

PowerPatch[™] Oil Filled Pipes Repair MECO Substation

Problem: Maui Electric Company had leaking pipes on the back side of the mounting bracket for a transformer cooling fan. The bracket itself was corroded from the salty environment, and was in poor condition. The pipes behind the bracket actually had loose metal and rust flakes where the brackets touched them.

Solution: MECO decided to try [PowerPatch[™]](#) to fix the pipes without taking the substation out of service or waiting for an outage that would require replacement or repair. The pipes were prepared per PowerPatch[™] instructions. The metal was sanded to remove the paint and rust around the leak. To remove the oil, the sanded area was then wiped clean with the [Type TR[™]](#) cleaner provided in the complete PowerPatch[™] kit (catalog #EP-KIT). A small piece of the putty stick was cut, mixed, and then applied to plug the hole. Pressure was applied to the putty until it cured approximately 6 minutes later. Pressure is needed to keep the oil from flowing out of the pin-hole leak. However, the first attempt to stop the leak was unsuccessful. The procedure was repeated again and stopped the oil leak. Next, parts A & B of PowerPatch[™] were mixed together and then smoothed over the putty stick in order to make a long-term seal.

Results: The crews waited 1 hour and then remounted the bracket and fan unit. The repair was done in November of 2002 and is still intact today. MECO approved PowerPatch[™] to be used throughout their system.



Bracket being removed to locate leak.



PowerPatch[™] repair of leak.