



U.S. CONSUMER PRODUCT SAFETY COMMISSION

WASHINGTON, D.C. 20207

Record of Commission Action
Commissioners Voting by Ballot

1111 - 18th Street, N.W.
Washington, D.C.

Voting: Chairman King
Commissioner Franklin
Commissioner Pittle
Commissioner Sloan
Commissioner Zagoria

ITEM

Report to Congress on the Enforcement of the Interim Standard
for Cellulose Insulation

(Briefing material transmitted by the Office of the
Secretary on February 13, 1979.)

DECISION

The Commission approved the attached report for transmittal to the
Honorable Howard W. Cannon, Chairman, Committee on Commerce, Science
and Transportation, U.S. Senate, and to the Honorable Harley O.
Staggers of the House of Representatives, Washington, D.C.

VOTE

Concurring: Chairman King (2/26/79)
Commissioner Franklin (2/15/79)
Commissioner Pittle (2/16/79)
Commissioner Sloan (2/16/79)
Commissioner Zagoria (2/16/79)

For the Commission:


Sadye E. Dunn, Secretary



U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20507

FEB 23 1979

Honorable Howard W. Cannon
Chairman
Committee on Commerce, Science
and Transportation
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

In accordance with the requirements of section 35(e)(2)(A) and (B) of the Consumer Product Safety Act, as amended by the Emergency Interim Consumer Product Safety Standard Act of 1978 (P.L. 95-319), the Consumer Product Safety Commission hereby transmits this report which describes the Commission's activities with respect to the enforcement of the Interim Safety Standard for Cellulose Insulation (16 CFR Part 1209) from August 25, 1978, to January 25, 1979. This standard is based on General Services Administration Specification HH-I-515C.

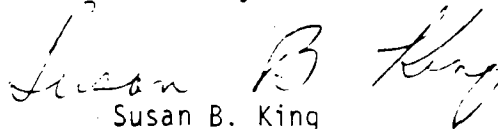
In addition to reporting on our enforcement efforts, there is a related concern we would like to bring to your attention. Cellulose insulation (which meets both HH-I-515C and the amended General Services Administration Specification HH-I-515D which the Commission is required to propose) may present a fire hazard when the insulation is improperly installed over, or too near, heat sources such as recessed light fixtures. Tests conducted by the Commission staff using cellulose insulation that is labeled as meeting the present interim standard (HH-I-515C) as well as cellulose insulation that conforms to the revised GSA Specification HH-I-515D) will ignite when installed directly over recessed light fixtures. The tests used the correct wattage light bulbs recommended for the lighting fixtures. Neither the present interim standard nor the proposed amendment is expected to address this hazard.

In an attempt to reduce this hazard, the Commission has proposed a labeling rule under section 27(e) of the CPSA. This rule would require

Honorable Howard W. Cannon - Page 2

cellulose insulation containers to be labeled with a warning to keep the product away from recessed light fixtures and other heat sources. The Commission staff is also planning consumer education and industry seminars to inform installers of the proper precautions to prevent fires. The Commission is not certain that these measures will adequately address the hazard presented by improper installation. If they are not effective, additional action may be necessary.

Sincerely,


Susan B. King
Chairman

Enclosure



U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

FEB 23 1979

Honorable Harley O. Staggers
Chairman
Committee on Interstate and
Foreign Commerce
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

In accordance with the requirements of section 35(e)(2)(A) and (B) of the Consumer Product Safety Act, as amended by the Emergency Interim Consumer Product Safety Standard Act of 1978 (P.L. 95-319), the Consumer Product Safety Commission hereby transmits this report which describes the Commission's activities with respect to the enforcement of the Interim Safety Standard for Cellulose Insulation (16 CFR Part 1209) from August 25, 1978, to January 25, 1979. This standard is based on General Services Administration Specification HH-I-515C.

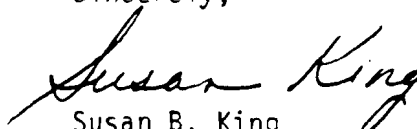
In addition to reporting on our enforcement efforts, there is a related concern we would like to bring to your attention. Cellulose insulation (which meets both HH-I-515C and the amended General Services Administration Specification HH-I-515D which the Commission is required to propose) may present a fire hazard when the insulation is improperly installed over, or too near, heat sources such as recessed light fixtures. Tests conducted by the Commission staff using cellulose insulation that is labeled as meeting the present interim standard (HH-I-515C) as well as cellulose insulation that conforms to the revised GSA Specification HH-I-515D) will ignite when installed directly over recessed light fixtures. The tests used the correct wattage light bulbs recommended for the lighting fixtures. Neither the present interim standard nor the proposed amendment is expected to address this hazard.

