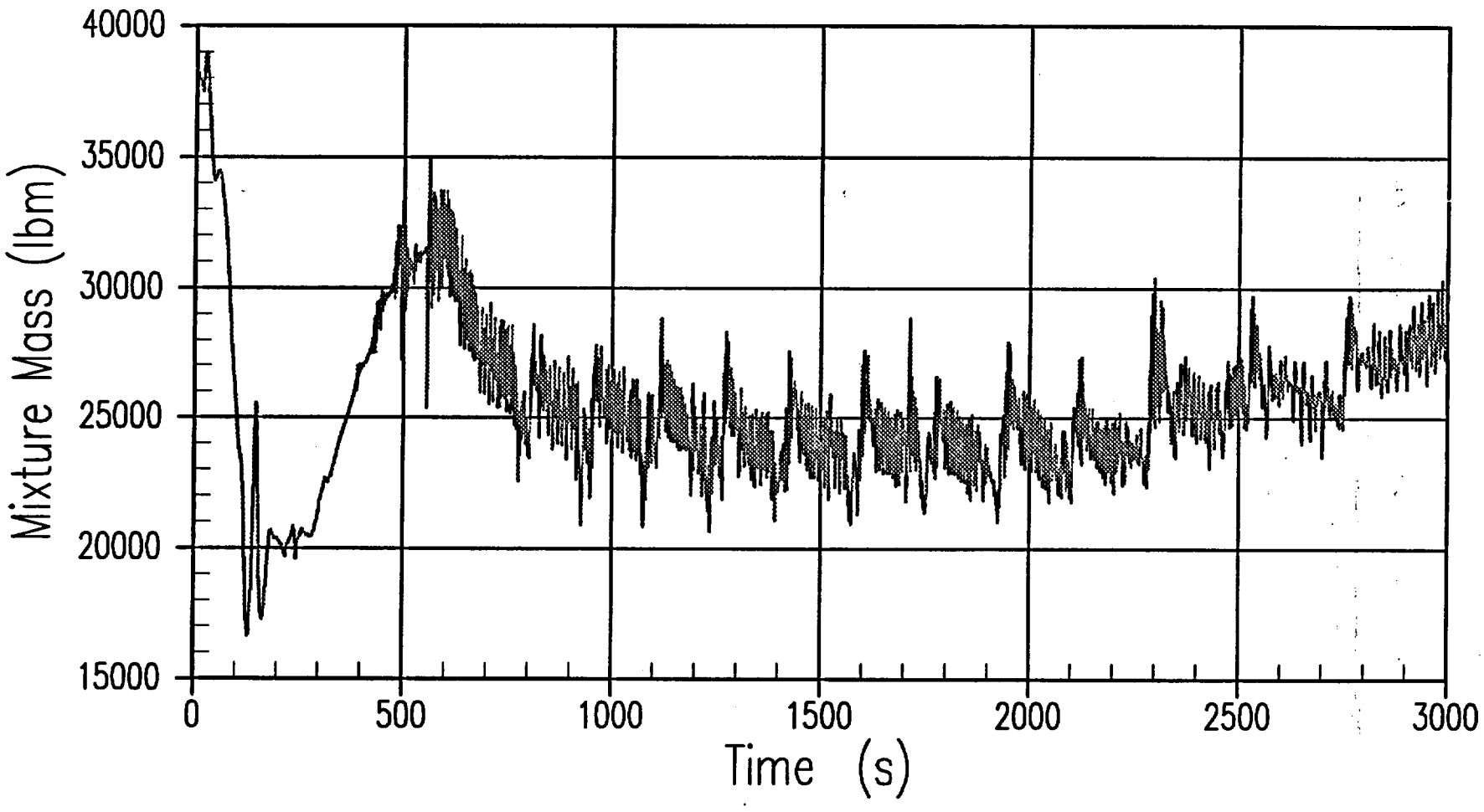
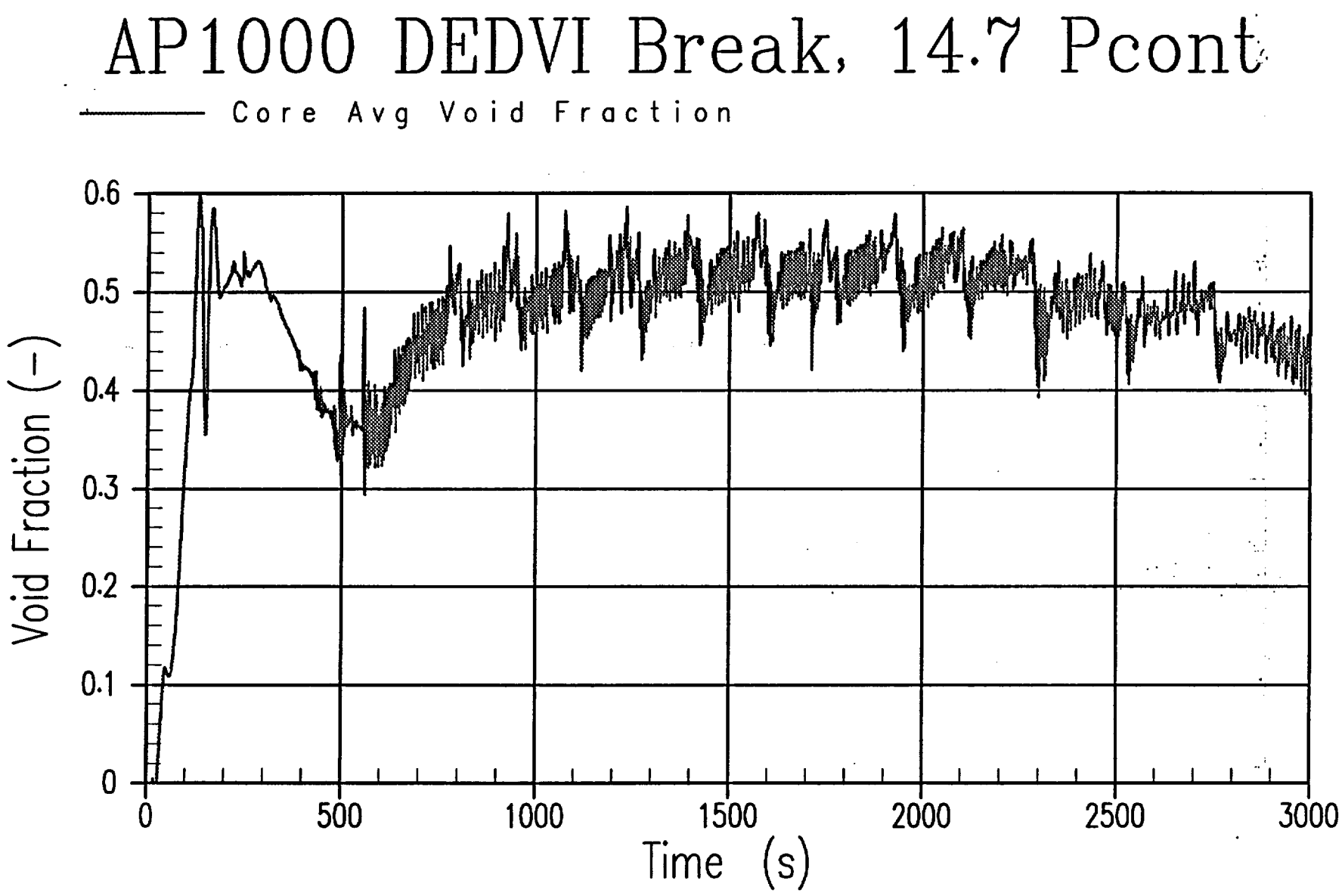
Attachment 2

