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Direction de
la vérification,
de l'évaluation
et du contrôle

Audit,
Evaluation and
Control Branch

Plan for an analysis of the
Socio-Economic Impact
of proposed
TENT FLAMMABILITY
regulations



Consommation
et Corporations
Canada

Consumer and
Corporate Affairs
Canada

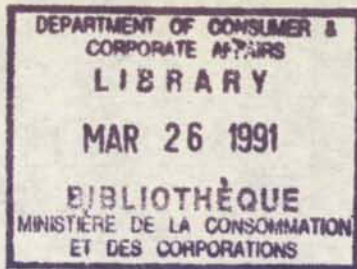
Bureau de la
coordination
des politiques

Bureau
of Policy
Coordination

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October, 1985

Plan for an analysis of the
Socio-Economic Impact
of proposed
TENT FLAMMABILITY
regulations

CCAC

Program Evaluation Division
Audit, Evaluation and Control Branch
Bureau of Policy Coordination

EXECUTIVE SUMMARY

Purpose: As directed by the Minister, July 26, 1985, this report presents a plan and terms of reference for an analysis of the socio-economic impact of proposed tent flammability regulations. In accordance with Treasury Board directives, such a study must be undertaken for new or modified regulations of the type envisaged for tent flammability.

Approval Required: The Deputy Minister's approval of the plan and terms of reference are required for the study to proceed (see Annex A).

Scope: In accordance with the established policies, it will first be determined whether the proposed regulation is "major" or "minor" according to Treasury Board criteria. If the regulation is classed as "major," it is proposed that the study address the anticipated impacts, benefits and costs of the draft proposal (dated September 13, 1985) and a number of potentially viable alternative responses to the flammability hazard presented by tents.

Issues: There are three main issues which will be addressed in the study:

a) benefits

To what extent will the regulatory proposal reduce injuries and deaths due to tent fires? How does this compare with other alternatives?

b) price impact

How will the regulatory proposal affect consumer prices for tents? How do the alternatives compare in this respect?

c) other impacts

How will the regulatory proposal affect output, employment and other aspects of the Canadian tent industry? How do the alternatives compare in these respects?

Phased Approach: To expedite completion of the work in the most cost-effective manner, the work will be divided into two phases as follows:

- o first, in Phase I, estimates of direct and indirect social costs of the regulatory proposal together with an analysis of non-allocative impacts will be undertaken to determine whether the regulation is major or minor for purposes of the SEIA policy; if the regulation is minor, the screening document and limited background analysis will be completed;

- o second, if the regulation is major, Phase II will proceed and a full impact analysis will be prepared based, to the maximum possible extent, on existing data with additional data collection only where necessary.

Study Modules: The following modules will be undertaken in a phased manner as required.

- o Preliminary Analysis

- This module will include analysis of existing data together with limited additional data collection to produce the Phase I report

- o Consumer Issues

- This module will include interviews with Consumers, Consumer Associations and Camping Associations together with a survey of recent tent purchasers and design and testing of alternative label designs

- o Industry Views

- This module will include consultations with Fabric Manufacturers, Proofers, Tent Manufacturers, Importers and Retailers

- o Expert Opinion and Foreign Comparisons

- Physicians, Scientists, Fire Marshalls, Safety Associations, Government Officials as well as American Industry Officials and State and Federal American Government Officials will provide input to the study through this module

- o Analysis

- Cost effectiveness or cost benefit analysis of various options will be assessed here together with analysis of non-allocative effects

- o Outside Experts

- As required, outside experts will be used to provide critical examination of module reports plus additional advice

o Report Writing

- This module will comprise the preparation of a draft Socio-economic Impact Analysis.

Review by Treasury Board Secretariat: The plan and proposed Terms of Reference have been reviewed by officials at TBS and are in accordance with all TB policies and directives established for the conduct of these studies.