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Honorable Harley O. Stagers - Page 2

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Sincerely,


Susan B. King
Chairman

Enclosure

Report of Enforcement Activities
Interim Safety Standard for Cellulose Insulation

Section 35(e)(1) of the Consumer Product Safety Act, as amended by the Emergency Interim Consumer Product Safety Standard Act of 1978 (P.L. 95-319), required the Consumer Product Safety Commission (CPSC) to provide to Congress a detailed statement of the manner in which the Commission proposed to enforce the interim cellulose insulation standard. This report was submitted to Congress on August 24, 1978, and a copy is attached (Attachment 1).

Sections 35(e)(2)(A) and (B) of the Consumer Product Safety Act, as amended, require the Commission, no later than six months after the August 24, 1978 report, to submit a report to Congress which describes the enforcement activity of the Commission, including results of tests of cellulose insulation from at least 25 manufacturers. In accordance with these provisions, the Commission transmits this report.

Summary

This report covers the Commission's enforcement activities from August 25, 1978 to January 25, 1979.

Since the interim standard became effective on September 8, 1978, the Commission has inspected 285 manufacturers of cellulose insulation and collected 214 samples for flammability testing and 163 samples for corrosion testing. To date, 158 tests for flame resistance and 75 for corrosion have been completed.

Of the 158 samples tested for flame resistance, 89 samples passed the test and 69 failed. The failures break down as follows: 26 had an average flame spread rating over 25 but less than 29; 28 had an average flame spread rating over 29 but less than 36.5; the remaining 15 had an average flame spread rating of 36.5 or greater.

Of the 75 samples that have been tested for corrosion, 49 passed the test and 26 failed. Of the 26 failures, 23 are defined as "definite failures and 3 as "gross" failures.

In all cases except three, non-complying firms have been cooperative in taking corrective action to bring their product into compliance. In one case injunction proceedings were initiated. In two other cases, firms decided to go out of business rather than make all corrections necessary to bring their operations into compliance.

Enforcement Program

The Commission's enforcement program consists of the following activities:

- (1) informing the regulated industry of the standard;
- (2) training the Commission's field staff;
- (3) conducting plant inspections; and
- (4) collecting samples and conducting tests, and assisting non-complying companies to meet the standard.

A discussion of each of these activities follows:

1. Informing Industry

The August 24, 1978 report outlined steps taken to inform industry and other interested parties of the requirements under the interim standard (see page 1, August report, attached). The report also noted plans to hold public meetings in 13 cities between August 13 and October 3 to discuss the standard with consumers, manufacturers, state and local officials, and others. Those meetings were held on schedule and were attended by approximately 2500 members of the public. The audiences were predominantly comprised of the affected industry.

2. Training Commission Field Staff

Training the Commission's field staff assigned to enforcement of the standard was completed by the September 8, 1978 target date mentioned in the August report (see page 2, August report).

In addition, a two-day training course was given to state personnel who are aiding the Commission in conducting inspections and sample collections.

3. Conducting Plant Inspections

As soon as the interim standard went into effect, the staff began an enforcement program to inspect all manufacturers of cellulose insulation within six months. The staff worked from a list of approximately 700 firms believed to be manufacturers of cellulose insulation which was compiled by the Federal Trade Commission. New firms were added to the list as they came to the attention of the Commission staff.

As of January 25, 1979, the staff had visited 546 firms. Of those visited, 261 were not manufacturers of cellulose insulation; 285 were manufacturers and were inspected.

Approximately 60-70 percent of the 261 firms not manufacturing cellulose insulation had been manufacturers but have gone out of business within the past year. The remainder of the 261 firms never had been manufacturers of cellulose insulation. Most of the firms claimed a poor market for cellulose insulation as the reason they went out of business. None of these 261 firms claimed the standard, itself, as a reason for going out of business.

The Commission staff anticipates that all known manufacturers of cellulose insulation will be inspected by the end of March 1979. From the evidence obtained to date, the Commission staff estimates the total number of cellulose insulation manufacturers to be between 400 and 450.

4. Sample Collection and Testing

A. Samples for Flame Resistance (Steiner Tunnel): The Interim Safety Standard for Cellulose Insulation prescribes tests to measure the flame resistance and corrosiveness of cellulose insulation. The test for flame resistance is conducted by placing a specimen of insulation inside a tunnel, which is approximately 25 feet long and constructed of fire brick, and exposing the specimen of insulation to a flame which is approximately four feet long and produced by a twin-jet gas burner. A flame spread rating is calculated by observing the distance which the flame from the gas burner travels along the specimen of insulation. The

insulation must yield a flame spread rating of 25 or less to meet the requirements of the standard.

