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|  |  INTERNATIONALEUROPEAN COMMISSION SCIENCE AND DIRECTORATE-GENERAL 'Research' TECHNOLOGY CENTER |   |

**CONTACT EXPERT GROUP on CORIUM MANAGEMENT**

**(CEG-CM)**

To: D.Gambier (EC, Research 05) Advice no.: A-01

Project code: # 833.2 Date: 12th June 2002

Signatures: A.Zurita (Chairman) and P.Hofmann (Secretary)

Copies: - Adroguer (IRSN); Allelein (GRS); Altstadt (FZR); Augliere (Tractebel); Azarian, Krugmann (FANP); Bottomley (JRC/ITU); Cognet (CEA/DEN/DSNI); Marguet (EDF); Miassoedov (FZK); Tromm (FZK); Unger (RUB)

 - Bellemin, Karjala (Research 05); Forsström (Research J.4); Tocheny (ISTC)

\* Subject: Proposal of “Investigation of Corium Melt Interaction with NPP

Reactor Vessel Steel (METCOR)” -- ISTC Project # 833.2

\* Documents: - “METCOR - Project 833 Phase 2. Work Plan”

Alexandrov Scientific Research Technological Institute

Sosnovy Bor, June 2002

- “General Description and Summary of ISTC project 0833.2”

 - “Transmission form for ISTC project proposal - #0833.2”

\* Advice: **EU funding recommended (priority 1)**

\* Justification: The group strongly supports the completion (phase 2) of the METCOR project, aimed at investigating high temperature chemical interactions between prototypic corium and reactor vessel steel in a stabilised NPP severe accident scenario after core degradation and corium relocation into the bottom of the vessel (molten pool) have occurred.

The main reasons are recent key results of the MASCA OECD project that have shown new phenomena related to the inversion of metal-oxide layers at a stratified molten pool within the vessel bottom. Effort is needed to properly assess these new phenomena with their boundary conditions, as well as -very important- their impact in the severe accident mitigating strategy of ‘in-vessel core melt retention’.

\* Comments: - 3 years duration instead of original 2 years, with same budget.

- New additional EU collaborators: FANP Erlangen, CEA/DEN/DSIN.

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| Dissemination level : COPU: publicRE: restricted to EC and a group specified by the CEG-CM membersCO: confidential, only for EC and CEG-CM members |

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June 2002 CEG-CM / A-01