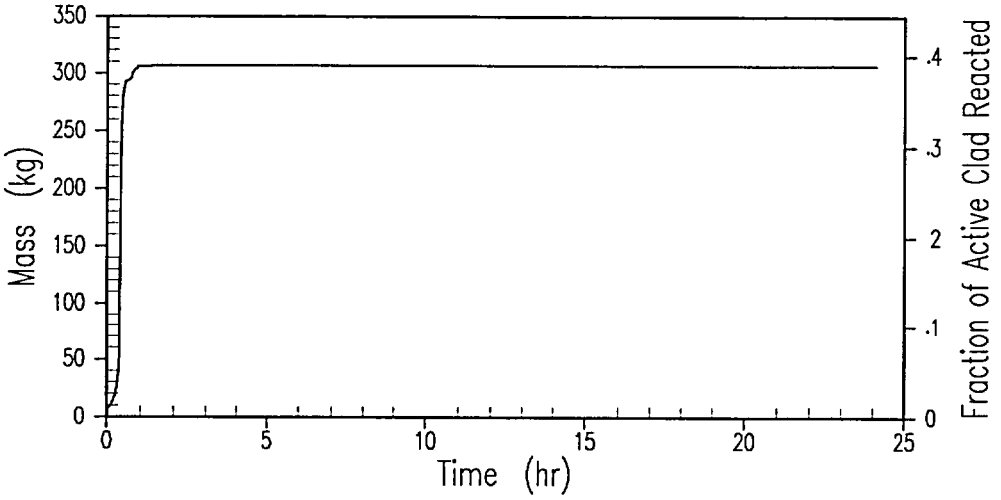


3C-1: AP1000 Vessel Rupture (EdF) Core-Exit Gas Temperature

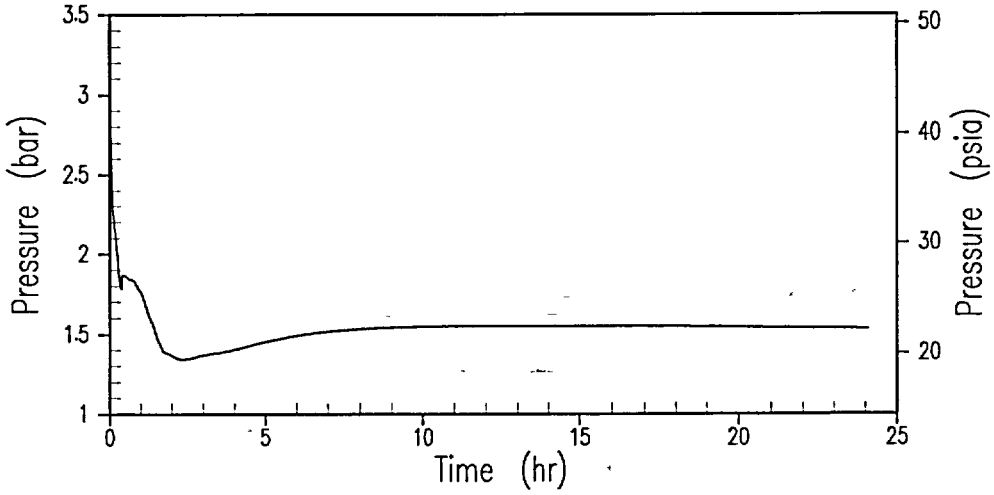



3C-1: AP1000 Vessel Rupture (EdF)
Reactor Vessel Mixture Level
Mixture Level
Top of Active Fuel
Bottom of Active Fuel
Length (m)
Length (ft)
Time (hr)
0
2
4
6
8
10
0
5
10
15
20
25
30

