

WORKING PARTY ON CRITICALITY (WPC)

Scope and Objectives

Scope

- The Working Party on Criticality (WPC) is a non-executive national committee focussing on criticality safety issues up to, but not including, experimental and in-core power reactor operations. The issues considered are relevant to fabrication, transportation, storage and other operations relating to nuclear materials (e.g. new build, enrichment, reprocessing, decommissioning and long-term waste management).
- In addition to operational criticality safety issues, the current areas and items of interest include those specified below:-

Nuclear Science

- Criticality safety handbooks, including the necessary technical support for review / update;
- Compilation and maintenance of databases and other compilations of experimental and calculated data;
- Experimental basis of criticality safety, including critical / sub-critical / super-critical experiments and their analysis;
- Computer code development, data validation and benchmarking.

Safety Methodology

- Review of national and international standards of relevance to criticality safety, including the co-ordination of suitable UK input during their development / implementation;
- Review of other international activities of relevance to criticality safety (e.g. conferences and handbooks), including the co-ordination of suitable UK input during their development;
- Development and review of criticality assessment methods / requirements (e.g. burn-up credit and ALARP);
- Basic criticality condition data and monitoring, including related topics (e.g. assay);
- Criticality consequence analysis.

Decommissioning

- Development of approach for packaging & long-term management / storage of ILW;
- Development of risk-based decommissioning methodologies.

Emergency Arrangements

- Review, analysis and prevention of criticality accidents;
- Emergency planning arrangements;
- Review of CIDAS adequacy / omission criteria.

Professional Development

- Training of criticality assessors and operational staff, including development of competence standards and accreditation schemes.

Objectives

- Provide a forum for the discussion and distribution of information of relevance to criticality safety in the UK, particularly the sharing and development of industry good practice;
- Disseminate regulatory issues of relevance to criticality safety and facilitate the development of a UK criticality community view on such matters (and response, where appropriate);
- Promote establishing UK databases and standards relevant to criticality safety;
- Guide, promote, co-ordinate and encourage co-operation on high priority activities of common interest to the UK criticality safety community, e.g. through identifying and establishing appropriate Working Groups and maintaining a 'high priority issues' list;
- Monitor progress and publish reports of the meetings of those Working Groups established by the Committee;
- Provide opportunities for the continued professional development of criticality safety personnel, e.g. through involvement in the Working Groups, attendance at appropriate Workshops or providing common industry training modules;
- Co-ordinate work with other organisations to avoid overlap of activities (e.g. the Shielding Forum);
- Promote international collaboration in the field of criticality safety, e.g. by establishing co-operative arrangements with criticality professionals and bodies in other countries.
- Identify to the Safety Directors Forum any strategic issues which may require their attention/review.

Administration

- At least two WPC meetings and one WPC Workshop shall be held each year;
- Membership shall include representatives of those licensees, regulators and companies who have a known involvement / interest in the criticality safety aspects of the handling of fissile materials, or others whose presence would contribute to the achievement of the Committee's objectives (e.g. academia);
- A list of current members of the WPC (and appointed deputies) is maintained by the WPC Secretary. Membership is granted to named individuals representing a specific organisation. Refer to WPC/P236 for details of the membership process, including the application, decision and review stages;
- Non-members may attend the WPC meetings subject to the agreement of the WPC Chair and WPC Secretary (or nominated deputies);
- The Chair, Vice-Chair and Secretary of the committee shall be appointed from within members of the committee (with the exception of the regulators) and are deemed, by the membership, to have suitable experience. Individuals shall not hold these positions for a period exceeding three years unless they are reappointed by the Committee, although consideration should be given to ensuring sufficient continuity;
- Report back to the Safety Directors Forum in line with the requirements of their Terms of Reference;
- The Scope and Objectives of the WPC shall be reviewed at least every three years.

Approved and Signed on Behalf of the WPC.

**Deborah Hill
Chair, Working Party on Criticality
November 2008**

(endorsed at WPC Meeting 72, 25 November 2008)