DWMC Newsletter Number 15 August 2022

Message from Tim Clarke, CEO of DWMC

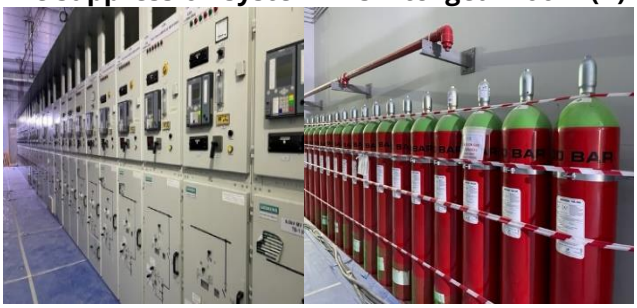
Welcome to our August newsletter. At time of press we have just received news that boiler 12 has succesfully passed the hydrostatic pressure test. Both boilers in block one are now complete on the water side, and tested to 147 atmospheres (bars), which is twice the normal operating pressure of 78 bars. As the commissioning teams energise the motors, pumps and fans, we will bring the plant to life over the next three months We also reached 7 million hours without lost time incidents this month so congratulations to the whole project team for their hard work in these acheivements.

Project Progress

We obtained connection to our potable water supply in the first week in August, and our EPC contractor is now filling water tanks at the water treatment plant, where pre-commissioning works have started. The final turbine hall wall panels are being fitted at time of press, and the turbine generator assemblies are now fully enclosed; the teams used the overhead crane in the turbine hall to lift the final top casings into position. Exhaust stacks and cooling fans have been installed on the four emergency generators, which are ready to be connected to the plant network.

The combustion grating and ram feeders have been installed in boiler 25 this month, and boiler erection is well underway across the whole of block 2. Economiser units have been installed in boilers 23 and 24 and the last steam pressure drum, for boiler 25, will be installed imminently. Installation of the firefighting system is ongoing around the site, including water supply pipes for sprinklers and rising mains, plus electrical conduits and cabling for fire detection systems and emergency lighting units.

MV Switchgear in the technical block (L), Inert gas fire suppression system in switchgear room (R)



The termination of the MV incomer cable is almost complete, and preperations are being made for the energisation of E-house 1, serving boiler 11.

Our contractor has been using modular construction techniques to help improve efficiency. Sections of pipework are welded together and pre-assembled inside piperack modules at offsite fabrication units. These large modules are then lifted into final postion in the boiler hall and the end sections of the pipes welded together in situ. This greatly reduces the time needed for erection and is safer, as the majority of the welded joints are made at ground level.

Pipe rack modules in laydown (L and C) Piperacks in situ after erection (R)

Spot Focus 'Flue Gas Treatment'

The combustion process within the boilers produces solid and airborne ash products. The solid ash, known as Incinerator Bottom Ash (IBA) drops into hoppers underneath the combustion grating and is taken to the IBA processing and storage areas via a conveyor belt. The air borne ash and combustion gases, known as Flue Gases, are drawn out of the combustion chamber with a negative pressure fan. Products of combustion contain particles and some noxious gases which are treated before being discharged through the main exhaust stacks. Flue Gases pass through chemical treatments, using urea, calcium carbonate and activated carbon, before passing through particulate filtration membranes which remove any residual particles prior to exhaust. These fabric filters are contained in the 'bag house' and are the last stage of flue gas treatment before discharge to the exhaust stack. Final stack emmisions to air are strictly regulated and the DWE plant is designed to conform to the EU standards for environmental management.When the plant is in full operations flue gases are monitored via a continuos emissions monitoring system (CEMS).

The Bag House in line 11 is substantially complete

For information about the DWMC project, to request information or to raise a grievance please email us at info@dwmc.ae.