IN 2001, THE NEA WILL ORGANISE AN INTERNATIONAL INTERCOMPARISON OF DOSIMETRY SYSTEMS IN THE EVENT OF CRITICALITY ACCIDENTS

In the spring of 2001, the OECD Nuclear Energy Agency (NEA) and the French Institut de protection et de sûreté nucléaire (IPSN) will organise an international intercomparison of dosimetry systems used in the event of criticality\(^1\) or other high-exposure accidents, at the SILENE reactor\(^2\) located on the Valduc site (Commissariat à l’énergie atomique -- CEA, France).

This will be the sixth exercise, following those organised in France (1970), the United States (1971), Yugoslavia (1973), the United Kingdom (1975) and France (1993). This last intercomparison\(^3\) allowed 14 countries (Brazil, Canada, Croatia, Czech Republic, Denmark, France, Germany, India, Italy, Poland, Russia, Spain, United Kingdom, United States) to carry out a full-scale test, i.e. with radiation fields representative of criticality and other accidents, of their means of measuring and evaluating doses.

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1. An uncontrolled fissile chain reaction, capable of delivering high doses to workers close to the place of the accident.
2. The IPSN’s experimental reactor which makes it possible to reproduce in complete safety a large range of criticality accident scenarios.
3. Organised and financed by IPSN. Cofinanced by the European Communities (EC), the International Atomic Energy Agency (IAEA) and the US Department of Energy (US DOE).

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The proposed exercise will make it possible to benchmark current physical dosimetry systems used to measure radiation fields encountered in accident situations, including biological dosimetry for estimating doses (by counting chromosome abnormalities or other applicable techniques), to qualify the personal dosimeters routinely used and to validate calculation codes. The accident scenarios to be reproduced in the SILENE reactor will be selected in consultation with the participants.

This intercomparison exercise is aimed at all organisations concerned with this type of dosimetry and at industrialists anxious to test their instruments in reference radiation fields. Specialised conferences will be held in parallel with the exercise.

Scientific or industrial bodies and safety authorities wishing to take part in this exercise must apply to the OECD before the end of February 2000.

Contact for registration

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