Samples for testing in the Steiner tunnel have been collected from 214 of the 235 manufacturers inspected. A Steiner tunnel in Chicago, Illinois, operated by Underwriters Laboratories, inc., is under CPSC contract to conduct the testing since the Commission does not have its own Steiner tunnel.

Samples were collected for the following reasons:

- (1) cellulose insulation tested during the inspection failed the field screening test, which is a simple smoldering test used to identify potentially failing products;
- (2) the firm failed to conduct its own in-house tests;
- (3) fire retardant chemicals appeared to be added to the insulation at a nonuniform rate resulting in the likelihood that some insulation would contain little or no fire retardant chemicals;
- (4) the insulation and/or fire retardant chemicals did not appear to be ground as finely as may be necessary to enable the insulation to be impregnated with the chemicals; or
- (5) fire retardant chemicals were added to the insulation at a rate less than 20% by weight which may be insufficient fire retardant chemicals to pass the Steiner tunnel test.

As of January 25, 1979, 214 samples (each representing a different manufacturer) had been collected for testing in the Steiner tunnel. Testing had been completed for 158 samples. Eighty-nine of the samples passed the test while 69 failed. A test of a sample in the Steiner tunnel actually consists of separate tests of three individual bags of insulation. A flame spread rating is obtained for each of three bags and these ratings are then averaged. A failure results when the average of the three flame spread ratings is greater than 25.

Experience, including a Commission initiated round robin study involving various Steiner tunnels, has indicated that there is a significant variation in results of testing the same batch of cellulose insulation in different Steiner tunnels. Some Steiner tunnels appear to give consistently higher flame spread ratings, others consistently lower. However, a statistical study of these test results shows that a sample with a flame spread rating of 36.5 in the Chicago, Illinois, Steiner tunnel operated by Underwriter's Laboratories, Inc., would constitute a failure (a flame spread over 25) in any Steiner tunnel known to the Commission. The Commission staff, therefore, considers a test result of 36.5 or greater to be an unquestionable failure which would support enforcement action.

Of the 69 samples with a flame spread over 25, 26 had an average flame spread rating over 25 but less than 29; 28 had an average flame spread rating over 29 but less than 36.5; and 15 had an average flame spreads rating of 36.5 or greater.

Commission follow-up to Steiner tunnel failures is as follows:

When there is a failure involving an average flame spread rating over 25 but less than 29, the firm is issued a letter of advice which also serves as a notice of noncompliance pursuant to Section 21(b) of the Consumer Product Safety Act. This letter advises the firm:

- (1) of the results of the Steiner tunnel test;
- (2) of inspectional findings reflecting operating deficiencies or adverse conditions;
- (3) to make corrections of any adverse conditions observed during the inspection, to retest, and to submit test results to the Commission.

Further action, including whether or not reinspection or resampling is conducted, is decided by the CPSC area office on a case-by-case basis and depends in large part on the firm's corrective action. So far firms have been cooperative and have initiated appropriate corrective action.

When there is a failure involving an average flame spread rating 29 or over, but less than 36.5, the firm is issued a letter of advice which also serves as a notice of noncompliance. This letter, giving the firm 7 days to respond, advises the firm:

- (1) of the results of the Steiner tunnel test;
- (2) of inspectional findings reflecting operating deficiencies or

adverse conditions;

- (3) to take immediate corrective action, to retest, and to provide the area office with the test results.

As soon as the firm has responded, has taken corrective action, and has passing test results, the CPSC area office reinspects and, if any problem remains, the office collects another sample.

Further action depends in large part on the firm's actions. If the firm is cooperative the area office works with the firm to achieve correction. If the firm will not cooperate, the area office will consider recommendation for an injunction. So far, firms in this category have been cooperative and there has been no need for an injunction.

When there is a failure involving an average flame spread rating of 36.5 or greater, the firm is ordinarily hand-delivered the letter of advice which serves as a notice of noncompliance. This letter requests immediate response and advises the firm:

- (1) of the results of the Steiner tunnel test;
- (2) of inspectional findings reflecting operating deficiencies or adverse conditions;
- (3) to stop distribution of noncomplying products;
- (4) to notify distributors to whom the noncomplying product was sold;
- (5) to advise the Commission area office immediately of the corrections to be made.

There have been fifteen Steiner tunnel violations showing an overall flame spread rating of 36.5 or greater. In these cases, the area office will reinspect, resample, and require passing test results before the firm resumes distribution.