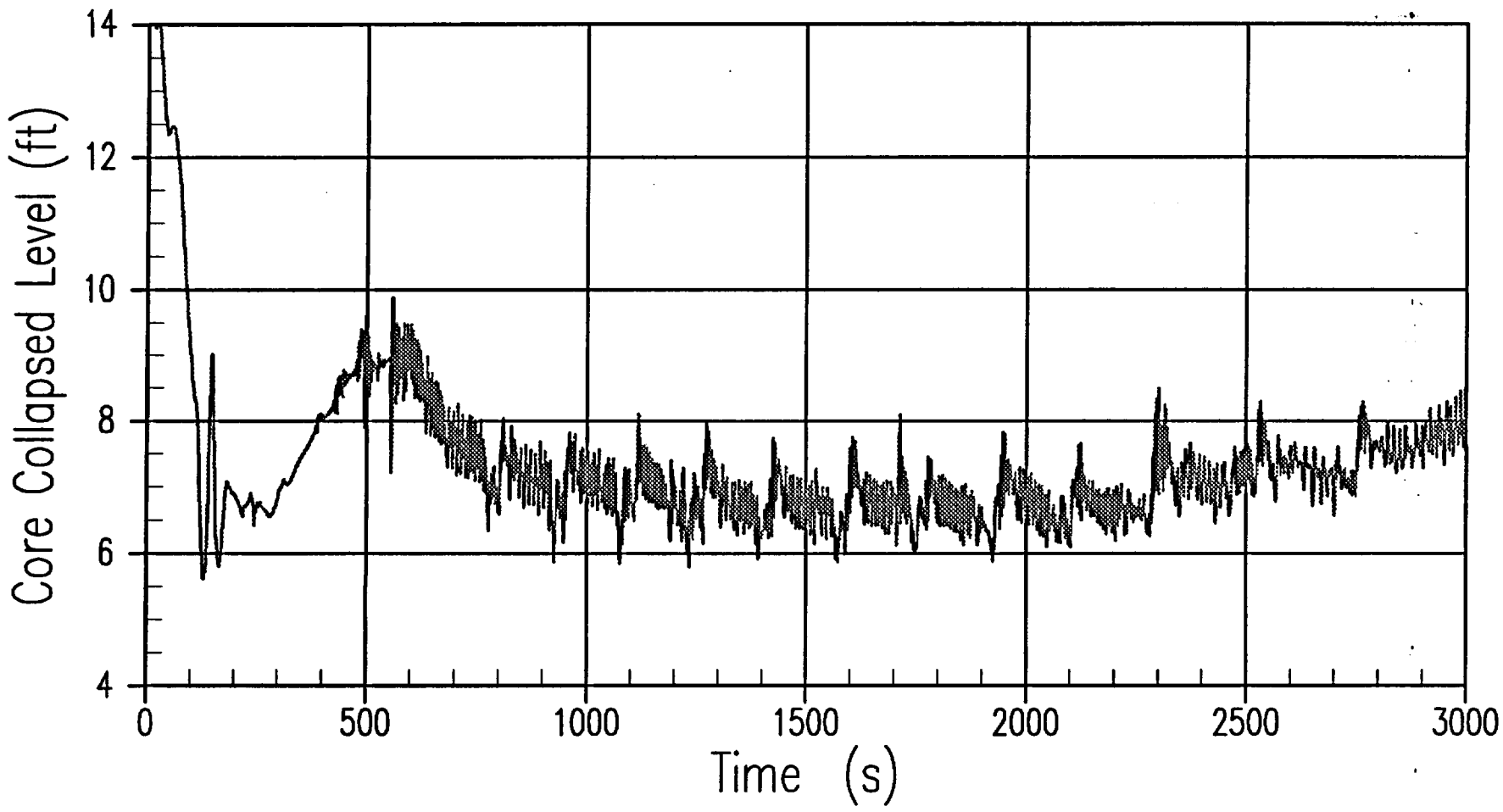
Westinghouse graphs from the NOTRUMP computer code

