

LS60 ATS Upgrade

Sequence of Work.

1. Install new 30" x 24" stainless steel tapping sleeve and valve on existing 30" dip force main, (2) 24" plug valves and (1) 16" plug valve with vault onto new 24" DIP force main. A 16" Cam Lock will be required.
2. Install Genset/Pump unit and connect to new 24" DIP force main 16" bypass valve.
3. Start Genset/Pump unit and test. Open 16" bypass valve.
4. Run station on the bypass Genset/Pump unit (45-60 minutes).
5. Open overhead (OH) switch to incoming power line for LS60 and temporarily remove cables from MCC-2 Main Breaker.
6. Install Mobile Generator cables into MCC-2 Main Breaker. Install Temporary Fuel Tank if required.
7. Move Control Power Transformer, Pump P-2, and P-2's 400A Circuit Breaker to MCC-2 bus utilizing temporary cabling.
8. Open MCC Tie Breaker and lockout/tagout in order to isolate MCC-2 bus.
9. Start Mobile Generator and transfer power to MCC-2 bus via Mobile Generator Main Breaker.
10. Test station controls.
11. Turn off Genset/Pump unit and close 16" bypass valve.
12. Run station on Mobile Generator connected to MCC-2 bus (6-8 weeks)
13. Disconnect and remove existing Automatic Transfer Switch (ATS), control wiring and cabling (including from the transformer in the Electrical Vault to the ATS).
14. Install new ATS and all required control wiring
15. Install 1200A, 3P generator mounted Circuit Breaker for existing Generator (currently non-existent). Install new generator controller and controller wiring.
16. Install (3)-3" conduits overhead from MCC-1 Main Breaker cabinet to new ATS location.
17. Install permanent continuous cables from Electrical Vault, through the existing (3)-3" underground conduits to MCC-1 and up through the new (3)-3" overhead conduits from MCC-1 to the new ATS line terminals. No splices allowed.
18. Install permanent return cables from the new ATS load terminals through the existing (3)-3" underground conduits to MCC-1 Main Breaker (MB1).
19. Install new cables through the existing (3)-3" underground conduits from the existing Generator to the new ATS.
20. Install new control wiring through the existing 2" underground conduit from the existing Generator to the new ATS.
21. Install all required control wiring for the ATS and Generator controller.
22. Start Genset/Pump unit and test. Open 16" bypass valve.
23. Run station on the bypass Genset/Pump unit (45-60 minutes).
24. Turn off Mobile Generator and remove from MCC-2 Main Breaker. Place MCC into normal configuration.
25. Reconnect cables from OH switch for incoming power to MCC-2 Main Breaker.
26. Move Control Power Transformer, Pump P-2, and P-2's 400A Circuit Breaker back onto MCC-1 bus. Remove temporary cabling.
27. Close MCC Tie Breaker, remove lockout/tagout, and open MCC-2 Main Breaker.
28. Close Overhead switch to incoming power.

29. Test station controls.
30. Test and commission new ATS and generator controller for proper operation.
31. Close 16" bypass valve and remove Genset/Pump unit.

Alarms:

Autodialer for Engine failure/Generator Fault - Generator

Well High Level Transmitter - RTU

Force Main Pressure Transducer – RTU

Both generators will be required to have their controls interlocked so if the mobile generator fails the mobile genset/pump will start automatically.