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FEDERAL EMERGENCY MANAGEMENT AGENCY
MODIFICATION OF INTERAGENCY AGREEMENT

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1 INTERAGENCY AGREEMENT NO EME-1999-IA-0302	2 MODIFICATION NO MO04	3 EFFECTIVE DATE 3/8/01	4 PROJECT/REQUISITION NO E339761Y
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5 ISSUED BY National Emergency Training Center Satellite Procurement Office Building E 16825 South Seton Avenue Room Emmitsburg MD 21727 Vendor # 00019156 TTN: 30-005004	6 AGENCY PERFORMING SERVICE U S CONSUMER PRODUCT SAFETY COMMISSION ATTN BILL KING EAST WEST TOWERS 4330 E W HIGHWAY BETHESDA MD 20814
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7 PROJECT TITLE
Residential wiring safety, smoke alarm research, spnnkler head research smart fire-safe stoves, & mattress testing

8 ACCOUNTING AND APPROPRIATION DATA (If required)
See continuation page

9 DESCRIPTION OF MODIFICATION

The purpose of this modification is to provide funding for technical services to include electrical wiring safety in older residences smoke alarm research spnnkler head research and "smart" fire-safe stoves.

Total funding is increased by \$400 000 00 from \$425,000 00 to \$825 000 00

The period of performance is extended to 12 months after effective date of modification

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 U.S. CONSUMER PRODUCT SAFETY COMMISSION
 2001 MAR 13 4 18 PM '01

Except as provided here all other terms and conditions of the agreement remain in full force and effect

10 SIGNATURE OF PERSON AUTHORIZED TO SIGN <i>Beverly J. Wells</i>	DATE 3/7/01	12 SIGNATURE OF PERSON AUTHORIZED TO SIGN <i>Bryan S. McCreary</i>	DATE 3/8/01
11 TYPE NAME & TITLE OF PERSON AUTHORIZED TO SIGN Beverly J. Wells, Contracting Officer U.S. CONSUMER PRODUCT SAFETY COMMISSION		13 TYPE NAME & TITLE OF PERSON AUTHORIZED TO SIGN BRYAN S MCCREARY Contracting Officer FEDERAL EMERGENCY MANAGEMENT AGENCY	

CONTINUATION PAGE

A.1 PRICE/COST SCHEDULE

ITEM NO	DESCRIPTION OF SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
0001	Interagency agreement for technical support for electrical wiring safety, smoke alarm research, sprinkler head research, "smart" fire-safe stoves, and mattress/bedding fire screening testing IAW the attached statement of work.	1	Lot	\$400,000 00	\$400,000 00
	FUNDING/REQ NO 01		\$400,000.00	E339761Y	
PAGE SUBTOTAL -					\$400,000 00
GRAND TOTAL ---					\$400,000 00

ACCOUNTING AND APPROPRIATION DATA

ACRN	APPROPRIATION	REQUISITION NUMBER	AMOUNT
01	2001-03 -6200 -6200 -E64014-2589-D	E339761Y F	\$400,000 0
CPSC Appropriation Data			
	01 EXOB-PS 4400.00	0121557 25.3101	\$100,000.00
	01 EXOB-PS 4400.00	0121326 25.3101	75,000.00
	01 EXOB-PS 4400 00	0121725 25.3101	<u>225,000.00</u>
		TOTAL	\$400,000.00
		PREVIOUS TOTAL	\$425,000.00
		INCREASE BY	<u>400,000.00</u>
		TOTAL	\$825,000.00

Any funds provided by FEMA to CPSC under this IAG modification must be expended or obligated by CPSC by the end of the current fiscal year, September 30, 2001. CPSC will notify FEMA by September 15, 2001 of any funds received under this IAG modification which will not be expended or obligated by September 30, 2001. The CPSC will return any funds received under this IAG modification and not expended or obligated by September 30, 2001 to FEMA.

Scope of Work

Task 1 Residential Electrical Wiring

The U S Consumer Product Safety Commission, in co-operation with the U S Fire Administration and the National Association of Home Builders, has developed a program for detecting hazards in electrical wiring in older homes, and bringing them to an acceptable level of safety at moderate expense. Electrical wiring fires are one of the leading causes of residential fires, and the fourth most frequent cause of fatal fires. It is not reasonable to expect that all existing housing stock in the United States will be brought up to compliance with the current version of the National Electrical Code. This program provides a practical alternative. Although the technical development of this Project was successfully completed, the program has not been widely publicized. CPSC and USFA intend to inform electrical inspectors, code officials, the fire service, electrical contractors, electrical equipment manufacturers and distributors, the U S Department of Housing and Urban Development, the electricians' unions, and other interested parties. Widespread adoption of this Project would result in a significant reduction in residential fires, deaths, injuries, and dollar loss.

CPSC will actively promote the Project with videotapes and printed materials related to identifying and correcting the gross fire hazards associated with electrical wiring in existing dwellings. CPSC-produced videotapes demonstrating examples of electrical fire hazards and ways to reduce the risk of such hazards will be duplicated, with at least one copy going to each state's fire safety official. CPSC-prepared printed matter for consumers on ways to identify and correct wiring hazards will be included. In addition, the new electrical maintenance code for existing dwellings will be referenced. Through the CPSC network of state designees, CPSC will reach all 50 states with materials related to electrical wiring hazards. Designees will be requested to bring these materials to the attention of the state fire safety official. CPSC staff will follow up with the officials, to ensure the materials reached the appropriate party, and to encourage use of these materials in implementing programs at the state and local level.