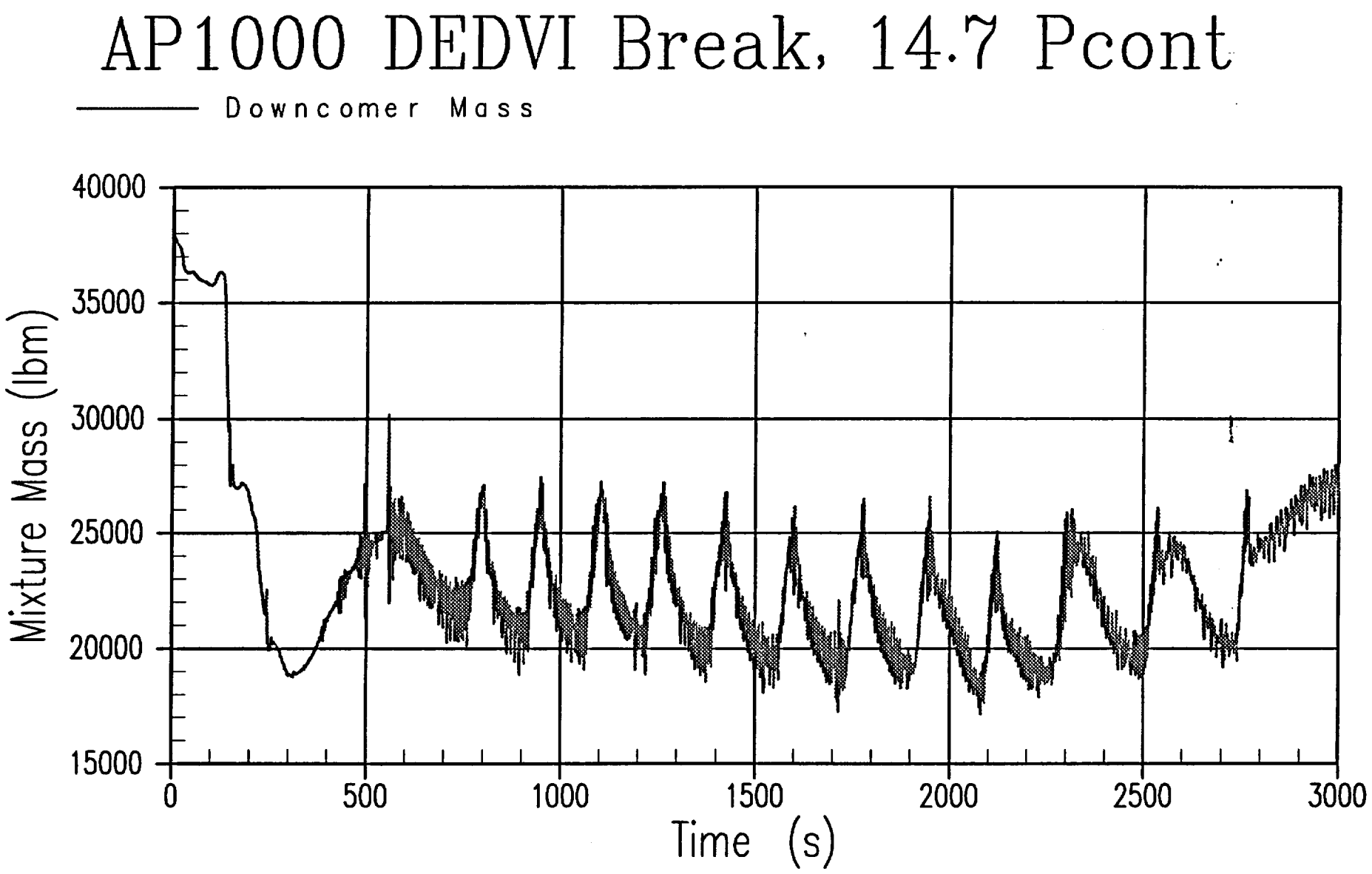
AP1000 DEDVI Break, 14.7 Pcont



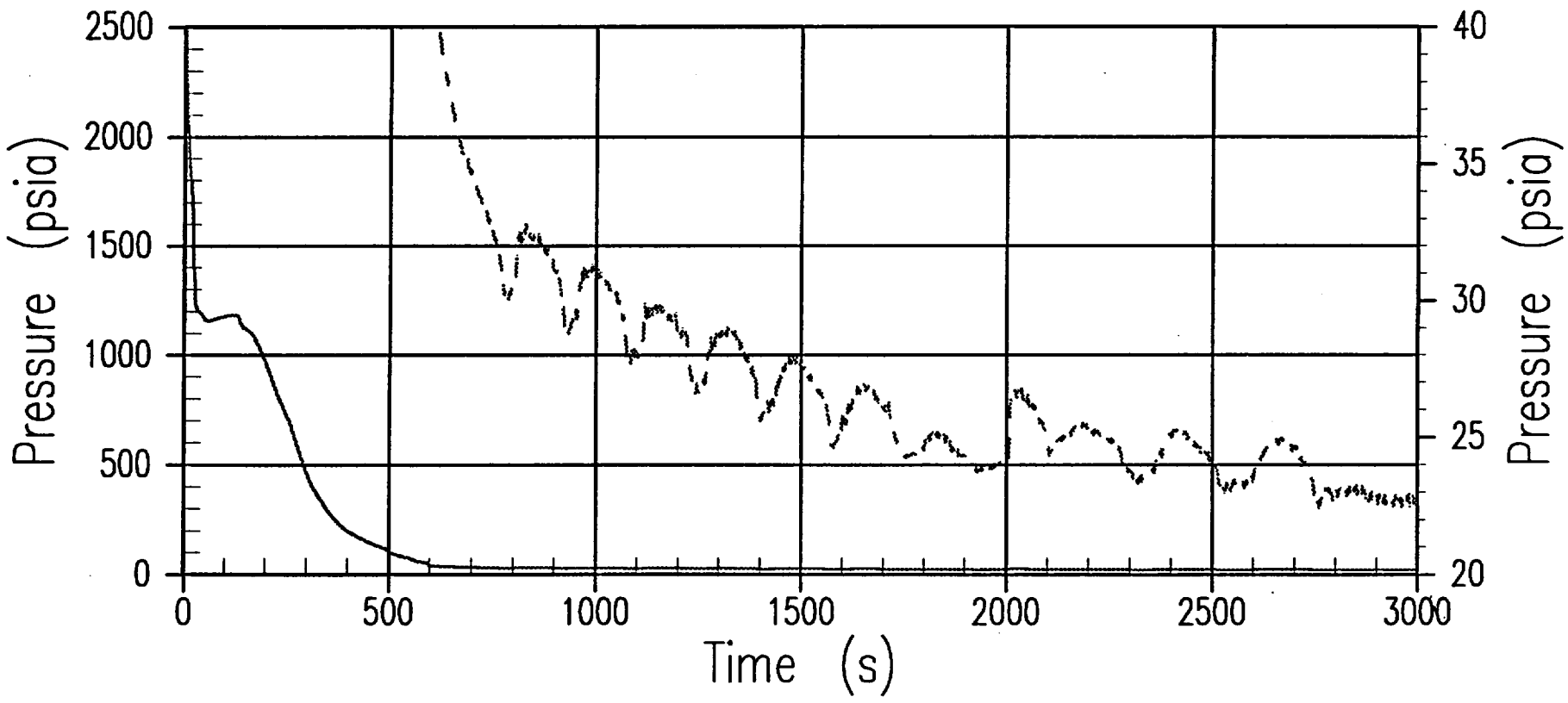

AP1000 DEDVI Break, 14.7 Pcont
Core Avg Void Fraction
Void Fraction (-)
0.6
0.5
0.4
0.3
0.2
0.1
0
0
500
1000
1500
2000
2500
3000
Time (s)

AP1000 DEDVI Break, 14.7 Pcont

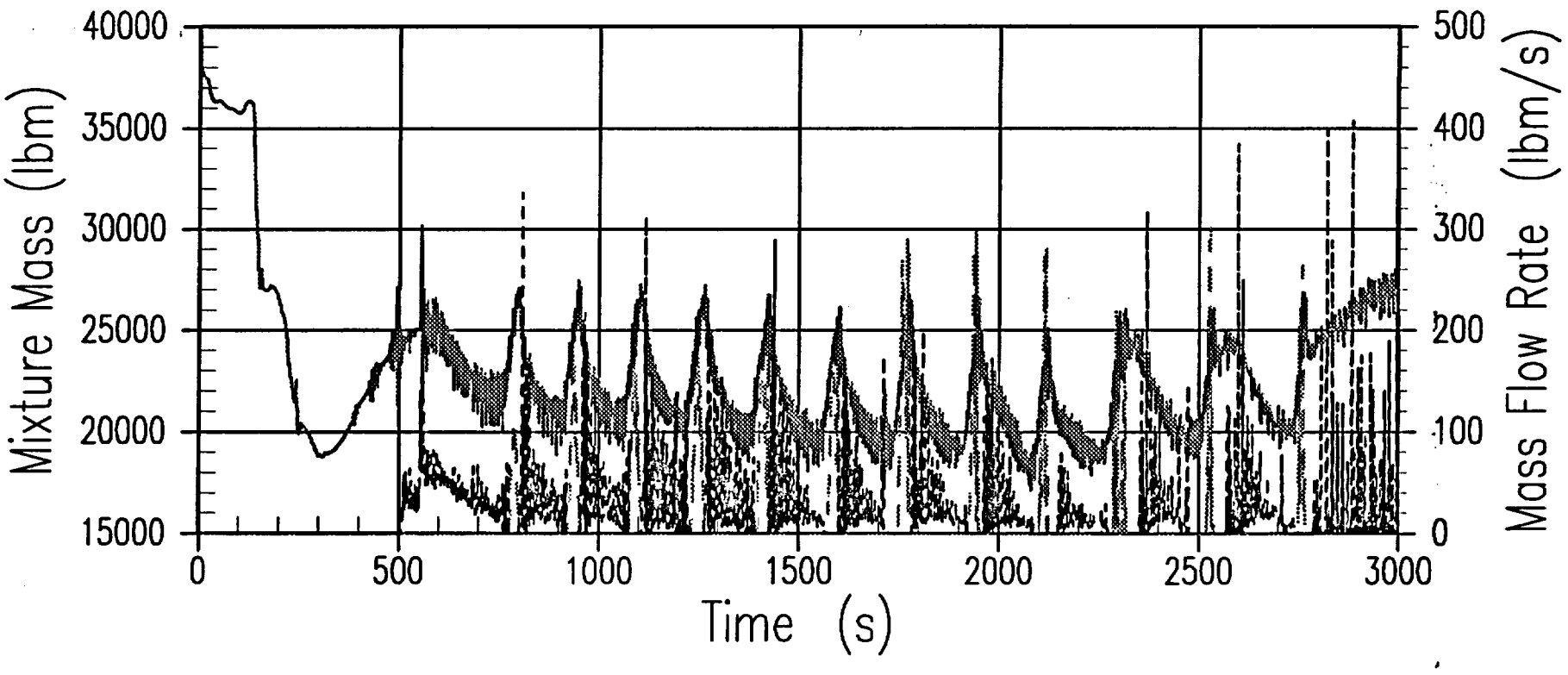



AP1000 DEDVI Break, 14.7 Pcont
Downcomer Mass
Mixture Mass (lbm)
40000
35000
30000
25000
20000
15000
0
500
1000
1500
2000
2500
3000
Time (s)

