



MISSION CRITICAL FUEL SUPPLY SYSTEMS

Simplex Mission Critical Fuel Supply Systems are comprehensive, integrated, project-matched fuel management systems for diesel and turbine generators used in critical applications demanding the highest reliability, such as data centers, public safety and security nodes, transportation hubs and other applications where utmost dispatch dependability is essential. The scope of Mission Critical Fuel Supply Systems spans from the point of fuel delivery to the facility to the engine fuel pump, potentially covering every aspect of the system except basic infrastructure, such as pipe and bulk supply tanks. Essentially, the Simplex System includes the critical elements of active control in the delivery, storage, transfer and management of fuel to the engine.

ELEMENTS

1. System master control panel
 - a. Management of main fuel supply tanks
 - b. Control of main supply pumps
 - c. Integration of alarms
 - d. Integration of main tank gauges
 - e. Operator interface
2. Main transfer pump sets
 - a. Duplex pump sets of conservative, robust design
3. Fuel oil day tanks and day tank control panels
 - a. Double-wall day tanks
 - b. Integrated tank fill valves
 - c. Integrated day tank controllers
 - d. Overflow return tanks, pumps and controllers
5. Fuel filtration and conditioning systems
 - a. Automated single or multi-tank filtration systems
6. Main tank filling systems
 - a. Main tank fuel ports, with or without on-board transfer pump
 - b. Fuel port controller for single or multi-tank filling
7. Receiving line filtration systems
8. Receiving tank and transfer pump controllers
9. Engine fuel filter skids
10. Remote monitoring panels
11. Network interface modules



ATTRIBUTES

1. PLC based control
2. Full networked operation of all elements of the Simplex System and network interface to BMS
3. UL Listings
4. Double-wall tank constructions
5. A high level of redundancy
 - a. Redundant PLC controllers
 - b. Dual power supplies
 - c. Back-up level sensors
 - d. Dual elements wherever possible
 - e. Layered alarm systems
 - f. Full manual backups
6. Pipe fittings, pipeline sensors and valves of ferrous construction, socket-welded or flanged mounting
7. Pumps of cast iron construction, flanged fittings
8. Conservative materials selection and application
9. Industrial control devices
10. Comprehensive services, including design and submittal consultation, start-up, operator training, commissioning, fast-response service
11. Field presence for technical and service support
12. Comprehensive manuals