

# NATIONAL TRANSPORTATION SAFETY BOARD

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



November 10, 2010

MATERIALS LABORATORY FACTUAL REPORT

Report No. 10-103

## A. ACCIDENT

Place : Grey Summit, Missouri  
Date : August 2, 2010  
Vehicle : 2007 Volvo Truck Tractor  
NTSB No. : HWY10MH018  
Investigator : Jennifer Morrison  
NTSB-OHS

## B. COMPONENTS EXAMINED

Two (2) red tail/brake lights

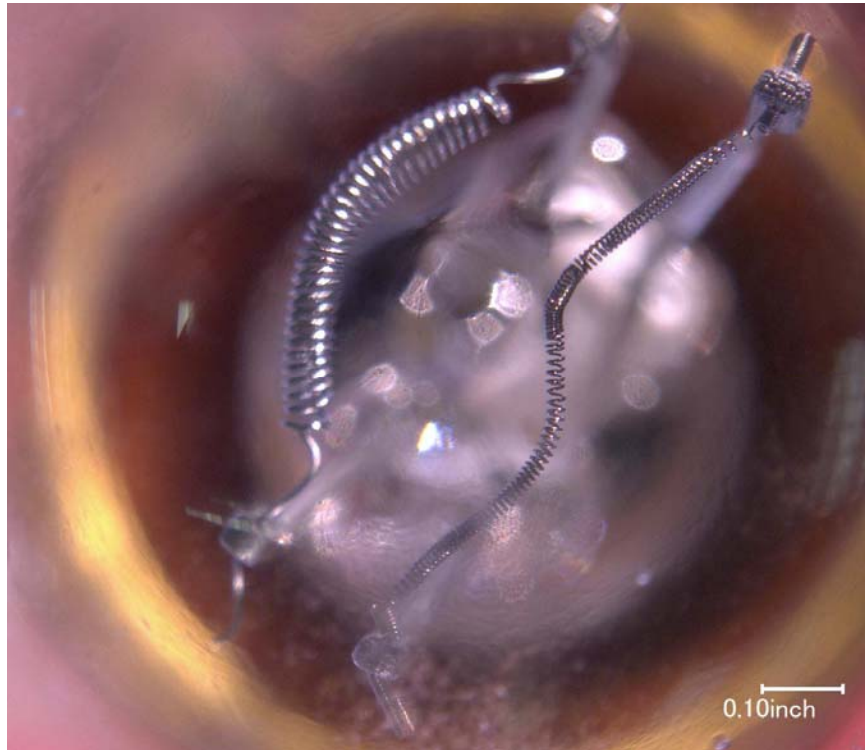
## C. DETAILS OF THE EXAMINATION

Two brake lights, shown in Figure 1, were submitted to the NTSB Materials Laboratory to determine if there was hot stretching relaxation of the coils in the filaments of the light bulbs. The lights were labeled Light #1 and Light #2 randomly by the analyst. The filament for Light #1 is shown in Figure 2 and the filament for Light #2. The filaments of both light bulbs showed no evidence of hot stretching of the filament coils.

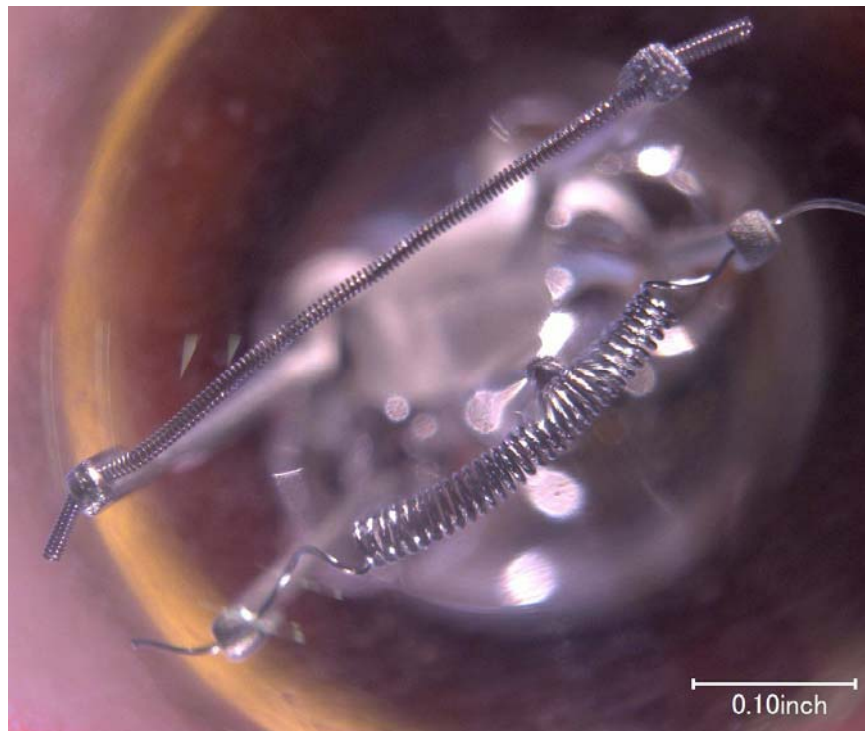
Nancy B. McAtee  
Chemist



**Figure 1. Overall picture of brake lights**



**Figure 2. Filament of Light #1**



**Figure 3. Filament of Light #2**