If the firm does not cooperate, the Commission staff will seek an injunction. In every case except one, the firm has cooperated, making an injunction unnecessary. In one case it was necessary to go forward with injunction proceedings. On February 11, 1979, an Indiana firm agreed to an injunction requiring the firm to stop sale and to notify customers that it had produced noncomplying cellulose insulation. It was also enjoined from violating the safety standard in the future.

In two cases, the firms explained that samples were collected of new or experimental batches that were not being distributed to the consumer. The firms had passing results from independent laboratories for their normal production. Both firms have been reinspected and resampled with satisfactory results. Two firms decided to go out of business rather than make all corrections necessary to bring their operations back in compliance. All other firms have made full corrections or are in the process of making corrections.

The 15 Steiner tunnel violations showing an overall flame spread rating of 36.5 or greater involved firms of all sizes (less than \$50,000 annual production to over \$2,000,000 annual production), the use of several types of fire retardant chemicals, various types and degrees of

sophistication of equipment, and a variety of testing programs. To date, no definite trend has developed in any of these areas.

The Commission staff maintains a comprehensive data base, updated almost daily, of the results of all testing and inspections. For each sample collected, records are kept of the Steiner tunnel test results, field screening test results, corrosion test results, the total amount of fire retardant chemicals used, and the amount and types of individual chemicals. This information is being reviewed to see what patterns, if any, are developing. We believe that information obtained will prove valuable in further enforcement because it will provide insight into the effectiveness of various chemicals, quality control, and screening results.

B. Samples for Corrosiveness: The interim safety standard has requirements for corrosion as well as flame resistance, to protect building construction materials (metal in the building) from being corroded by the flame retardant chemicals used in the insulation.

The test consists of sandwiching metal coupons between wet insulation at a controlled temperature and humidity. Observations are made after 7 days, and, if any etching is observed, the test conditions are maintained for 30 days as specified by the standard. Tests are conducted using two copper, two steel and two aluminum test coupons.

The Commission staff considers a "definite" failure to occur when there are clear perforations in both coupons of any of the three metals. The Commission staff considers a "gross" failure to exist where both

coupons of at least two of the three metals are at least 40-50% dissolved at the end of 30 days.

When there is a "definite" failure (but not a "gross" failure), the area office writes the firm a letter of advice and notice of noncompliance. The letter gives the test results and advises the firm to correct any deficiencies. The letter also advises the firm to test the product and to submit passing sample results to the area office. The area office may reinspect and/or resample, depending on circumstances surrounding the case.

If there is a "gross" failure, the area office issues a letter of advice and notice of noncompliance, giving test results and advising the firm to stop distribution until corrective action is taken and samples pass the corrosion test. The firm is also advised to notify its customers of the failure. The area office always reinspects and resamples in these situations. To this date, firms have given full cooperation.

As of January 25, 1979, samples for corrosion testing have been collected from 163 of 285 firms inspected. Tests have been completed for 75 of the samples with 49 samples passing this test and 26 samples failing. To date there have been 23 "definite" failures and three "gross" failures. Firms have been cooperative to date and have made corrections or are in the process of making corrections. To date injunction proceedings have not been necessary.

In the above cases where a knowing violation is involved, civil penalties may be considered for flammability and corrosion test failures. Section 20 of the Consumer Product Safety Act authorizes the imposition of civil penalties for a "knowing" violation of section 19 of the CPSA.

Other Problems and Considerations

Corrosion Test. Certain segments of the cellulose insulation industry originally alleged that insulation could not pass both the Steiner tunnel test and corrosion test. The Commission's experience in administering the standard to date indicates that cellulose insulation can be manufactured in such a manner that it will pass both tests. Twenty samples to date have passed both. Sixteen samples have failed both, and 26 samples passed one test but failed the other.

The second issue is an industry allegation that the method for cleaning the coupons prescribed in the standard will not effectively remove all of the rust inhibitor on the coupons. If the rust inhibitor is not removed, it allegedly interferes with the test. The staff is in the process of conducting tests to determine if this problem exists.

Notification and Recalls. Section 35(c)(1)(A) of the Consumer Product Safety Act, as amended by the Emergency Interim Consumer Product Safety Standard Act of 1978, provides that the Interim Safety Standard for Cellulose Insulation shall be enforced in the same manner as any other standard issued under the Consumer Product Safety Act.

