

Rotork provides long term commitment to its global customers

Rotork is the world's leading designer and manufacturer of industrial valve actuators, valve control systems, valve gearboxes and accessories and enjoys an excellent reputation in nuclear industry. With an ongoing commitment to invest, innovate and serve the nuclear power generation industry the company has proven its value as a long-term partner for its many customers around the globe. For both the nuclear island and the balance of plant, Rotork's global network is working hard to provide a localized single source, supported by life-of-plant maintenance, repair and upgrade services.

By Joanne McIntyre

It's clear that the nuclear power generation industry is taking off around the globe," explains Mr Carlos Elvira, who joined Rotork in 1981 as its first Graduate Trainee in International Sales and moved upwards until being appointed Sales and Marketing Director in 1999. "Customers are looking for manufacturers with a solid pedigree and knowledge of what they are doing, who are making ongoing investments and will still be in the market in 30 or 40 years time. It's a false economy to buy a

cheaper product from a company which may not exist in ten years. We recognize that our clients need to be supported with a commitment to supply spare parts and keep improving designs."

Rotork's business is split into three actuation divisions – Rotork Controls, Rotork Fluid Systems and Rotork Gears – all of which are supported by Rotork Site Services. Its nuclear offerings are produced by all three groups; electric actuators by Rotork Controls, a fully certified range of gear boxes from

Rotork Gears, and pneumatic and hydraulic actuators from Rotork Fluid Systems.

"The industry is constantly updating its standards and as a supplier it's vital to be qualified to meet the latest requirements," continues Mr Elvira. "Although our nuclear actuators have been qualified for many years we are continuing to invest in updating our certification. In today's expanding market operators don't want to have equipment that is just theoretically qualified; they





Rotork has created three Centers of Excellence to serve the global nuclear industry, staffed with qualified nuclear engineers such as these at the Hiller facility in Pittsburgh, Pennsylvania.

want more complete testing of items and we have continuously invested in meeting this expectation.”

Rotork has successfully completed the IEEE 382 -1996 case IV –LOCA qualification testing for Electric actuators and Gearboxes.

“We consider it necessary to continue investing in additional qualifications for our current range. Having been in this business for many years, we recognize that some of the components first used years ago can now be improved or made

from better materials. Although the individual components in our actuators meet today’s nuclear standards, we wanted to obtain a complete new qualification for the entire product to encompass all the design improvements we have made. That is the degree of our level of commitment to the future of the industry, and I believe it differentiates us as a professional, serious supplier from others who are just dabbling in the industry. We focus on developing long term partnerships, establishing trust with our customers by continuing to develop and invest with them.”

Ongoing global investments

In mid-2010 Rotork purchased Ralph A. Hiller Co. Inc, adding an established range of nuclear qualified fluid power valve actuators to its existing electric actuation capabilities. First established in Pittsburgh, Pennsylvania USA in 1950, Hiller began producing actuators for the nuclear industry in 1968. “The purchase of Hiller reflects our focus on covering all segments of the nuclear actuation market,” explains Mr Elvira. “Hiller produces Main Steam Isolation-Valve Actuators and has a very extensive installed base with its equipment installed in 85% of nuclear power stations in the US. It’s a well known brand which will complement Rotork’s nuclear range around the world. Hiller has exported to Korea, China, and Eastern European countries such as Romania and the Czech Republic. As a privately owned company it had reached the point where it was ready to take the next step to achieve growth. We at Rotork were the ideal partner to move the company forward both in terms of investment and manpower. We’ve committed a lot of extra resources to expand the factory, engineering resources and quotation capabilities so the company will continue to grow. The acquisition of Hiller is part of our strategy to be able to offer an actuator to every part of the plant.”

“The market for nuclear power products is expanding around the world,” continues Mr Elvira. “For example the Middle East is a completely new market where KEPCO has been awarded the main contract to build in Abu Dhabi Nuclear Power Plants. For a supplier to be successful in new markets they must be a global player, actively working with end users and backed up by a good reputation. It’s essential to work with partners with whom we have previous experience to be able to successfully enter new markets as well.”

Rotork has already established a strong presence in China, which is a challenging market, explains Mr Elvira. “In China they are essentially using three reactor designs; the Westinghouse AP1000, the Areva EPR, and their own design reactors based on the Westinghouse and EPR designs. For each different reactor type we need to have a slightly different strategy to work with the local Chinese design institutes. This emphasizes the need for serious suppliers in the industry to be global, present in both end user destination countries and in the countries bringing new technology into the market today. We have made a major investment not only financially but also in terms of manpower in order to work closely with the European, American and Chinese vendors.”

The range of different standards and qualifications required for each type of



Typical outside containment installation of Rotork Nuclear actuator.