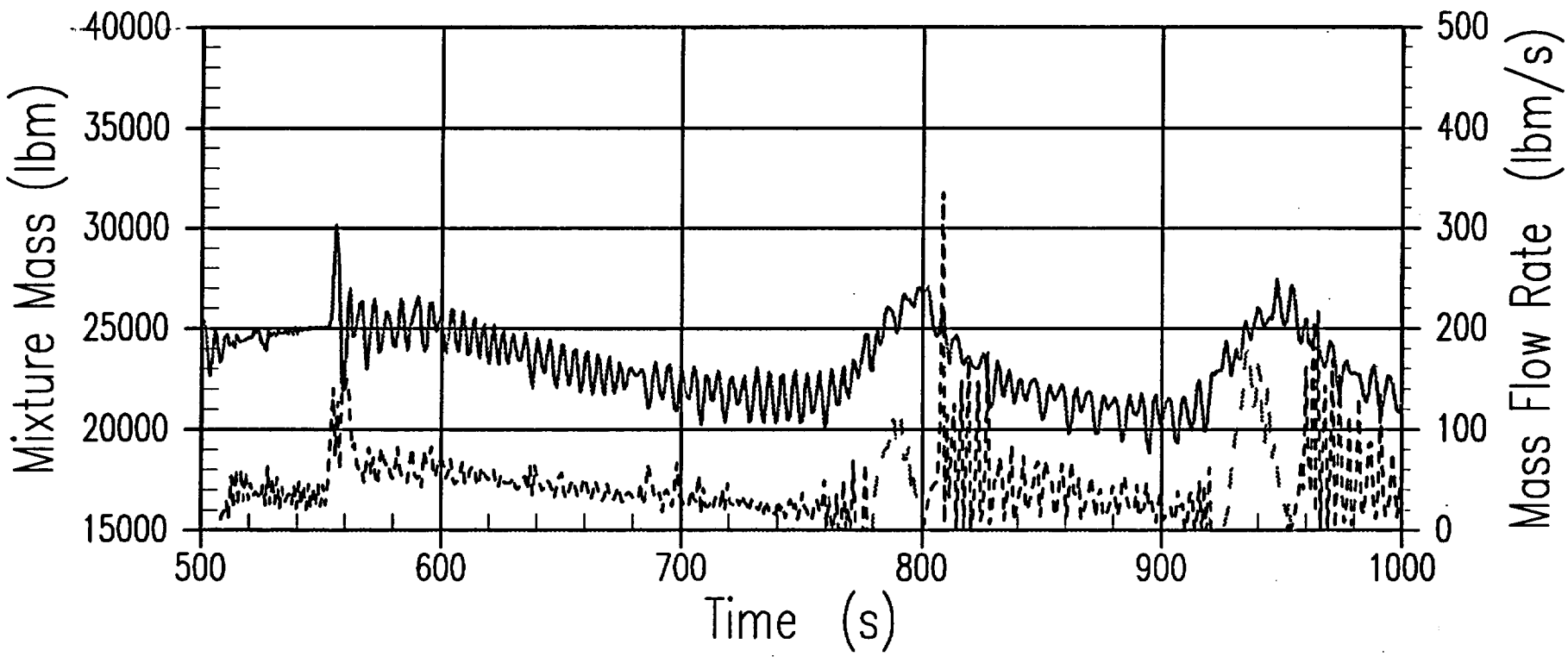
AP1000 DEDVI Break, 14.7 Pcont



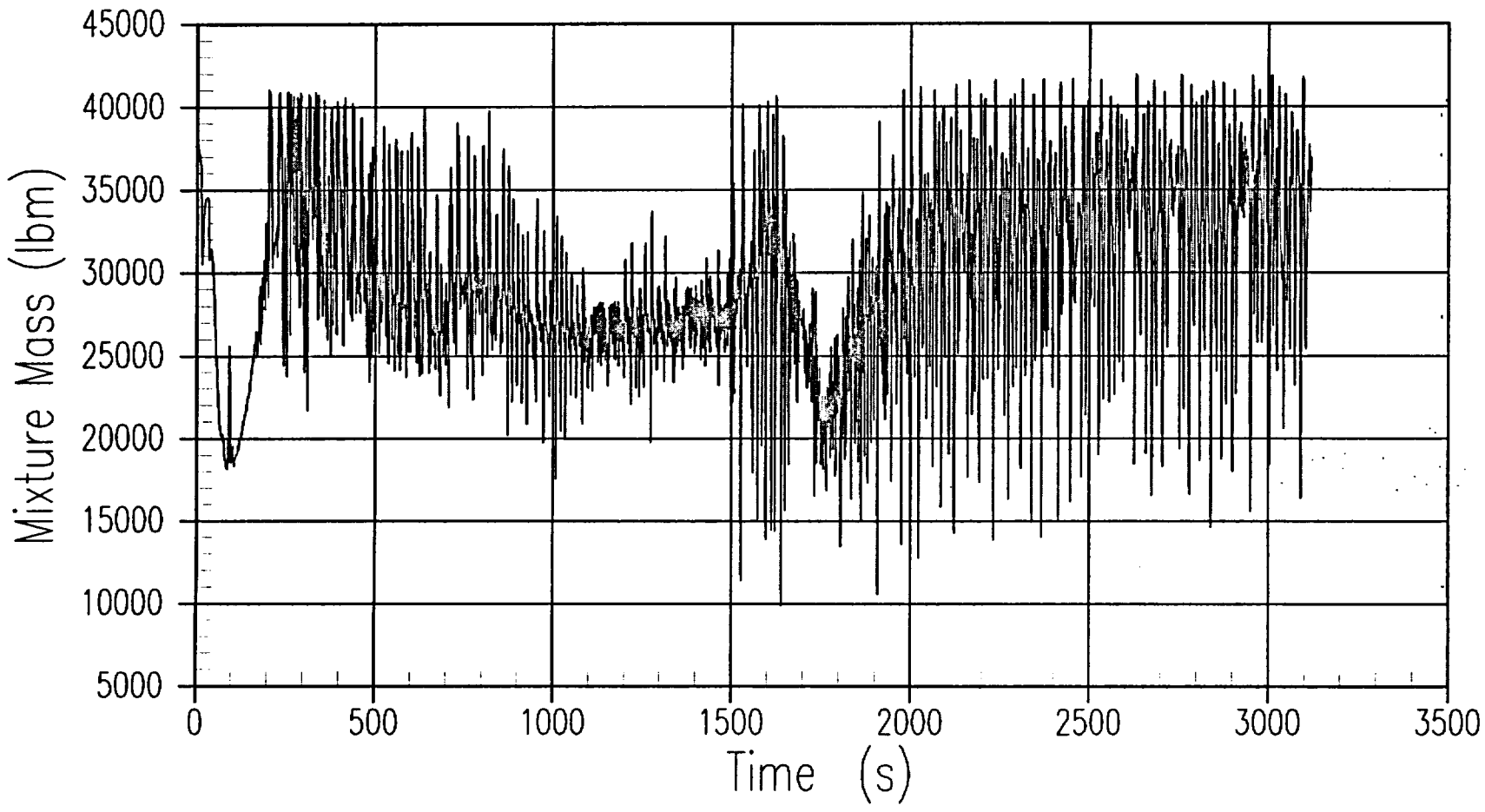
AP1000 DEDVI Break, 14.7 Pcont