Section 15 of the CPSA sets forth the authority of the Commission to order the manufacturer, distributor, or retailer of a consumer product to notify the public that a product fails to comply with an applicable consumer product safety standard, and to order repair, replacement, or refund of the purchase price of a noncomplying product. However, before the Commission may order either notification or corrective action, Section 15 requires that the Commission must be able to establish: (1) that the product in question fails to comply with an applicable standard issued under the CPSA and (2) that the failure to comply with the standard creates a "substantial risk of injury to the public." Thus, the failure of a consumer product to comply with an applicable standard is not, by itself, an adequate basis for the Commission to order either notification of the public or corrective action. Rather, section 15 requires that the product's failure to comply with the applicable standard must be one which creates a "substantial risk of injury to the public" before either notification or corrective action may be ordered.

The Commission staff has obtained failing flame resistance test results from tests of cellulose insulation manufactured by several firms. This insulation, therefore, meets the first requirement under section 15, i.e., it fails to comply with a consumer product safety rule.

However, the Commission staff has not yet established that every test failure presents a substantial risk of injury to the public, e.g., a flame spread rate in excess of but close to 25. Absent the identification of a substantial risk of injury presented by such failing insulation,

the Commission cannot meet the statutory criteria for issuing a mandatory order that requires a firm to give notice and to recall its product from both consumers and the distribution chain.

Although the Commission will continue the enforcement program set forth in this report, practical and evidentiary problems may hamper effective use of notice and recall under section 15 of the CPSA in enforcing the interim standard.

Installation. The Commission is concerned with the hazard presented by insulation which is installed over, or too near, heat sources such as recessed light fixtures. In order to address this issue, the Commission published in the Federal Register of December 20, 1978 (43 F.R. 59390), a proposed regulation which would require all containers of cellulose insulation to be labeled with a warning (1) to keep the product at least three inches away from recessed lighting fixtures (and not over the fixtures) and (2) to keep the insulation away from exhaust flues, of furnaces, water heaters, space heaters, or other heat producing devices. The Federal Register notice proposing this labeling regulation summarizes the laboratory experiments and some of the reports of fire incidents.

The Commission staff is prepared to deal with complaints or reports of improper installation of cellulose insulation through consumer education and industry seminars during 1979. One such situation has arisen to date involving approximately 60 new homes in Florida insulated by one contractor. Several fires occurred in these homes where cellulose insulation

(which allegedly complied with the interim standard) was installed directly over recessed light fixtures. After being contacted by the Commission, the contractor who installed the insulation sent a notice to each homeowner and corrected each instance of improper installation by providing adequate shielding around the recessed light fixtures.



U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

AUG 14 1978

Honorable Harley D. Staggers
Chairman
Committee on Interstate and
Foreign Commerce
House of Representatives
Washington, D. C. 20515

Dear Mr. Chairman:

In accordance with the requirements of Section 35(e)(1) of the Consumer Product Safety Act, as amended by the Emergency Interim Safety Standard Act of 1976, the Consumer Product Safety Commission hereby transmits a detailed statement of the manner by which the Commission proposes to enforce the Interim Safety Standard for Cellulose Insulation (16 CFR Part 1209)

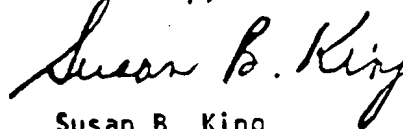
In addition to the report there are three other related matters on home insulation that we would like to bring to your attention:

- First, the Commission has recently completed some tests that indicate a potentially serious problem may be created by improper installation of any type of insulation. The problem is specifically related to the installation of insulation over or too near recessed light fixtures. This could create a risk of fire.
- Second, the Commission has prepared the enclosed booklet entitled "Questions and Answers on Home Insulation." We have already distributed 15,000 copies to the public and 185,000 more are being printed. The booklet addresses the hazards of installation of insulation near heat sources (as described above).
- Third, as the enforcement report indicates, the Commission will be holding public meetings on home insulation across the country. This is intended to be an all-out effort to encourage manufacturers, installers, and homeowners to participate in addressing what we believe is an extremely important issue for the American consumer. Each Commissioner will chair at least one of these meetings.

Honorable Harley D. Stagers - Page Two

We would be happy to meet with you to discuss our enforcement program in greater detail if you so desire.

Sincerely,

A handwritten signature in cursive script that reads "Susan B. King". The signature is written in dark ink and is positioned above the typed name.

Susan B. King
Chairman

Enclosures

U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

AUG 14 1978

Honorable Howard W. Cannon
Chairman
Committee on Commerce, Science,
and Transportation
U.S. Senate

Dear Mr. Chairman:

In accordance with the requirements of Section 15(a)(1) of the Consumer Product Safety Act, as amended by the Emergency Interim Safety Standards Act of 1974, the Consumer Product Safety Commission hereby transmits a detailed statement of the manner by which the Commission proposes to enforce the Interim Safety Standard for Cellulose Insulation (16 CFR Part 1210).

