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ENSA Will Actively Participate in PATRAM 2013 - February 2013

ENSA has been invited by the organization of the Tri-Annual International Symposium on Packaging and Transportation of Radioactive Materials, PATRAM, to be a member of the paper and poster selection committee for the upcoming PATRAM 2013, which will be held in San Francisco in the month of August. ENSA will be part of the Package Analysis group of this committee, which will be headed by David Miller (Sandia National Laboratories) along with Michele Sampson (US NRC) and Marty Karr (USEC), and it will be represented by David GarridoQuevedo, ENSA engineer with long experience in this sector who has actively participated in spent fuel cask design, licensing and supply projects for Spanish power plants such as Trillo, Ascó, José Cabrera and Santa María de Garoña and U.S. plants such as Peach Bottom and San Onofre.

The active participation of ENSA in the upcoming PATRAM symposium is recognition of the efforts made by the company’s staff in the field of spent fuel casks, where ENSA is involved on an international scale in the design, licensing, manufacture and operation of spent fuel transportation and storage components. ENSA has its own cask designs such as the HIEN 69FA (for the Japanese market), ENSA-DPT (used in Trillo NPP), ENUN 52BR (recently selected for the Santa María de Garoña NPP) and ENUN 32P and ENUN 52B (universal dual-purpose transport and storage metal casks for PWR and BWR fuel, respectively).

ENSA has supplied 184 components for fuel transport and storage, a large part of which – 69 – have been for the international market (China, USA and Japan).

ENWESA Supplies the First Facility for Neutron Standard Calibration in Spain - February 2013

Based on its own technology design, ENWESA has supplied the first fully national system for the calibration of neutron standards. The system, requested by the Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT) and mounted and implemented by ENWESA in its facilities, collects the neutron sources from a pool located in the irradiation room, moves them through a shuttle and generates a record which shows all the movements made with these sources. Its advantages include greater control when moving the sources, as it is possible to parameterize their accelerations and decelerations, and also the low level of maintenance required by the system.

ENWESA: Training Plan 2013 - February 2013

In order to satisfactorily serve the needs of the market and its clients and to meet strict quality, safety and prevention requirements, ENWESA has begun to develop the company’s 2013 General Training Plan which, during the first quarter of the year, will primarily focus on areas such as fuel handling in nuclear power plants, the servicing, repair and gauging of safety valves and the safety and prevention required to work in French plants. The training plan will also intensify the linguistic qualifications its personnel need for penetration of international markets such as France, where ENWESA has successfully gained a foothold.
LAUNCH OF THE ZEROD DEFECTS PLAN - FEBRUARY 2013
WWW.ENSAS.ES

On January 21, in line with one of the main objectives of the year – boost the company’s Continuous Improvement culture – ENSA launched the new, redefined “Zero Defects Plan”, which is fundamentally based on expertise, the lessons learned and the human capabilities of ENSA and the fundamental purpose of which is to improve the work processes.

After a detailed assessment of the risks of the various processes, the Plan will establish the “barriers” that will be included in these processes to improve and assure their successful execution.

With an estimated launch time of two and a half months, the Plan covers improvement of the Corporate Operating Culture, including specific personnel training and the participation of all ENSA personnel. The 11 identified courses of action will be carried out in already established action plans.

The General Director of ENSA, as head of the Efficiency Committee, will oversee the progress and results of the Plan which, in accordance with the timetable, is in the final phase of Training and Information.

CONTRACT LAUNCH MEETING FOR FIELD ERECTION OF THE ITER PROJECT VACUUM VESSEL - FEBRUARY 2013
WWW.ENSAS.ES

After signature of the contract between ITER Organization (IO) and ENSA for execution of the Vacuum Vessel assembly works in the IO facilities in Cadarache, the corresponding contract launch meeting was held in January in the ENSA factory in Maliaño. This meeting, during which the taskforces were presented, has laid the foundations for the beginning of the first project phase. IO expressed its satisfaction after this meeting and indicated that it is especially interested in closely following up the work during this development phase, which is significantly innovative for both parties. It is to be expected that, given the importance of this project, joint follow-up meetings will be frequently held.

During the first project phase, which has already begun, ENSA will develop innovative procedures and qualifications and special equipment as required for the welding and respective non-destructive tests of the vacuum vessel sectors and ports. These developments are not only a challenge for the people involved but also a great opportunity to develop technology in the field of nuclear fusion.

This phase, with a nearly three-year duration, will conclude with a demonstration of the viability and effectiveness of the developed techniques, tools and equipment on a mock-up at a scale of 1:1 that will represent the vacuum vessel. After this first phase is over, work will proceed on the field assembly tasks, which will be performed by highly qualified workers in the IO facilities; the estimated duration of these works is 4 years.

ITER is an international project for the development of a fusion vessel whose participants are the European Union, China, India, Japan, Korea, Russia and United States and whose purpose is to demonstrate that it is possible to commercially produce electric power via fusion.