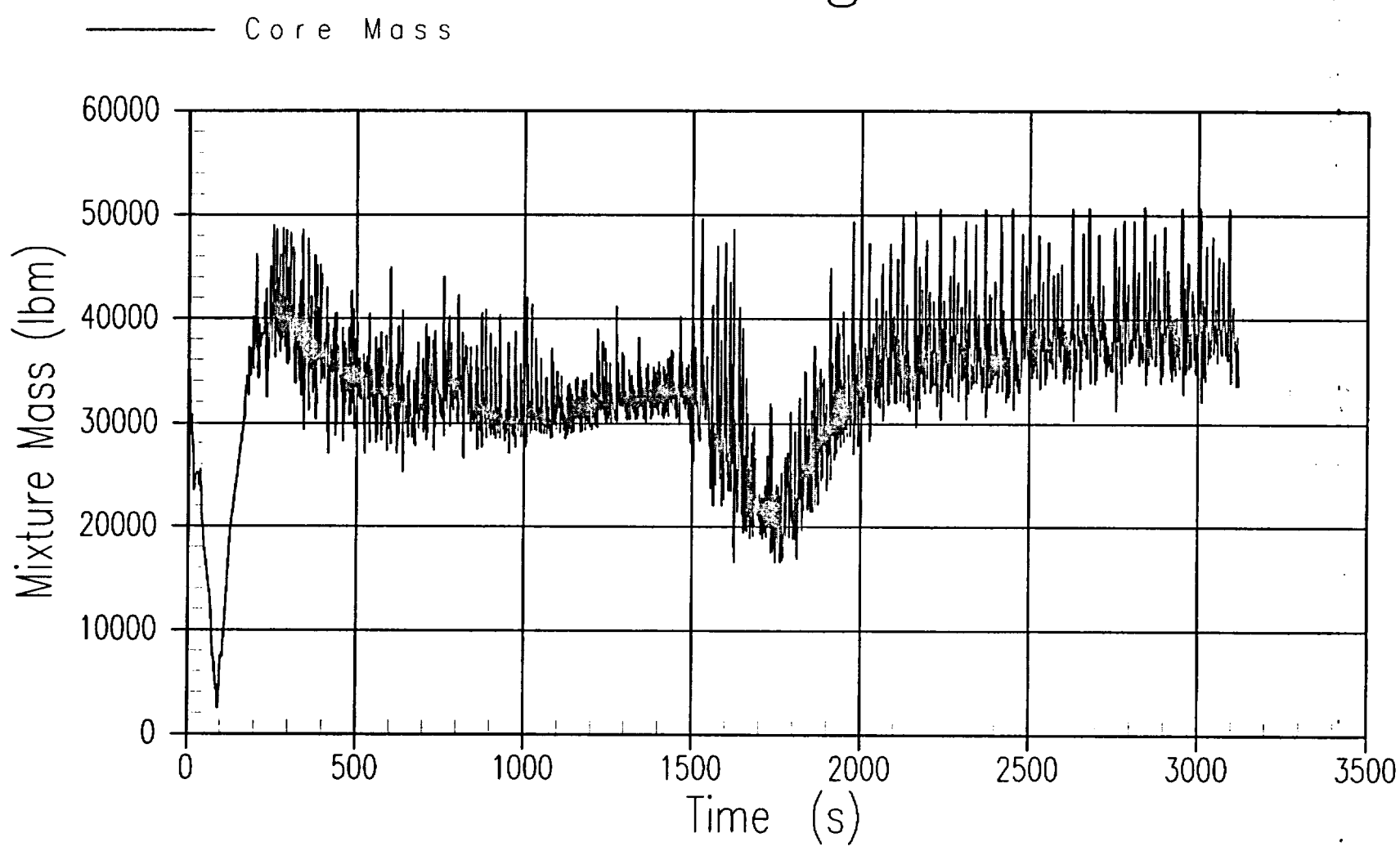
AP1000 DEDVI Break, 14.7 Pcont



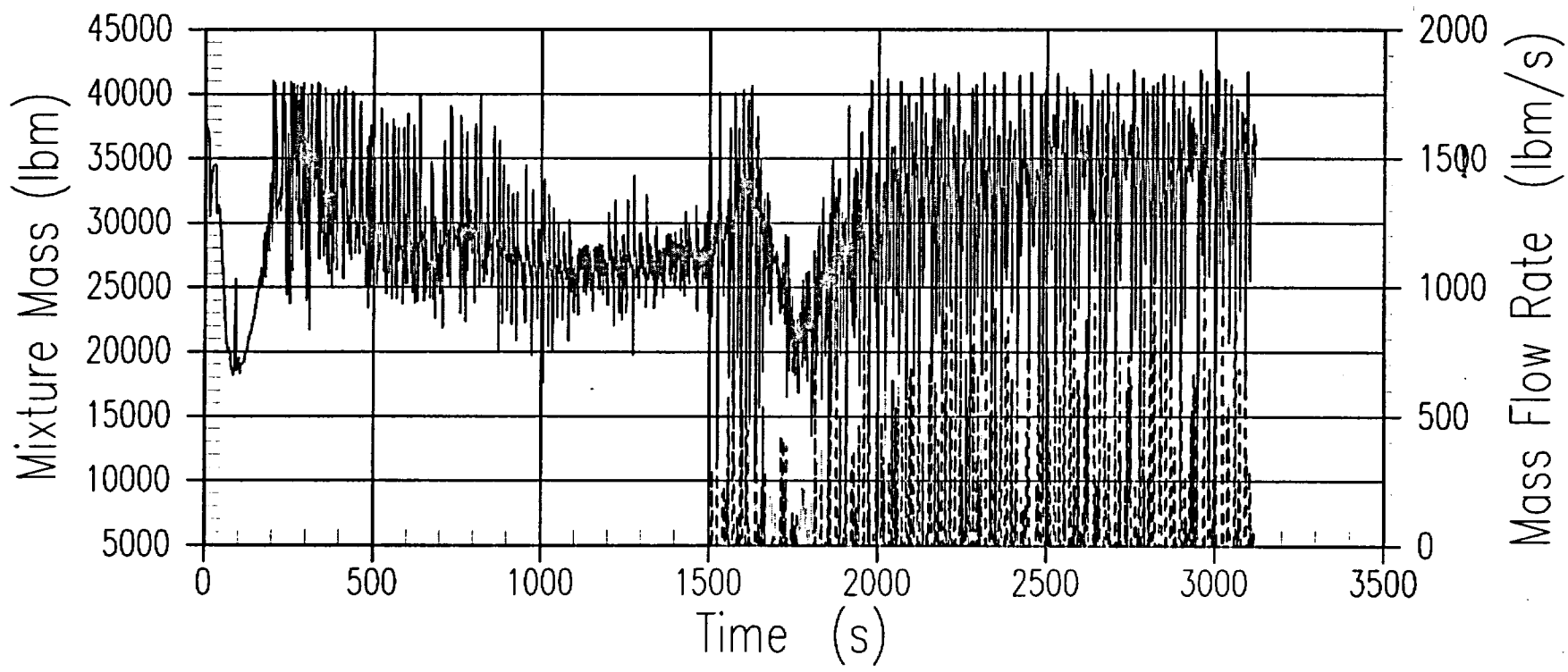
AP1000 10-Inch Cold Leg Break in FN-49



