

THE INTERNATIONALIZATION OF NUCLEAR FUEL MADE IN SPAIN

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Among all the European countries, Spain has a significant capacity for the production of nuclear fuel and associated services, which is in accordance with the existing Spanish nuclear production level. This production capacity has been consolidated in recent years and most especially in the last six years during which time ENUSA has passed from being an exclusively domestic producer, to be fuel supplier for a total of 18 nuclear reactors, 10 of which are to be found abroad. The added value provided by ENUSA has been increased with regards to a greater scope and better service technology. Ever since it was established, ENUSA has been associated with the biggest American nuclear reactors designers and manufacturers, Westinghouse and General Electric, whose fuel technology has been assimilated and, in certain cases, developed.

In addition to that, ENUSA has made a big effort in R&D to design Siemens PWR fuel, in order to become, in the near future, a qualified fuel supplier for Siemens reactors. Specially, ENUSA's prime objective when developing this technology is to become the Spanish Trillo Nuclear Power Plant fuel supplier.

The fuel manufacturing in Spain has been characterized by a large variety and wide flexibility of products and designs. ENUSA has needed to adapt the manufacturing lines to that product range, in order to be able to meet the different product requirements of its different customers.

ENUSA's long lasting technological relationship with Westinghouse and General Electric, mentioned above, has provided a greater integration and business commitment, what has given that, with these two companies, ENUSA had formed the European Fuel Group and GENUSA respectively. The main objective, in both cases, has been to achieve a more important presence in the European market, and to become a reliable and permanent alternative supplier for LWR nuclear fuel.

Both EFG and GENUSA are playing an important role in the competitive nuclear fuel market in Europe, providing a wider offer for their customers.

Because of the need to react to this wider range of alternatives for the Nuclear Power Plants owners and also to this higher level of competition, the manufacturers have been required to modernize their systems, to adjust their costs, and to improve productivity whilst ensuring, at the same time, the technological development and the maintaining of quality and services for the client.

The "virtuous circle" strategy followed by ENUSA in entering the European market together with its partners, has been the basis to improve its ability to compete in Spain. At the same time, its implementation in the Spanish nuclear power plants has provided the foundation of ENUSA's being able to penetrate the European market.

In 1998, 60% of the total production of its factory in Juzbado has been manufactured for the foreign market.

ENUSA's European competitors and its partners, in the field of nuclear fuel, are important and significant companies in their respective countries and they count on the support of their local industry.

The future of the commercial relationships between nuclear fuel manufacturers and nuclear power plants should be in the long term and have to give mutual benefits for both clients and manufacturers. The future also urges of strong commitments with regards to quality, availability and service. It also demands an effort in innovation and costs, due to the fact that the clients in the nuclear fuel market are, logically, very demanding.

A competitive presence in the European market is one of ENUSA and its partners main objectives. The level of competitiveness will depend on the volume of business ENUSA is able to obtain, provided that, as is the case with all manufacturers, the fixed costs are the main

component influencing the total cost of the fuel.

The electric market liberalization, which is taking place in various countries in Europe, as well as the increase in competition and some privatization and merging processes, are producing some changes in the manufacturers, aimed to adapt these fuel companies to new situation.

Throughout its existence, ENUSA has contributed to the reliable and efficient operation of the Spanish nuclear power plants and we believe that, under the present circumstances, it still has a significant role to play in the future, providing added value services to its customers.



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