ENSA is well positioned in the nuclear market for primary loop components and fuel management and technology services, primarily for nuclear power plants. Its participation in the ITER project is proof of its high level of specialization in large component welding based on its ongoing commitment to investment, research and technological development of all its processes. Its participation in the ITER project is a great opportunity for a pioneering company in the development of new processes, capabilities and high technology in the field of nuclear fusion.
ENWESA SUPPLIES A ROBOTIC CELL FOR NISSAN MOTOR IBÉRICA - MARCH 2013
WWW.ENSA.ES

ENWESA has recently completed the implementation of a robotic cell in the Nissan Motor Ibérica plant in Cantabria. The purpose of the cell, designed, manufactured and installed by ENWESA, is to automate four machining centers and expand production of stub axles. Automation includes activities such as extraction of parts to be machined in the various machining centers, turning of parts for a change of machining and cleaning before inspection.

RINGO VALVULAS HAS SUCCESSFULLY COMPLETED THE TESTS OF AN EMERGENCY SHUTDOWN VALVE - MARCH 2013
WWW.RINGOSPAIN.COM

Ringo Valvulas has successfully completed the tests of an emergency shutdown valve (ESDV), 30”-1500 lb top entry ball type, to be delivered for the cnooc deepwater onshore terminal gas plant (Gaolan) project. The valve is made of carbon steel with internals in duplex and tungsten carbide metal to metal seats. Valve is provided with a single acting pneumatic actuator complete with all required instrumentation.
SETTING UP OF TECNATOM DO BRASIL - FEBRUARY 2013

The registration of the company’s Social Statutes on January 2nd last culminated the formal process of setting up the new subsidiary of Tecnatom S.A. in Brazil.

The new company, “Tecnatom do BrasilEngenharia e ServiçosLtda”, springs from the acquisition by Tecnatom of 90 percent of the firm Performance Engenharia e Consultoria Ltda. Our representative in Brazil, Carlos F. Otton Martins, will from now on undertake the functions of General Manager of our new subsidiary.

The fundamental objective of the company Tecnatom do Brasil will be to promote and provide local support for Tecnatom’s penetration in the Brazilian markets corresponding to our business areas (nuclear and thermal power, aviation, etc.). Furthermore, following a selection process four people have joined the Tecnatom workforce and will receive specific training at the company’s headquarters in San Sebastián de los Reyes for approximately a year prior to their move to the Brazil office.

It is expected that during the coming weeks the on-going actions aimed at providing Tecnatom do Brasil with the infrastructure required to formally initiate its operations will be completed.

This new step strengthens the evolution of the Tecnatom Group and its implementation on those international markets where the different business areas may collaborate more closely with our clients.

THE NEW FUEL INSPECTION EQUIPMENT FOR ENUSA PASSES FAT TESTING

A few weeks ago Tecnatom completed the acceptance and validation testing of the new SICOM UT inspection equipment, designed to detect leaking fuel rods in PWR and BWR fuel assemblies. This new equipment is an addition to the SICON family suite of irradiated fuel assembly inspection and characterisation systems, with which TECNATOM provides services to all the Spanish nuclear power plants and some overseas facilities.

This new equipment uses the ultrasonic (UT) non-destructive testing (NDT) technique to detect irradiated fuel rods that have developed leaks during the burnup cycle in the reactor. The SICOM UT equipment incorporates important technological improvements with respect to earlier systems: a low cost video system resistant to high levels of radiation, improved response ultrasonic probes developed by TECNATOM-Metalscan and the inclusion of an automatic ultrasonic signal analysis application based on the new INSPECTVIEW data acquisition software, also developed in-house.

Validation in the field and the first inspection at a plant with real fuel are expected to be performed in the coming weeks.
TECNATOM AWARDED A CONTRACT AT THE SWEDISH OSKARSHAMN PLANT

February 2013

www.tecnatom.es

OKG, the company that owns the 3 groups of Oskarshamn nuclear power plant (Sweden), has awarded Tecnatom a contract for the qualification and inspection of circumferential and longitudinal welds in the reactor vessel of OKG-3, including the closure head and bottom of this component.

The contract includes the qualification of mechanical equipment for ultrasonic inspection; this will be carried out during 2013 for performance of the inspection in the spring of 2014.

Oskarshamn nuclear power plant, which belongs to E.OnSverige (54.5%) and Fortum (45.5%), has three BWR reactors that produce around 10% of Sweden’s electricity. Group 1 has an installed electrical power of 494 MW, while groups 2 and 3 have power levels of 664 and 1450 MW, respectively. The site also houses Sweden’s centralised temporary storage facility for irradiated nuclear fuel.

The awarding of this contract confirms the continuity of the inspection work performed to date by Tecnatom at other Swedish nuclear power plants.

Beginning >

TECNATOM SETS A RECORD OF 9 MILLION TUBES INSPECTED - February 2013

www.tecnatom.es

Tecnatom has reached a historic milestone, with more than 9 million tubes inspected. It has also set a record as regards the number of tubes inspected in 24 hours using the eddy current technique, setting the bar at 1,799.

