

50-416

MARK III CONTAINMENT HYDROGEN CONTROL OWNERS GROUP

c/o Mississippi Power and Light • P.O. Box 1640 • Jackson, Mississippi 39205

Sam H. Hobbs, Chairman

601-969-2458

November 14, 1985
HGN-066

Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. Robert Bernero

Dear Mr. Bernero:

SUBJECT: Response to Questions from
Staff in September 9 Telecon

On September 9, 1985, in a telephone conversation between an NRC staff member and the Hydrogen Control Owners Group (HCOG) Administrative Program Manager, a commitment was made to provide the following:

- 1) information identifying the point at which sprays were initiated in the 1/4 scale test facility for scoping tests S.11 and S.12.2;
- 2) thermocouple data for instruments T-200, T205 and T208 for tests S.09 and S.11; and
- 3) a discussion of the variation in test results between scoping tests S.01, S.02, S.03 and S.05.

In response to Item 1, plots of spray flow data and the associated hydrogen injection profiles for tests S.11 and S.12.2 are provided in Attachment 1. The spray flow plots indicate both the time at which the simulated containment spray system was actuated and the corresponding system flowrate. The hydrogen injection profiles reflect the case B hydrogen release histories which were used in both scoping tests. As indicated by these plots, the containment sprays were actuated after the peak hydrogen injection rate had occurred.

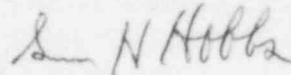
In response to Item 2, the thermocouple traces for instruments T200, T205 and T208 for scoping tests S.09 and S.11 are provided in Attachment 2.

The response to Item 3 is currently being developed and will be provided to the NRC in the near future.

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This submittal was compiled by HCOG from the best information available for submittal to the Nuclear Regulatory Commission. The submittal is believed to be complete and accurate, but it is not submitted on any specific plant docket. The information contained in this letter and its attachments should not be used for evaluation of any specific plant unless the information has been endorsed by the appropriate member utility. HCOG members may individually reference this letter in whole or in part as being applicable to their specific plants.

Very truly yours,



MJM/GWS:vog
Attachment

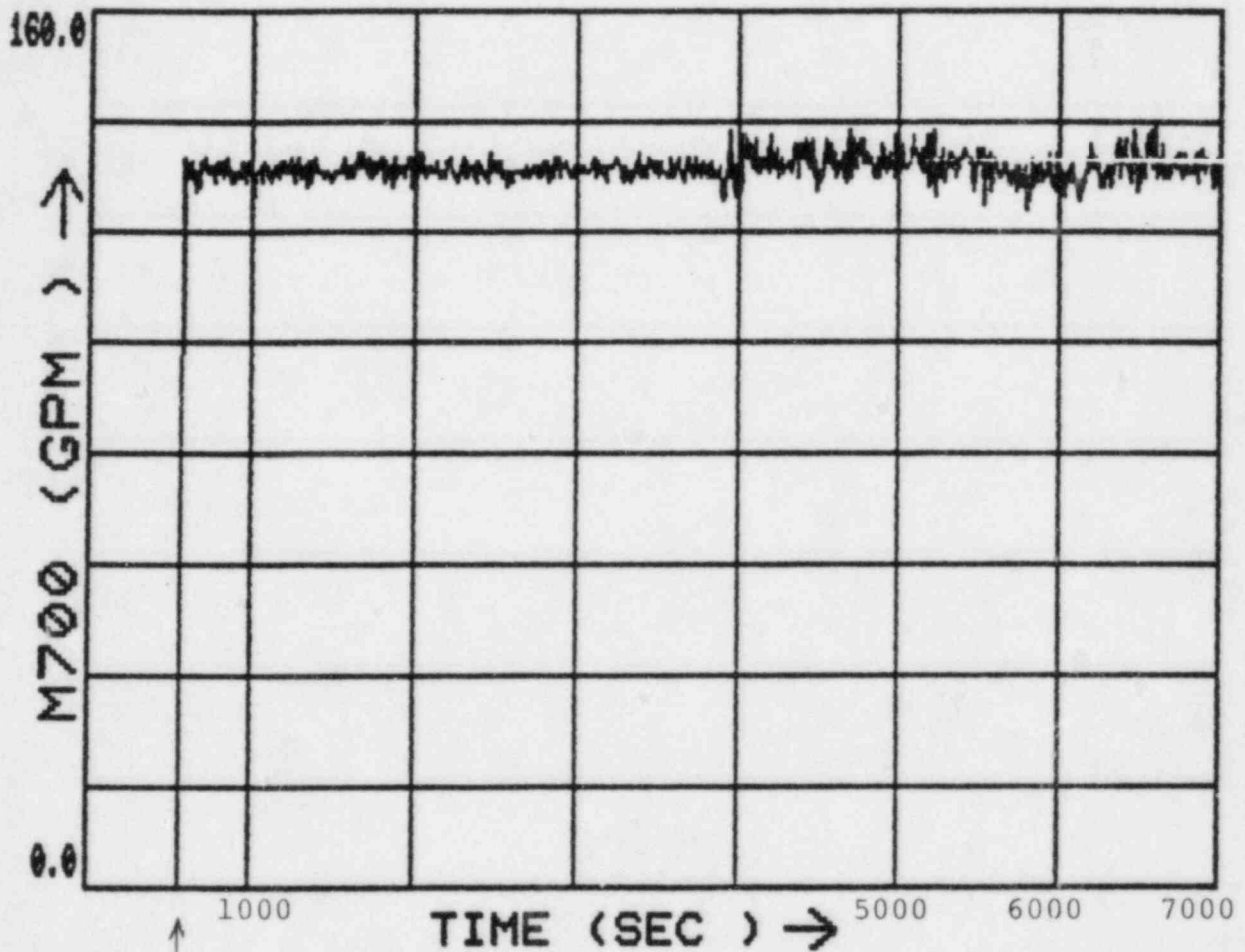
cc: Mr. Carl R. Stahle
Hydrogen Control Project Manager
U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D. C. 20555