In addition to the report there are three other related matters on home insulation that we would like to bring to your attention:

- First, the Commission has recently completed some tests that indicate a potentially serious problem may be created by improper installation of any type of insulation. The problem is specifically related to the installation of insulation over or too near recessed light fixtures. This could create a risk of fire.
- Second, the Commission has prepared the enclosed booklet entitled "Questions and Answers on Home Insulation." We have already distributed 15,000 copies to the public and 100,000 more are being printed. The booklet addresses the hazards of installation of insulation near heat sources (as described above).
- Third, as the enforcement report indicates, the Commission will be holding public meetings on home insulation across the country. This is intended to be an all-out effort to encourage manufacturers, installers, and homeowners to participate in addressing what we believe is an extremely important issue for the American consumer. Each Commissioner will chair at least one of these meetings.

STATEMENT OF PLAN TO ENFORCE
INTERIM SAFETY STANDARD FOR CELLULOSE INSULATION

In accordance with provisions of Section 35(e)(1) of the Consumer Product Safety Act, as amended by the Emergency Interim Consumer Product Safety Standard Act of 1978, the Consumer Product Safety Commission transmits this report to Congress containing a detailed statement of the Commission's plan to enforce the Emergency Interim Safety Standard for Cellulose Insulation.

The Commission's enforcement plan consists of the following activities:

1. informing the regulated industry of the standard,
2. training the Commission's field staff,
3. plant inspections,
4. sample collection and testing,
5. legal actions for violations of the standard, and
6. revision of the interim standard.

A discussion of each of these activities is set forth below.

1. Informing Industry

On August 8, 1978, the Commission published in the Federal Register the requirements for flammability and corrosiveness of cellulose insulation contained in the General Services Administration specification NH-1-515C as an interim safety standard for cellulose insulation. Also in August 1978, the Commission sent copies of the standard to all firms known to be manufacturers of cellulose insulation, to all trade associations representing manufacturers and retailers of cellulose insulation, to the three principal associations of local building officials, to each of the 50 state governments through the individuals designated by them to serve as liaison with the Commission, and to all state fire marshals.

An accompanying letter explained the provisions of the standard, the reasons for its issuance, and the provisions of the Consumer Product Safety Act relating to civil and criminal penalties for violation of the standard, requirements for certification and testing by manufacturers of products subject to the standard, and preemption of nonidentical state and local requirements. Copies of the Federal Register notice by which the standard was issued and the accompanying letter to manufacturers and other affected parties are attached.

On August 22, 1978, the Commission conducted a public meeting in Chicago, Illinois, to discuss the standard with consumers, manufacturers, state and local officials, and other interested parties. The Commission will conduct similar public meetings in 12 other cities following the schedule set forth below:

Seattle, Washington	August 29, 1978
San Francisco, California	August 30, 1978
Los Angeles, California	August 31, 1978
Boston, Massachusetts	September 6, 1978
New York, New York	September 7, 1978
Pittsburgh, Pennsylvania	September 8, 1978
Kansas City, Missouri	September 20, 1978
Atlanta, Georgia	September 21, 1978
Salt Lake City, Utah	September 26, 1978
Minneapolis, Minnesota	September 27, 1978
Cleveland, Ohio	September 28, 1978
Dallas, Texas	October 3, 1978

2. Training the Field Staff

Training of the Commission's field staff is being done with a video tape program. It will explain the events which led to the issuance of the standard, describe and illustrate the process by which cellulose insulation is manufactured, describe the tests for flammability and

corrosiveness specified by the standard, and describe the use of a simplified field screening test selected by the Commission's engineering staff to identify insulation which may be highly flammable. Copies of the video tape program will be provided to all of the Commission's 13 area offices on August 20, 1978, to train the investigators assigned to the enforcement of the standard. All training will be completed before September 8, 1978, the effective date of the standard.

3. Plant Inspections

During May and June of 1978, the Commission staff conducted a preliminary survey of the cellulose insulation industry by inspecting 268 firms from a list of approximately 700 firms known or believed to be manufacturers of cellulose insulation which had been compiled by the Federal Trade Commission. In this preliminary survey, the Commission staff attempted to determine:

- a. the number of these firms actually engaged in the manufacture of cellulose insulation,
- b. the types of manufacturing equipment used, and the amount invested in that equipment,
- c. the dollar amount of annual sales of each firm inspected,
- d. the types and amounts of fire retardant chemicals used by each firm inspected,
- e. the types and frequency of tests for flammability and corrosiveness performed by each firm inspected, and
- f. the number of firms participating in a third-party quality assurance program.

