Y-12

OAK RIDGE Y-12 PLANT

LOCKHEED MARTIN

MANAGED BY
LOCKHEED MARTIN ENERGY SYSTEMS, INC.
FOR THE UNITED STATES
DEPARTMENT OF ENERGY

UCN-13672 (26 6-95)

Y/AMT-374

DEC 20 1996

OSTI

CRADA Final Report
for
CRADA Number 94MULT-912ES

EXHAUST GAS SENSORS

J. M. Hiller
Lockheed Martin Energy Systems, Inc.
T. J. Miree
US Car Low Emissions Partnership

June 5, 1996

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

Approved for Public release; distribution is unlimited *ph*

MASTER

Prepared by the
Oak Ridge Y-12 Plant
managed by
LOCKHEED MARTIN ENERGY SYSTEMS, INC.
for the
U.S. DEPARTMENT OF ENERGY
under contract DE-AC05-84OR21400

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

Memorandum

June 5, 1996

To: Project file
Technology Services Program Manager
Office of Technology Transfer

From: John Hiller

Subject: Completion Report for Exhaust Gas Sensors CRADA (94-MULT-912-ES-1)

This memorandum/letter is prepared to execute the requirements stated in Section 5.1 (Completion Report) of the Y-12 Technology Transfer Partnership Program Management Plan.

The subject Cooperative Research And Development Agreement was cancelled on December 6, 1995. The formal notification of the cancellation to the industrial and laboratory partners was made on March 26, 1996.

Accomplishments/problems/lessons learned: This project was cancelled shortly after final approval. Thus, there are no accomplishments. The major problem encountered was the extreme effort required to obtain approval (about two years) to start work. No lessons were learned.

Close-out issues: No close-out items require addressing. No contracts were let. No property was exchanged. The Y-12 work order has been closed.

If additional information is required, please contact the principal investigator at 4-0287.

DISCLAIMER

**Portions of this document may be illegible
in electronic image products. Images are
produced from the best available original
document.**

Memorandum

Date: June 5, 1996

To: Project file
Technology Services Program Manager
Office of Technology Transfer

From: John Hiller

Subject: Verification Report for Exhaust Gas Sensors CRADA (94-MULT-912-ES-1)

This memorandum/letter is prepared to execute the requirements stated in Section 5.2 (Verification that Commitments Were Met) of the Y-12 Technology Transfer Partnership Program Management Plan.

The subject Cooperative Research And Development Agreement was cancelled on December 6, 1995. The formal notification of the cancellation to the industrial and laboratory partners was made on March 26, 1996.

Only two commitments were scheduled to be completed before the Y-12 cancellation: both involved the industrial partners:

1. The industrial partners were to define the preferred sensor power requirements. This was completed. The details are treated as proprietary or CRADA-Protected Information. The submittal appears in the project file.
2. The industrial partners were to perform a physical integration assessment of sensor technologies. The details are treated as proprietary or CRADA-Protected Information. The submittal appears in the project file.

Per procedure, the TTPP Office, in concert with OTT, is to validate that the commitments defined in the negotiated SOW have been met. The results of the verification are to be transmitted by OTT to DOE, and a copy is made part of the CRADA and project files.

Please contact the principal investigator at 4-0287 if additional information is needed.

Distribution:

Lockheed Martin Energy Systems, Inc./ DOE-OR

J. M. Hiller, MS-8084, 9203

S. G. Snow, MS-8084, 9203-A

J. E. Ferguson, MS-8242, 701SCA

E. L. Epple, MS-8084, 9203

A. K. Lee/DOE-OSTI, MS-8175, 9983-30 (2 copies)

DOE Office of Patent Counsel, FOB

Y-12 Central Files, MS-8169, 9711-5

Ford Motor Company

US CAR Low Emissions Partnership

Engine Support Systems Technologies

17100 Southfield Road

Allen Park, MI 48101

T. J. Miree, Program Manager (5 copies)