



NATIONAL TRANSPORTATION SAFETY BOARD
Investigative Hearing

Washington Metropolitan Area Transit Authority Metrorail train 302 that encountered heavy smoke in the tunnel between the L'Enfant Plaza Station and the Potomac River Bridge on January 12, 2015

GROUP	
EXHIBIT	

Agency / Organization

Title

M E M O R A N D U M



SUBJECT: L'Enfant Plaza Fire Events
Report January 12th 2015

DATE: 7-14-2015

FROM: Wayne A. Salkey, Asst. Supt. SMNT/^{WAS}COMM

TO: Gairy Johnson, Supt. SMNT/COMM

The timeline of the EST-3 (Fire Alarm Control Panel) fire event from L'Enfant Plaza on January 12, 2015, is shown in the table below. The table shows that the smoke detector alarm from Drainage Pump Station L-1 activated and was received on the Multi-Net head end and all associated connected PCs at 3:04:54 PM. This includes seven (7) PCs at CTF (1 each at the COMM/ATC, PWR, PLNT, MOC Superintendent, ROCC, ROIC, and ELES (desks) and three (3) at JGB (1 each in MOC, ROCC, and ROIC). The alarm was reportedly not received by AIMS and verified by the attached fire events log (bottom of document). AIMS receives its activation signal via an MCR (Modular Control Relay) interfaced with AIMS. The MCR is controlled as a secondary action of the EST-3 FACP.

Troubleshooting results of why the AIMS did not report the alarm shows that there was an open wire between the DPS and the L'Enfant Plaza (F03) ATC room's RTU equipment.

Like all life safety fire systems the EST-3 is fully supervised and any fault will activate an alarm as to the malfunction. This is not the case with the RTU/AIMS which is unsupervised, at least as far as the RTU. The AIMS fire reporting feature used at WMATA is a convenience feature that is a secondary/redundant and not an officially sanctioned fire reporting mechanism because it does not meet the fire codes of the USA or local jurisdictions. This is made clear in the fact that there was an existing fault and the system could not recognize it because it lacks the pre-required system supervision capability. An unsupervised system does not allow for the detection of open circuits which is why NFPA fire codes specify only supervised fire systems.

EST-3 (Multi-Net) Fire Reporting Events. (Shows DPS Received Alarm in ROCC)

D03S Z07 SD007	Fire Alarm	1/12/2015 3:34:15 PM	Z07 Mezz To Platform Escalator West Escalator 4-5-6	Smoke Detector Photoelect
F03S Z10 SD019	Fire Alarm	1/12/2015 3:33:43 PM	Z10 South Platform Escalators Escalator 13	Smoke Detector Photoelect
D03S Z01 SD008	Fire Alarm	1/12/2015 3:32:28 PM	Z01 West Platform Service Rooms Mechanical Equipment Rm W101	Smoke Detector Photoelect
F03S Z14 SD012	Fire Alarm	1/12/2015 3:28:27 PM	Z14 Northeast Platform Service Rooms DC Tie Breaker Room N107	Smoke Detector Photoelect
D03S Z07 SD003	Fire Alarm	1/12/2015 3:28:11 PM	Z07 Mezz To Platform Escalator East Escalator 7-8-9	Smoke Detector Photoelect
D03S Z07 SD005	Fire Alarm	1/12/2015 3:28:07 PM	Z07 Mezz To Platform Escalator West Escalator 7-8-9	Smoke Detector Photoelect
F03S Z10 SD022	Fire Alarm	1/12/2015 3:25:48 PM	Z10 South Platform Escalators Escalator 11	Smoke Detector Photoelect
D03S Z07 SD004	Fire Alarm	1/12/2015 3:23:13 PM	Z07 Mezz To Platform Escalator East Escalator 4-5-6	Smoke Detector Photoelect
F03S Z10 SD021	Fire Alarm	1/12/2015 3:22:35 PM	Z10 South Platform Escalators Escalator 10	Smoke Detector Photoelect
F03S Z02 SD031	Fire Alarm	1/12/2015 3:20:19 PM	Z02 Southwest Platform Service Rooms Battery Room S102	Smoke Detector Photoelect
F03S Z13 SD032	Fire Alarm	1/12/2015 3:20:15 PM	Z13 Southwest Platform Service Rooms DC Tie Breaker Room S103	Smoke Detector Photoelect
F03S Z02 SD030	Fire Alarm	1/12/2015 3:19:19 PM	Z02 Southwest Platform Service Rooms AC Service Room S101	Smoke Detector Photoelect
C05A Z18 SD252	Fire Alarm	1/12/2015 3:13:35 PM	Z18 Traction Power Upper Level South	Smoke Detector Photoelect
C05A Z18 SD253	Fire Alarm	1/12/2015 3:10:55 PM	Z18 Traction Power Lower Level North	Smoke Detector Photoelect
C05A Z18 SD254	Fire Alarm	1/12/2015 3:09:11 PM	Z18 Traction Power Lower Level South	Smoke Detector Photoelect
F03A Z22 SD252	Fire Alarm	1/12/2015 3:04:54 PM	Z22 Drainage Pump Station L-1 Drain Pump L-1 Center	Smoke Detector Photoelect