Of the 288 firms inspected during this preliminary survey, 26 percent were not engaged in the manufacture of cellulose insulation. For this reason the Commission believes that the number of firms from the Federal Trade Commission list of 700 actually manufacturing a product subject to the standard will be approximately 500.

The Commission plans to inspect, with the assistance of state agencies, all known cellulose insulation manufacturers (estimated at 500) during the six months immediately following the effective date of the standard.

Information gained by the Commission to date about the process for manufacturing cellulose insulation and the requirements contained in the GSA specification HE-1-5150 indicates that rigid controls are needed to insure uniform application of fire retardant chemicals to the cellulose fiber in order to produce insulation which can meet the requirements for both flammability and corrosiveness. For this reason, in their inspection of manufacturers' plants, Commission investigators will observe and record the kinds and amounts of fire retardant chemicals used in the production of cellulose insulation, and the procedures used to achieve uniform application of those chemicals to the cellulose fiber.

As indicated above, a simplified portable test method has been selected to identify cellulose insulation which may be highly flammable. Commission investigators will perform this screening test on a sample of current production taken from each plant they visit. Additionally, during each inspection, Commission investigators will obtain at least three production specimens taken at intervals throughout the course of the inspection to determine if the amount and combination of chemicals present in the product is consistent.

During the six months following the effective date of the standard, the Commission will first focus its inspection efforts on those firms whose output is suspect because of information obtained from the preliminary survey. Firms scheduled for early inspection include those which have never had their product tested in a Steiner Tunnel in accordance with the procedures of the GSA specification HH-I-515C, or have had only one such test performed, or have no record of the types and amounts of chemicals added to the cellulose fiber.

4. Sampling and Testing

As indicated above, Commission investigators will perform screening tests on the insulation being produced at each plant inspected. In most cases, Commission investigators will also collect samples for flammability testing in a Steiner Tunnel, using the procedures set forth in the standard, whenever any of the following conditions occur:

- a. A screening test for flammability indicates that the cellulose insulation is highly flammable,
- b. Chemical analysis of specimens collected during the inspection reveals that the chemical mix or concentration varies significantly from one specimen to another,
- c. Observation of the manufacturing process indicates that adequate controls and equipment are not present to achieve a uniform distribution of fire retardant chemicals throughout the product or to grind the cellulose materials to a desired particle size,
- d. The firm has no record of any Steiner Tunnel test performed within the past two years, or
- e. The formula used by the firm to produce cellulose insulation specifies the addition of fire retardant chemicals in an amount which is less than 20 percent by weight of the cellulose fiber.

The Commission anticipates subjecting 150 to 250 samples of insulation to the flammability test specified in the standard during the six months immediately following the effective date of the standard. CPSC will test at least 50 additional samples for flammability during the second six month period following the effective date of the standard.

Neither the Commission nor any other agency of government owns a Steiner Tunnel, which is the apparatus required to conduct the flammability test set forth in the standard. For that reason, the Commission is soliciting bids from all owners of that equipment to perform flammability testing in accordance with the standard. The Commission will obtain the services of one or more firms which own and operate a Steiner Tunnel to perform flammability testing using standard government contracting procedures. The Commission expects that it will have awarded one or more contracts by October 1, 1978, in order that flammability testing can begin immediately.

During the inspection of plants, Commission investigators will also collect samples of insulation for the corrosion testing specified in the standard if any of the following conditions are observed:

- a. Chemical analysis of specimens collected during the inspection indicates that the chemical mix or concentration is not consistent from one specimen to another,
- b. Observation of the manufacturing process indicates that adequate controls and equipment are not present to achieve a uniform distribution of fire retardant chemicals throughout the product or to grind the cellulose material to a desired particle size,
- c. The formula used by the firm to produce cellulose insulation specifies the addition of fire retardant chemicals in an amount which is greater than 25 percent by weight of the cellulose fiber,

- d. The formula used by the firm to produce cellulose insulation specifies the addition of ammonium phosphate or of ammonium sulfate to the cellulose fiber, or
- e. The firm has no record of any test for corrosiveness performed within the past two years.

Each of the Commission's three regional laboratories has the equipment and personnel necessary to conduct the test for corrosiveness set forth in the standard.

The Commission plans to test 150 to 250 samples of cellulose insulation for corrosiveness during the six months immediately following the effective date of the standard and will test at least 50 additional samples for corrosiveness during the second six month period following the effective date of the standard.