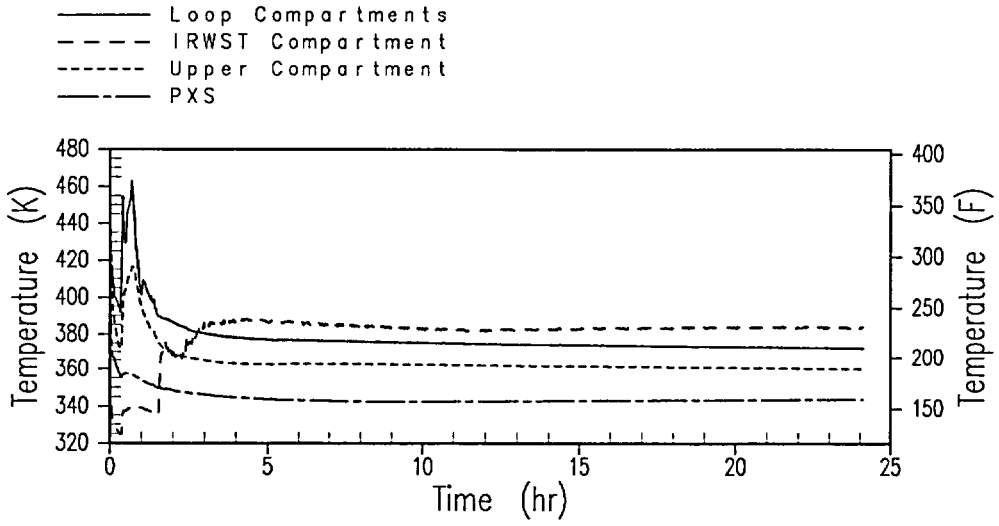
3C-1: AP1000 Vessel Rupture (EdF) Hydrogen Generated In-Vessel



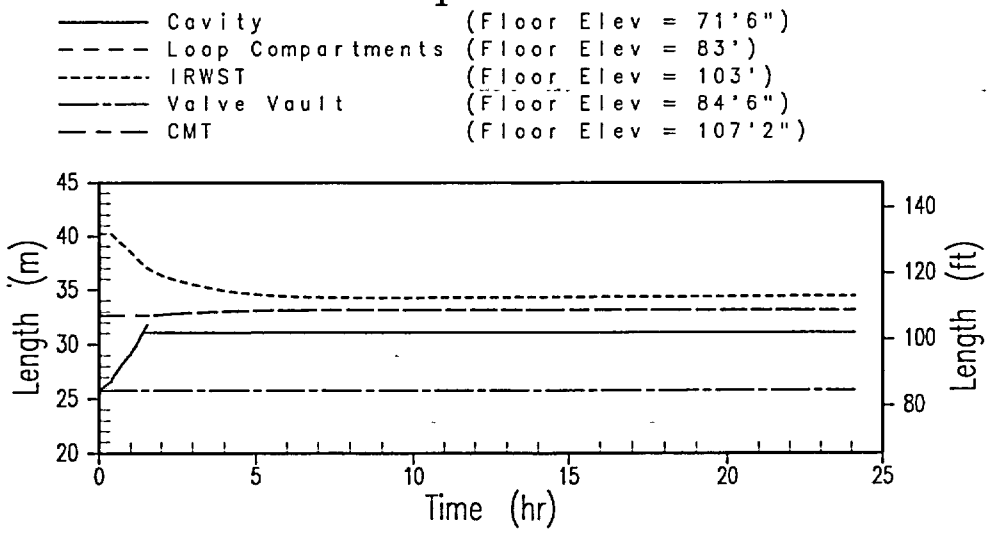
3C-1: AP1000 Vessel Rupture (EdF) Containment Pressure