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PLAN FOR AN ANALYSIS OF THE
SOCIO-ECONOMIC IMPACT ANALYSIS OF PROPOSED
TENT FLAMMABILITY REGULATIONS

1. Purpose of this Report

The purpose of this report is to present a plan for the preparation of a Socio-economic Impact Analysis (SEIA) of proposed tent flammability regulations.

Subsequent sections of the report provide background on the proposed regulations, list the alternatives to be examined in the proposed study, describe the issues which will be analyzed and present study modules, options, costs and timeframe.

2. Approval Required

The Deputy Minister's approval of the plan and terms of reference are required for the study to proceed.

3. Background

3.1 Problem Identified

Although statistics on tent fires are incomplete, available Canadian information indicates there were 151 reported fires in non-military tents in the twelve-year period 1972-83. These fires resulted in 32 deaths and 40 persons injured. The main causes or ignition sources of tent fires were: open flame (match, lamp, candle), heating equipment, outside sources such as campfires, cooking equipment, electrical equipment and smoker's materials.

Following study of the tent flammability hazard, the Product Safety Branch of CCAC broached the issue of federal regulation of tent flammability at a meeting held with industry and other interested parties in 1977. CCAC subsequently undertook a number of preliminary steps including an investigation of test methods and the collection of statistics on tent fires.

3.2 Proposal Introduced

At a meeting held in October 1983, it was announced that the Department intended to recommend to the Minister the introduction of regulation. Some members of industry raised objections to this proposal. Further meetings were held in February and July of 1984.

In June 1984, the then Minister of Consumer and Corporate Affairs announced that she wished to introduce a regulation calling for a coordinated two-phase approach to include:

- o a mandatory warning label to be affixed to all tents sold in 1985
- o all tents marketed in 1986 to be flame retardant.

These regulations have not yet been introduced and the dates have been changed for the draft proposal to be studied.

The draft proposal, dated September 13, 1985, is included as Annex B.

3.3 Technical Study

In November 1984, a technical study was completed for the Department by ADGA Systems International Limited titled The Regulation of Flame-Resistance of Tentage.

3.4 Industry Reaction

At a meeting held in February 1985 to discuss the ADGA report, industry spokesmen stated that regulation of tents in the manner proposed would destroy the Canadian tent manufacturing industry. They indicated that their survival to date was based on the use of a low quality cotton fabric and finish which combined with current tariff protection makes their tents marginally less costly than imports. They further stated that any change in the quality of fabric, finish or level of tariff protection would drive them out of business. These comments were repeated at a further meeting in June 1985.

At the June meeting some manufacturers stated that while many aspects of the proposed regulation were practical and could be implemented, some aspects were not practical and there was high uncertainty as to whether they could be implemented for all types of tents in the specified timeframe.

4. Proposed Study

The overall objective of the work is to prepare a SEIA for tent flammability. In general, the SEIA will address the expected impacts, benefits and costs of the draft regulatory proposal and of possible alternative

responses to the tent flammability hazard. These alternatives attempt to address the comments received from industry representatives and matters raised in earlier studies. They include:

- 4.1 Maintain the status quo
- 4.2 Label(s) on all tents
- 4.3 Warning label plus all tents to meet CPAI-84 flammability standard. (This is the draft proposal.)
- 4.4 Other potentially viable alternatives advanced by interested parties.

5. Issues

The study will address three main issues.

5.1 Benefits

Tent fires can result in serious injuries or death to the occupants. Burns are the prime source of concern, but excessive exposure to heat as well as high levels of carbon monoxide, carbon dioxide and nitrogen oxides in tent fire situations could also cause injury. A key concern of this study is the potential benefits of the proposed regulation and of alternatives in terms of the impact on the number of deaths and injuries. The key questions are:

- o to what extent will the regulatory proposal reduce injuries and deaths due to tent fires?
- o how does this compare with other alternatives?

5.2 Price Impact

At the present time family camping tents are made from relatively low grade cotton fabrics which are subjected to a relatively inexpensive finish. These factors have kept the price of family camping tents relatively stable over recent years. However, there are some indications that meeting the proposed standard could require the use of significantly more expensive base fabrics and treatment. The key questions are:

- o how will the regulatory proposal affect consumer prices for tents?
- o how do the alternatives compare in this respect?