Mr. Charles G. Tinkler
Containment Systems Branch
Office of Nuclear Reactor Regulation
Washington, D. C. 20555

Sandia National Laboratories
Attention: Mr. John C. Cummings
Organization 1512
P. O. Box 5800
Albuquerque, New Mexico 87185

ATTACHMENT 1: SPRAY ACTUATION DATA FOR
TESTS S.11 AND S.12.2

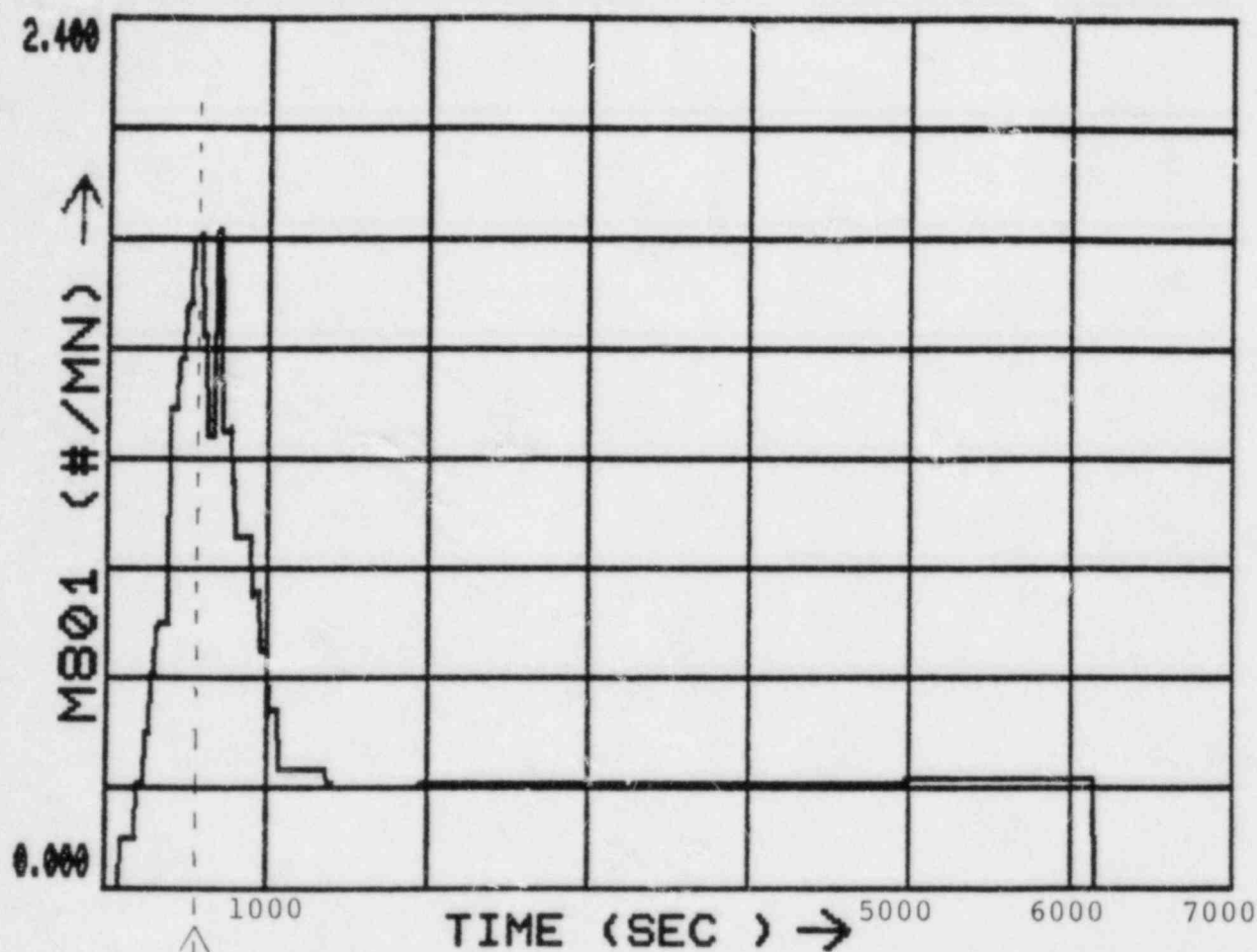
SPRAY FLOW (S.11)



EPRI-S-11 RELEASE TO 75 PERCENT WITH TAIL JUST ABOVE THRESHOLD
TEST DATE: 9-JUL-85 START TIME: 15:47:24.1
M700 MINIMUM -0.1 GPM M700 MAXIMUM 138.9 GPM

SPRAYS ACTUATED @ ~650 SECONDS (15:57:45)