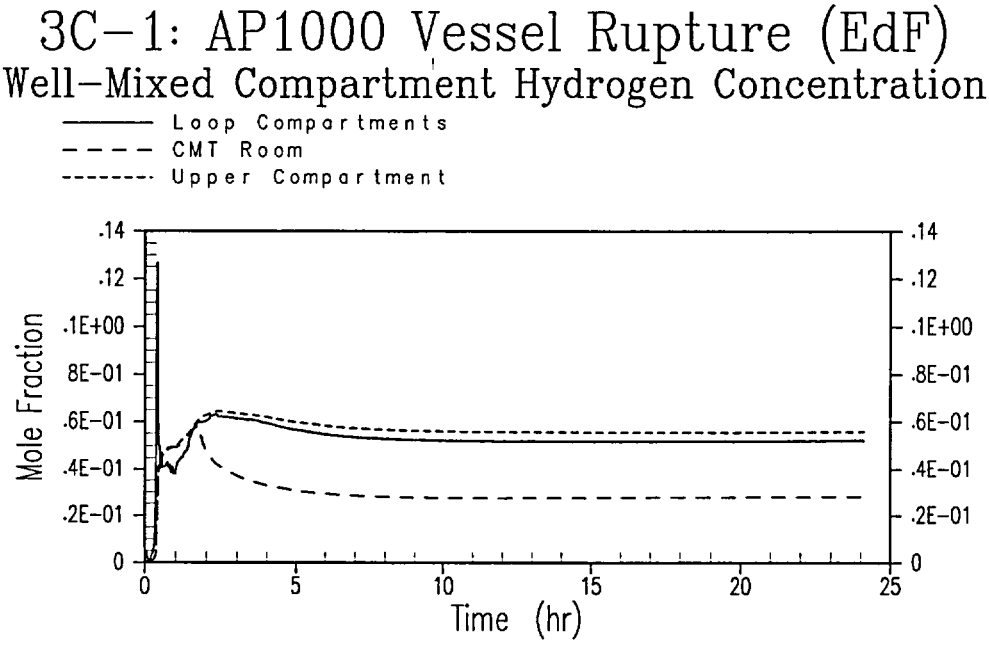


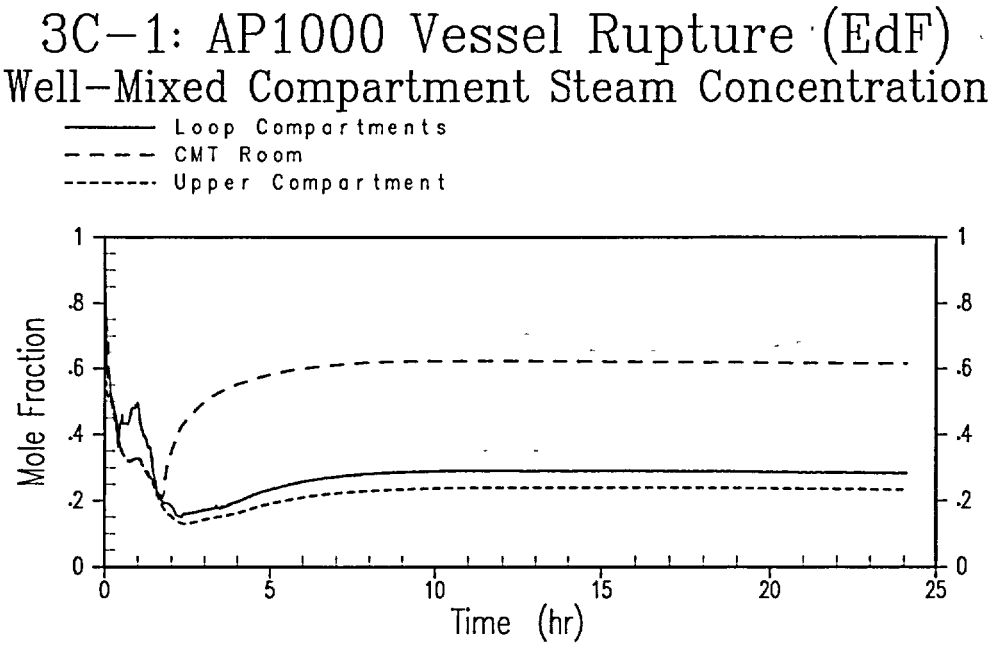
3C-1: AP1000 Vessel Rupture (EdF) Containment Gas Temperature

