

# SF Municipal Railway

## MID-LIFE OVERHAUL PROJECT PROFILE



In early 2004, the San Francisco Municipal Railway (Muni) awarded contracts to perform mid-life overhauls of 243 transit buses and retrofit another 162 with Longview DPFs. The goal of the program was to rebuild the 2000-2003 model year Neoplan buses so they would reach the 12-15 life expectancy before replacement in 2015-2016. In addition, the Bay Area Air Quality Management District (BAAQMD) and the Metropolitan Transit Commission (MTC) wanted to help Muni and other local transit agencies reduce PM and NOx emissions.

The average life of an urban transit bus, according to the Federal Transit Administration, is 12 years. The midlife overhaul is designed to improve bus reliability, reduce unscheduled repairs, reduce engine emissions and ensure safe operations. In total, 405 Muni buses were retrofitted with Longview Diesel Particulate Filters (DPF). The Longview DPF was selected because of the system's ability dramatically reduce both PM and NOx emissions beyond what was required at the time.

As part of Muni's mid-life overhaul program, 243 buses received a complete overhaul that included the following:

- Rebuilt engine
- Longview DPF
- New transmission
- Interior updating and painting
- Updated heating and air conditioning systems
- Exterior body work & paint
- Updated telematics & lighting systems

In terms of funding the project, a substantial portion of the funding came from the Federal government, while significant funds also came from the Bay Area's Metropolitan Transportation Commission (MTC) and the Bay Area Air Quality Management District (BAAQMD) targeting NOx emissions via the Carl Moyer Program. In addition to Muni, these agencies also helped fund the retrofitting of other Bay Area transit buses and refuse trucks during the 2004-2006 period. The total units retrofitted were over 1,600.



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