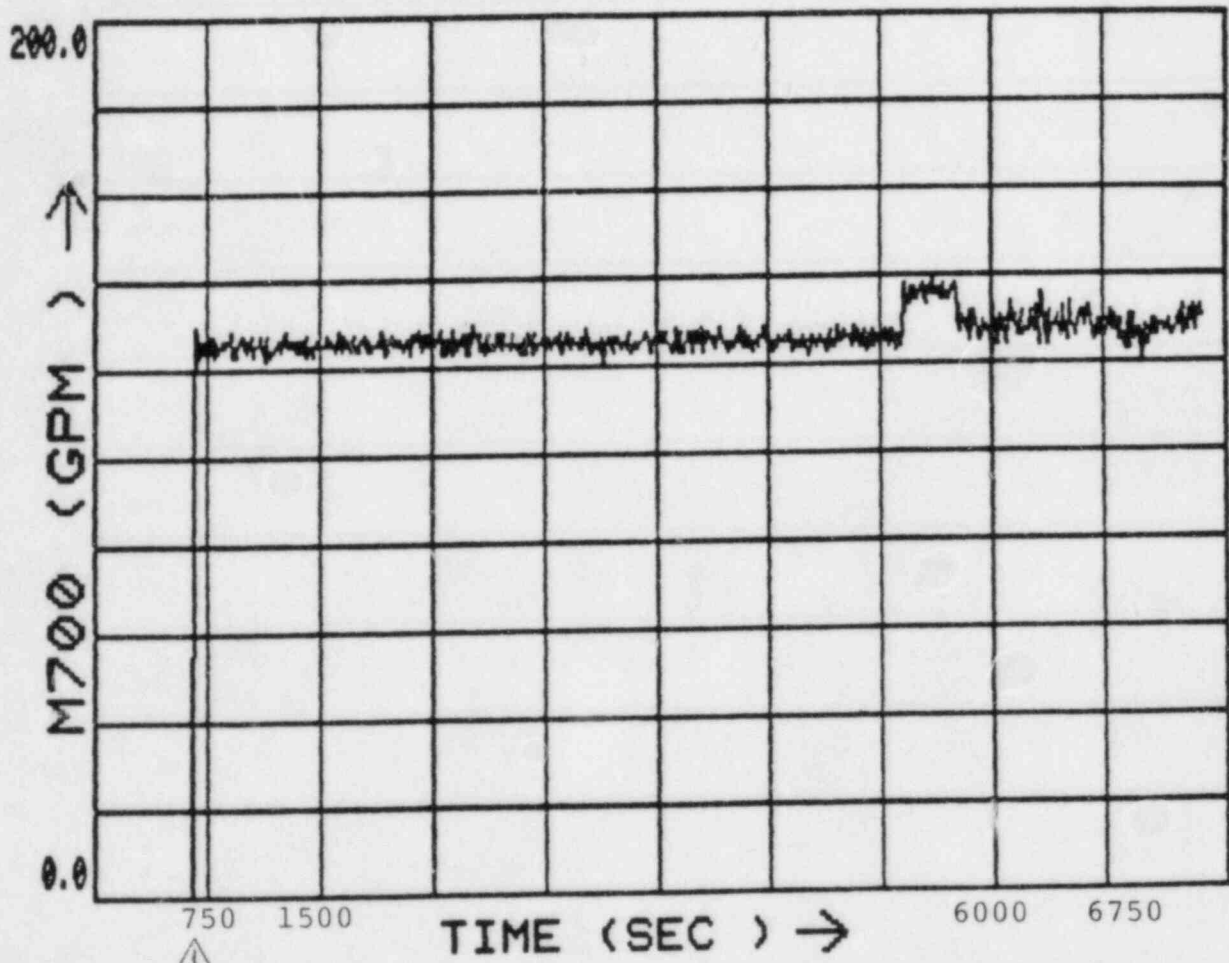
HYDROGEN FLOW (S.11)



EPRI-S-11 RELEASE TO 75 PERCENT WITH TAIL JUST ABOVE THRESHOLD
TEST DATE: 9-JUL-85 START TIME: 15:47:24.1
MBQ1 MINIMUM 0.000 #/MN MBQ1 MAXIMUM 1.824 #/MN