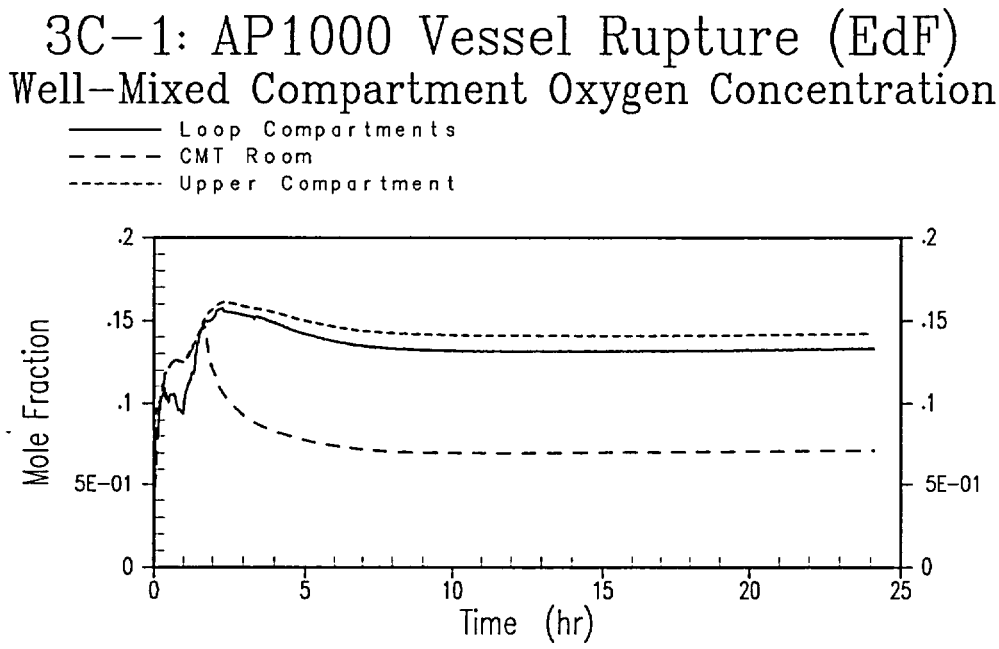


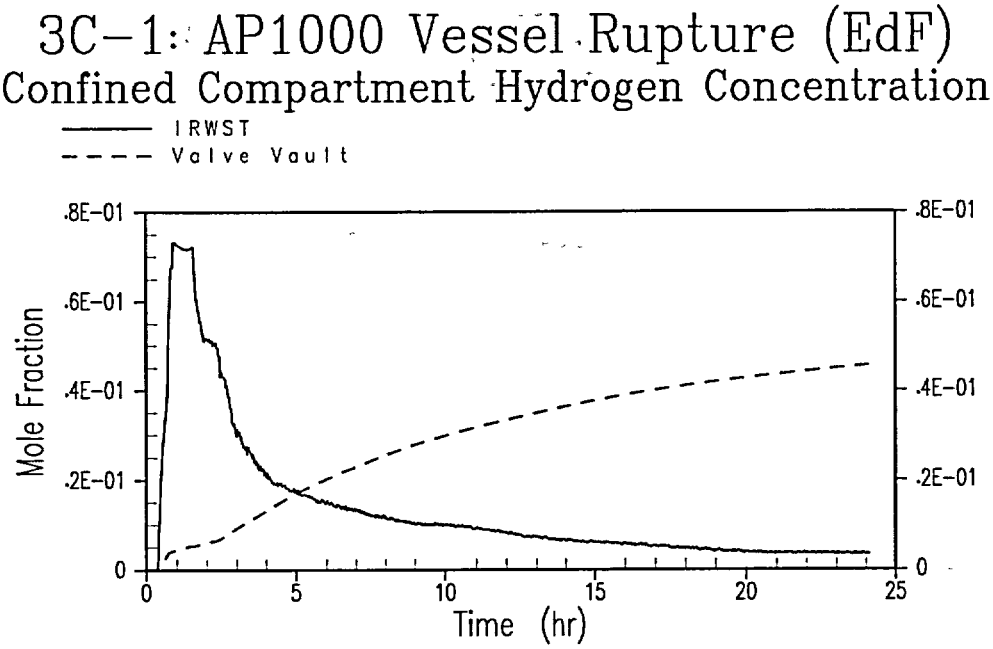
3C–1: AP1000 Vessel Rupture (EdF)
Containment Compartments Water Level



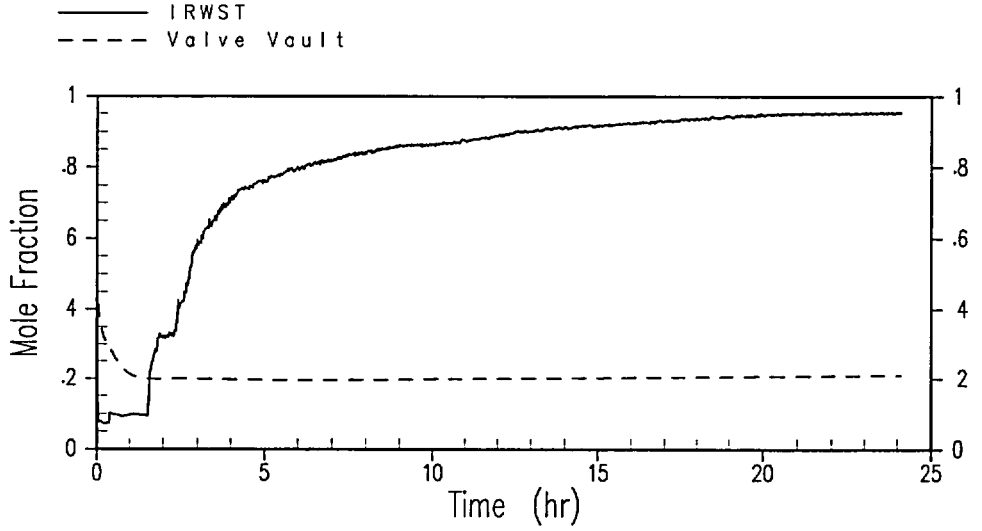

3C-1: AP1000 Vessel Rupture (EdF)
Well-Mixed Compartment Hydrogen Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
.14
.12
.1E+00
8E-01
.6E-01
.4E-01
.2E-01
0
0
5
10
15
20
25
Time (hr)


