

EMERGENCY RESPONSE, TRAINING AND SAFETY ANALYSIS CENTRE (HUN/9/020)

I4 New

MODEL PROJECT

CORE FINANCING

YEAR	Experts		Group Activity	Equipment	Fellowships		Scientific Visits		Group Training	Sub-Contracts	Misc. Comp	TOTAL
	m/d	US \$	US \$	US \$	m/d	US \$	m/d	US \$	US \$	US \$	US \$	US \$
1997	0/28	12,320	0	100,000	0/0	0	2/0	19,200	0	0	0	131,520
1998	0/7	3,255	0	10,000	0/0	0	1/0	10,200	0	0	0	123,455

First Year Approved: 1997

OBJECTIVES: The development objective is to improve the overall safety of nuclear electric power generation. The project's specific aim is to establish an independent multipurpose centre that will provide emergency response services, train regulators, and conduct accident analyses.

BACKGROUND: Nuclear power plays a significant role in the Hungarian economy, with Paks NPP supplying about 50% of the total electricity generated in the country. The nuclear facilities are designed with multiple layers of safety to withstand all credible accidents, even beyond design basis accidents. Still, to meet any unforeseen events causing an emergency, however unlikely they may be, on-site and off-site emergency preparedness plans are drawn up as a statutory requirement in the interests of public and operator safety. All nuclear facilities in Hungary now have on-site emergency plans. The off-site emergency plans are yet to be fully developed. In the early phase of a nuclear accident, an emergency response centre is necessary. On the basis of information on the processes and actions undertaken at the nuclear facility during the accident, it can advise the executive body responsible for handling emergencies. The Agency's assistance was requested to establish the Centre for Emergency Response, Training and Analysis (CERTA) for the Nuclear Safety Authority at the Nuclear Safety Inspectorate of the Hungarian Atomic Energy Commission (HAEC). A legal basis for on-site and off-site emergency response has been established. An early warning environmental monitoring network as well as an Emergency Information Centre (EIC), set up as part of the national system for emergency preparedness, are operational. In fact, they worked satisfactorily during the Chernobyl accident, thereby proving their effectiveness. Through this proposal, the Nuclear Safety Authority will acquire the capability to conduct independent safety analyses in the case of nuclear accidents and perform regulatory functions related to scenarios which are of safety concern to the public and the facility. This calls for effective on-line data communication links between the EIC and CERTA to facilitate independent evaluation the plant's actions related to an accident and to advise the State Committee for Nuclear Emergency Management. The response centre should also be able to assess the adequacy of protective measures taken by the plant and the public to mitigate the off-site consequences of an accident. It will serve as an independent centre with statutory authority to enforce the national emergency preparedness system in line with international standards. CERTA is intended to be a multipurpose centre with several other functions in addition to emergency response, such as training regulatory staff in using simulators, analysis of abnormal events, and inspection, thereby ensuring its optimum utilization.

PROJECT PLAN: CERTA will be established in two phases. The first will be technical assistance to equip the centre with all tools needed to receive data from the Plant and from the EIC to analyse accidents, using both deterministic and probabilistic methods and to evaluate accident management actions taken by the operator. Computers to monitor the main parameters of the Paks NPP during normal and abnormal situations will be installed. An on-line data link system would serve to record all necessary information needed for diagnosis and prognosis, to assess emerging conditions during an accident and to ensure prompt control action. The second phase will concentrate on a communication network for the technical advisory team to obtain and interpret information from the analysts through video screens for co-ordinated assessment. This part will also deal with training of regulatory staff using simulators and advising on design base accidents (DBAs) and severe accidents (beyond DBA)

NATIONAL COMMITMENT: The Government will provide qualified staff, telecommunication facilities, and computing systems including an IBM RISC 6000 workstation for safety analysis. The national regulatory body and the Hungarian Atomic Energy Commission will develop accident prevention procedures based on in-depth safety analysis and also prepare detailed plans for meeting emergencies during accidents.

AGENCY INPUT: The Agency will provide experts and expertise in setting up CERTA; fellowships and training; computer codes; and equipment such as a video projector and a DEC ALPHA workstation.

PROJECT IMPACT: The capability to deal with nuclear accidents and a regulatory role at national level will promote public confidence in nuclear energy. Emergency preparedness and response are important aspects, particularly in the context of the Nuclear Safety Convention.