POINT AT WHICH SPRAYS WERE ACTUATED

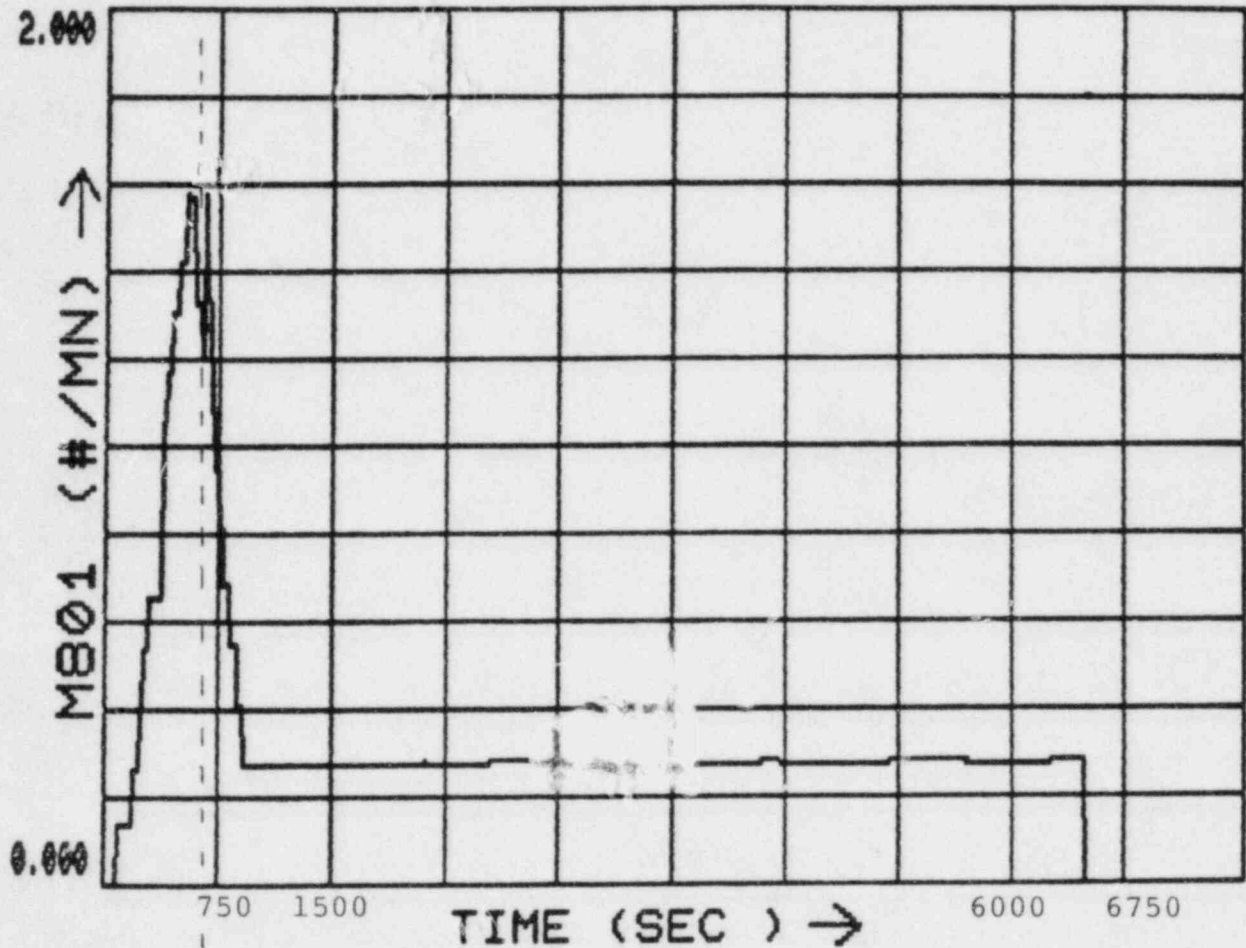
SPRAY FLOW (S.12.2)



EPRI-S-12.2 SECOND REPEAT TEST WITH GRATING AND BLOCKAGES
TEST DATE: 1-AUG-85 START TIME: 13:45:24.9
M700 MINIMUM -0.2 GPM M700 MAXIMUM 139.2 GPM

↑
SPRAYS ACTUATED AT ~ 650 SECONDS (13:56:05)

HYDROGEN FLOW (S.12.2)

