PROGRESS OF THE MUSE-4 EXPERIMENTS AND FIRST RESULTS FROM THE MEASUREMENTS AT SUBCRITICALITY LEVELS REPRESENTATIVE OF AN ADS

F. MELLIER – Muse Contract Coordinator
CEA - Division of Nuclear Energy - 13188, St Paul-lez-Durance Cedex, France
E-mail: fmellier@cea.fr

On behalf the partners involved in the MUSE program (the MUSE collaboration) :

Commissariat à l’énergie atomique (CEA/DEN/CAD/DER/SPEs), France*
Belgian Nuclear Research Center (SCK/CEN Mol), Belgium†
Université Joseph Fourier, Grenoble I (CNRS/IN2P3/LPSC Grenoble), France*
Forshungszentrum Karlsruhe GmbH (FZK), Germany*
Forshungszentrum Jülich GmbH (FZJ), Germany*
British Nuclear Fuels plc (BNFL), Great Britain*
Ente per le Nuove tecnologie, l’Energie e l’Ambiente (ENEA), Italy*
Nuclear Research consultancy Group (NRG Petten), The Netherlands*
Delft University of Technology (DUT), The Netherlands*
Centro de Investigaciones Energeticas, Medio Ambiantales y Tecnologicas (CIEMAT Madrid), Spain*
Kungliga Tekniska Hogskolan (KTH Stockholm), Sweden*
Chalmers University of Technology AB (CTH Gothenburg), Sweden*
University of Mining and Metallurgy (UMM Krakow), Poland†
Argonne National Laboratory (ANL Idaho Falls), USA†
Paul Scherrer Institute (PSI Villigen), Switzerland†

Started in October 2000 within the frame of the 5FP, the fourth phase of the MUSE experiments is now in a key phase with the investigation of core configurations with subcriticality levels representative of those envisaged for future industrial Accelerator Driven Systems (ADS’s) [1]. An extensive characterization of the MUSE-4 cores have been performed with and without the external neutron source in order to extend the validation area of neutronic code systems. The use of many experimental techniques and analysis methods, aiming to determine subcriticality levels and kinetic parameters, provided also a large amount of results whom analysis is being pursued. This paper summarizes briefly the progress of the project and the first lessons which can drawn from the experiment analysis.

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‡ Partner within the frame of a bilateral collaboration with CEA