GA-A23811

GT-MHR COMMERCIALIZATION STUDY

Technical Progress and Cost Management Report for the Period
October 1 through October 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
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Contract No. DE-AC03-01SF22343
Submitted to: DOE - Oakland Operations Office
By: General Atomics

PART 1 – Technical Progress

Summary

- Petten Authorities have not yet authorized us to ship the seven TRIGA activated and eight non-activated coated particle GT-MHR compacts to the High Flux Reactor (HFR) at the Petten site in The Netherlands for the HFR-EU2 irradiation test. The decision if the HFR capsule assembly area can accept the activated compacts is now expected in November.

- The HFR-EU2 test has been planned, designed, and was initially set to start irradiation in December of 2002. The test is now scheduled to start in the last quarter of 2003. The HFR-EU1 test (of coated particles in EU pebble compacts) has also been delayed, to the 3rd quarter of 2003.

Task 1 – Fuel Irradiation

Petten Authorities have not yet authorized us to ship the seven TRIGA activated and eight non-activated compacts to the High Flux Reactor (HFR) at the Petten site in The Netherlands. The Petten Scientist who is to decide if the capsule assembly area is licensed to accept the activated compacts is currently away from the Petten site. He is scheduled to be back at Petten in November. A copy of the latest HFR license to handle special nuclear material was received. A copy of this license is needed to ship the compacts to Petten.

The HFR-EU2 test has been planned, designed, and was initially set to start irradiation in December of 2002. The test is now to start to in the last quarter of 2003. The delay resulted from the Petten HFR shutdown (possible weld defect in the reactor tank) and the delay in shipping the compacts and graphite sleeve material to Petten because of difficult U. S. and Netherlands shipping regulations.

The HFR-EU1 test (pebble fuel) has also been delayed, to the 3rd quarter of 2003. Originally, the HFR-EU1 and EU2 tests were to be conducted simultaneously. However, Petten now wants to do the HFR-EU1 test first to check out the irradiation testing equipment.

Two HFR-EU2 test descriptions were prepared for the DOE (M. Feltus) who indicated that her office of the DOE was not informed as to what was accomplished for the $56.2K that was spent in FY-02 on this Task. The two test descriptions sent to M. Feltus office summarized the work on HFR-EU2 during FY-02 and the plans and goals for FY-03. Ms. Feltus indicated that without an indication of how the Task-1 (HFR-EU2) money was spent in FY-02 and how the FY-03 funds would be spent, we could not expect to receive continued funding in FY-03 for this Task.

M. Feltus also indicated that the Monthly reports should be sent to the TNNL office of the DOE (Richland Office). GA has not been previously informed of this requirement, but starting with this report, they will be included on the distribution.

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 October, routine reviews of project activities were performed and the monthly report for September was prepared.

GA prepared and submitted a proposal to DOE-OAK to increase the total funding for Task 7 to $140K and to extend the period of performance to the end of December 2002. The additional funding and extended period of performance for Task 7 will be used to support INEEL and ORNL in finalizing the Fuel Plan and in defining the detailed work scope, schedule, and budget for FY03 fuel program tasks.

Task 7 – DOE Fuel Plan

There was no work on this task during October

Task 8 – MHR-2 Fuel Specification

Work on this task has not been started.

Part 2 - Cost Management

Item	Total Expenditures, K$	
	October 2002	Inception to Date[1], Totals
Task 1 – MHR-1 Fuel Irradiation	8.6	72.4
Task 2 – Fuel Manufacturing Process Improvement	0.0	203.3
Task 3 – NRC Interaction	0.0	142.8
Task 4 – Plant Cost Evaluation	0.0	86.8
Task 5 – Waste Disposal Assessment	0.0	102.9
Task 6 – Project Management and Development	5.2	129.5
Task 7 – DOE Fuel Plan	0.2	108.6
Task 8 – MHR-2 Fuel Specification	0.0	0.0
Totals	**14.0**	**846.3**

Note:
1. Work started June 18, 2001.