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Recent Activities of the OECD/NEA Expert Group on Radiation Transport and Shielding (EGRTS) and Current Status of the Shielding Integral Benchmark Archive and Database (SINBAD)

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The OECD NEA Working Party on Scientific Issues of Reactor Systems (WPRS) Expert Group on Radiation Transport and Shielding (EGRTS) was started in 2011 under the Nuclear Science Committee (NSC); the 4th meeting was held in February 2014. Among other activities, the EGRTS mandate includes supporting the SATIF community by co-ordinating the organization of and publishing the proceedings for the SATIF-12 Workshop. Another part of the EGRTS mandate is monitoring, steering and supporting continued development of the Shielding Integral Benchmark Archive and Database (SINBAD). This report provides an update on EGRTS activities and on the status of SINBAD.

The SINBAD project began in the 1990s as a cooperative effort of the Organisation for Economic Co-operation and Development Nuclear Energy Agency Data Bank (OECD/NEADB) and the Radiation Safety Information Computational Center (RSICC) at the Oak Ridge National Laboratory (ORNL) in order to preserve and make available information on radiation shielding benchmark experiments. SINBAD currently includes 100 benchmarks including fission reactor shielding, fusion blanket neutronics, and accelerator shielding. Recently, a selection of benchmark experiments were reviewed and revised to verify the completeness and consistency of the benchmark information, in particular concerning experimental sources of uncertainty. This review process will provide users with information on the quality of the experimental information and will be extended to other benchmarks. SINBAD is available from RSICC and from the NEA Data Bank. Since its inception SINBAD has been used by nuclear data evaluators, computer code developers, experiment designers and university professors and students.

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