

Knowledge Management for the Decommissioning of Nuclear Power Plants

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The current energy policy of the German government requires the gradual decommissioning of nuclear power plants in Germany. E.ON, a major energy corporation operating eight nuclear power plants in Germany, is in the process of decommissioning and dismantling its first two nuclear power plants in Würgassen and Stade, Germany. Both ventures are pilots for the future decommissioning of further plants with corresponding reactor types.

To harness the technological challenges, organizational complexity and cultural sensitivities of decommissioning projects, the nuclear power division of E.ON has developed and implemented a knowledge management (KM) concept to effectively capture and transfer critical knowledge, best practice and lessons learned within and between decommissioning projects. More specifically, the concept is targeting three objectives:

- To secure technical quality and safety standards during decommissioning projects
- To minimize risks related to the duration and budget of decommissioning projects
- To allow expeditious training and optimal use of project staff

On the basis of a quantitative KM business case, the development of the KM concept was initiated in October 2002. The operative concept was launched in March 2004. Key elements of the concept are:

- Communities of experience for eleven most critical knowledge fields
- Up-to-date summaries of experiences and standards in each knowledge field
- Briefing and debriefing processes integrated in the decommissioning process
- Designated knowledge managers supporting KM on-site at working level
- An intranet-based KM portal supporting document search and access, a discussion forum, news pages and other media
- A KM scorecard supporting quarterly reports of KM costs, performance and results to plant and division management
- Policies and activities rooting KM in the corporate culture (example shown in Fig. 1)

Insights gathered during KM concept development and during the first months of KM operation in Würgassen and Stade stress the importance of organizational and cultural dimensions of KM beyond the necessary technological infrastructure:

- Visible resource and capacity commitment to KM by plant and division management
- KM understood as an integral part of the decommissioning project leadership
- Frequent reports of KM efforts and results to management to boost KM resilience

Further detailed insights and results from ongoing KM activities in Würgassen and Stade are anticipated.



**Figure 1:** A poster promoting “knowledge pills”, a gimmick to raise awareness for knowledge transfer