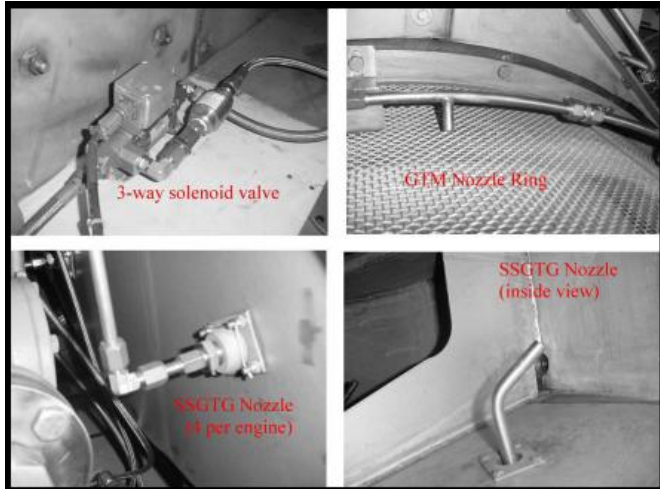




GAS TURBINE ONLINE WATER WASH



Metrics

Fuel savings are estimated at 0.3%, or 78 barrels of fuel/yr per DDG.

What is it?

Currently, U.S. Navy surface ship gas turbine generators and main propulsion engines are periodically shutdown and washed to improve compressor performance and extend operating life. The online water wash system allows the compressor wash to be performed while the engine is in operation. This extends the period between offline washes and improves performance in the interim.

How does it work?

For affordability, the online waterwash system utilizes and augments the existing offline wash equipment architecture. For each Ship Service Gas Turbine Generator (SSGTG) and Gas Turbine Main (GTM) engine, it consists of a set of nozzles, hoses and an automated 3-way diverter valve to send wash fluid to either online or offline nozzles.

What will it accomplish?

Online water wash will reduce maintenance, improve starter life and reduce fuel consumption by extending the time between offline washes and keeping the compressor section of the gas turbine cleaner in the interim.

Applications

Installed on USS Prebble (DDG-88).

For More Information

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