



### Nuclear fuel: development to meet the challenge of a changing market

The power generation industry has recently gone through major changes as a result of the deregulation of electricity markets followed by a restructuring of the industry.

These changes are also affecting the nuclear industry – including the nuclear fuel sector.

This deregulated electricity market has introduced an environment of harder competition, which in most cases has resulted in a downward pressure on electricity prices.

In order to manage the situation, utilities have embarked on a program to improve productivity that includes traditional cost-cutting and process improvements, as well as consolidation and restructuring.

The latter is driven by the wish to take advantage of the synergies of large-scale operations as well as access to a bigger market.

Nuclear power generation has obviously also been affected by this situation.

Policies and strategies, including production planning, have therefore been re-examined in order to adjust production to the market with the resulting need for better flexibility and the ability to act quickly.

To cope with this new situation, nuclear fuel has to fulfill new requirements.

It shall, for example, provide the reactor operators with the flexibility they need to adjust the reactor operation to individual needs while improving or at least maintaining reactor safety and the economics of the operation.

Developments are then needed in the design and fabrication of nuclear fuel as well as the related fuel cycle techniques. It is also necessary to improve the logistics of the fuel cycle such as shortening the lead-times, eliminating the need for carrying large inventories as well as making the flow of the material faster and more cost effective.

The utilities are also re-evaluating their policies for the amount of commercial risks when deciding on the parameters, like security of supplies, diversification of supply, as well as the logistics of the fuel.

In response to these requirements, the nuclear fuel industry has also gone through a phase of consolidation and restructuring.

Mergers and acquisitions have resulted in fewer fabricators as well as vertical integration of nuclear fuel industry.

These measures are intended to create a more effective industry with enough solidity to embark on new developments, which are needed to meet the challenge of this changing market.

The upcoming TopFuel conference intends to explore these issues.

The industry participants and experts will examine the existing situation and provide technical solutions for a better, safer, and more economical nuclear fuel in the future.

Judging by the quality of more than 80 excellent papers submitted to this conference, I am sure that the meeting will be interesting and educating while providing a good discussion forum for the participants.

I wish to invite you to TopFuel 2001, and hope to see you in Stockholm between May 27 and 30, 2001.

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