AIMS Fire Reporting Events. (Does Not Show DPS Alarm)

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INITIAL STATE 2015 Jan 12 13:00:00 EST C05 Status FWB 06 2 00 Fire Alarm 4 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST C05 Status FWB 06 2 01 Fire Alarm 21 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST C05 Status FWB 06 2 02 Fire Alarm 22 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST C05 Status FWB 06 2 03 Fire Alarm 3 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST C05 Status FWB 06 2 04 Fire Alarm 11-C5 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST C05 Status FWB 06 2 05 Fire Alarm 20 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST C05 Status FWB 06 2 06 Fire Alarm 12-C6 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST C05 Status FWB 06 2 07 Fire Alarm 1 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST D03 Status FWB 03 0 00 Fire Alarm 20 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST D03 Status FWB 03 0 01 Fire Alarm 4 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST D03 Status FWB 03 0 02 Fire Alarm 1 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST D03 Status FWB 03 0 03 Fire Alarm 11-D3 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST F03 Status FWB 08 1 00 Fire Alarm 1 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST F03 Status FWB 08 1 01 Fire Alarm 3 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST F03 Status FWB 08 1 02 Fire Alarm 4 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST F03 Status FWB 08 1 03 Fire Alarm 6 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST F03 Status FWB 08 1 05 Fire Alarm 11-F2 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST F03 Status FWB 08 1 06 Fire Alarm 12-F3 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST F03 Status FWB 08 1 07 Fire Alarm 21 Off
INITIAL STATE 2015 Jan 12 13:00:00 EST F03 Status FWB 08 1 08 Fire Alarm 22 Off
2015 Jan 12 15:10:58 EST C05 Status FWB 06 2 03 Fire Alarm 3 Active
2015 Jan 12 15:20:59 EST F03 Status FWB 08 1 00 Fire Alarm 1 Active
2015 Jan 12 15:21:54 EST F03 Status FWB 08 1 03 Fire Alarm 6 Active
2015 Jan 12 15:24:38 EST D03 Status FWB 03 0 02 Fire Alarm 1 Active
2015 Jan 12 15:30:06 EST F03 Status FWB 08 1 02 Fire Alarm 4 Active
2015 Jan 12 15:31:53 EST C05 Status FWB 06 2 03 Fire Alarm 3 Off
2015 Jan 12 18:32:01 EST D03 Status FWB 03 0 02 Fire Alarm 1 Off
2015 Jan 12 19:21:15 EST F03 Status FWB 08 1 00 Fire Alarm 1 Off
2015 Jan 12 19:21:16 EST F03 Status FWB 08 1 02 Fire Alarm 4 Off

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Jan-12-Fire-Alarms-a
s-Recieved-by-AIM.pc

2015 Jan 12 19:21:17 EST F03 Status FWB 08 1 03 Fire Alarm 6 Off