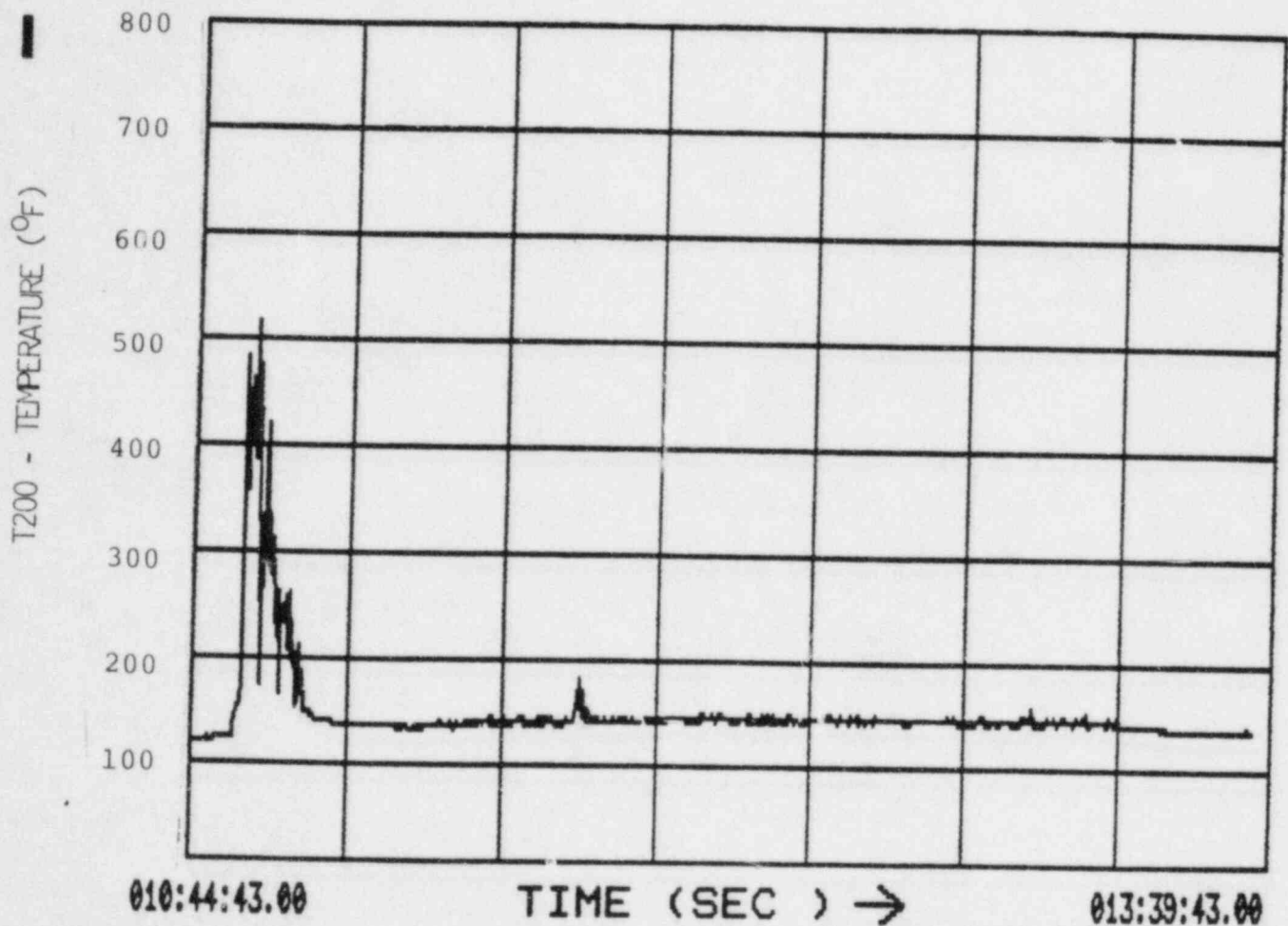


EPRI-S-12.2 SECOND REPEAT TEST WITH GRATING AND BLOCKAGES
TEST DATE: 1-AUG-85 START TIME: 13:45:24.9
M801 MINIMUM 0.000 #/MN M801 MAXIMUM 1.576 #/MN

POINT AT WHICH SPRAYS WERE ACTUATED

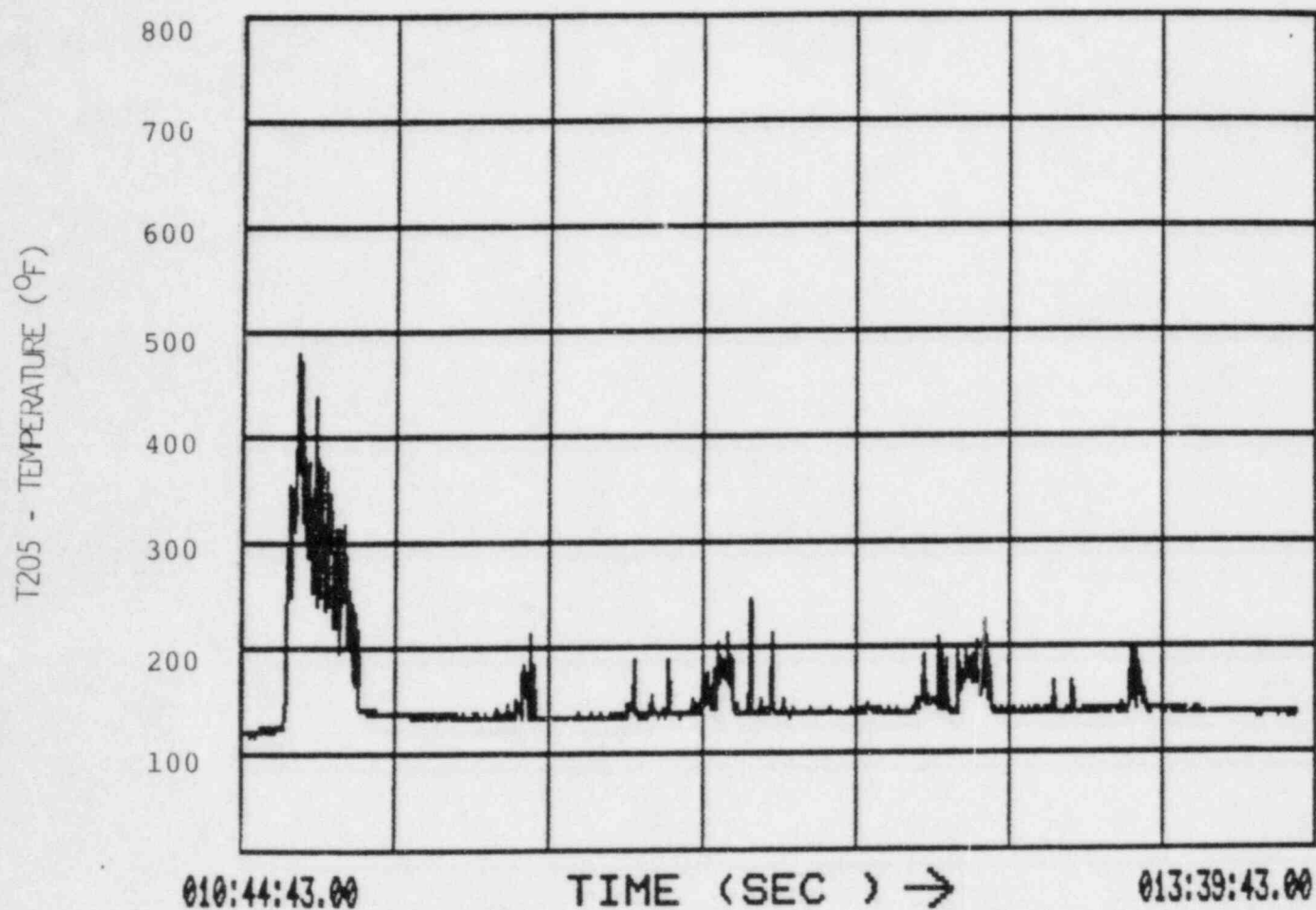
ATTACHMENT 2: THERMOCOUPLE DATA FOR
TESTS S.09 AND S.11

