

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Materials Laboratory Division
Washington, D.C. 20594



9/20/2015

MATERIALS LABORATORY FACTUAL REPORT

Report No. 15-103

A. ACCIDENT INFORMATION

Place : Washington, DC
Date : January 12, 2015 3:15p.m. EST
Vehicle : WMATA train #302 Yellow Line
NTSB No. : DCA15FR004
Investigator : Robert Gordon

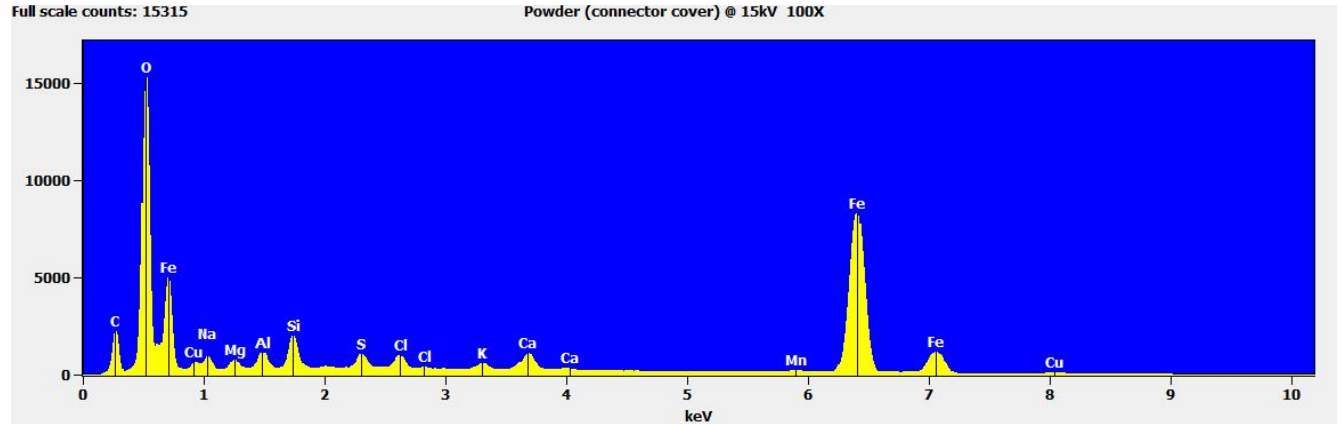
B. COMPONENTS EXAMINED

- 1) Sample of contaminants from the interior of a cable connector cover
- 2) Sample of contaminants from the exterior of a jumper cable's insulation.

C. DETAILS OF THE EXAMINATION

Samples 1 and 2 were collected from the cable connector covers and cables originating from the site of the L'Enfant plaza station smoke incident. These cables are discussed in Materials Laboratory Report 15-043. Standard-less semi-quantitative Energy Dispersive X-Ray Spectroscopy (EDS) analysis of the samples was carried out and the resulting spectra are shown in the graphs below.

Sample #1

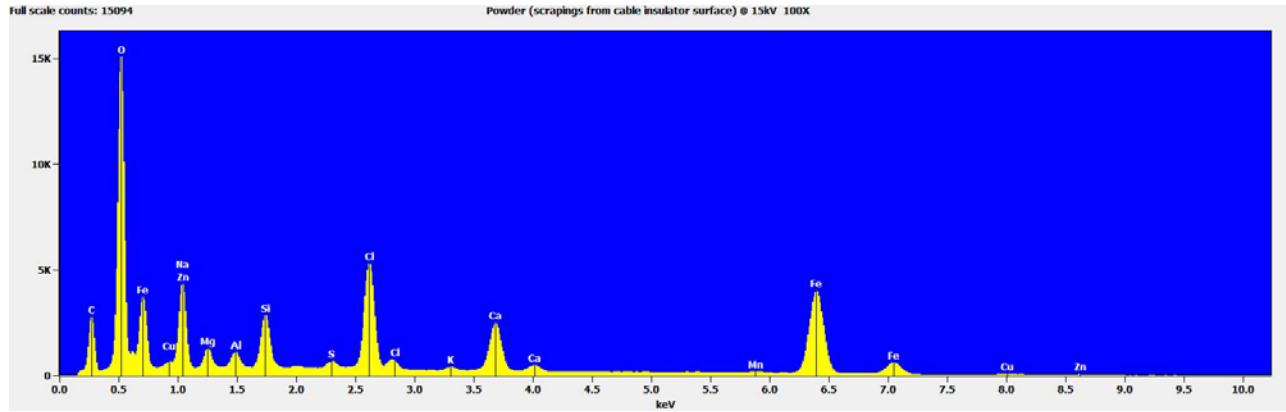


Filter Fit Standard less
 Correction Method: Proza (Phi-Rho-Z)
 Acc.Voltage: 15.0 kV

Element	Element	Wt.%
Line		
C K		3.86
O K		19.27
Na K		1.30
Mg K		0.65
Al K		0.96
Si K		1.87
S K		0.79
Cl K		0.81
K K		0.46
Ca K		1.56
Mn K		0.83
Fe K		65.76
Cu K		1.88

 Total 100.00

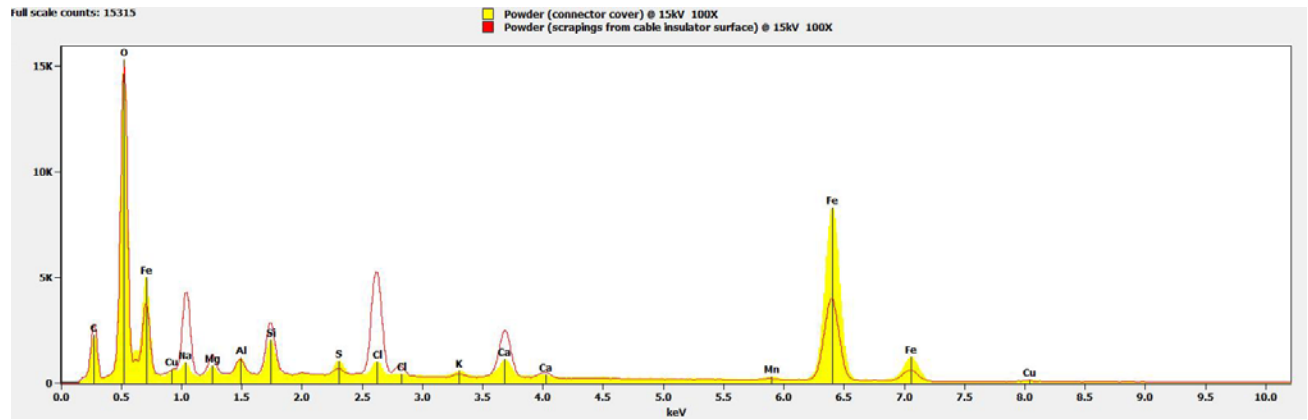
Sample #2



Filter Fit Standard less
 Correction Method: Proza (Phi-Rho-Z)
 Acc.Voltage: 15.0 kV

Element	Element
Line	Wt.%
C K	6.37
O K	28.17
Na K	5.79
Mg K	1.25
Al K	0.89
Si K	3.06
S K	0.48
Cl K	7.91
K K	0.25
Ca K	5.53
Mn K	0.62
Fe K	37.83
Cu K	0.90
Zn K	0.95

 Total 100.00



Joseph Panagiotou
Fire & Explosion Investigator