UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

November 28, 1994

OFFICE OF THE
CHAIRMAN

Note To: File

From: Wayne L. Schmidt

Subject: November 21, 1994; General Atomics High Temperature Gas Reactor presentation to the Chairman

The Chairman requested this presentation, to provide information for the upcoming Gore-Chernomyrdin meeting, in Moscow, in December 1994. The purpose of the meeting was to allow General Atomics (GA) to present their projections for design and construction, including cost and schedule, of a Modular HTGR in Russia.

GA has two proposed designs, both using a MHTGR to heat helium. In one design, the hot helium generates steam for use in a conventional steam plant (Rankine cycle). In the other, the hot helium is used directly in a gas turbine generator (Brayton cycle). In the gas turbine design, GA proposes to use new technology to combine the entire power conversion cycle (i.e., turbine generator, compressors, heat exchangers) in one vessel, located near the reactor vessel.

Mr. Blue, the President of GA began the presentation and turned it over to Mr. R. Forssell, Senior Vice president, power reactor group and Mr. W. Simon, Senior Vice president, business development, power reactor group.

Mr. Forssell discussed the use of HTGRs in the US and Europe and GA's MHTGR design. This included discussion of ceramic fuel and core/reactor vessel design topics. GA stressed the passivity of the design, needing no active ECCS components. Further, the fast-neutron flux can be used to burn plutonium previously used in nuclear weapons.

Mr. Simon's presentation dealt directly with the possible development of a gas turbine version of the MHTGR in Russia. This included discussion of a proposed joint US-Russian project team, development and certification of the new design, cost estimates, and scheduling information.

The Chairman concluded the meeting by thanking GA for making the informative presentation.

CC: PDR

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