S.09



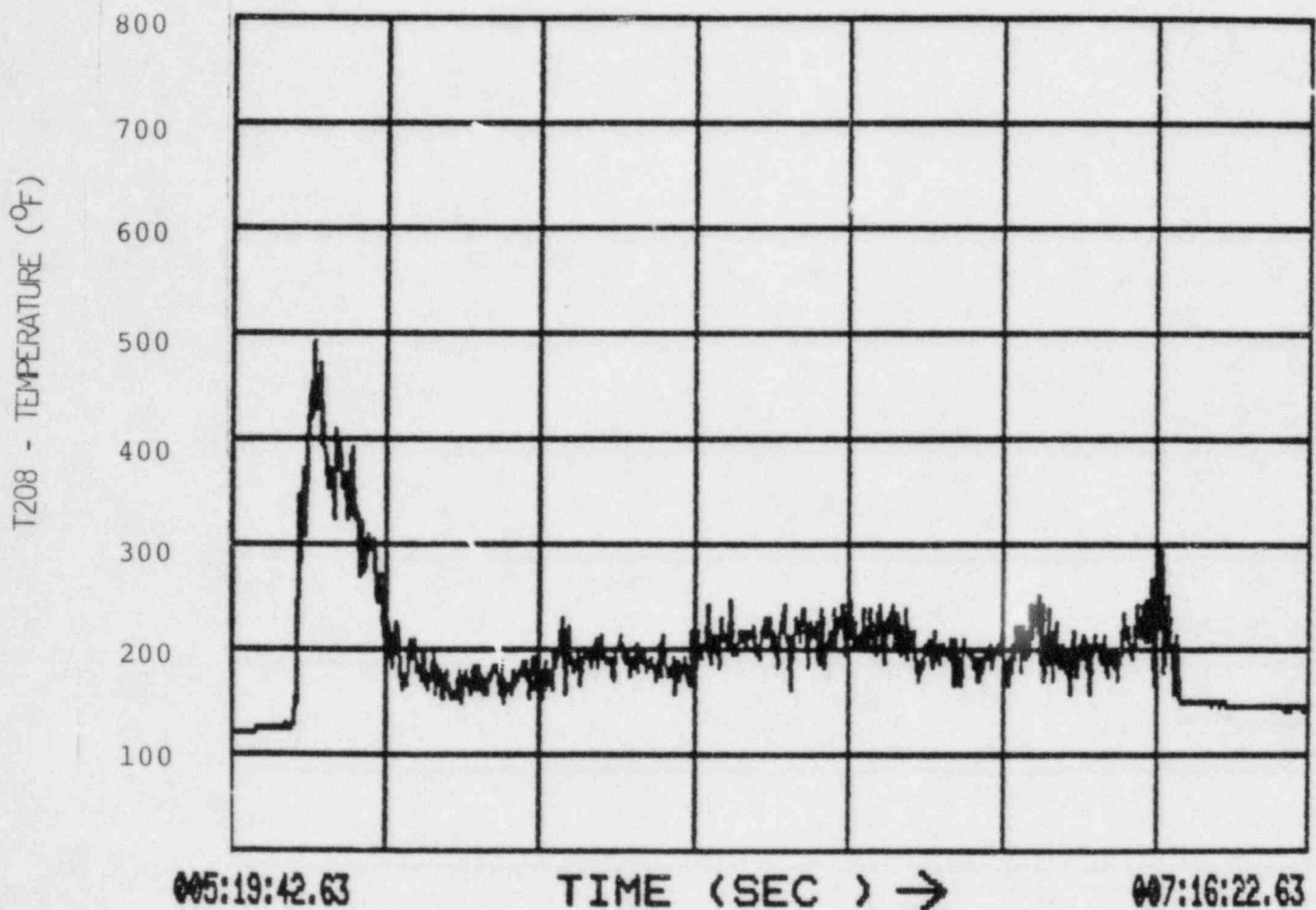
EPRI-S-09 RELEASE TO 75 PERCENT WITH TAIL JUST BELOW THRESHOLD
TEST DATE: 15-JUL-85 START TIME: 16:56:24.3
T200 MINIMUM 44.8 DEGC T200 MAXIMUM 268.4 DEGC