This Task will be funded at \$ 75 000 for FY 2001

Task 2 Smoke Alarm Research

In light of reported and suspected problems with existing smoke alarms, and to take advantage of emerging technologies, USFA and CPSC, in co-operation with other government agencies and non-government organizations, will conduct research toward the following objectives

- 1 To develop a method or methods to evaluate detector and alarm performance in real fires
- 2 To demonstrate the capabilities of present and emerging technologies of residential fire detection and alarm devices
- 3 To identify potential improvements in residential fire detection and alarm devices
- 4 To develop information to be used in codes and standards relating to fire detection and alarm devices, their installation, testing, and maintenance
- 5 To develop consumer information on selection, installation, testing, maintenance, and performance of fire detection and alarm devices

CPSC will co-ordinate and document research efforts with interested organizations, such as the National Institute for Standards and Technology, the Centers for Disease Control, U S Public Health Service, U S Department of Housing and Urban Development, the National Fire Protection Association, Underwriters' Laboratories, fire detection and alarm device manufacturers, and other interested parties

This Task will be funded at \$ 100 000 for FY 2001

Task 3 Sprinkler Head Research

After reports of potential and actual failures of current sprinkler head designs, CPSC and sprinkler head manufacturers and other interested parties have formed a consortium to develop technology to detect and/or avoid the failure mechanisms involved. Fundamental research and development are anticipated.

CPSC will co-ordinate the progress of the work by the private sector organizations' effort committed to advancing sprinkler technology with those government agencies which have the interest, responsibility, and technical capabilities to evaluate the progress and outcomes of the consortium.

CPSC will interact with both the USFA technical staff and the NIST fire research staff to apprise them of the status of the work of the consortium. While the work of the consortium will be monitored by select CPSC staff, in accordance with the agreement with the consortium, there will be an opportunity for the consortium to seek guidance from the scientific and technical and technological resources at NISDT, and field experiences from the fire service community via the USFA.

This Task will be funded at \$ 75 000 in FY 2001

Task 4 "Smart" Fire-Safe Stoves

Cooking fires are the most common cause of residential fire injuries, and one of the leading causes of fatal residential fires. Range (i.e. cook-stove) fires are the leading cause of fires and fire injuries of all products under CPSC's jurisdiction. Cooking fires usually occur when cooking materials (i.e. food, grease, cooking oil, etc.) become overheated and ignite.

Previous efforts on this Project have developed and tested prototype electric and gas stoves that will detect a fire before visible flame occurs. These tests have shown it is possible to prevent ignition of cooking materials on stove-tops by reducing burner heat output, with minimal interference with normal cooking processes. The next step is to evaluate and minimize the impact of implementing these changes across the spectrum of residential stoves currently on the market.

CPSC will obtain the services of outside experts to perform a manufacturing impact study. The study will address one of the primary concerns of stove and stove-control manufacturers that these "Smart" stoves will be so difficult and expensive to manufacture that their price will be prohibitive, and that they will not be economically viable in the market place. If the results of this study are favorable, there should be adequate rationale to revise the current standards for gas and electric ranges to include performance requirements to prevent the ignition of cooking materials.

This Task will be funded at \$ 75 000 in FY 2001

Task 5 Mattress and Bedding Fire Screening Test

Fires in which a mattress or bedding is the first material to ignite are responsible for a major portion of the nation's fire casualties. Among the products within the jurisdiction of CPSC, mattress and bedding fires are a leading cause of fire injuries and deaths.

In co-operation with CPSC, the Sleep Products Safety Council contracted with NIST researchers to conduct research to support a standard addressing open-flame ignition of mattresses and bedding. The industry supports the level playing fields among manufacturers that would be achieved with a Federal standard. Characterizations of burning bedding and mattress response to the bedding and surrogate gas burners have all been conducted in full scale. Further research defining the effects of scale and the risk of the mattress-bedding assembly to ignite nearby items is underway in fy2001.

While these full-scale tests are considered the definitive performance test (because of the complex interactions of the bedding-mattress-foundation), they are expensive and time-consuming. Few laboratories in the United States are capable of conducting them. A bench scale test is needed to serve as a surrogate for full-scale tests of mattresses exposed to ignited bedding or equivalent gas burners.

CPSC will initiate research at NIST to provide the technical support for and develop a small-scale test for screening mattress samples. For example, the screening protocol might include a test (or tests) for flame spread or mass loss rate. This test could be used by CPSC as a compliance test, and the industry could use it for designing purposes, helping to minimize the necessity for full-scale tests. Such a test should probably be more stringent than the full-scale test. The source of test specimens should be actual production mattresses.

USFA funds will support a portion of the work at NIST, and, if needed, supplemental tests by the CPSC laboratory.

This Task will be funded at \$ 75 000 in FY 2001.

General provisions

CPSC will produce a comprehensive report for each of these Tasks, documenting the work done and conclusions reached. CPSC will also provide USFA with a brief summary report for each Task on a quarterly basis, summarizing activities and accomplishments during the period, expenditures, plans for the next reporting period, and problems encountered or anticipated.