

## **Motor Vehicle Fire Research Institute Awarded Contracts**

**Title:** Times For First Responder Rescue and Fire Propagation

**Contractor:** Leland Shields

**Duration:** September 1, 2003 – March 31, 2004

**Purpose:**

In order to optimize vehicles for fire safety, designers need information as to the necessary resistance to fire propagation into the passenger compartment. This complex question is a function of many variables, including impediments to egress (vehicle- and injury-related), time to notification of emergency response personnel, the type of emergency response teams available (police and fire), emergency response times (arrival) and time to suppress fire or remove occupants. For the benefit of vehicle designers, the critical period is the time between collision occurrence and fire suppression or occupant removal.

The purpose of this project is to conduct a literature search relative to emergency response time, and provide consulting services for the existing NFIRS analysis project (conducted by Bahouth). Further details of these tasks are as follows:

- **Task 1 – Literature Search of Response Time**

Emergency response time is an important parameter tracked by emergency services. In this task, literature related to response time will be reviewed and summarized. Particular attention will be paid to the effect of important factors such as urban versus rural collisions, variation across states and municipalities, the age of the studies with reference to the availability of new technology (cell phones and automatic collision notification systems), and the depth of information related to the arrival time of all the necessary personnel and equipment to respond to the emergency.

- **Task 2 – Consultation in Support of NFIRS Analysis**

Leland Shields will participate in telephone conferences, document review, research, and provide verbal and written comments for the NFIRS data analysis project. This participation will be invited as deemed appropriate by either Dr. Digges or Dr. Bahouth. This will include review of and comments for papers summarizing project progress and findings.