S.09



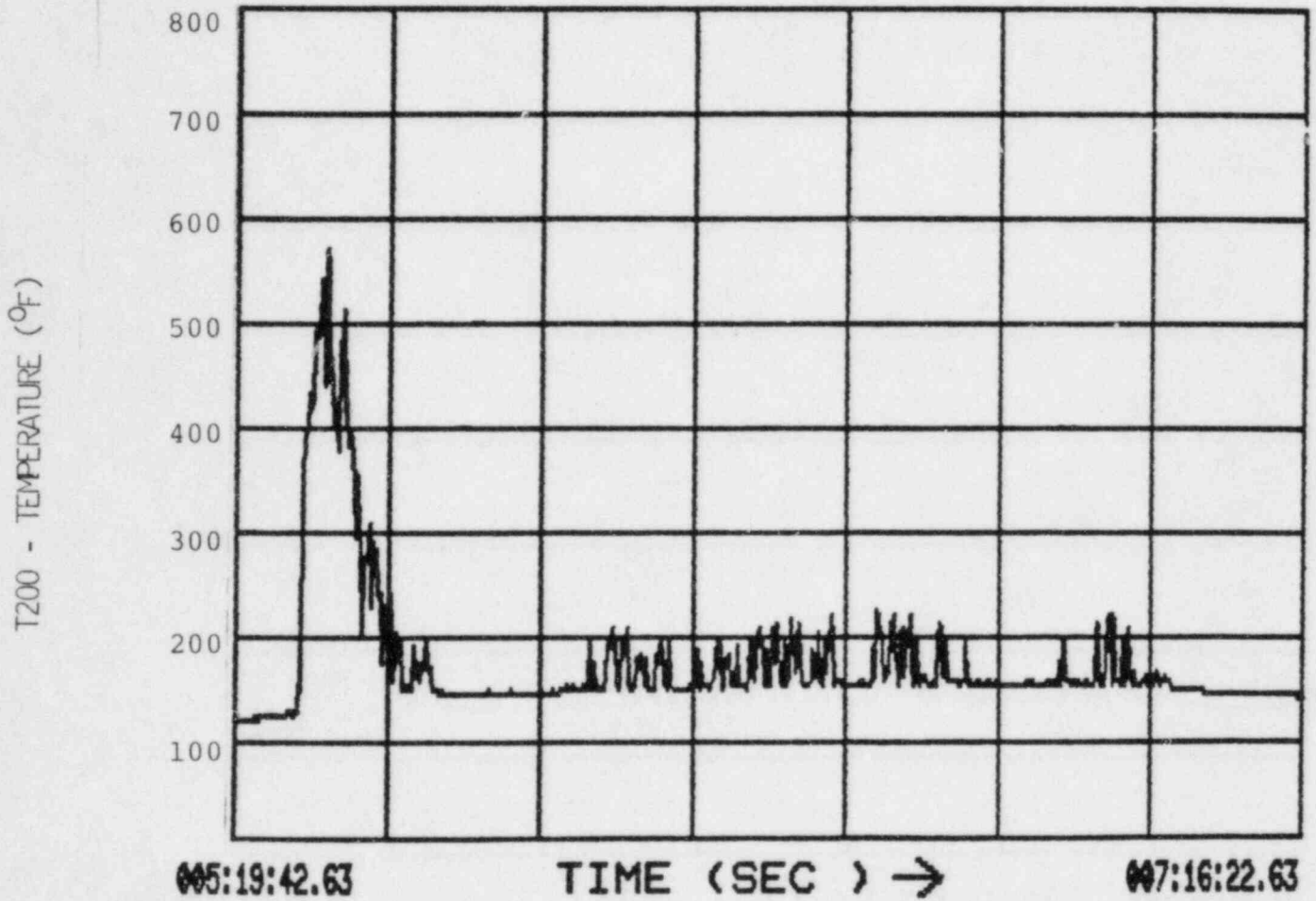
EPRI-S-09 RELEASE TO 75 PERCENT WITH TAIL JUST BELOW THRESHOLD
TEST DATE: 15-JUL-85 START TIME: 16:56:24.3
T205 MINIMUM 43.9 DEGC T205 MAXIMUM 246.5 DEGC

S.09



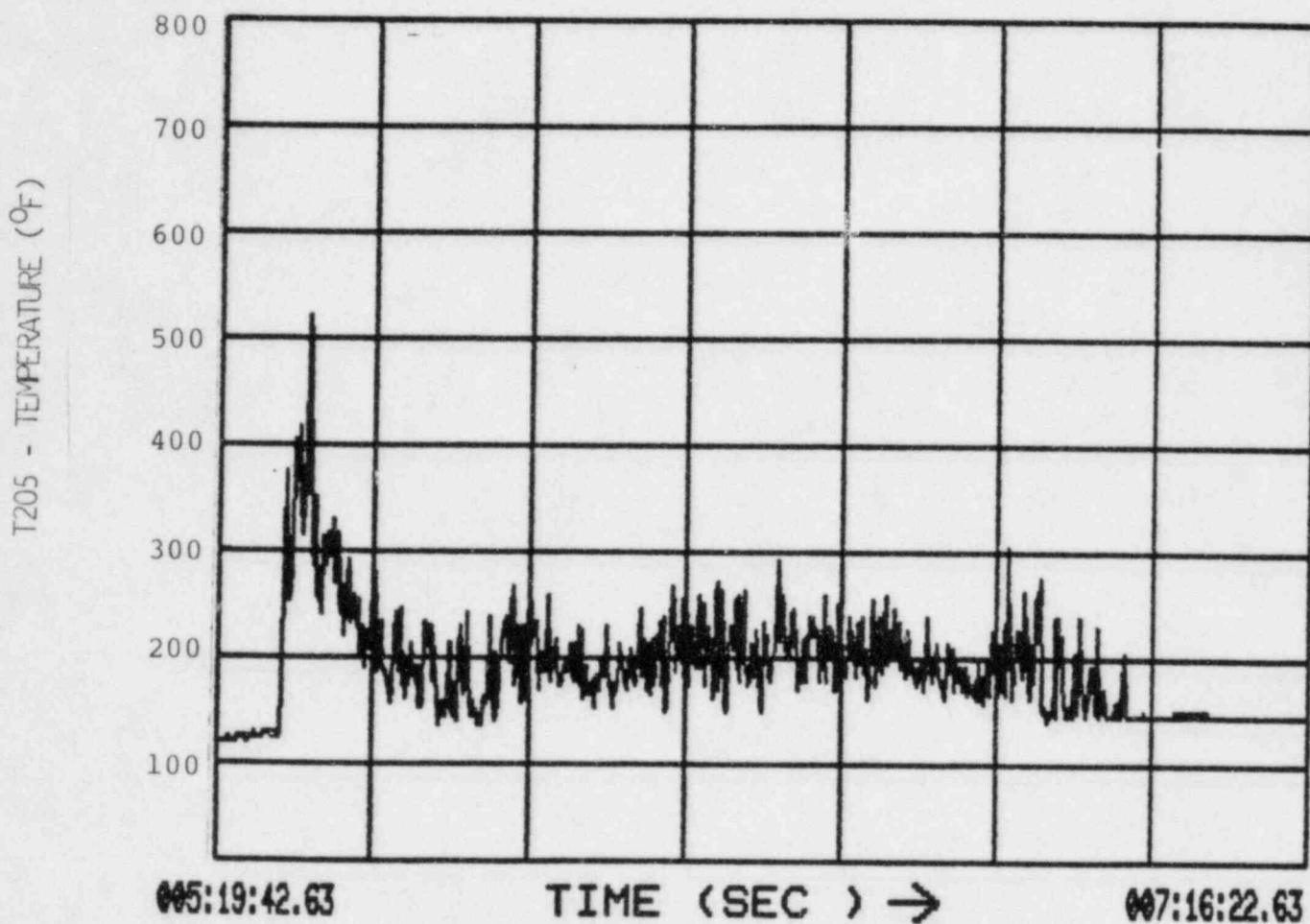
EPRI-S-11 RELEASE TO 75 PERCENT WITH TAIL JUST ABOVE THRESHOLD
TEST DATE: 9-JUL-85 START TIME: 15:47:24.1
T208 MINIMUM 45.2 DEGC T208 MAXIMUM 253.3 DEGC

