

NIST-54
(REV. 3-90)
ADMAN 8.05

U.S. DEPARTMENT OF COMMERCE
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
GAITHERSBURG, MARYLAND 20899

DATE
March 27, 2003

ACCEPTANCE NOTIFICATION

YOUR REFERENCE
CPSC-IAG-01-1173
MOD/AMEND NO: 02 *6/20*

NIST REFERENCE
8665371

TO

U.S. CONSUMER PRODUCT SAFETY COMMISSION
CONTRACT-BRANCH
ATTN: DODIE B. KESSLER
CONTRACT SPECIALIST
4330 EAST WEST HIGHWAY, ROOM 517
BETHESDA, MD 20814

THE ORDER REFERENCED ABOVE IS
 ACCEPTED ACCEPTED AS MODIFIED

1 COPY(S) OF AGREEMENT ENCLOSED SEE REMARKS

PLEASE REFER TO THIS NUMBER IN FUTURE COMMUNICATIONS WITH NIST

ESTIMATED COSTS THIS ORDER OR AMENDMENT
\$ 6,000.00

REVISED TOTAL
\$ 211,500.00

NOTE: THIS ORDER IS ACCEPTED IN ACCORDANCE WITH NIST STATUTORY AUTHORITY (15 USC 271-278E). THE AMOUNT STATED IS THE ESTIMATED COST. FINAL CHARGES WILL BE BASED ON ACTUAL COSTS INCURRED WHICH INCLUDE DIRECTLY RELATED EXPENSES AND APPROPRIATE CHARGES FOR INDIRECT AND ADMINISTRATIVE EXPENSES (15 USC 278b(e)) AS DETERMINED THROUGH THE NIST COST ACCOUNTING SYSTEM. IN THE EVENT THE ESTIMATED AMOUNT IS NOT SUFFICIENT TO COMPLETE THE WORK OR IF EXCESS FUNDS APPEAR TO BE AVAILABLE FOR RETURN, YOU WILL BE ADVISED AS EARLY AS POSSIBLE.

PLEASE ADVANCE \$ 6,000.00 TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY WORKING CAPITAL FUND (13X4650).
(NIST IS AUTHORIZED TO REQUIRE AN ADVANCE TO ITS WORKING CAPITAL FUND BY 15 USC 275a.)
BILL NUMBER 5738312200 ENCLOSED SEE REMARKS

ALTHOUGH THE NORMAL PRACTICE OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY IS TO REQUIRE AN ADVANCE OF FUNDS; IN THIS INSTANCE, THE ORDER IS ACCEPTED ON A REIMBURSABLE BASIS. YOU WILL BE BILLED MONTHLY.

INFORMATION/TERMINATION DATE
REVISED TERMINATION DATE FOR THIS ORDER September 21, 2003

REMARKS
Please return one fully executed copy of this agreement to:
NATL INST OF STANDARDS & TECHNOLOGY,
100 BUREAU DRIVE MS 3751, GAITHERSBURG, MD 20899-3751
NIST is billing thru the IPAC system

FOR FISCAL OR CONTRACTUAL INFORMATION ON THIS ORDER, CONTACT:
GAITHERSBURG, MARYLAND 20899
NAME PAULA K. COPELAND
OFFICE NUMBER: 301-975-2275
FAX NUMBER: 301-963-5972
NAME WILLIAM A. SMOOT, JR.
GOVERNMENT COMMERCIAL NUMBER:

SIGNATURE OF ACCEPTING OFFICER
William A. Smoot, Jr.
WILLIAM A. SMOOT, JR.
DIVISION CHIEF

INTERAGENCY AGREEMENT

BETWEEN THE

U.S. CONSUMER PRODUCT SAFETY COMMISSION

AND THE

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

I. INTRODUCTION

The U.S. Consumer Product Safety Commission, hereinafter referred to as CPSC, and the National Institute of Standards and Technology, hereinafter referred to as NIST, hereby agree that NIST shall provide the technical support for and develop a small-scale fire screening test for mattresses and provide the subsequent findings to CPSC, in accordance with the terms and conditions set forth below. This IAG will allow CPSC staff to carry out its obligations in areas of standards development for regulatory purposes, compliance and enforcement.

II. TITLE:

"Mattress Fire Screening Test"

III. PURPOSE AND OBJECTIVES:

The purpose of this project is to develop a test methodology to evaluate mattress flammability in which the peak fire size during testing is reduced to a level that can be handled by a typical overhead laboratory fume hood and the performance measures correlate directly with full-scale mattress fire testing behavior.

The objectives of this project are:

- A. To develop a screening test methodology that could be used for product

development and enforcement of mattress flammability standards;

- B. Provide a methodology that provides measures of mattress performance which correlate directly with full-scale heat release behavior.

IV. BACKGROUND:

Fires in which a mattress or bedding article is the first item to ignite are responsible for a major portion of the nation's fire casualties. Among the consumer products within the jurisdiction of the CPSC, mattress and bedding fires were one of the leading causes of civilian injury and second only to upholstered furniture in the number of civilian deaths in 1998. In 1998, mattress or bedding items were first to ignite in about 18,100 residential fires that resulted in 390 deaths, 2,160 injuries and \$208.3 million in property damage. Most of these losses could be addressed by an open flame standard for mattresses.