5.3 Other Impacts

It was noted above that industry spokesmen have indicated that their survival to date has been based on the use of a low quality cotton fabric and finish which combined with current tariff protection has made their tents marginally less costly than imports. They have further stated that any changes in the quality of fabric, finish or level of tariff protection would drive them out of business. The key questions are:

- o how will the regulatory proposal affect output, employment and other aspects of the Canadian tent industry?
- o how do the alternatives compare in these respects?

6. Approach, Evaluation Modules and Workplan

To expedite completion of the work in the most cost-effective manner, the work will be divided into two phases as follows:

- o first, in Phase I, estimates of direct and indirect social costs of the regulatory proposals together with an analysis of non-allocative impacts will be undertaken to determine whether the regulation is major or minor for purposes of the SEIA policy, if the regulation is minor, the screening document will be completed;
- o second, in Phase II, if the regulation is major, a full impact analysis will be prepared based, to the maximum possible extent, on existing data with additional data collection only where necessary.

The following modules will be undertaken in a phased manner:

- o Preliminary Analysis
 - This module will include analysis of existing data together with limited additional data collection to produce the Phase I report
- o Consumer Issues
 - This module will include interviews with Consumers, Consumer Associations and Camping Associations together with a survey of recent tent purchasers and design and testing of alternative label designs

- o Industry Views
 - This module will include consultations with Fabric Manufacturers, Proofers, Tent Manufacturers, Importers and Retailers
- o Expert Opinion and Foreign Comparisons
 - Physicians, Scientists, Fire Marshalls, Safety Associations, Government Officials as well as American Industry Officials and State and Federal American Government Officials will provide input to the study through this module
- o Coordination and Analysis
 - Cost-effectiveness or cost-benefit analysis of various options will be assessed here
- o Report Writing
 - This module will comprise the preparation of a draft socio-economic impact analysis
- o Outside Experts
 - As required, experts will be used to provide critical examination of module reports plus additional advice.

Since each of these modules has strengths and weaknesses, it is not expected that any single data source or analytic method could provide a complete perspective on the anticipated impact of the regulation or the alternatives. The relatively soft nature of the data base, the short timeframe for the modules and the reliance to a large extent on individuals' perceptions as a major source of information suggested a design incorporating multiple lines of evidence. No one module is expected to resolve all the issues with an acceptable level of certainty.

In this study, the different modules differ in methods of data collection and analysis. However, the combination of study modules, taken together, will allow for validation and cross-checking of findings. An Advisory Committee is being created for this study to provide an additional mechanism to review the work of each module. The Advisory Committee will be made up of program management and other interested parties. A detailed workplan, explaining the tasks that will be undertaken for this study is included in Annex C. In general, the Phase II work will rely heavily on the analysis of existing secondary data, interviews and surveys of industry and consumers as well as expert opinion.

Each module will produce evidence and analysis on a number of tasks. The proposed coverage of tasks for each module is shown in Exhibit I.

7. Options and Recommendation

Phase I is straight forward and is essential to comply with Treasury Board policies. Phase I could be completed for under \$50K. For Phase II, if required, three options have been developed. The options differ in the range of alternatives covered and the quality and depth of data collected and analysis undertaken. These factors, in turn, affect the costs of each option. The costs and main features of the options are indicated in Exhibit 2.

Option 1 is to undertake, in Phase II, an assessment which focusses exclusively on the draft proposal. The study would examine the costs, benefits and impacts of the draft regulatory proposal. Data would be collected from an appropriate range of sources and results produced would have an adequate degree of credibility. The principal drawback of this approach is that it would leave the Minister open to the charge that he had not listened to industry views and proposals or seriously considered alternatives in coming to a decision. In addition, this option would not totally comply with the SEIA policy as it would not assess a range of alternatives to the draft proposal. This option would cost \$120,000 and require 100 person-days of evaluation staff time (estimate includes resources used to complete Phase I).

