

CSNI Activities in Knowledge Management and Knowledge Transfer - an International Dimension

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The Committee on Safety of Nuclear Installations (CSNI) of the OECD Nuclear Energy Agency (NEA) was set up in 1973 to develop and co-ordinate the activities of the NEA concerning the technical aspects of the design, construction and operation of nuclear installations insofar as they affect the safety of such installations. Although there is currently no formal "CSNI knowledge management strategy", i.e. defined coherent durable CSNI approach and the appropriate resources for activities related to identification, acquisition, development, dissemination, use and preservation of nuclear safety knowledge and expertise, the CSNI has been actively involved in each of these areas during its 30 years of existence.

Review the state of knowledge on selected topics of nuclear safety technology and safety assessment, including operating NPPs experience, with the aim of identification of gaps and future research needs, is one of the main functions of the CSNI. For this the CSNI organises every year a number of *topical meetings and workshops* on various topics which provide an efficient forum for experts of Member countries to discuss issues of mutual concern and to arrive at consensus views and conclusions.

Important facets of the CSNI work involve analysing, interpreting, understanding and summarising existing knowledge coming from various sources. International technical consensus on major topics is materialised through the preparation of the State-of-the-Art Reports (SOAR) and Technical Opinion Papers (TOP). These "situation reports" bring together the latest developments in a given area or give a "snapshot picture" of the international situation regarding a particular issue, stimulate the formation of common understanding, and provide a source of up-to-date information for those countries that may not have an activity in the area. In cases when there is a gap in knowledge which requires additional "development" effort, a special Co-ordinated Programme or an Action Plan is set up by the CSNI to investigate particular complex issues. Another very successful way of knowledge acquisition and development is the establishment of Joint Research Projects. The CSNI joint projects enable interested countries, on a cost-sharing basis, to pursue research or the sharing of data with respect to particular areas or problems.

The CSNI realizes how important it is to "know what is known" and where is the knowledge/expertise available, so that it is able to make maximum use of the existing knowledge. This knowledge resides in many different research laboratories of the NEA member countries. To facilitate an access to this international knowledge asset the CSNI has established and keeps maintaining, around existing permanent working groups, a

network of experts covering areas such as operating experience, integrity and ageing of components and structures, analysis and management of accidents, risk assessment, fuel safety and human and organisation factors.

It is critical for the safe operation of existing NPPs that and necessary research capabilities including experimental facilities are maintained and the knowledge gained is preserved in order to respond timely to new potential safety issues. A substantial quantity of data and information exists related to reactor safety, but it resides in different organizations and countries and in diverse formats. The CSNI recently endorsed a *Policy Statement on Data Preservation* with the aim to establish the relative importance of data preservation in the overall context of maintaining competence and knowledge. Indispensable part of knowledge preservation is *knowledge sharing*, especially with respect to young generation. Many prominent experts involved in the CSNI activities are close to retirement; some are moving to non-nuclear activities. Their knowledge and experience should be transferred to younger specialists.

The paper gives a number of specific examples of various CSNI activities which all together represent, from an international perspective, a significant contribution to knowledge management effort at the national level of the NEA member countries.