



RECORD OF COMMUNICATION

Michael Huhn
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Western Pacific Region

Date: May 30, 2014

Person Contacted: Ms. Nancy McAtee (NTSB Materials Laboratory)

NTSB Accident Number: WPR13FA244

Narrative:

The paragraphs below are the verbatim extracted text of the emails from Ms. McAtee to the IIC on May 23 & 30, 2014, regarding samples analysis results.

May 23, 2014:

I examined the material that was removed from the fuel pump from this accident aircraft. I also removed a sample of debris from inside the fuel line. The materials from the fuel pump and fuel line were examined using a Fourier Transform Infrared (FTIR) spectrometer with a diamond attenuated total reflectance (ATR) accessory in accordance to ASTM E1252-98 and ASTM E334-01 (American Society for Testing Materials E1252-98: *Standard Practice for General Techniques for Obtaining Infrared Spectra for Qualitative*). The spectrometer was used to collect and process infrared wavelength absorbance spectra of the two samples. A comparative search of spectral libraries of known substances was performed on the fuel pump material spectrum and a strong match was found for polyester. Polyester fabric is often used as an braided interlayer in fuel lines. The spectrum for material from the fuel line contained no unique patterns and was consistent with the spectrum of carbon black or charcoal. This indicates that any material in the fuel line was likely exposed to heat during the post-crash fire and no identification is possible.

There was not enough sample present in the fuel pump block to successfully remove and examine.

May 30, 2014

I did find one error in a sentence in the original email. The third sentence should read: The materials from the fuel pump and fuel line were examined using a Fourier Transform Infrared (FTIR) spectrometer with a diamond attenuated total reflectance (ATR) accessory in accordance to ASTM E1252-98 (American Society for Testing Materials E1252-98: *Standard Practice for General Techniques for Obtaining Infrared Spectra for Qualitative Analysis*).