PUBLIC TRANSPORTATION SAFETY BOARD
ABBREVIATED BUS ACCIDENT REPORT

1. CASE#: 9351
2. PROPERTY NAME: MTA NYCT
3a. ACCIDENT TYPE: Fire
3b. Accident Severity Index: 0.00
4a. DATE: May 8, 2007
4b. TIME: 6:45 a.m.
5. ACCIDENT LOCATION: Armstrong Avenue at E. Brandis Avenue
6. TOWN/CITY/BOROUGH: Staten Island, NY
7. SUMMONS: No
8. BUS NUMBER: 2819
8a. YEAR: 2002
8b. MAKE: MCI-D4500
9. NUMBER OF INJURIES: 0
10. FATALITIES: 0
11. HOURS OF SERVICE: 0 hr 17 min in last 24 hrs/38 hrs 29 min in last 7 days
12. SYNOPSIS:

At approximately 6:45 a.m., MTA New York City Transit (NYCT) bus #2819 was standing in the far side bus stop on Armstrong Avenue at the intersection with East Brandis Avenue when the bus driver was informed by a bus passenger of “fog” in the rear of the bus. The bus driver investigated, determined that the “fog” was smoke, safely evacuated the two passengers and called for assistance. Almost immediately flames began to come from the ceiling of the bus and quickly spread through the bus interior. The NY City Fire Department (FDNY) responded and extinguishing the fire. There were no reported injuries. The bus sustained extensive damage in the bus interior.

The environment played no part in the fire.

Bus #2819 is a 2002 MCI D-4500 over-the-road motor coach type bus housed and maintained at the Yukon Depot with a seating capacity of 55 passengers. A review of the bus records showed that Preventive Maintenance Inspections are performed at regular 6,000 mile intervals, the most recent was completed on March 27, 2007 and the bus had traveled 3,914 miles since then. There were no safety or recurring defects noted in the 45 days prior to the accident. The records also showed that the bus interior had been cleaned (power washed) the day prior to the fire. Physical inspection of the bus was conducted on May 9, 2007 by the combined staffs of the FDNY Bureau of Fire Investigation (Fire Marshals), the MTA NYCT Office of System Safety Fire Safety Unit, the MTA NYCT Department of Buses (DOB) Technical Services Department and Office of the Chief Maintenance Officer and the Public Transportation Safety Board. The inspection found that the fire had originated in the end cap of the overhead luggage rack directly over and behind the bus driver’s head (this end cap contains the ballasts that control the front dome and aisle lights) and was most probable due to a short to ground which caused one or more of the ballasts to overheat and catch fire. Due to prior fires, the ballasts in this end cap should have been de-energized by the removal of the fuses for those light circuits for the entire fleet of buses by this manufacturer. Although badly damaged by the fire, the fuse panel for the front lighting system was located and removed from the bus. Careful dissection of the panel found the remains of fuses indicating that someone had replaced the fuses which re-energized these circuits. It could not be determined who re-energized the light system or when it had occurred.

1 A Combined Bus Fire Case (Cases #8578, #8684, #8689) was presented to the Board on January 17, 2007. In brief, the case detailed fires which had occurred in buses of this manufacturer. All of the fires were attributed to water intrusion which led to shorts to ground in the front lighting systems of the buses. The shorts to ground caused the light ballasts to overheat and catch fire. The MTA NYCT, after lengthy negotiations with the manufacturer, disabled all of the front lighting systems in the buses of this manufacturer by removing the fuses controlling the lights until the manufacturer completes installing a redesigned wiring system for the interior lighting into all of the buses. To date the refit of the buses continues and is nearing completion.
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The MTA NYCT immediately inspected the entire fleet of buses of this manufacturer and discovered an additional three buses with re-energized front lighting systems. The lighting systems in these three buses were immediately disabled.

The bus driver was hired by the MTA NYCT on February 4, 1991 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 no violations or convictions. 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 NYCT accident record for the past three years showed one preventable (03/20/06-non major, retraining) and three non-preventable (08/18/05, 09/12/05, 03/24/06) collision accidents. Post accident drug and alcohol testing was not performed on the bus driver.

In an interview the bus driver, stated that when he boarded the bus to start his assigned run, approximately 15 minutes before the fire occurred, he observed that all of the windows inside the bus were wet. The bus driver said that he started the bus, activated the climate controls (heat), turned on all of the defrosters and blowers to clear the windows of moisture and activated the interior lighting systems. The driver indicated that he noticed that the lights located over the windows were not functioning (lighting). The driver said that he completed his pre-trip inspection, exited the depot and entered into passenger service. The bus driver said that while in the bus stop on Armstrong Avenue one of the two bus passengers informed him of “fog” in the rear of the bus. The bus driver indicated that he went to the rear of the bus and determined that the “fog” was smoke, safely evacuated the two passengers, shut off the bus engine and called for assistance. Within moments of shutting off the engine the bus driver said that flames began to come out of the area over the driver’s position and that the flames quickly spread throughout the interior of the bus. The bus driver said that the fire department responded and extinguished the fire.

As indicated earlier in this report, the floor of bus #2819 had been cleaned (power washed) during the afternoon of the day prior to the fire. Upon completion of the floor cleaning the bus was placed outside (in the sun) for service the next day. It should be noted that the weather that afternoon was fairly warm and sunny and that the evening weather was fairly cool. As the bus driver stated in his interview, the interior windows of the bus were wet when he arrived to take the bus into service. It is therefore likely that the residual water from the floor cleaning vaporized from the heat of the bus being placed in the afternoon sun, that the vaporized water infiltrated throughout the interior of the bus, condensed on the interior surfaces during the cool of the night and led to the short to ground which caused the fire.

Public Transportation Safety Board staff finds that the probable cause of this fire was a short to ground from the reenergized front lighting system, most likely caused by water infiltration. The short to ground caused the light ballasts located within the front end cap to overheat and catch fire.

The MTA NYCT, after having disabled all to the front lighting systems of the buses of this manufacturer due to past fires, re-inspected all of the buses and, after finding three buses that had been re-energized reinstalled all maintenance personnel regarding the disabled front lighting systems of the buses of this manufacturer.
In addition, decals and/or lock out tags were installed on the electrical components to insure that the circuits for the lighting systems could not be re-energized. The MTA NYCT additionally reviewed the method of washing the floors of these buses and is evaluating methods to lessen the amount of water introduced into the interior of the bus during floor cleaning.

Based on the action taken by the MTA New York City Transit regarding this 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