While full-scale tests are considered the definitive performance test, they are dangerous, expensive and require specialized facilities. At present, only a small number of laboratories in the United States are capable of conducting any type of full-scale mattress fire tests. 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 (similar to those developed in earlier NIST research). A bench scale test is a necessary component of a performance standard and provides a method of testing that is practical and cost effective. Test samples and materials will be the same as those used in earlier NIST research sponsored by the Sleep Products Safety Council (SPSC), an affiliate of the International Sleep Products Association (ISPA).

The following organizations have entered into a cooperative effort to evaluate mattress and bedding flammability:

National Institute of Standards and Technology (NIST);
United States Fire Administration (USFA).

NIST shall provide the technical support and methodology for developing a fire screening test for mattresses.

V. STATEMENT OF WORK

A. In order to accomplish the objectives of this investigation, NIST shall complete the tasks listed below:

Task 1. Design and construct all apparatus for the screening protocol.

The screening test will require specialized apparatus adapted to bench scale. NIST will develop all test equipment, including an appropriate gas burner and specimen holders, necessary for test development and evaluation.

Task 2. Calibrate gas burners and refine all test apparatus to give burning behavior within acceptable heat release rate limits and with good correspondence to full-scale behavior.

NIST will be responsible for making necessary adjustments to test apparatus to ensure equipment is functioning properly and within acceptable test limits. NIST will determine appropriate exposure duration of gas burners.

Task 3. With assistance from CPSC staff, apply test apparatus to multiple samples from SPSC mattress/foundation designs used in earlier research; reduce data and correlate with results from twin size beds based on the same designs. The total number of tests after the test apparatuses are all functional will be as many as 336.

Task 4. Complete report on above test protocol development with technical rationale and assessment of its utility as a screening method for mattress/foundations.

Task 5. Conduct validation testing using full-scale mattresses constructed using unconventional or newly developed materials and alternative designs available through retail sale. NIST will conduct full-scale tests and, with assistance from CPSC staff, conduct tests using screening test apparatus.

Task 6. Provide complete report on validation testing and correlate full-scale test data with screening test data based on using the same materials.

Task 7. Conduct additional full-scale validation testing using market supplied bedding items and bedclothing on each of the newly constructed full-scale mattress designs tested in Task 5.

VI. NIST FURNISHED MATERIALS/EQUIPMENT

NIST agrees to furnish all necessary personnel (except as noted in VII), equipment, materials, services, and facilities to complete the objectives list in Section III.

VII. CPSC FURNISHED MATERIALS/EQUIPMENT

For Task 3, CPSC will provide the test materials, given as a gift from the SPSC. Enough test materials will be provided to conduct approximately 600 tests. CPSC staff will assist in testing of large number of samples in Task 3. For Task 5, CPSC will provide full-scale and screening test samples, as well as, assistance in conducting the screening tests. CPSC will furnish the bedding and bedclothing items needed for Task 7.

VIII. CONFIDENTIALITY REQUIREMENTS

- A. All information reported to or otherwise obtained by CPSC or its agents under the Consumer Product Safety Act (CPSA) and provided to or shared with NIST, which contains or relates to a trade secret or other matter referred to in section 1905 of title 18, United States Code, or subject to section 552(b)(4) of the title 5, United States Code, shall be held in confidence by NIST personnel.
- B. To the extent permitted by law, including the Freedom of Information Act, NIST agrees not to release the identity of any manufacturer of any product being tested or reviewed (example: ticking materials, foams, barrier fabrics) in conjunction with this IAG without the written consent of the CPSC
- C. All documents and other materials developed pursuant to this IAG shall have appropriate statements to indicate the work was performed pursuant to the IAG by NIST; that the documents and other materials produced are the views of the staff or members (present or past) of NIST; and that although the documents and other materials may have been developed in conjunction with CPSC staff and sponsors, the documents and other materials do not necessarily represent the views of the Consumer Product Safety Commission and other sponsors.
- D. Any publications of or publicity pertaining to, the work performed under this Agreement shall include the following:

"This project was funded by CPSC and the U.S. Fire Administration (USFA). The content of this publication does not necessarily reflect the views of the Commission nor the USFA, nor does mention of trade names, commercial products, or organizations imply endorsement by the Commission or the USFA."

IX. PERIOD OF PERFORMANCE

The period of performance shall begin on the effective date of the Modification and shall not extend beyond 450 calendar days for Tasks 1-4, 300 days for new Tasks 5-6, and 90 days for Task 7. This agreement may be modified by mutual consent of CPSC and NIST.

