

January 18, 2016



Notes on the sampling of asbestos and lead on the 1351 Steam Locomotive in Collierville.

The following information with attached photos are provided for the use of the Collierville Herald and the Morton Museum for a new article.

By Gary Siebenschuh

Frisco 1351 Committee

In December 2015 a town of Collierville volunteer group was formed to develop a plan of action to repaint the Steam Locomotive located in the city square near the Collierville Train Depot. The group consists of:

James Lewellen-Town Administer
Gary Siebenschuh-G7 Environmental Services
John McKenney- Volunteer
Terry Dean- Leadership Collierville
Ashley Carver- Morton Museum
Adam Hamric-City of Collierville
Mike Dearing- Volunteer

That first meet was held at the Collierville Train Depot In December and the “Frisco 1351 Restoration Committee” was formed. The Restoration group agreed to meet on a regular basis when certain aspects of the project was reached and could be reported on, or when help from volunteers, provided by the committee, was needs to achieve project goals. Given the current condition of the Locomotive and tender car, the primary goal is to restore the paint colors and numbering.

History of Collierville’s Locomotive

Research on the locomotive was made mostly in part through the efforts of Gary Siebenschuh of G7 Environmental Services. At the time of the formation of the Committee, little was known as to the history of the Frisco 1351 engine and coal car.

- The actual name of the Collierville Steam Locomotive is: The SLSF (Mikato) 2-8-0 1351 Steam Locomotive.

- According to records from the St. Louis San Francisco (STSF) Railroad, the Frisco 1351 was built by the American Locomotive Company in Schenectady, New York in 1912. Mikato was the class name for this type of engine, as it was originally designed for use in Japan.
- The numbers 2-8-0 described the wheel formation under the engine/boiler (2 wheels- 8 wheels- 0 wheels). The Locomotive was built with one pair of front pilot wheels, four pairs of drive wheels, and no back trailing wheels. In 1943 the train was renovated and a pair of trailing wheels was added, creating its current “2-8-2” configuration.
- This class of locomotives is called Frisco “Mikato”, as the design was initially conceived for the Japanese market. The class was renamed “McArthur” during the Second World War, when a Japanese name did not strike the company as appropriate.
- The locomotive was used as a freight hauler from 1912 up to 1943. In 1943 the engine was modified with the addition wheels under the cab and an expanded boiler to increase its horsepower. This was considered necessary for pulling extra freight during the war years.
- In 1952 the locomotive was retired from the Frisco line and Memphis acquired the Locomotive from Frisco.

Additional history and background information on the Locomotive was provided by William Strong, the former Director of the Memphis Railroad and Trolley Museum in Memphis. Mr. Strong Knew about many of the Locomotive components and its association with the City of Memphis prior to its move to Collierville.

It is Mr. Strong’s understanding that the engine and tender car was either sold or given to the City of Memphis after the Frisco Railroad took it out of service. A tentative plan was for the locomotive to be put on display at the Memphis Railroad and Trolley Museum at the Memphis Central station. Collierville gained passion of the locomotive in the early 1990’s through the efforts of former Collierville Mayor Cox. To display the locomotive in town new rail sidings were install next to the Collierville Train Depot.

Contact was also made to Scott Lindsey of Steam Operations in Birmingham Alabama. Steam Operation is a company that restores old Railroad locomotives. Mr. Lindsey is a project manager with Steam Operations and has worked on restoring Frisco Locomotive 1352. The “Frisco 1352” is now located in Taylorsville, Illinois and is an exact match to the Collierville’s Frisco 1351 locomotive. Mr. Lindsey provided some of the background information related to the engine design and its working components.

Task 1, Identifying Hazardous materials on the Locomotive

The first goal to be achieved was to identify suspect hazardous materials that Gary Siebenschuh of G7 Environmental Services in Collierville was tasked with this first assignment. The purpose of identifying hazardous material on the locomotive was to assess potential problems that may occur when a painting contract is later awarded for the engine and coal car.



As G7 Environmental Services, Inc. was interested in the hazardous materials associated with the locomotive as they were tasked by the committee to investigate and test the visibly accessible materials on the locomotive, Mr. Lindsey of Steam Operations provided some insight as to potential hazardous materials that may be associated with the engine and tender such as boiler insulation, pipe fittings, lead based paint, etc.

Sampling for Hazardous Materials

On the morning of January 18, Gary Siebenschuh (V.P.) of G7 environmental Services, and a member of the Frisco 1351 restoration committee, assembled a team of (five) 5 volunteers to identify and sample visibly accessible materials located on the locomotive and coal car that may be considered hazardous materials. The Team consisted of:

Courtney van Stolk of G7 Environmental Services, Inc.
Lydia Feng of G7 Environmental Services, Inc.
Laurie Jones –Volunteer
Holly Siebenschuh-Volunteer

Leading the team was Mr. Siebenschuh who directed the evaluation of the locomotive components and coal car. Mr. Siebenschuh is certified by the State of Tennessee to identify and sample hazardous material such as asbestos and Lead Based Paint.

Courtney van Stolk and Lydia Feng of G7 Environmental assisted in the collection and categorizing of suspect hazardous samples, the majority being suspect asbestos and Lead Based Paint samples. Holly Siebenschuh, made notes and sketches of the sampling event, and Laurie Jones photographed all of the sample locations. Each of the team members involved in the project wore Tyvek suits in order to protect their clothing while climbing over and under the train.

Suspect asbestos samples consisted mainly of engine insulation and steam line pipe wrap connections. Suspect Lead Based Paint was identified by six different by colors, Black, White, Silver, Green, Lt. Green and Red.

In total, G7 took 14 samples of various materials to be tested for asbestos and 15 samples for lead analysis. It's important to evaluate a site for the presence of those two compounds before performing restoration work; while neither substance poses a significant problem when undisturbed, asbestos can cause respiratory problems during paint restoration work if it becomes friable and airborne. Lead paint on the locomotive could also be a health hazard if breathed by workers during the paint restoration.

Results at the time of this writing the results of the sample analysis are still pending at the laboratories.

Enclosed: Photos