

ELECTRICAL FEEDERS

Carbon Fiber Engineered Solutions has developed a life extension and repair program for aging electrical feeders. Our engineered systems were designed to be installed on live electrical feeders, above or below ground and in vertical or horizontal configurations.

Our engineered carbon fiber solution is the only composite carbon fiber piping system that meets ASME PCC-2 Repair of Pressure Equipment and Piping requirements and has been successfully installed on thousands of feet of live electrical feeders.

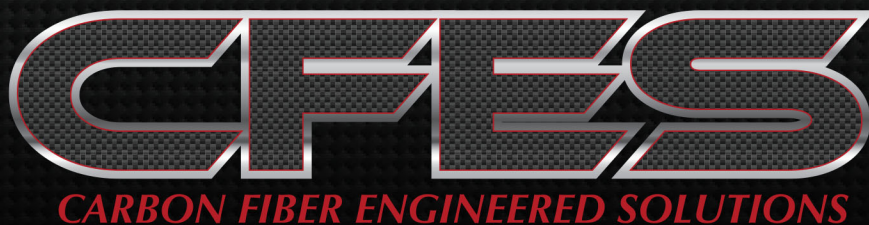
PROBLEM: A northeastern utility was experiencing an unacceptable amount of dielectric fluid leaks on their underground 345kV electrical feeder system. System reliability was being impacted and the state's environmental protection agency was threatening to impose an administrative consent order forcing them to replace the aging lines.

CHALLENGE: The system could not be taken out of service. Temporary barrel repairs and clamps were installed throughout the system and the entire system was coated with asbestos containing mastic.



SOLUTION:

Carbon Fiber Engineered Solutions installed our engineered system while the electrical feeders remained fully energized. Our solution fully encapsulated the existing electrical feeders, previous barrel repairs and asbestos containing mastic coating. Our composite carbon fiber solution is rated for 1,000 psi and serves as a secondary pressure boundary for the existing feeders. Carbon Fiber Engineered Solutions stopped the leaks, eliminated costly cleanup efforts, eliminated environmental reporting, restored system reliability and added 30+ years of maintenance free life.



CARBON FIBER ENGINEERED SOLUTIONS

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ADVANTAGES:

- Increases system reliability and availability
- A faster cost effective alternative for pipe replacement or traditional barrel repairs
- No shutdown or hot work required for installation
- Creates a corrosion resistant pipe around your existing feeder that is designed for 1,000 psi.
- Adds 30+ year of maintenance free life to your system
- Eliminates emergency repairs
- Eliminates gas and oil leaks
- Eliminates environmental remediation and reporting
- Encapsulates existing coatings including asbestos, lead, coal tar or other mastics
- Our uniquely designed processes conforms to any shape and can be utilized on various pipe configurations including elbows, Ts, nipples, welds or straight sections
- Our composite systems are installed over mechanical clamps and traditional barrel repairs
- Minimal change in weight of your exiting feeder



BEFORE: This 69 kV electrical feeder system was coated with lead paint and coal tar mastic, contained multiple barrel repairs and was leaking nitrogen.



AFTER: Carbon Fiber Engineered Solutions installed a custom designed solution while the system remained in service. The new system reduced nitrogen replacement costs by \$250,000 over the first year and extended the life of their existing feeder system by 30 years.