AP1000 10-Inch Cold Leg Break in FN-49

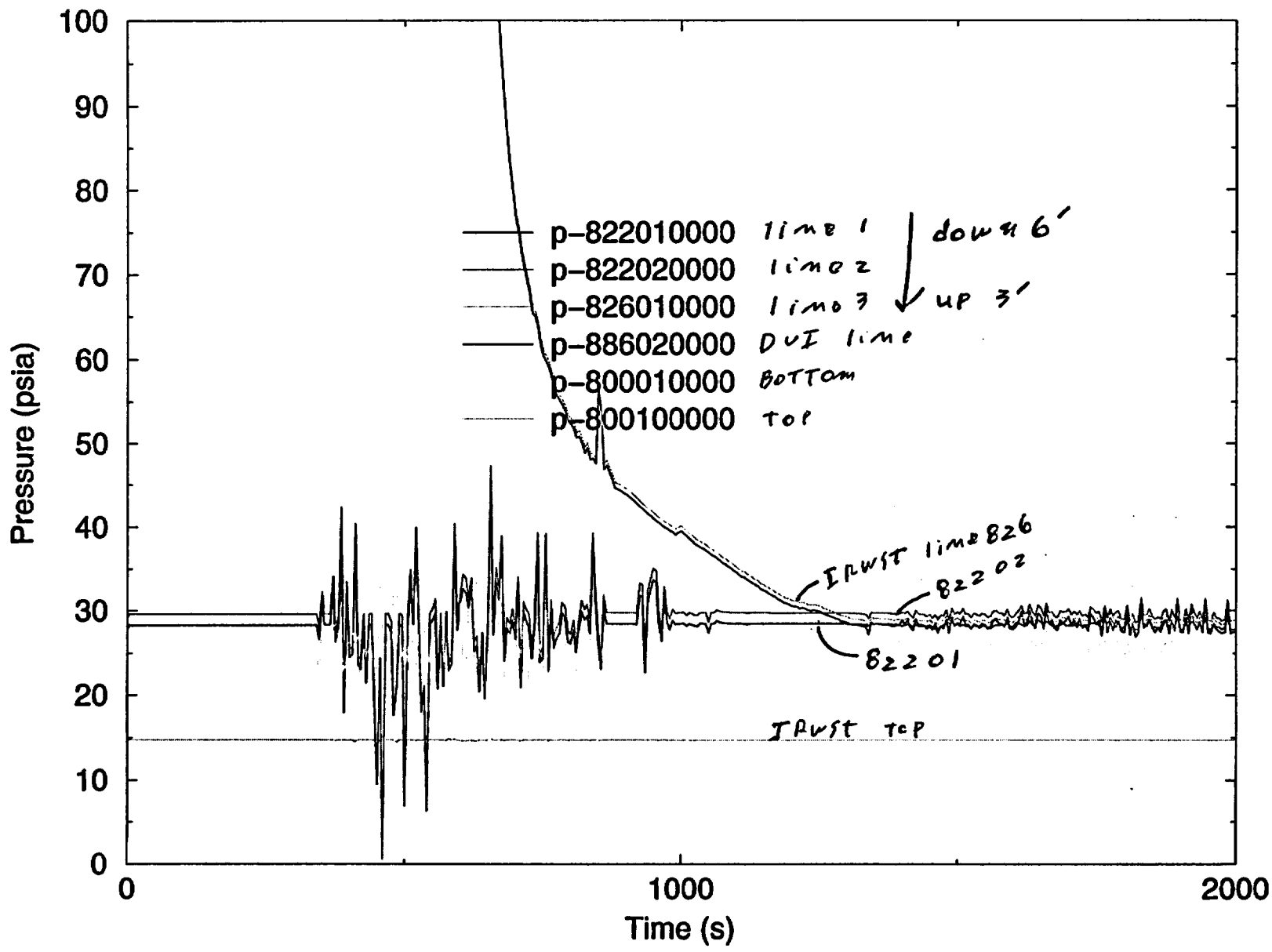


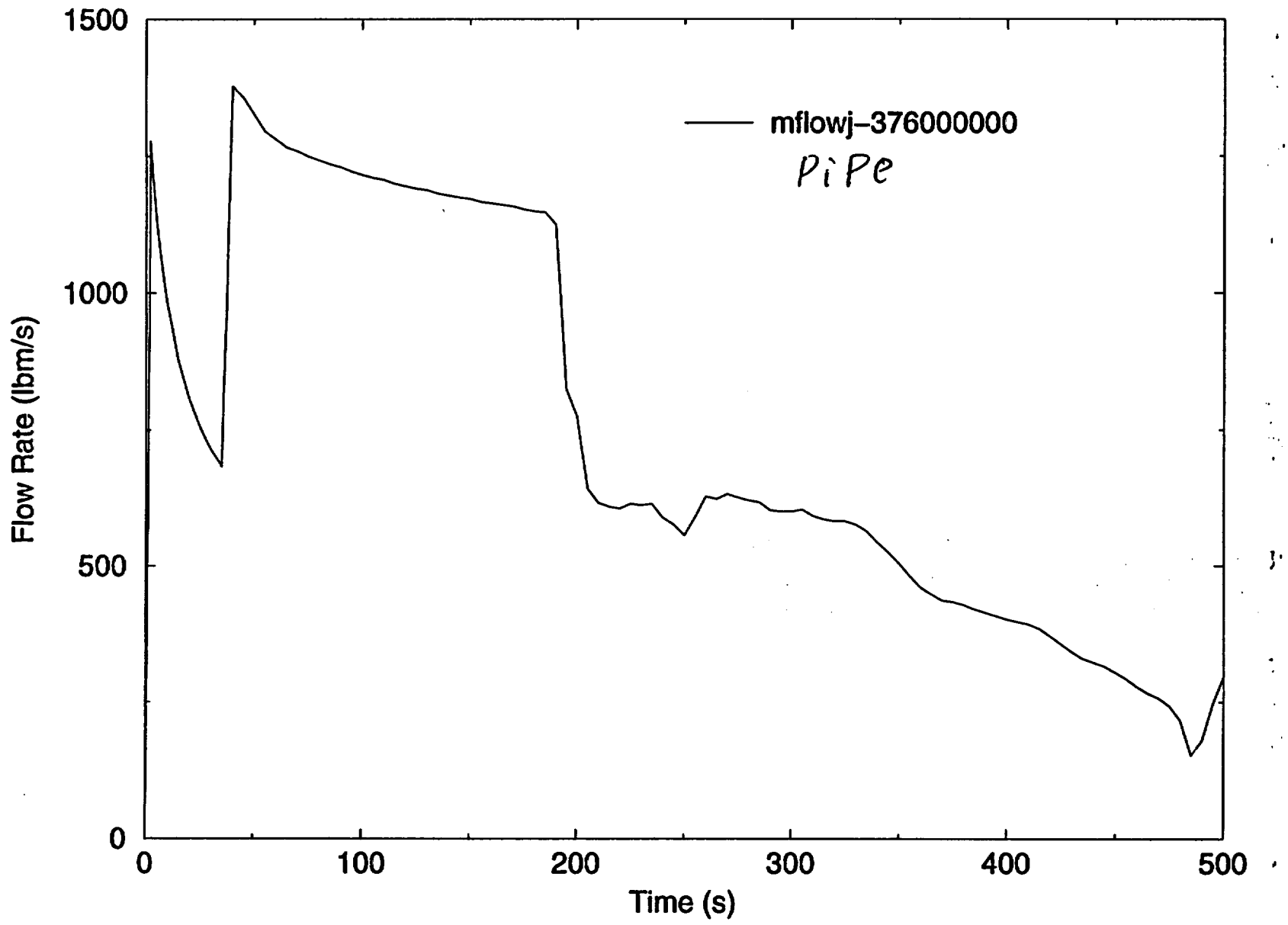
AP1000 10-Inch Cold Leg Break in FN-49