3C-1: AP1000 Vessel Rupture (EdF)
Well-Mixed Compartment Steam Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
Time (hr)
0
.2
.4
.6
.8
1
0
5
10
15
20
25


3C-1: AP1000 Vessel Rupture (EdF)
Well-Mixed Compartment Oxygen Concentration
Loop Compartments
CMT Room
Upper Compartment
Mole Fraction
.2
.15
.1
5E-01
0
0
5
10
15
20
25
Time (hr)

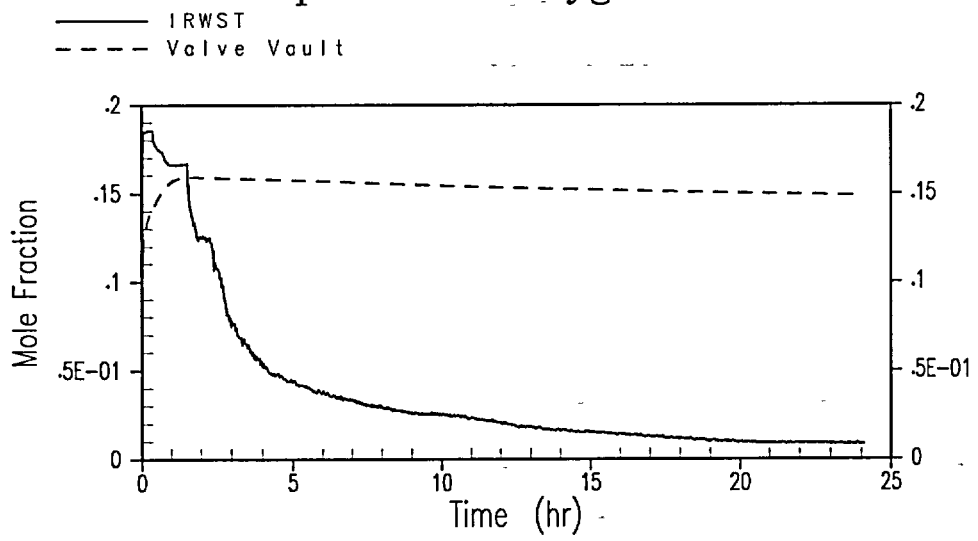

3C-1: AP1000 Vessel Rupture (EdF)
Confined Compartment Hydrogen Concentration
IRWST
Valve Vault
.8E-01
.6E-01
.4E-01
.2E-01
0
Mole Fraction
0
5
10
15
20
25
Time (hr)