Ivan Burnell, Business Development Manager and Carlos Elvira, Sales and Marketing Director, with an example of the NA1E nuclear qualified actuator.

reactor is a challenge for all suppliers, explains Mr Elvira. "It's a general challenge in the industry; we must keep a lot of balls in the air at one time. It's vital to focus on all the different reactor types and have an ongoing input of effort, energy and investment. A thorough understanding of the variations between the standards is essential for success. While it would be ideal to

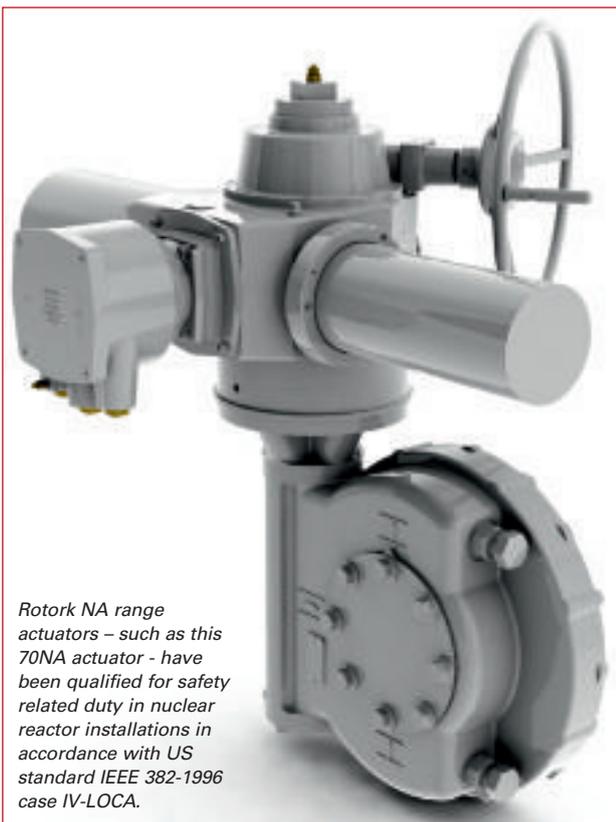
have a higher degree of standardization for suppliers, I don't think that this will happen. Different parts of the world have different requirements for seismic and temperature conditions for instance. While a family of products may utilize more common components in future, the requirements of the specifications will require us to apply slightly different standards around the world."

Supplying balance of plant

Despite the economic slowdown Rotork has maintained its policy of expanding its international operations, with new offices recently being opened in China and the US.

"The next big nuclear market will be Russia," continues Mr Elvira. "Rotork already supplies that market with complicated critical service actuators on fast acting containment valves. Now we're focusing on supplying balance of plant where we can offer a superior technical product range than the traditionally used Russian made actuators."

While most of Rotork's current investment is focused on products inside the nuclear island which require expensive testing and certification, the company already has an extensive product range for the balance of plant. Mr Elvira: "Most of the nuclear power stations that we deal with have elected to use our IQ actuators in the balance of plant because they offer so much value for money in terms of the wealth of data which can be collected. The range provides high asset management intelligence from the valves,



Rotork NA range actuators – such as this 70NA actuator - have been qualified for safety related duty in nuclear reactor installations in accordance with US standard IEEE 382-1996 case IV-LOCA.



The 90NAT-ISN10 nuclear qualified actuator



and in the nuclear industry is a huge benefit to the end user.”

“In China 80% of all the new nuclear power stations have installed Rotork IQ actuators in the balance of plant. Interestingly these are mainly sourced through local Chinese valve companies. The Chinese users have a program to develop local products so that by the time the third generation of power plants are built most products supplied will be 100% made in China. With a plant already up and running in China, Rotork is well placed to service this market.”

Dedication and Smart Maintenance

Mr Elvira believes that Rotork’s long history of commitment to the nuclear industry is the key to its success. “In 2010 we created dedicated teams at three of our nuclear Centers of Excellence, 100% dedicated to nuclear design, specification and development. Two of the teams are in the UK; Rotork Electrics in Bath and Rotork Gears in Leeds. The third team is Rotork Hiller in the USA which will become the nuclear Centre of Excellence for fluid power products. All three dedicated nuclear teams are led by Mr Ivan Burnell in Bath, who coordinates the engineering and quality teams.”

Having supplied equipment to a nuclear plant, maintenance is a key issue, explains Mr Elvira. “Service is extremely important and in fact we have the most extensive after sales organization in the industry. In every country where we are active in the nuclear industry we have qualified nuclear engineers to work with our products. It’s simply not possible to be a supplier for the new build industry without having provided this level of support over the years. We are committed to supporting our products with spare parts and providing complete traceability, and can guarantee that in years to come we will be able to provide a part that is totally compatible and interchangeable with what we have sold to our customers



The IQ actuator is used in nuclear power plants around the globe for balance of plant operations.

years before. Every item has its own certification of conformity, going right back to the material it was made from.”

“It’s all part of what we call Smart Maintenance. For instance Hiller has a program whereby during outages, plant operators decontaminate their actuators and send them to our workshops where they are rebuilt to as-new condition. We are in close communication with the customers who advise us when they will be shutting down. It’s a very fast process that requires close partnership during

outage planning.

“We pride ourselves on developing partnerships with our customers to upgrade plants and find ways to extend the life of actuators. For instance in the UK we have signed an Obsolescence Program agreement with British Energy whereby we maintain all of the actuators in their plants, not only our own brands but also our competitors. It’s an example of our commitment to our customers and the industry as a whole; Rotork is here for today, tomorrow, and in forty years time.”

Facts & Figures

Name:	Rotork
Group Companies:	
* Rotork Controls	Electric actuators and control systems
* Rotork Fluid Systems	Pneumatic and hydraulic actuators plus control systems
* Rotork Gears	Gearbox assemblies for use with actuators as well as direct valve operation
* Rotork Process Controls	Continuous modulating duty actuators
* Rotork Site Services	Overhauls, health checks, retrofitting, maintenance, etc.
Markets:	Onshore, pipelines, refineries, tank farms, power, water, chemicals, cement, pulp & paper, marine
Offices:	17 Rotork manufacturing offices, 82 Rotork offices and over 250 agent and distribution offices.
Headquarters:	Bath, England