S.11



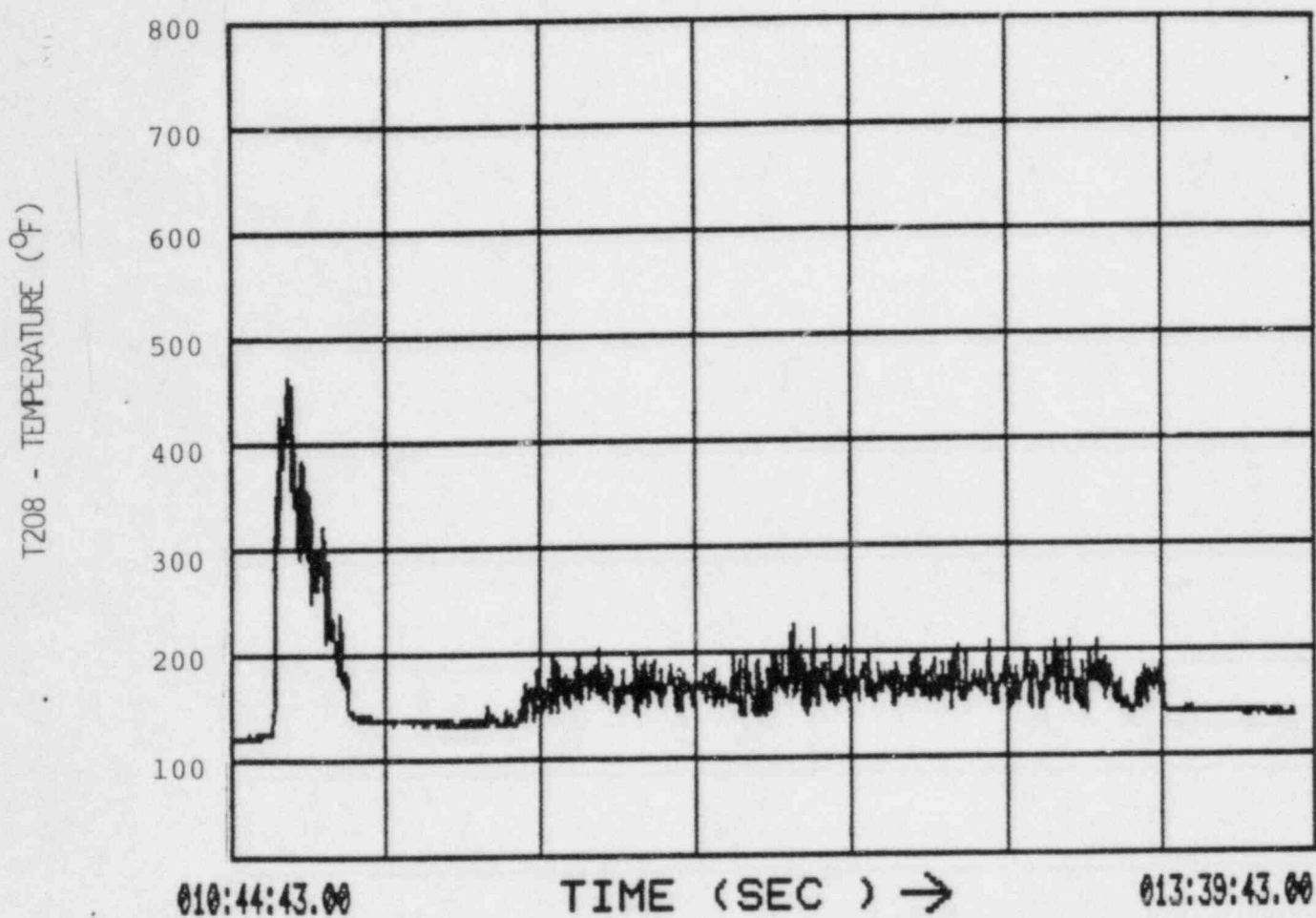
EPRI-S-11 RELEASE TO 75 PERCENT WITH TAIL JUST ABOVE THRESHOLD
TEST DATE: 9-JUL-85 START TIME: 15:47:24.1
T200 MINIMUM 44.9 DEGC T200 MAXIMUM 297.0 DEGC

S.11



EPRI-S-11 RELEASE TO 75 PERCENT WITH TAIL JUST ABOVE THRESHOLD
TEST DATE: 9-JUL-85 START TIME: 15:47:24.1
T205 MINIMUM 44.8 DEGC T205 MAXIMUM 270.7 DEGC

S.11



EPRI-S-09 RELEASE TO 75 PERCENT WITH TAIL JUST BELOW THRESHOLD
TEST DATE: 15-JUL-85 START TIME: 16:56:24.3
T208 MINIMUM 44.8 DEGC T208 MAXIMUM 236.6 DEGC