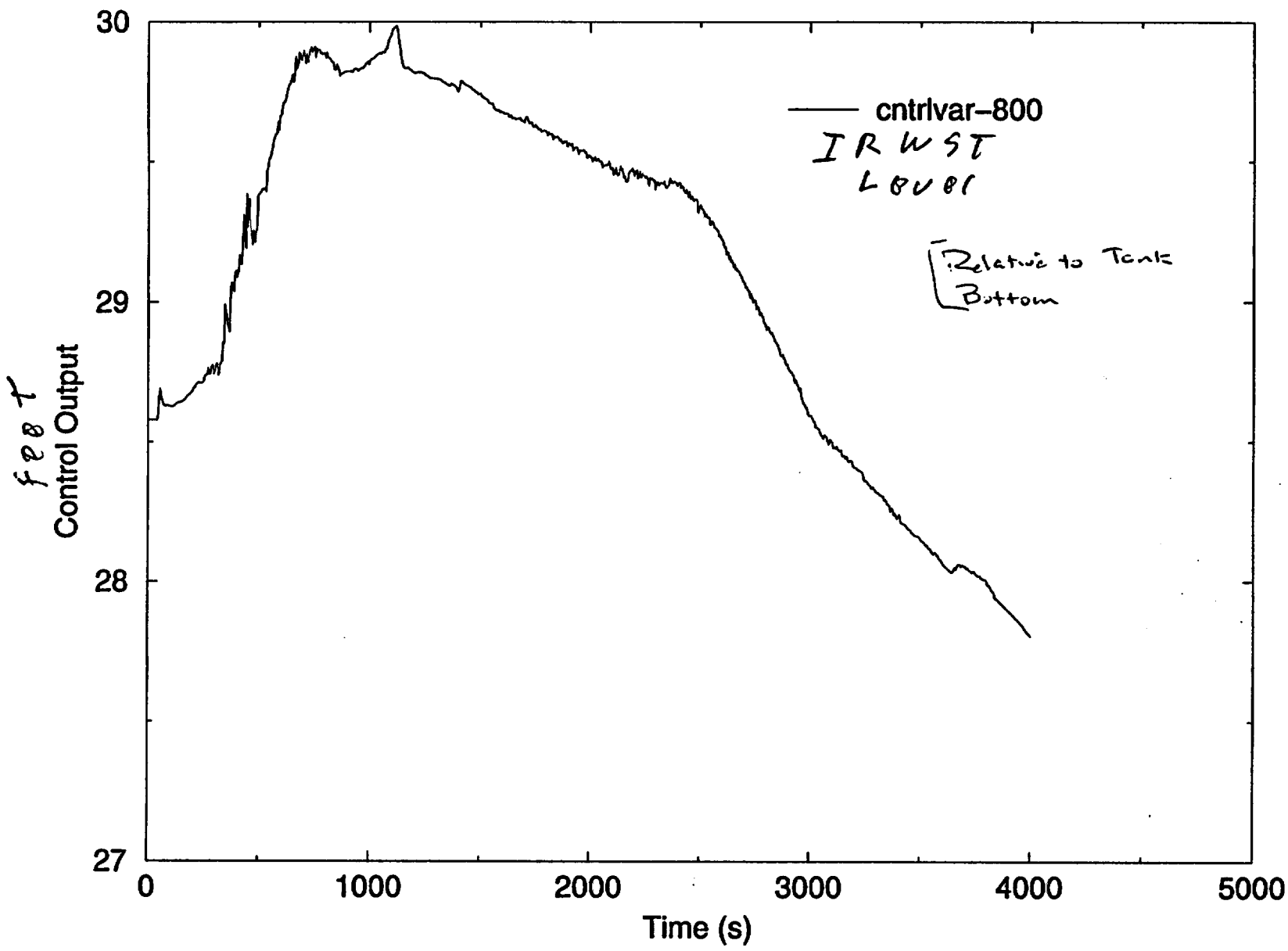


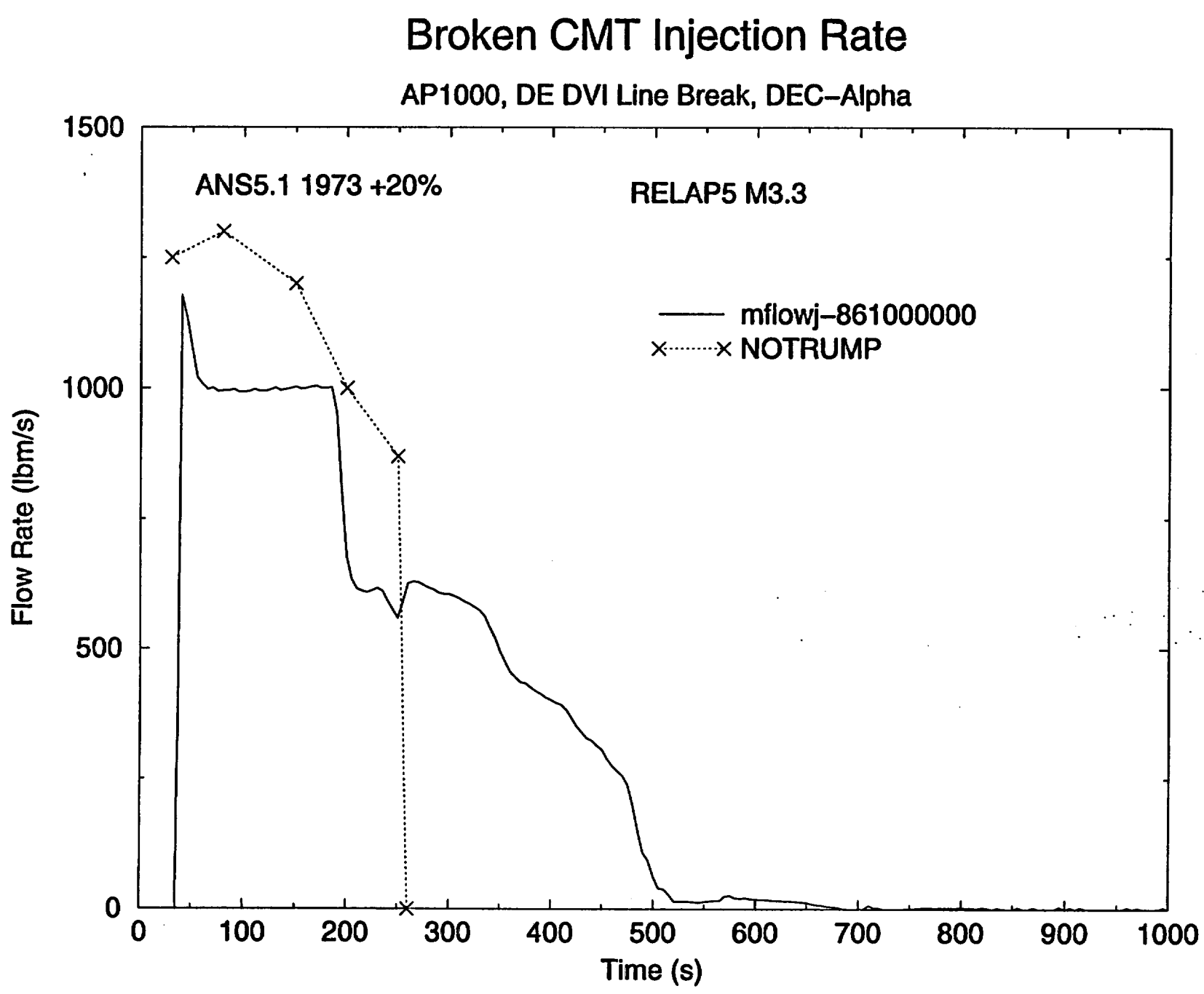
Attachment 3

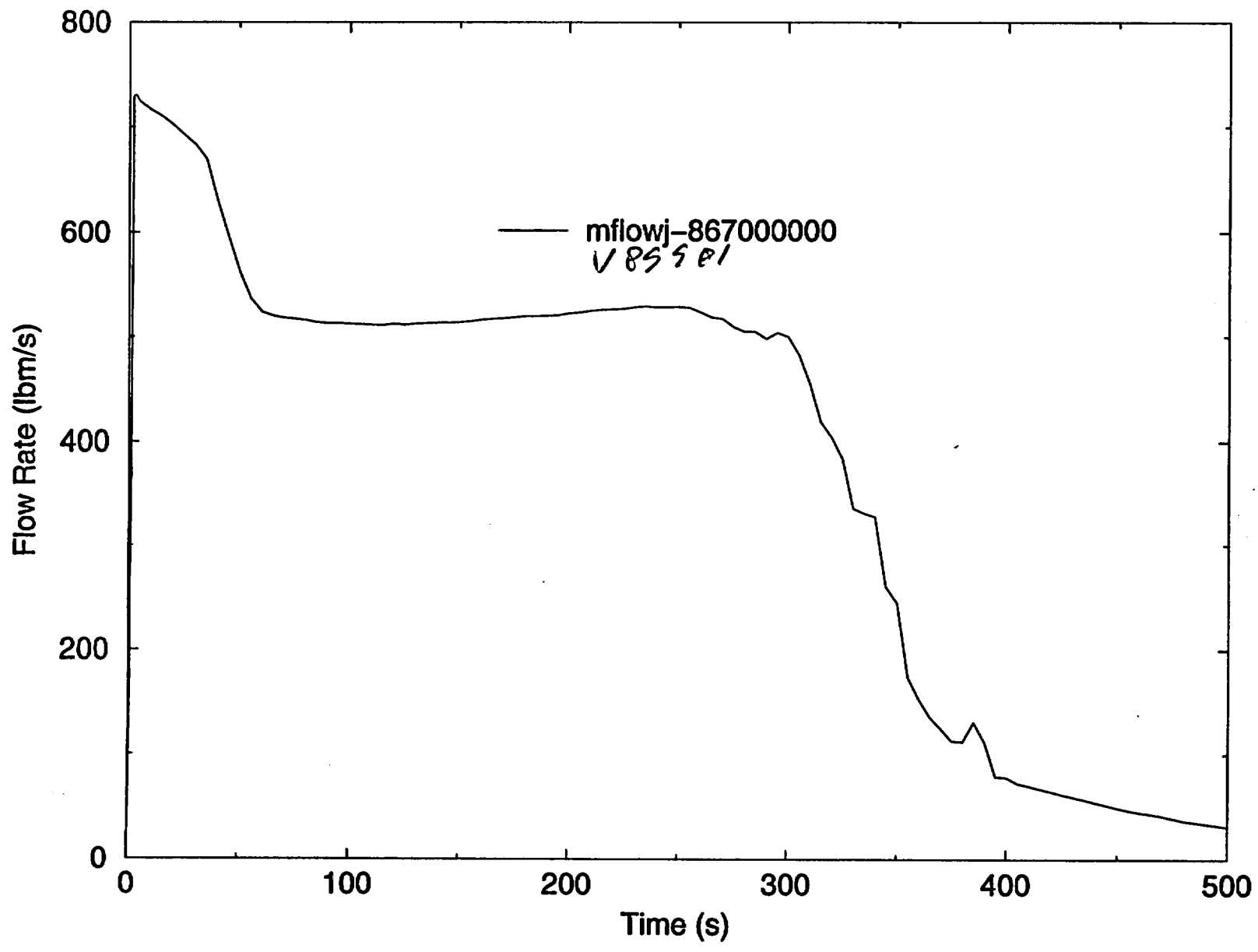
NRC graphs from the RELAP5 computer code