Tecnatom performed the first two eddy current inspections in 1977, in the tubes of the condensers of the Almaraz and Lemoniz plants. Since then, eddy current inspections have been performed during all the nuclear power plant refuelling outages, as well as at other industrial facilities. From those early days until the end of the 1990’s, the technology used by Tecnatom to carry out these inspections was brought in from outside. However, the company then decided to develop its own in-house technology and today only technology designed, developed and manufactured by Tecnatom is used in the inspections performed. It is true to say that Tecnatom is probably the only company in the world capable of providing all the resources required for the performance of an inspection: qualified technical personnel, robotics, instrumentation, software, probes, calibration standards, etc.

Interestingly, it might be pointed out that these two records were set precisely during a recent inspection at the Almaraz nuclear power plant, 35 years after Tecnatom performed its first inspection at that same plant.

Beginning >
TECNATOM WINS A CONTRACT FOR INSPECTION AT THE SWISS MÜHLEBERG NUCLEAR POWER PLANT (KKM) - DECEMBER 2012
WWW.TECNATOM.ES

BKW FMB Energie AG, owner of Mühleberg nuclear power plant (KKM), has awarded Tecnatom the contract for the inspection of its control rod drive housings (CRDHs). The contract also includes the qualification of the ultrasonic and eddy current inspection techniques and the manufacturing of new mock-ups, the latter to be performed by EPRI in 2013 within the framework of a major project for the manufacturing of mock-ups for different areas.

The qualification tasks will begin this year and the inspection is scheduled for performance during the refuelling outage to be carried out in August 2013. The first working meetings for joint planning of the project with all the participants have already been held and the first KKM-owned mock-up has been received. The equipment to be used for the inspection will be based on slight modifications to the Tecnatom in-house technology, in order to address the new objectives requested by the client.

The KKM nuclear power plant is located in the canton of Berne in Switzerland. It is a General Electric BWR type plant with an electrical output of 355 MW and has been in operation since 1972. In 2011 it produced 4.4KKM n% of Switzerland’s electricity, nuclear power covering 40% of the country’s overall requirements.
ENUSA TECHNOLOGY FOR THE CHINESE NUCLEAR MARKET - JANUARY 2013

WWW.ENUSA.ES

The contract covers the design, manufacture and supply of sophisticated inspection equipment whose technology has been developed by this state-run company and several units of which are in operation in its Juzbado factory.

With this new contract, Enusa obtains an important commercial success. ENUSA has recently signed a contract with the Chinese fuel manufacturer CNNC JianZhong Nuclear Fuel Co. (CJNF) for the design, manufacture and supply of high-tech equipment that will be used for ultrasonic inspection of fuel rods and whose design is equivalent to the units installed in the Juzbado factory. The equipment will be made in collaboration with Tecnatom (a leading Spanish company in global advanced engineering services that is active in more than thirty countries), with which Enusa has signed a collaboration agreement for marketing this equipment. Enusa will be in charge of the commercial leadership and providing the technology and Tecnatom of manufacturing the equipment.

Manufacturing of the new equipment will begin immediately and the delivery date is set for the end of 2013, which means a demanding delivery schedule.

First Sale of In-House Technology Abroad

This new contract represents an important novelty in the company’s trajectory, since it is Enusa’s first sale to the Chinese nuclear market. The state-run company is making a major effort to stay competitive by opening up new lines of business that respond to the increasingly demanding conditions of the current economic context. Opening up new markets like China and also Brazil is part of this effort.

Furthermore, it is the first sale of equipment developed with in-house technology. This type of technology has been applied in the Juzbado factory for some years, and now Enusa and Tecnatom are marketing it for the first time to serve other similar factories. Two equipment units of this sort, developed by a very professional, experienced human team, have been installed in the Juzbado factory since several years ago.

This very sophisticated equipment is closely linked to the final product quality, as it can detect the presence of defects in fuel rod welds with great precision.

New Lines of Business to Open Up Markets

Although the core business of Enusa is the manufacture of fuel assemblies in its Juzbado factory, the company is making major efforts to extend its experience and expertise to new lines of business linked to its main activity. One of these lines is the development and supply of inspection equipment, on which it has been working for many years and which is now beginning to yield its early fruits, since this agreement marks the end of a long period of more than three years of technical discussions and negotiations between the parties.

Enusa, as well as Tecnatom, are members of the Spanish Nuclear Group for Cooperation (SNGC), an association of high technology Spanish companies devoted to the promotion of their nuclear business in new markets.

CJNF
The Chinese fuel manufacturer CJNF belongs to the state-owned conglomerate CNNC (China National Nuclear Co.). CJNF operates the main nuclear fuel manufacturing facility in this Asian country, which is located in the city of Yibin in the province of Sichuan. The Yibin factory plans to triple its installed capacity by 2020 due to the rapid growth of the demand for fuel in China.

NEGOTIATION MEETING WITH THE PRESENCE OF REPRESENTATIVES OF CNEIC, CJNF, NUTECH, SNGC AND ENUSA (YIBIN, CHINA)