Status of the JEFF Data Library

Claes Nordborg
Organization for Economic Co-operation and Development

Abstract

A new improved version of the OECD Nuclear Energy Agency (NEA) co-ordinated Joint Evaluated Fission and Fusion (JEFF) data library, JEFF-3.1, was released in May 2005. It comprises a general purpose library and the following five special purpose libraries: activation; thermal scattering law; radioactive decay; fission yield; and proton library.

The objective of the previous version of the library (JEFF-2.2) was to achieve improved performance for existing reactors and fuel cycles. In addition to this objective, the JEFF-3.1 library aims to provide users with data for a wider range of applications. These include innovative reactor concepts, transmutation of radioactive waste, fusion, and various other energy and non-energy related industrial applications.

Initial benchmark testing has confirmed the expected very good performance of the JEFF-3.1 library. Additional benchmarking of the libraries is underway, both for the general purpose and for the special purpose libraries.

A new three-year mandate to continue developing the JEFF library was recently granted by the NEA. For the next version of the library, JEFF-3.2, it is foreseen to put more effort into fission product and minor actinide evaluations, as well as the inclusion of more covariance data.