Construction progress is ramping up with Actom workforce returning to work following the recent Industrial Relations action (NUMSA). Focus continues on retaining Unit 6 schedule dates. Pre-flushing has been completed in support of Chemical Clean and the Dam water levels were reduced.

Hydrofluoric Acid Injection – Chemical Clean

As part of the Chemical Clean process, first hydrofluoric acid injection was completed through the steam path of the Superheater and Reheater systems. High velocity flushes are progressing and Lime is used to neutralize the substance during the discharge process. This all forms part of the process of cleaning the Boiler of scale, debris and foreign particles. Injection to the Economiser, Evaporator and Separator Systems is planned to commence on 21 August 2014.

Please Ctrl-click on the following link to view a video clip covering work activity linked to Chemical Clean or copy and paste it into your Web-browser:

http://medupiproject.eskom.co.za/videos/MAH00026.mp4
Lubrication Oil flushing was completed on all five Mills. The purpose of the flushing is to remove foreign particles in order to get the Mills to specification.

Coal Stockyard

As at 19 August 2014, 160 000 tons of Coal had been received at the Coal Stockyard. This is equivalent to 40% of the August demand. The total tonnage received, July 2014 to date, is 320 000 tons. The team is doing very well to ensure that the Project honours the Coal Supply Agreement with Exxaro.

Please Ctrl-click on the following link to view more video clip covering progress on the Coal Stockyard or copy and paste it into your Web-browser:

http://medupiproject.eskom.co.za/videos/MAH00002.mp4
Unit 5

Left hand side FD Fan ducting load points were handed over to MPS-JV to construct load point bases.  
Phase 2 of the Coarse Ash Conveyor deck rebar installation is complete. Casting is planned to be carried out on 18 September 2014.  
Benching of the De-grit sump is in progress.  
Condensate Polishing Plant - Installation of the Anion and Cation Vessels, Pre-filters and Pumps commenced.  
Work to replace the Boiler Feed Pump intermediate strainers is underway at the Turbine Hall Basement.  
The ACC Substation HVAC Chillers are now in position after completion of the plinths.  
All welding work on Low Pressure 1 and Low Pressure 2 cross-over pipes is now complete and tested.  
ACC Pipe Racks - Preparations are underway for casting of the final section of paving slabs under the pipe racks. Once complete, the area will be handed over to Alstom for Condensate system pipe installation.  
Boiler electrical boards were placed in the 9m Low Voltage room.  
Epoxy coating in the electrical equipment room is complete ready for access to Alstom.
UNIT 4 & 3

Unit 4

Boiler spiral wall tubes welding is in progress.
Condensate drain to ACCCT is safety cleared for HPT.
-5.5m level containment installation is in progress.
Aux Bay steam pipe work installation is in progress.
South ESD last spool installation is in progress.

Unit 3

Turbine house 9m level was handed over to MPS-JV for Q-decking.
Fire proofing commenced at the Aux Bay 9m level GL. E29-30.
Flue Gas Duct System 7.1 Component 5 main part ready for lifting.
Good production is being achieved on the Unit 2 ACC bundle erection. Currently 480 bundles out of 640/unit are installed, the installation rate for bundles on Unit 2 in one shift has progressed from 36 to 44 and is now 57. This is quite an achievement from a productivity perspective as it is the most bundles installed in day on the Project. Well done to the team.

The draw down box was poured on Unit 2.

**Did You Know?**

**What is Steam?**
Steam is an elastic gas, capable of performing work. Steam is invisible and cannot be seen with the eye. What is seen with the eye is thus not steam but water vapour.

**How is Electricity Generated?**
Three elements are essential for the process of steam generation: Water, Coal and Air. Chemical energy is converted into heat energy during the combustion of coal in the presence of air in a furnace. This heat energy is transferred to water contained in the furnace walls and this water boils to generate steam. The steam is further heated by the hot gases of combustion to generate superheated steam before it is sent to the steam turbine. The steam expands as it passes through the turbine blades and transfers its thermal energy to rotational kinetic energy of the turbine shaft. The turbine shaft is directly connected to the generator shaft. The generator converts the rotational kinetic energy to electrical energy. This electrical energy is transformed to the correct voltage and fed onto the national transmission grid.
As part of the Infrastructure Upgrade works the CSI Team have commenced work at NST Majabodu crèche in Makuruanyane. The crèche supports over 40 children in facilities that are basic and dilapidated. There is a lean-to kitchen where the support staff prepare meals over an open fire. This is being replaced with a fully equipped kitchen. Two pit latrine toilets will be replaced with flushing toilets for the children and care givers. The building will be expanded and a new classroom added so that the older children can have focussed lessons. In addition to the full refurbishment of this school a borehole will be installed to ensure the school has access to fresh drinking water at all times. The grounds of the school will be cleared and a food garden and playground constructed to make the environment a happy place for the children.