3C-1: AP1000 Vessel Rupture (EdF)
Confined Compartment Steam Concentration

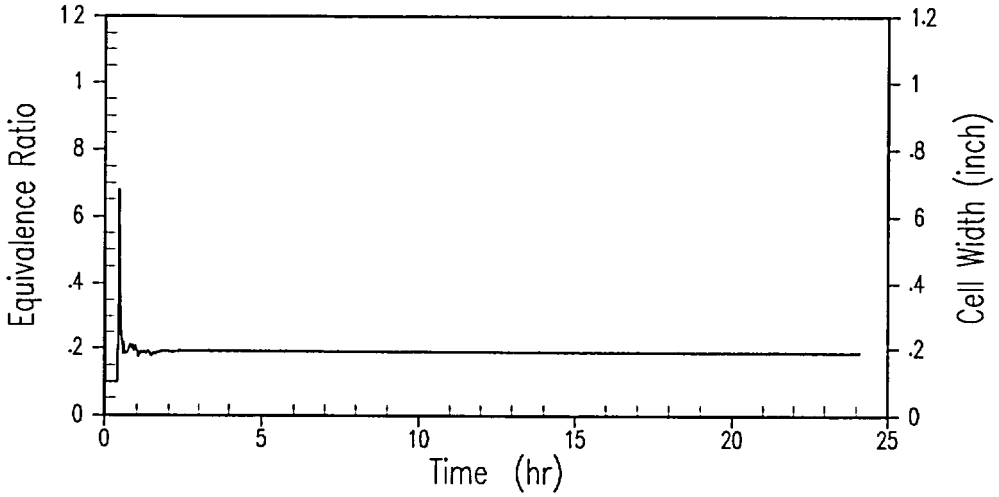


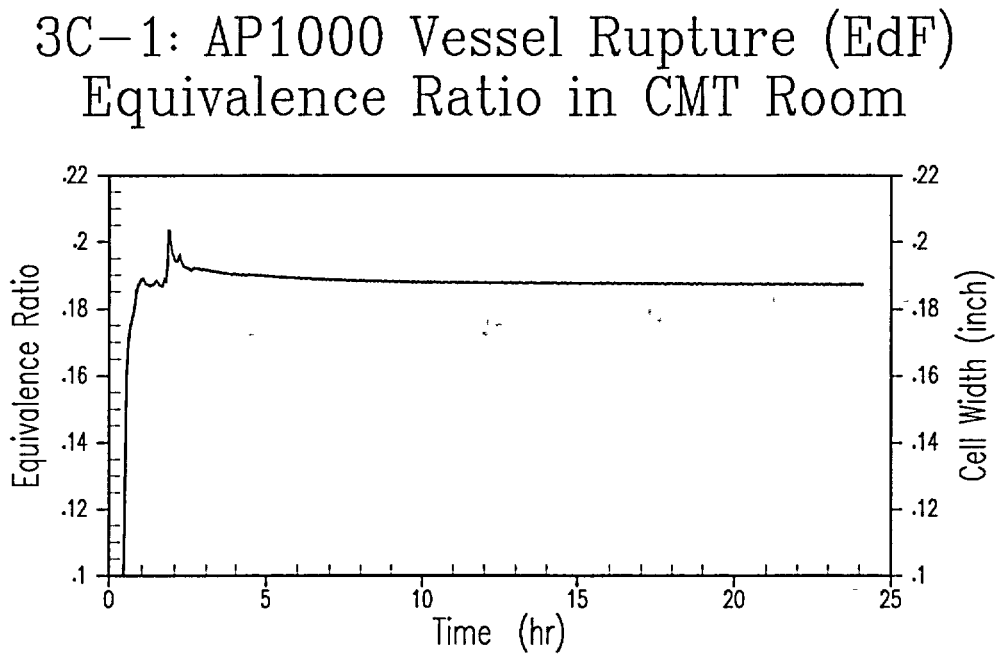
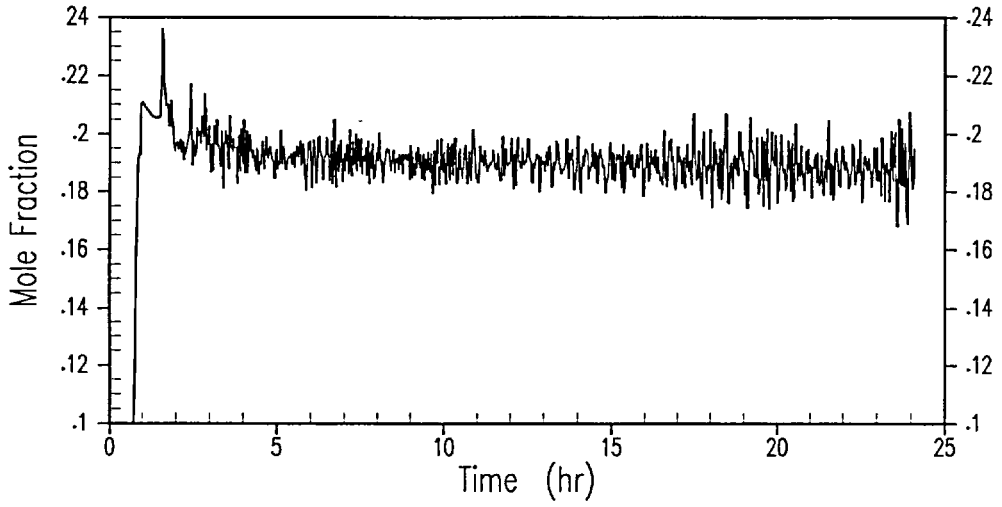
3C–1: AP1000 Vessel Rupture (EdF)

Confined Compartment Oxygen Concentration



3C−1: AP1000 Vessel Rupture (EdF) Equivalence Ratio in SG Room




3C-1: AP1000 Vessel Rupture (EdF)
Equivalence Ratio in CMT Room
Equivalence Ratio
Cell Width (inch)
.22
.2
.18
.16
.14
.12
.1
0
5
10
15
20
25
Time (hr)

3C−1: AP1000 Vessel Rupture (EdF) Equivalence Ratio in IRWST