

GA-A23811

GT-MHR COMMERCIALIZATION STUDY

Technical Progress and Cost Management Report for the Period
December 1 through December 31, 2002

by
GT-MHR Staff

Contact: A. S. Shenoy

Prepared under
Oakland Operations Office
Program DE-AC03-01SF22343
for the U.S. Department of Energy

General Atomics Project No. 30103
DATE PUBLISHED: January 2003

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**GT-MHR Commercialization Study
Monthly Technical Progress and Cost Management Report
for December 2002**

Contract No. DE-AC03-01SF22343
Submitted to: DOE - Oakland Operations Office
By: General Atomics

PART 1 – Technical Progress

Summary

- The GT-MHR compacts for irradiation testing in the Petten reactor were packaged and all of the paperwork required for shipping the compacts was completed. A specialty shipping company, Dangerous Goods Management Company of Houston, was contracted to transport the package from San Diego to Petten, NL. (The package actually left San Diego on January 7, 2003.)
- A proposed GA statement of work to support the DOE Advanced Gas Reactor fuel qualification program plan was prepared based draft guidance provided by DOE-HQ.

Task 1 – Fuel Irradiation

In December 2002 we repackaged the compacts (now 6 activated and 9 non-activated), re-took compact photographs, approved the final work release, prepared the shipping orders, and arranged for Dangerous Goods Management Company of Houston to transport the package from San Diego to Houston to Chicago to Amsterdam to Petten, NL. The package actually left San Diego on 1/7/03. It is scheduled to arrive at Petten on 1/20 or 1/21/03.

We also arranged to ship the H-451 graphite from San Diego to Petten in a separate package.

Work has begun on the Quality Control Data Report for HFR-EU2.

Task 2 – Fuel Manufacturing Process Improvement

This task has been completed.

Task 3 – NRC Interaction

This task is not currently funded.

Task 4 – Plant Cost Evaluation

This task has been completed.

Task 5 – Waste Disposal Assessment

This task has been completed.

Task 6 – Project Management and Project Development

This task covers all of the commercialization study project management and project development activities. During December, routine reviews of project activities were performed and the monthly report for November was prepared.

During December, a contract modification was received in the amount of \$47,284 for the continuing the Task 7 support work. Also, during December, the proposal previously prepared and submitted to DOE-OAK for a task to prepare a draft plan for development of advanced fuel particle coatings was revised to meet the funding available for this work.

Task 7 – DOE Fuel Plan

GA continued to support the AGR Fuel Development and Qualification Program planning effort by participating in the weekly conference calls, by determining and providing to ORNL the maximum fuel compact particle packing fraction in the GT-MHR preliminary core design, and by consulting regularly with ORNL on fuel characterization technology. GA also continued to interact with ORNL, INEEL, DOE-HQ, and DOE-OAK to define the AGR work scope and funding for FY03. A proposed GA statement of work responsive to the draft guidance provided by DOE-HQ was prepared and sent unofficially to DOE-OAK for information.

Task 8 – MHR-2 Fuel Specification

No significant progress was made on this task in December.

Part 2 - Cost Management

Item	Total Expenditures, K\$	
	December 2002	Inception to Date ¹ , Totals
Task 1 – MHR-1 Fuel Irradiation	21.4	98.3
Task 2 – Fuel Manufacturing Process Improvement	0.8	204.1
Task 3 – NRC Interaction	1.0	143.8
Task 4 – Plant Cost Evaluation	0.5	87.3
Task 5 – Waste Disposal Assessment	0.4	103.3
Task 6 – Project Management and Development	0.7	134.2
Task 7 – DOE Fuel Plan	11.5	134.8
Task 8 – MHR-2 Fuel Specification	2.5	7.9
Totals	38.8	916.2

Note:

1. Work started June 18, 2001.