Option 2 is to undertake, in Phase II, an assessment of the draft proposal and key alternatives. The costs, benefits and impacts of the draft proposal and the identified alternatives would be subjected to an equally rigorous analysis. Data would be collected from an appropriate range of sources and results produced would have an adequate degree of credibility. This option would fully meet the requirements of the SEIA policy and allow interested parties to have a opportunity to present and defend alternatives to the draft proposal. The Minister could weigh the arguments and decide on a course of action having considered with care the various competing arguments and alternatives. This option would cost a maximum of \$200,000 (including the resources used to complete Phase I) and require 160 person-days of evaluation staff time. These contract funds are available in the budget of the Bureau of Policy Coordination.

EXHIBIT 1

Evaluation Task Coverage by Module

<u>Evaluation Tasks</u>	<u>Preliminary Analysis Phase I</u>	<u>Consumer Issues</u>	<u>Industry Views</u>	<u>Expert Opinion & Foreign Companies</u>	<u>Coordination & Analysis</u>	<u>Report Writing</u>	<u>Outside Experts</u>
1. Determine whether a major or minor SEIA is necessary (preliminary estimates of impacts)	X						
2. Determine the background of the product and the industry			X	X			
3. Review and assess the flammability risk due to tents		X	X	X			
4. Determine the importance of product attributes in tent purchase decisions		X	X	X			
5. Develop prototypes and determine effectiveness and benefits of labels		X	X	X			
6. Estimate the cost to industry of labelling		X	X	X			
7. Determine the impact of more stringent regulations on industry			X	X			
8. Estimate the cost to industry of more stringent regulations			X	X			
9. Determine the impact on consumers of more stringent regulations		X	X	X			
10. Estimate the cost to consumers of more stringent regulations		X	X	X			
11. Estimate the benefits of more stringent regulations		X	X	X			
12. Estimate the costs of enforcement				X			
13. Undertake cost effectiveness or cost benefit analysis					X		
14. Undertake analysis of non-allocative effects					X		
15. Examine other significant information or proposals that may arise during the study		X	X	X	X		
16. Prepare draft SEIA						X	
17. Review draft reports							X

Option 3 is to increase the sample sizes in the various modules to achieve a higher level of confidence that the data being collected is both reliable and valid. In addition, it would be useful to supplement the modules planned in Option 2 with an in depth survey. This survey would be used to provide additional detailed information on consumer issues and behavior and to provide additional evidence on the incidence, circumstances and impact of tent fires. Compared to Option 2, this option would provide higher degrees of reliability and credibility. This option would cost \$375,000 (includes resources utilized in Phase I) and require 180 person days of evaluation staff time. In view of the large potential impact of the proposed regulation, and industry's contention that hundreds of jobs could be lost in tent manufacturing and related industries, this level of cost could be justified.

However, the additional \$175K of funds are not available in the Bureau of Policy Coordination and would have to be reallocated from elsewhere in the Department. Furthermore, it is questionable as to whether this size of additional expenditure is necessary given that Option 2 will still provide an adequate analysis, of sufficient reliability for decision-making.

Recommendation: In terms of information required for management decision making and the anticipated usefulness and value of anticipated findings compared with costs, if Phase II is required, Option 2 is recommended.

8. Cost

The recommended option would require maximum estimated resources for the study of 160 person-days of evaluation staff time (100 p-d in 1985/86 and 60 p-d 1986/87) and \$200,000 (\$140,000 in 1985/86 and \$60,000 in 1986/87) for consultant fees, consumer research, data processing and travel. If screening documents only are required, costs could be \$50,000 or less. Resource requirements by evaluation module are shown in Exhibit 3.

