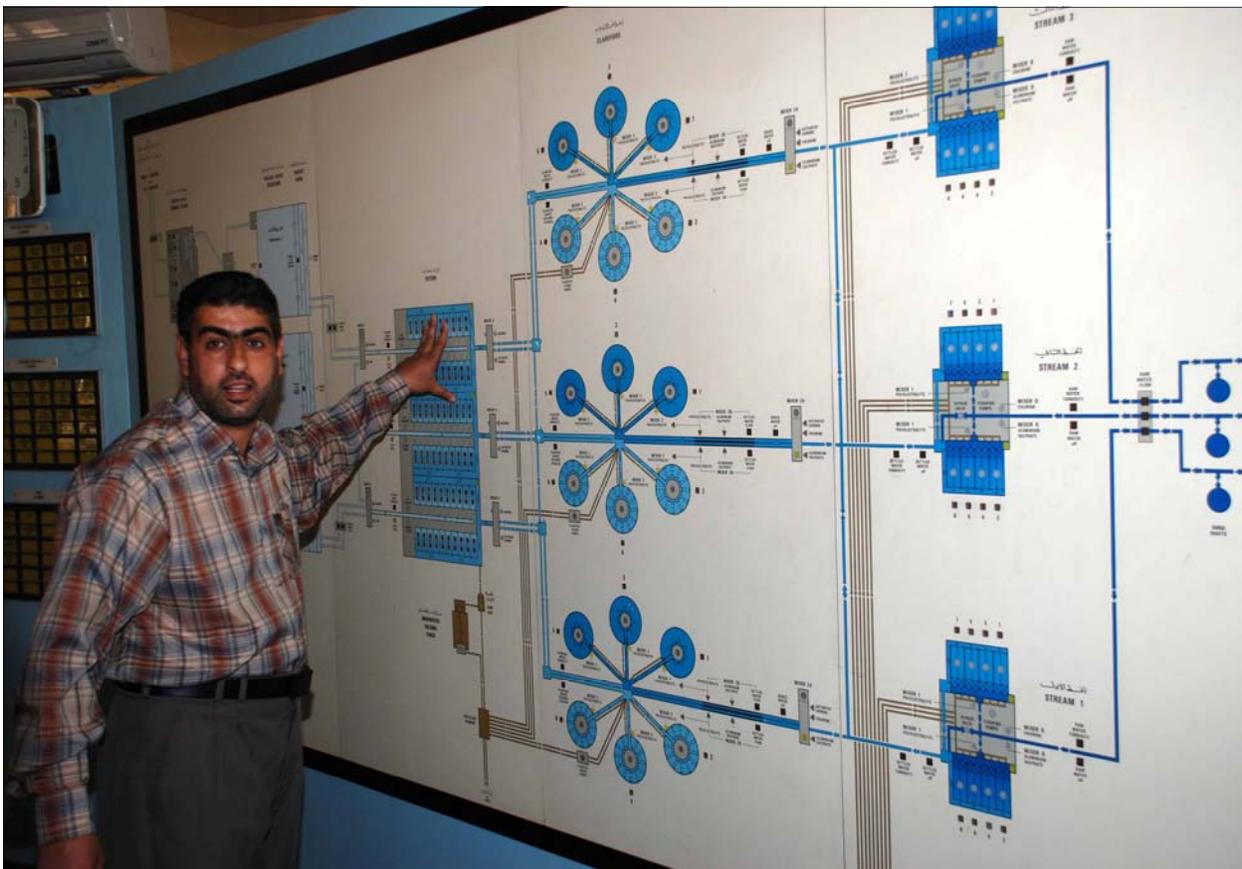




For Immediate Release  
 June 18, 2008  
 U.S. Army Corps of Engineers

## *Electrical work keeps potable water flowing to Baghdad*

By Kendal Smith  
 Gulf Region Central District



A Karkh Water Treatment Plant engineer explains the status board for the plant. This board shows the raw water intake pumps, settling tanks, rotating sediment tanks, chlorinating tanks, large underground reservoirs and the large output pumps. [USACE Photo by Kendal Smith]

**Baghdad, Iraq** - The Gulf Region Division is working to ensure Baghdad's water supply with non-stop operations for the Karkh Water Treatment Plant (KWTP) near Taji, northwest of Baghdad. In a \$20 mil-

lion project, the back-up generator system is being restored to keep potable water flowing to 50 percent of Baghdad residents without interruption or worries over low levels in reservoirs.



Workers install a multi-conductor 11kv cable from the Substation to the BWA switchgear. This cable contains three 300 mm<sup>2</sup> copper conductors and a concentric wrapped ground. [USACE Photo by Kendal Smith]

The plant pumps an overall daily output of 1.36 million liters through a 2.1meter diameter pipe connected to several Baghdad reservoirs and also supplies the immediate communities around Karkh. Power outages at the plant stop the output cycle and water reserves and resources diminish.

"The electrical power for the plant sometimes is off for 3-4 hours a day, and that means we cannot contribute water to the reservoirs. That is not a good situation for our customers," reported an Iraqi plant engineer at Karkh.

In 2005, KWTP's generator and pump buildings, generators and important elements of the electrical controls, switch gear, circuitry and 37 water-flow butterfly valves were heavily damaged by a vehicle-born improvised-explosive device. Repair of the key elements for a continuous supply is expected to take until October 2008.

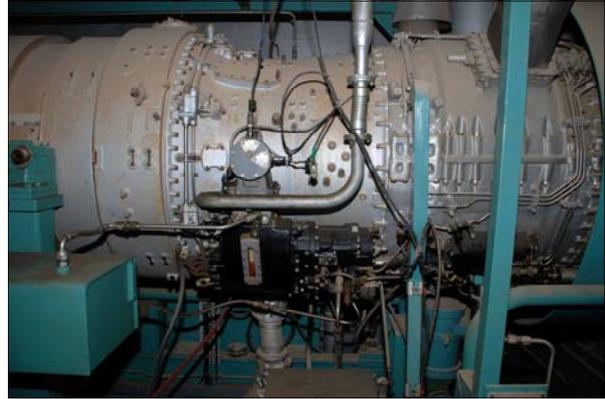


The installation of the two 300mm<sup>2</sup> 11kv copper cables at the control termination. There are two sets of these paralleled conductors from the Substation. [USACE Photo by Kendal Smith]

"Good, clean water means a lot for any community and Baghdad is no exception," said Navy Lt. Cdr. Paul Chan, officer in charge of the Gulf Region Central district's Resident Office in Taji. "This is a very sig-

nificant project in the stabilization of essential services for the entire Baghdad area.”

The U.S. Army Corps of Engineers (USACE) project is primarily for design, supplies, labor and equipment relating to system repairs of the Rolls Royce – Avon 8.5 megawatt generators which are the backup power source for the plant. The project will also overhaul and replace raw and treated water valves to increase both efficiency and capacity of the plant.



One of the Rolls-Royce turbines used to power an 8.5 megawatt Avon generator [USACE Photo by Kendal Smith]



This is a building view of the Rolls Royce – Avon 8.5 Megawatt Turbine Generator. Note the overhead crane for maintenance and the generator coolant piping in light blue. [USACE Photo by Kendal Smith]

**Note:** Kendal Smith is a public affairs officer with the Gulf Region Central district, U.S. Army Corps of Engineers, Iraq. For more information, contact Kendal at 540-665-2644 or email requests to - [Leslie.K.Smith@usace.army.mil](mailto:Leslie.K.Smith@usace.army.mil) . For more information on the U.S. Army Corps of Engineers in Iraq, visit [www.grd.usace.army.mil](http://www.grd.usace.army.mil).