



U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

22 January 2003

Subject: Additional Materials Supporting January 28th Meeting on GT-MHR Source Term

Reference: NRC Project No. 716

Dear Mr. Rubin:

Please find enclosed the document *MHTGR Fuel Process & Quality Control Description*, DOE-HTGR-90257/0, September 1991. This document is intended to compliment our transmittal of last week (GA/NRC-379-03) and will provide you information on fuel fabrication process control relevant to next week's presentations on the GT-MHR source term.

In preparation for the next week's briefings, we refer you to 3 sections of the report.

- Section 1 is a summary overview of the fuel fabrication process and should provide the necessary background for the fabrication discussion on Tuesday.
- Section 3 gives a description of important fuel process and product parameters and the requirements placed on them.
- In general, we have found that product specification typically provides adequate control. However, the coating process is one area where process as well as product controls are necessary to assure fuel performance. Therefore, the greater detail provided in Section 6 on the coating process and it's control may be of benefit.

The document was written as part of the Modular High Temperature Gas-Cooled Reactor (MHTGR) program and consequently refers to both the plant's steam cycle energy conversion and the TRISO-P (added protective layer) fuel design of the early 1990s. Of course the steam cycle plant has given way to a gas turbine and the protective layer has been removed from the fuel design. Allowing for this evolution in the plant and fuel designs, we believe the document provides an excellent qualitative description of the GT-MHR fuel fabrication process.

Should you have any questions on this letter or the enclosures, please feel free to contact me at 858 443-2518.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Parme", written over a horizontal line.

Laurence L. Parme
Manager, GT-MHR Safety & Licensing

cc

Enclosures: (1)

Stuart D Rubin

NRC, Office of Nuclear Reactor Research

w/o Enclosures:

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