PUBLIC TRANSPORTATION SAFETY BOARD
ABBREVIATED BUS ACCIDENT REPORT

1. CASE#: 9490
2. PROPERTY NAME: MTA Bus Co
3a. ACCIDENT TYPE: Fire
3b. Accident Severity Index: 0.00
4a. DATE: September 5, 2007
4b. TIME: 6:40 a.m.
5. ACCIDENT LOCATION: Union Turnpike at 71st Street
6. TOWN/CITY/BOROUGH: Queens, NY
7. SUMMONS: No
8. BUS NUMBER: 7177
8a. YEAR: 1993
8b. MAKE: RTS
9. NUMBER OF INJURIES: 0
10. FATALITIES: 0
11. HOURS OF SERVICE: Not obtained
12. SYNOPSIS:

At approximately 6:40 a.m., MTA Bus Company (MTABC) bus #7177 was traveling west on Union Turnpike and approaching the intersection with 71st Street when the bus driver smelled smoke and then observed smoke and flames coming from the rear of the bus in the left side travel mirror. The bus driver moved the bus to the curb, shut down the engine, called for assistance and exited the bus. At the time of the fire there were no passengers on board the bus. The fire department responded and extinguished the fire. The bus sustained extensive fire damage to the rear of the bus (engine compartment).

In the vicinity of the accident site Union Turnpike is a two-way east/west roadway divided by a raised median into two travel lanes in each direction. Parking is not allowed at the curbs. The roadway is asphalt paved, straight, level and in good condition. At the time of the accident it was daylight, the weather was clear and the pavement was dry. The posted speed limit is 40 mph. Investigation at the scene found a stream of diesel fuel, attributed to have leaked from the bus, tracked back from the rear of the bus for at least a quarter mile.

Bus #7177 is a 1993 RTS transit type bus housed and maintained at the LaGuardia Depot with a seating capacity of 45 passengers. A review of the bus records showed that Preventive Maintenance Inspections (PMI) are performed at regular 4,000 mile intervals the most recent was completed on September 4, 2007 and the bus had traveled 12 miles since then. There were no safety or recurring defects noted in the 45 days prior to the accident. Physical inspection of the bus on September 5, 2007 found that the most probable cause of the fire was a burst fuel line between the fuel filter and the fuel pump.
It was determined that the fuel line had most likely burst due to chafing of the fuel line against the negative ground cable of the bus starter, a condition which should have been detected during the recently completed PMI. When the fuel line burst, diesel fuel under high pressure was sprayed within the engine compartment where it subsequently caught fire. Contributing to the severity and intensity of the fire was the addition of the contents of the air conditioning system (refrigerant and refrigerant oil) when the fire caused the containment system to fail. Due to the bus age and the extensive fire damage, the bus was scrapped.

The bus driver was hired by the MTA Bus Company on January 22, 2000 and completed the New Bus Operator Training Program. A review of the driver's Department of Motor Vehicles records for the past three years showed one conviction for “No Seat Belt” (07/05). NYS Vehicle & Traffic Law, Article 19-A records were reviewed and found to be complete, in-order and up-to-date. A review of the driver's MTABC accident record showed no accidents since his date of hire. No post accident drug and alcohol tests were performed on the bus driver.

In an interview the bus driver indicated that he had just departed the depot and was traveling west on Union Turnpike to the starting point of his route. The bus driver said that he had he had been assigned the bus, completed the pre-trip inspection (without finding any defects) and departed the depot. The bus driver indicated that prior to the fire he had not observed any problems and that the bus was running fine.

While conducting PMIs, maintainers are trained to look for lines or hoses making contact with each other or parts of the bus body/engine/frame. It is especially important for maintainers to be particularly vigilant in inspecting older buses as the aging of hoses and lines increases the probability of their failure if they rub or chafe. The fact that the PMI had been completed the day before the fire and that the bus had only traveled 12 miles since the completion of the PMI means that the fuel line had to have been making contact with the negative ground cable of the starter for some time and, as such, should have been discovered by the maintainer performing the PMI.

The Public Transportation Safety Board (PTSB) staff finds that the most probable cause of this fire was the failure of the maintainer to detect the chafed fuel line making contact with the negative ground cable of the bus starter.

The MTA Bus Company retrained both of the maintainers, verbally and hands-on, in the techniques for properly identifying fuel line, as well as other hose/line, defects. This retraining also included the importance of including supervision in the determination of deciding if a hose/line is serviceable. In addition, the reinstruction reemphasized the importance of specifying the nature and location of the defects on forms and written material so proper repairs can be made.
Based on the action taken by the MTA Bus Company regarding this bus fire, the Public Transportation Safety Board staff makes no recommendation in this case.

INVESTIGATOR: Harry W. Gerham

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CHIEF, ACCIDENT INVESTIGATION SECTION  DATE

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DIRECTOR, PCSB, NYSDOT  DATE