

## FOREWORD

On the invitation of the Government of the Union of Soviet Socialist Republics, the Eleventh International Conference on the HTGR and the IAEA Technical Committee Meeting on Gas-Cooled Reactor Technology, Safety and Siting were held in Dimitrovgrad, USSR, on June 21-23, 1989. The meetings complemented each other. Due to the large worldwide interest, the conference attracted approximately 60 participants from 18 countries and 130 Soviet delegates. About 50 foreign participants and 100 Soviet delegates stayed over for the Technical Committee Meeting. The Technical Committee Meeting provided the Soviet delegates with an opportunity to display the breadth of their program on HTGR's to an international audience. Nearly one-half of the papers were presented by Soviet participants. Among the highlights of the meeting were the following:

- The diverse nature and large magnitude of the Soviet research and development program on high temperature gas-cooled reactors. Over 35 different research and design institutes were represented by the Soviet participants.
- The Government approval of the budget for the construction of the 30 MWT High Temperature Test Reactor (HTTR) in Japan. The schedule contemplates a start of construction in spring 1990 on a site at the Oarai Research Establishment and about a five year construction period. Japan also announced that a symposium on HTGR Technologies would be held on March 19-20, 1990 in Tokyo to commemorate the start of construction of the HTTR, with plans to hold such a symposium every three years.
- Disappointment in the announced plans to shutdown both the Fort St. Vrain (FSV) plant in the United States (US) and the Thorium High Temperature Reactor (THTR-300) in Germany. These two reactors presently represent the only operating HTGRs in the world since the AVR plant in Jülich, Germany, was also shutdown at the end of 1988.
- The continuing negotiations between Germany and the USSR on the terms of the co-operation between the two countries for the construction of a HTR Module supplemented by joint research and development activities aimed at increasing coolant outlet temperatures from 750°C to 950°C.
- The continued enthusiasm displayed by both the US and German representatives for the potential of the small modular designs under development in both countries and the ability for these designs to meet the stringent requirements demanded for the future expansion of nuclear power.
- The combining of the HTGR technology interest of ABB-Atom and Siemens in Germany into a joint enterprise, HTR GmbH, in May 1989.
- The generally favorable review of the unique safety aspects of the US MHTGR design by the US. Nuclear Regulatory Commission (NRC) in their draft Safety Evaluation Report which was issued in February, 1989.
- The increasing interest by gradually more and more industrializing countries and even a few new industrialized countries in incorporating MHTGRs into their plans for expanded electricity production and for enhanced oil recovery and district heating.

Most of the papers provided an expansion of views or details of the development work supporting the national programs or perspectives outlined during the preceding International Conference. Apparent throughout was the gradually increasing effort taking place in the world to support the modular HTGR and the recognition that the demonstration of its unique characteristics is the logical next step in commercialization of the concept. The view expressed by industrializing countries in terms of application studies, siting and licensing aspects and by industrialized countries in terms of design and development progress, project prospects, cost analyses and long range technological growth potential into higher temperature industrial applications provided substantial evidence to this increasing recognition.

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