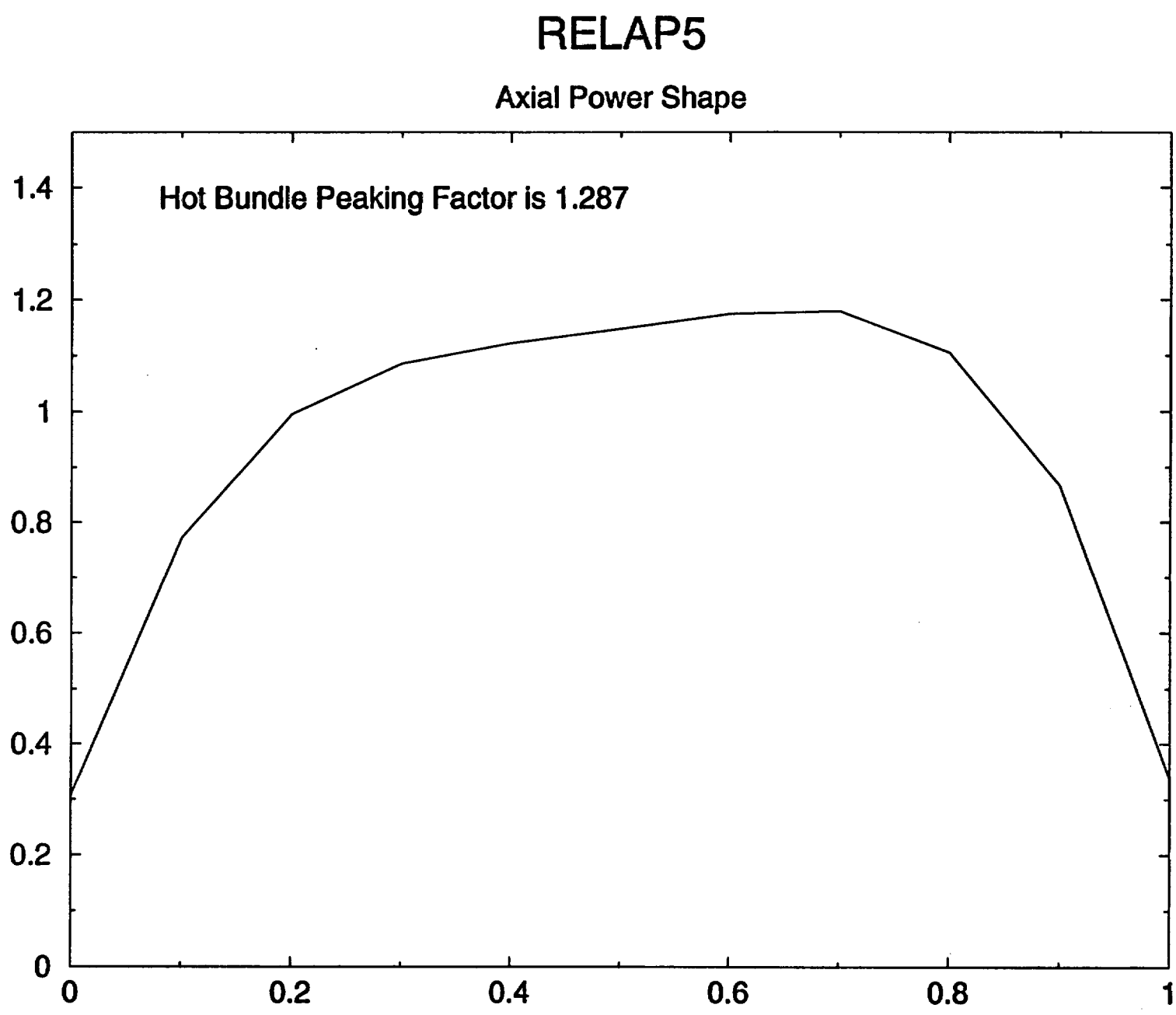

100
90
80
70
60
50
40
30
20
10
0
Pressure (psia)
0
1000
2000
Time (s)
p–822010000 line 1
p–822020000 line 2
p–826010000 line 3
p–886020000 DVI line
p–800010000 BOTTOM
p–800100000 TOP
down 6'
up 3'
IRWST line 826
82202
82201
IRWST TOP

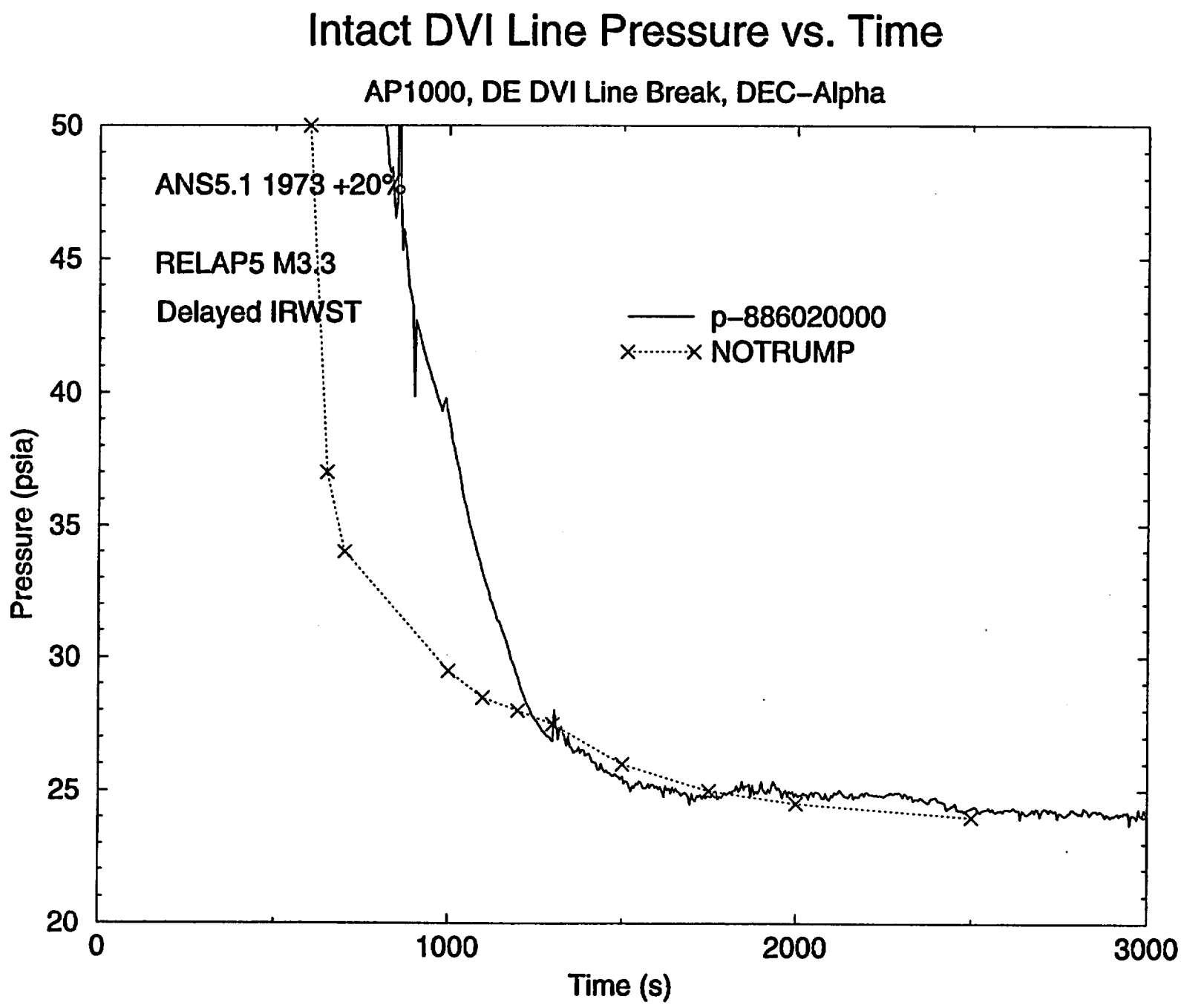

1500
1000
500
0
Flow Rate (lbm/s)
0
100
200
300
400
500
Time (s)
mflowj-376000000
PiPe


30
29
28
27
0
1000
2000
3000
4000
5000
Time (s)
Control Output
feet
cntrlvar-800
IRWST
Level
Relative to Tank
Bottom


Broken CMT Injection Rate
AP1000, DE DVI Line Break, DEC–Alpha
ANS5.1 1973 +20%
RELAP5 M3.3
mflowj–861000000
NOTRUMP
Flow Rate (lbm/s)
Time (s)
0
500
1000
1500
0
100
200
300
400
500
600
700
800
900
1000


800
600
400
200
0
Flow Rate (lbm/s)
mflowj-867000000
V 85 5 e1
0
100
200
300
400
500
Time (s)


RELAP5
Axial Power Shape
Hot Bundle Peaking Factor is 1.287
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
0.2
0.4
0.6
0.8
1


Intact DVI Line Pressure vs. Time
AP1000, DE DVI Line Break, DEC–Alpha
ANS5.1 1973 +20%
RELAP5 M3.3
Delayed IRWST
p–886020000
NOTRUMP
Pressure (psia)
Time (s)
50
45
40
35
30
25
20
0
1000
2000
3000