5. Legal Action

The amendment to the Consumer Product Safety Act made by the Emergency Interim Consumer Product Safety Act of 1978 states that the interim standard for cellulose insulation shall have the same force and effect as any other consumer product safety standard issued by the Commission. The manufacture for sale, offer for sale, distribution in commerce, or importation of any cellulose insulation which is subject to and fails to comply with the standard constitutes a violation of Section 19(a) of the Consumer Product Safety Act. Section 20 of the Act authorizes the imposition of civil penalties for a "knowing" violation of Section 19. Section 21 authorizes the imposition of criminal penalties, including both fine and imprisonment, if the violation of Section 19 is both "knowing" and "willful" and follows the receipt of a notice of noncompliance from the Commission.

Section 15(d) of the Act authorizes the Commission to order replacement or refund of the purchase price of any cellulose insulation which fails to comply with the standard if the material in question fails to comply with the standard in such a manner that it creates a substantial risk of injury to the public.

Section 22 of the Act authorizes the Commission to seek an order to restrain the manufacture for sale, offer for sale, distribution, or importation of noncomplying cellulose insulation, and to seize any non-complying cellulose insulation introduced into commerce, in commerce, or held for sale after shipment in commerce.

A principal objective of the Commission's enforcement strategy is to insure that the cellulose insulation which is manufactured for sale to, or use by, consumers after the effective date of the interim standard meets the requirements for flammability and corrosiveness set forth in that standard. Consequently, whenever the Commission obtains test results which establish that a manufacturer's product fails to meet any of the requirements of the standard, the Commission intends to initiate legal action for an injunction to require the manufacturer to stop all further sale and distribution of cellulose insulation until that firm;

- a. Demonstrates, by tests conducted in accordance with the standard, that it is capable of producing a product meeting all requirements of the standard; and
- b. Establishes and implements a system of process control which will insure that the product being manufactured is essentially the same as the product yielding passing test results.

At the same time the Commission begins the procedure to obtain such an injunction, the Commission will notify the firm of the existence of the failing test results to establish the element of knowledge required by Section 20 to support an action for civil penalties, and to give the notice of noncompliance required by Section 21 for a criminal prosecution.

If the Commission obtains evidence of the continued manufacture for sale of noncomplying insulation after it has informed a firm of failing test results but before an injunction is issued, the Commission will be able to pursue legal actions for civil or criminal penalties.

The Commission's study of the cellulose insulation industry indicates that in most cases, the material is shipped within a few hours after it is manufactured, and usually is installed in the ultimate purchaser's house a few days thereafter. For this reason, the Commission does not anticipate that it will find many inventories of noncomplying materials subject to seizure, either at the manufacturers' plants or warehouses, or in the possession of distributors or installers.

In order to compel the replacement or repurchase of noncomplying cellulose insulation, the Commission must be able to establish not only that the product fails to comply with the standard, but also that the failure to comply creates a substantial risk of injury to the public because of the pattern of defect, the amount of defective product distributed in commerce, the severity of the risk, or for some other reason.

When the Congress passed the legislation authorizing the Commission to issue an interim standard for cellulose insulation based on the requirements for flammability and corrosiveness of GSA specification HH-I-515C, Congress recognized that no obvious relationship exists between

the tests prescribed by that specification and conditions likely to be found in consumers' homes. The amendment to the Consumer Product Safety Act made by the Emergency Interim Consumer Product Safety Act of 1978 requires the following statement to appear on each bag or container of insulation subject to the interim standard:

"ATTENTION: This material meets the applicable minimum Federal flammability standard. This standard is based on laboratory tests only, which do not represent actual conditions which may occur in the home."

Consequently, the Commission does not anticipate that it would be able to compel replacement or refund of the repurchase price of noncomplying cellulose insulation on the basis of failing test results alone. Only if additional evidence is available to demonstrate that a particular manufacturer's noncomplying insulation presents a substantial risk of injury to the public does the Commission foresee that it would be able to order corrective action under Section 15 of the Act. From the information gained to date about the composition and characteristics of cellulose insulation, the Commission anticipates that such additional evidence to establish the existence of a substantial product defect is likely to be available in few, if any, cases.

6. Revision of Interim Standard

In addition to the requirement that the Commission issue an interim safety standard for cellulose insulation based on the requirements for flame resistance and corrosiveness of the General Services Administration specification HH-I-515C, the Emergency Interim Consumer Product Safety Standard Act of 1978 also provides that the Commission shall incorporate superseding revisions of the GSA specification into the interim standard until a final standard is issued.

On July 24, 1978, the General Services Administration notified the Commission that the specification HH-1-515C has been superseded by a revision designated HH-1-515D (June 15, 1978). The Commission staff is now preparing for a rulemaking proceeding to propose a revised interim standard which incorporates the HH-1-515D requirements for flame resistance and corrosiveness.

ATTACHMENTS (2)