X. DELIVERY OR PERFORMANCE

All deliverables required under the terms and conditions of this IAG shall be provided to the CPSC, regardless of the various sources of funding. The following items shall be performed or delivered in accordance with the following schedule:

DELIVERY ITEM	QUANTITY	PERFORMANCE
A. Quarterly progress reports to include, but not be limited to: project status, costs incurred for quarter just ended, problems encountered or anticipated and plans for the succeeding quarter.	4 copies	Within thirty (30) calendar days after the end of each quarter.
B. A draft final report for review and comment (Tasks 1-4).	4 copies	No later than the end of 450 calendar day test period.
C. A final technical report including, but not limited to, test setup, test data, data analysis, conclusions, findings, and methodology of screening test (Tasks 1-4).	16 copies	No later than the end of 450 calendar day test period.
D. Representative photographs and videos of the tests (Tasks 1-4).	2 copies	No later than the end of 450 calendar day test period.
E. A draft final report for review and comment (Tasks 5, 6, 7).	4 copies	No later than the end of 300 calendar day test period.
F. A final technical report (Tasks 5, 6, 7).	16 copies	No later than the end of 300 calendar day test period.
G. Representative photographs and videos of the tests (Tasks 5, 6, 7).	2 copies	No later than the end of 300 calendar day test period.

XI. DISAGREEMENTS

In the event that CPSC and NIST have a disagreement arising under this interagency agreement, the parties shall cooperatively seek to resolve the disagreement by themselves. If the disagreement cannot be resolved between them, the parties agree to seek the assistance of a third party in resolving the disagreement.

XII. SCHEDULE OF TASK COST AND PERFORMANCE

- A. CPSC agrees to allow NIST to make adjustments as needed in the distribution of resources, as long as the total cost of the project is not increased and the project objectives are all met.

TASK	DESCRIPTION OF TASK	EST. COST PER TASK	EST. TIME FOR EACH TASK
Task 1.	Design and construct all apparatus for screening protocol	\$40,000	120 calendar days
Task 2.	Calibrate gas burners and refine all test apparatus to give burning behavior within acceptable heat release rate limits and with good correspondence to full-scale behavior.	\$75,000	150 calendar days
Task 3.	Apply apparatus to multiple samples from SPSC mattress/foundation designs; reduce data and correlate with results from twin size beds based on same designs.	\$25,000	135 calendar days
Task 4.	Complete report on above test protocol development with assessment of its utility as a screening method for mattress/foundations.	\$30,000	45 calendar days
Task 5.	Conduct validation testing using full-scale tests and screening test apparatus.	\$20,500	45 calendar days
Task 6.	Complete report on validation testing and correlation between full scale and screening test data.	\$15,000	45 calendar days

Signed

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Task 7.

Conduct validation testing using full-scale tests with bedding items and screening test apparatus.

\$6,000

90 calendar days

XIII. LIAISON OFFICERS

A. NIST PROJECT OFFICER

Thomas J. Ohlemiller
National Institute of Standards and Technology
Building and Fire Research Laboratory
Polymers Building, Building 245
Gaithersburg, MD 20899-8642
Phone: (301) 975-6481

B. CPSC PROJECT OFFICER

Margaret Neily / Allyson Tenney
U.S. Consumer Product Safety Commission
Engineering Sciences Directorate
4330 East West Highway, Suite 611
Bethesda, MD 20814
Phone: (301) 504-7567

C. CPSC FINANCIAL OFFICER

Consumer Product Safety Commission
Directorate for Administration
Accounting Operations
Room 522
Washington, D.C. 20207

AGENCY PAYMENT OFFICER: Ms. Cecelia R. Smith
Telephone (301) 504-7172

XIV. COST AND TRANSFER OF FUNDS

The total estimated cost for this research project is estimated at \$130k (IAG), \$75.5k (Mod 1), and \$6k (Mod 2). Each sponsoring entity is providing a portion of the total funding required for this project.

Signed

SPONSOR ORGANIZATION

Consumer Product Safety Commission

FY-2003
FUNDING
\$6k

Total funding of the \$6k is to be provided to NIST under this IAG Modification. Payment to NIST will be based on actual costs incurred.

XV. FUNDING AND ACCOUNTING DATA

The transfer of funds shall be from CPSC to NIST through the On-Line Payment Collection (OPAC) system using the following accounting data:

Transfer From:

CPSC - TIN #520-978-750	\$6,000
03 PS EXOB 4200 24013 253a	
ALC #61-00-0001	
Appropriation Account Fund #6130100	

NIST
13-06-0001 13X4650
NIST Taxpayer ID Number: 530-20-5706

XVI. AUTHORITY

Section 27(g) of the Consumer Product Safety Act, (15 U.S.C. 2076(g)),

Section 29(d) of the Consumer Product Safety Act, (15 U.S.C. 2078(d))

XVII. FASA COMPLIANCE

As the servicing agency, NIST agrees to act in full compliance with section 1074 of the Federal Acquisition Streamlining Act (FASA) of 1994, entitled "Economy Act Purchases."

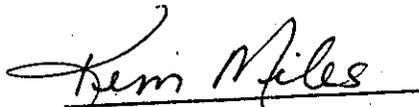
Approved and Accepted for
National Institute of Standards and Technology

Approved and Accepted for
Consumer Product Safety Commission.

BY:



BY:



TITLE:

WILLIAM A. SMOOT, JR
CHIEF, FINANCIAL POLICY DIVISION

TITLE:

KIM MILES
CONTRACTING OFFICER

DATE:

3/27/03

DATE:

4/1/03