

## **BERNARD CONTROLS equipped submarines from the French navy**

**Launched 18 years ago, the Barracuda program represents a six submarines modernization project worth over several billions euros. This new generation of nuclear powered attack submarines has been ordered from the French Navy. The delivery of the 6 submarines will start in 2019 to be finalized in 2028. In the giant warehouse of Cherbourg (North of France), 400 workers are getting busy preparing the first submarine. For three submarines Bernard Controls took part in this project by delivering several sets of fully customized multi-turn actuators.**



The Barracuda Class is a new nuclear attack submarine replacing the Rubis Class. Indeed, several improvements have been done between the two generations notably an extending time between refueling and complex overhauls from 7 to 10 years which enables notably a higher at-sea availability. Barracuda submarines have been fully designed to occupy several functions such as marine missiles, combat swimmers, strong force and power projection operations. Bernard Controls has delivered several sets of multi-turn actuators equipped with the INTELLI+® integrated control box as well as spare parts and other associated control equipments. Complying with outside containment safety requirements (Nuc OC), BERNARD CONTROLS actuators will be used to operate in the cooling system of the nuclear reactor.

For this order, the requirement specifications were composed of specific particularities. In order to curb the noise inside the reactor, the mechanical pieces of the actuator have been manufactured in a specific plastic material. Moreover, the design of the INTELLI+® software has been customized on request in order to match special control needs.

---

### About BERNARD CONTROLS

BERNARD CONTROLS designs & manufactures electric actuators and control systems for industrial valves' automation. Global leader in the nuclear market, BERNARD CONTROLS is one of the main actors in the global actuation business.

BERNARD CONTROLS is present all over the world and coordinates its activities within 4 Operating Areas which gathers 16 Operating Units in Americas, Asia, Europe and India / Middle- East / Africa. Our 3 Manufacturing Units are located in China, France and in the United States. The Group also relies on more than 50 agents and distributors throughout the world.

Leader in the nuclear market, BERNARD CONTROLS is also the close partner of challenging sectors such as Power generation, Water, Industry, Oil & Gas. Its solutions are suitable for all applications from on-off to high duty fast and precise modulating. The company's products & organization have been certified according to main international standards (ISO 9001 - ATEX, INMETRO, GGTN, IECEX, INERIS, BUREAU VERITAS - CSA, FM, NEMA 7 and 9, TÜV...) and approved by the largest prime contractors & industrial players worldwide (ADNOC, ALSTOM POWER, AREVA, BLUE CIRCLE, BUREAU VERITAS, ENEL, EDF, ESKOM, GAZ DE FRANCE, GAZPROM, KNPC, KOC, LAFARGE, NIOC, PETROBRAS, QATAR PETROLEUM, SAUDI ARAMCO, SHELL, SOFRESID, TRACTEBEL, TECHNIP, TOTAL, VEOLIA...).

