SESSION V

Transmutation Systems and Safety

Chairs: Y. Arai (JAERI) – W. Gudowski (KTH)

SUMMARY

Session V started with a very interesting and important overview paper by Dr. Dave Wade (ANL) summarising safety and operational concerns for ADS. Some of these concerns were also addressed in some later presentations but this paper gave an insight in a logic deduction of the safety and operational aspects that is defining an ADS.

Different presentations were given on concepts or precise projects for ADS facilities. One should remark that some of these proposals involve multi-purpose machines based on Pb-Bi technology (i.e. KEK/JAERI, Myrrha) where some proposals involve gas-cooled systems (i.e. GA, LAESA pebble-bed). One may remark that our community could benefit of checking non-nuclear experiences with Pb-Bi coolants in order to shorten our learning curve.

It should also be remarked that pyroprocessing technology can be applied to pebble-bed’s TRISO-type of fuel which indicates the potential for closed fuel cycles by recycling this fuel.

The session also showed good arguments in favour of nitride fuels.