

Vol 2, Number 1, January 2023

If you are receiving this newsletter for the first time, welcome to the fold! We are in the process of cataloging our visitors logs for the last few years, and your name and email appeared! If you wish to be taken off our list, just let us know, but we hope that you will stay with us, follow us on line, and return as a visitor sometime soon. Previous editions of this newsletter may be found on our website, 2926.us. If you have comments on the newsletter, please send them to nmslrhs@nmslrhs.org.

Current Status: The organization has come back from the holiday break reinvigorated and pushing forward. The main mechanical job is still the overhaul of the air compressors under the watchful eye of Henry Roberts. Work at the turntable continues as do plans for allowing us to access the Railyards in the relatively near future.

Accomplishments: Serious work has begun on an operational business plan. A professional inspection of the turntable and a complete oil flush of its hydraulic drive system have been scheduled. We are working with city and industry officials to exhibit a steamed-up 2926 at the Alvarado Transportation Center for National Train Day, May 13, 2023

Profile of a member: Have you ever stopped by the World Headquarters and grabbed a few Oreos? If so, you have Bill "The Oreo Man" Wilhelm to thank! Although Bill was born in Monterey Park, California about the time the 2926 was being birthed in Pennsylvania, he spent most of his working life in either Florida or Oklahoma. He got an associate degree in Arts and Sciences from Northern Oklahoma Junior College and shortly thereafter found himself checking out rocket electrical systems at Cape Canaveral. He worked for both Boeing and Grumman on the Saturn V rocket and the associated Apollo capsule which took our first astronauts to the Moon. After a



few years, Oklahoma beckoned, and Bill and his family moved to Bartlesville where he worked for Phillips Petroleum for 22 ½ years in a variety of positions, testing catalysts and performing nondestructive testing. After leaving Phillips, Bill worked another 12 ½ years as the chemical safety officer at UNM. Always interested in trains, Bill "discovered" the 2926 at the 2014 Open House and has been one of our stalwarts ever since. Also, He still owns a Corvette that he got on his 23rd birthday (you do the math!), and he and a friend have a side gig restoring Corvettes and other classic cars. Bill is married to Vicky (the famous homemade ice cream lady) and has two daughters, both of whom are

highly successful—one as a business woman and one as a special education teacher.

A short historical note: The 2926 was built by the Baldwin Locomotive Works in Eddystone, PA. It was founded in 1825 by Matthias Baldwin and was the world's largest manufacturer of steam locomotives in the early 20th century. By the time the works closed in 1951, it had manufactured over 70,500 steam

locomotives. The company struggled during the Great Depression, eventually entering bankruptcy. However, it emerged from its financial woes and was very active during World War II, building locomotives for the US, the UK, and the Soviet Union. It also built tanks for the US Army. By 1949, the demand for steam locomotives had dropped to 2% of the overall market. Baldwin had been unsuccessful in its attempts to compete with General Motors Electro-Motive Division in the diesel-electric market, and the company was forced to merge with Lima-Hamilton and eventually with Amour and Company. The Eddystone plant produced its last locomotives (three experimental RP-210 diesel electric locomotives for the New York Central and New Haven railroads) in 1956, but the die was cast. Amour was purchased by Greyhound in 1970, and the new owners closed the Eddystone facility for good. Other Baldwin plants remained open, manufacturing heavy construction equipment until 1972. A follow-on company, owned by Ecolaire but still retaining part of the Baldwin name (Baldwin-Hamilton Company—A Division of Ecolaire, Inc.), manufactured "replacement and renewal parts" until it finally shut down in 1991.

What's new in the store? The store has a large variety of books on railroads, local and national, as well as our excellent history of the restoration of AT&SF 2926. We also have our organization logo shirts and tees, as well as beautiful color train prints from our artists!

How does it work? In the past two issues, we've described the water systems. The final aspect of this critical part of locomotive operation is boiler chemistry. It is necessary to treat the boiler water in a steam locomotive to protect the boiler against corrosion and scale. Corrosion can occur due to dissolved oxygen in the water or due to low pH (i.e., acidic). Sulfite (SO_3^{-2}) reacts with the dissolved oxygen and converts to sulfate (SO_4^{-2}) . A residual of 60 mg/L of sulfite is maintained in the boiler water.

Hydroxide (OH⁻) is added to the boiler water to increase the pH to ~11 (a highly basic level). A residual hydroxide level is maintained between 150-300 mg/L to provide this pH.

Albuquerque water is hard and can cause scaling in the boiler without proper treatment. Scale control is accomplished using polymers in the boiler to prevent the scale from adhering to the surfaces of the boiler. The polymer is maintained at 10 mg/L.

As the engine uses steam, the dissolved solids in the boiler water increase, causing foaming in the boiler. The foam meter is located in the middle of the backhead. This device consists of two electrodes that are inserted in the boiler with their end points about a foot apart. Because foam is a poorer conductor of electricity than water, the electrical current between the electrodes will drop significantly if there is foaming. An alarm will register on the foam meter and the engineer can initiate a blowdown to reduce the dissolved solids in the boiler water and reduce foaming. Blowdowns are also done periodically to keep the boiler within specifications.





We installed a special system below the cab on the fireman's side that allows the boiler water to be sampled while it is at operating pressure/and temperature.

All this magic is managed by our resident mad (chemical) scientist, Roger Jutte!

What's new on the website (2926.us)? We continue to add more photos and information to the website—please check it out!



Follow the money: Although our funding picture is currently in the black, the upcoming expenses of tool car completion, insurance, track repair, turntable repair, car and diesel support rental, etc., our hard-earned money will be gone in a flash as we make forward progress on our future plans and eventually start operating! Thanks to everyone who continues to support us so generously. If you are interested in donating to our cause, check the website to donate through Paypal and/or click on our GoFundMe and Venmo links! Be sure to check out our Facebook, Youtube, and Instagram pages as well!



