

20th March, 1990

To: L.G. Browning

NEA TO PRESENT RESULTS OF LOFT PROJECT TO THE INTERNATIONAL COMMUNITY

The OECD Nuclear Energy Agency (NEA) will present the significant results from the OECD/LOFT Project to the international nuclear community for the first time at a meeting on 9th-11th May 1990, in Madrid, Spain.

The Loss-of-Fluid-Test (LOFT) Project, originally a test reactor built and operated by the United States, became a joint NEA project in 1983. It was the only reactor test facility in the world to use nuclear fuel and to allow a complete simulation of the most serious kind of nuclear accidents, those which involve a loss of coolant to the reactor core.

The goals of the Project were to improve the ability to understand and predict the behaviour of pressurized water reactor (PWR) systems and their components under abnormal conditions so as to enhance reactor safety and better understand the consequences of serious accidents. The first six tests under the NEA Project studied the thermal-hydraulic response of a PWR to abnormal and accident conditions which did not damage the fuel. The final two LOFT tests were designed to cause fuel damage and fission product release. One of them simulated an accident leading to a modest release of fission products but no melting of fuel. The final test was a severe accident experiment which caused significant fuel damage. It was particularly valuable because special instruments could be used to measure the conditions in the fuel as it melted and the behaviour of the released fission products.

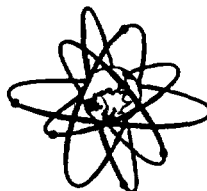
The results of the thermal-hydraulic tests and the severe core damage tests have been analyzed by scientists and engineers in the participating organizations. A detailed examination of the damaged fuel and the fission product transport was carried out in order to resolve uncertainties concerning the peak fuel temperature, the extent of oxidation, the relocation of the melted fuel, and the distribution of the released fission products. By increasing the ability to analyse such phenomena, these experiments and their joint evaluations are of significant importance to the safety of light water reactors throughout the OECD area.

The international co-operation aspects of the Project will be highlighted, including the benefits achieved by this group effort which could never have been accomplished by the participating countries individually, and opportunities for similar international ventures in the future. In an era of heightened interest in severe accidents, the LOFT Project made singularly significant contributions to the prevention and mitigation of these rare events.

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for further information:
**NUCLEAR ENERGY
AGENCY (NEA)**

ORGANISATION FOR ECONOMIC
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Members of the press wishing to attend this meeting, entitled:
Achievements of the OECD/LOFT Project: An Open Forum for the Presentation of Significant Results, may obtain copies of the Programme and the registration form upon request from:

Roxanne Goldsmith, Public Information Officer, 45.24.96.67