

LNG Safety Research: FEM3A Model Development

Quarterly Report
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ABSTRACT

This quarterly report for DE-FG26-04NT42030 covers a period from July 1, 2004 to September 30, 2004. Activity during this period included preparation of a CD containing the FEM3a FORTRAN code for distribution and organization of an LNG safety workshop. Contract negotiation between GTI and University of Arkansas continued.

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EXECUTIVE SUMMARY

The goals of this project are to develop a national focal point for LNG safety research and technical dissemination and to develop the FEM3A dispersion model for application to general scenarios involving dispersion problems with obstacle and terrain features of realistic complexity. During the period covered by this report, the FEM3A code was tested and a CD for distribution prepared. In the meantime, an LNG safety workshop was organized and implemented.

EXPERIMENTAL

No experimental work was conducted during this quarter.

RESULTS AND DISCUSSION

During the reporting period the FEM3A code was tested and a CD containing the main FORTRAN code, two auxiliary files, and a users' manual file was prepared for distribution. The users would compile the code on their own machine, using a FORTRAN 77 (or later) compiler and would have the option to receive hands-on training. Draft of a license agreement for using the software application was also prepared.

On September 24, 2004 a workshop on LNG safety was organized in Houston, Texas. More than 75 people participated in this workshop. The material covered in this workshop included:

- Federal Requirements for Siting LNG Plants
- DOE's Research Programs in LNG Safety
- GTI's Research Programs in LNG Safety

- DEGADIS and LNG Fire Models: Description, Demonstration and Examples
- FEM3A : Model Description and illustrations of the model's application.

During the reporting period, negotiation between GTI and University of Arkansas for conclusion of a subcontract between GTI and the University continued.

CONCLUSION

The workshop on LNG safety was a success. We anticipate concluding the subcontract with University of Arkansas shortly.