

Training

Efficient site management - Foreman module



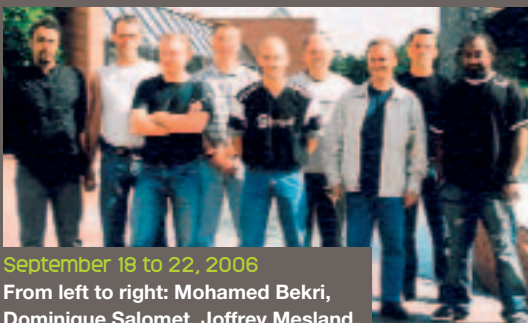
May 29 to June 2, 2006

From left to right: Loïc Marie, Saïd Nouara, Manuel de Queiroz, Patrice Belin, Jean-Jacques Pechon, Didier Sanchez, Sylvain Ricoeur, Thierry Nicol, Frédéric Nicolleau, Gilles Le Berre, Jose-Carlos Rodriguez da Rocha, Abdelnour Bouteba (instructor), Franck Binutti.



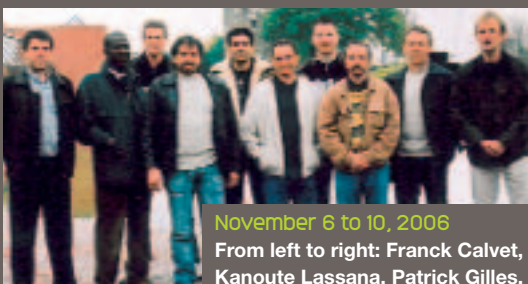
June 12 to 16, 2006

From left to right: Joël Sencert, François Robert, Jean-Pierre Dupont, Dominique Dumond, Hervé Vincent, Christian Bonnaud, Pascal Fauvernier, Robert Arlen, Jean-Paul Balcon, Jean-Marc Courtine, Thierry Blon, Jean-Florent Canet, Abdelnour Bouteba (instructor).



September 18 to 22, 2006

From left to right: Mohamed Bekri, Dominique Salomet, Joffrey Mesland, Francis Thouvet, Philippe Vaillant, Thierry Jacques, Abdelnour Bouteba (instructor), Franck Samar, Eddie Cuti.



November 6 to 10, 2006

From left to right: Franck Calvet, Kanoute Lassana, Patrick Gilles, Bonnit Faycal, Rachid Daïche, Abdelnour Bouteba (instructor), Clément Martin, Sylvain Patin, Michaël Oberlin, Jean-Michel Leroy.



SARRAT Industries

A first for Tot

Thanks to the special skills of SARRAT Industries, Total E&P Congo has installed an innovative energy management and control system for its oil platforms.

Specialised in energy production and regulation, SARRAT Industries developed a system to monitor and control the electric power network for 11 Total oil platforms located within a 100 km radius off the coast of Pointe-Noire, Congo. This system is a real innovation for the monitoring and control of turbines on remote sites. What was the problem to be solved? Not all the platforms are equipped with turbines and the existing network of 30 kV submarine cables is not meshed. There is therefore no redundant power supply to the platforms and, consequently, there is a risk of their operation being shut down. So what was the solution? The distribution of the overall power of 130 MVA required the coupling of power stations and the development of specific functions controlling the voltage, frequency, and active and reactive power on each turbine. For this purpose, regulators actuated by logic controllers installed on each site were



◀ The project team (from left to right): Patrick Hascoët, Fabrice Laurain, Marc Lacoste, Jean-Philippe Mangione, Jérôme Viscaïno, Pierre Saint-Girons, Edouard Monteiro, Charles Rodriguez, Angel Gonzalo, Claude Bouffon, Martine Vrignaud, Frédéric Masonnave, José Pinheiro, Vincent Vuaroqueaux.



◀ Fabrice Laurain (right) and Jean-Philippe Mangione examine the project's overall architecture: IT and logic controllers.

José Pinheiro fits fuses in the 30 kV measuring cell for the Tchibouela site. ▼



al E&P Congo

connected by a "virtual" Ethernet ring. This ring, via a radio relay, interconnects the logic controllers for the transmission of digital and analogue signals and so allows the global supervision of the power network for all the platforms.

A hotly contested market

As requested by Total, SARRAT Industries conducted an audit in June 2004. "I set a pre-condition," explains energy production department manager Jean-Philippe Mangione. "The regulators had to communicate via a radio relay network in less than 200 milliseconds." A prototype to test the communication between sites was successfully constructed by SARRAT Industries. An invitation for tenders for the performance of the whole project was then issued in March 2005. SARRAT Industries was awarded the contract, worth €3 million, in the face of competition from major European firms. The operation has now reached the end of the commissioning phase. It entailed a total of nearly 25,000 hours' work for the

electro-technical and IT design phase, development of the logic controllers, the workshop phase, and installation and commissioning. SARRAT Industries benefited from synergies by involving Foraid for the installation on site. The prowess demonstrated and the success of this work has led to openings for similar projects on other Total sites. ■



Laurent d'Herbillie inspects the frequency/voltage regulating cabinet for the gas turbines on the Yanga site.