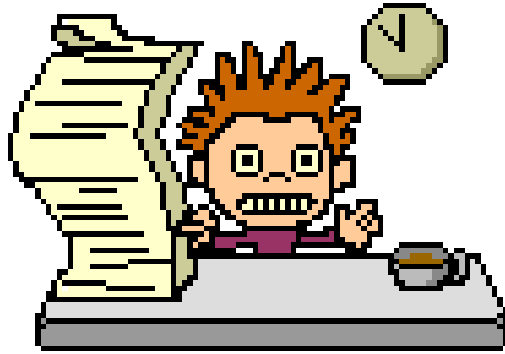




51 Years of HOTLAB Working Group

A. Leenaers

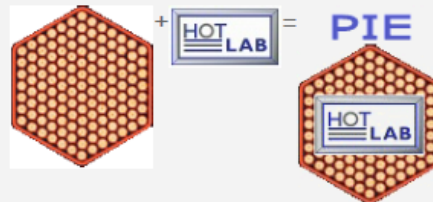


About PIE

While the number of states with nuclear power programmes is growing, the number of hot cells has diminished during the last decades. This creates problems with post-irradiation examination (PIE) for fuel surveillance, safety control and nuclear materials studies, including the development of new radiation resistant materials for advanced and innovative nuclear applications. It highlights the need for more efficient use of existing PIE facilities relying on wider international exchange of information about their capabilities.

With this in mind, the IAEA initiated a Coordinated Research Project aimed at the development of a PIE Facilities Catalogue, which was published as an IAEA Working Material in 1996. In 2002/03 the catalogue was converted into a database and updated through questionnaires distributed to hot laboratories in the IAEA Member States. In 2005/06 an interactive mode of the PIE Database was developed that allowed hot-lab managers to modify and amend its contents on-line via the internet on the IAEA Integrated Nuclear Fuel Cycle Information Systems (iNFCIS) website: <http://infcis.iaea.org>. An important advantage of the PIE Database is the procedure of the professional reviewing of all new inputs made on-line.

In 2007/08, following an agreement with the international HOTLAB Working Group (<http://www.sckcen.be/hotlab>), the IAEA PIE Database integrated the HOTLAB PIE Catalogue, including transport casks information. So now, the merged data are kept at the iNFCIS website and jointly managed by the IAEA and HOTLAB, representing the only publicly accessible world-wide source of the subject information.



The database consists of five main areas describing PIE facilities (i.e. acceptance criteria for irradiated components, cell characteristics, PIE techniques, re-fabrication/instrumentation capabilities and storage and conditioning capabilities) as well as major technical and licensing data of casks.

The content of the database represents the status of the participating organizations and helps interested users select the most appropriate facilities, casks and examination techniques. The database can also be used to compare the PIE capabilities worldwide with current and future requirements, as well as to provide development incentives for laboratories with limited PIE techniques.