EXHIBIT 2

Phase II Options/Main Features and Costs

<u>Option</u>	<u>Cost</u>	<u>Main Features</u>
Option 1 Assessment of Draft Proposal Only	100 p-d \$120 K (includes resources used for Phase I)	<ul style="list-style-type: none">- Focus is on costs, benefits and impacts of draft proposal for:<ul style="list-style-type: none">o labellingo flammability standard for tents- Provides management with information needed to justify the proposal but involves significant political risk. The department would be open to the criticism that alternatives to the proposal were overlooked or not seriously considered- Within single proposal examined, this option would provide results with adequate degree of credibility- Main drawback is that benefits, costs and impacts of other possible options would not be examined so that information available for decision making would be limited- Study would not meet requirements of SEIA policy for analysis of range of alternatives.

<u>Option</u>	<u>Cost</u>	<u>Main Features</u>
Option 2 Assessment of Draft Proposal and Alter- natives/Phased Approach	160 p-d \$200K (includes Phase I resources)	<ul style="list-style-type: none">- Initial analysis would determine whether the regulation was major or minor. If the regulation is minor, a screening document would be prepared at cost not exceeding \$50,000- If full SEIA is required, focus would be on costs, benefits and impacts of draft proposal and alternative responses to the tent flammability hazard- Provides management with information needed to assess the relative advantages and disadvantages of draft proposal and of plausible alternative courses of action that have been advanced by industry- Would provide results with an adequate degree of credibility for alternatives included- Groups potentially affected by draft proposal would have full opportunity to present and defend their alternative proposals- SEIA policy requirements met in full- Decisions made based on careful consultations- Provides evidence that suggestions received careful consideration.

<u>Option</u>	<u>Cost</u>	<u>Main Features</u>
Option 3 Enhanced Assessment of Draft Proposal and Alternatives	180 p-d \$375K (includes Phase I resources)	<ul style="list-style-type: none">- Focus as for Option 2- Analysis of consumer issues and behavior would receive enhanced treatment through an extensive survey- Analysis of incidence, circumstances, and impact of tent fires have higher reliability- Credibility of findings improved compared to Options 1 and 2- Timeframe for project may have to be extended by several months- Study would fully meet requirements of SEIA policy.

9. Timing

The study modules will be closely coordinated with progress reports provided on a regular basis to the Advisory Committee. Depending on the availability of existing data, the Phase I report (and required screening documents if applicable) could be completed in as little as two to three months after approval is received to undertake the work. Additional time may be needed if there are significant gaps in the information available. If a full SEIA is required, the SEIA will be presented to the Deputy Minister by June 1986.

EXHIBIT 3

Maximum Resource Requirements for Recommended Phase II Option

Module	Estimated Person-Days Required		Travel, Accommodation, Mail, Telephone, Data Processing	Total Cost*
	In-house	Consultant		
1. Preliminary Analysis (Phase I)	30 p-d	46 p-d or \$23K	\$2K	30 p-d, \$25K
2. Consumer Issues	20 p-d	70 p-d or \$35K	\$5K	20 p-d, \$40K
3. Industry Views	20 p-d	50 p-d or \$25K	\$5K	20 p-d, \$30K
4. Expert Opinion and Foreign Comparisons	20 p-d	50 p-d or \$25K	\$5K	20 p-d, \$30K
5. Coordination and Analysis	30 p-d	50 p-d or \$25K	\$6K	30 p-d, \$31K
6. Report Writing	30 p-d	45 p-d or \$22.5K	\$6K	30 p-d, \$28.5K
7. Outside Experts	10 p-d	25 p-d or \$12.5K	\$3K	10 p-d, \$15.5K
Total Cost*	150 p-d	\$168K	\$32K	160 p-d, \$200K

* Total cost is broken down into in-house person-days and all other costs. The costs shown are maximums and could well be less if preliminary analysis indicates that only a screening document is required or if Product Safety files contain enough information so that these data collection exercises could be reduced in scope.

ANNEX A

Terms of Reference
Socio-Economic Impact Analysis (SEIA)
Tent Flammability

1. Subject: The study will examine the draft proposals for the regulation of tent flammability together with a range of alternative proposals.
2. Purpose and Scope: The purpose of the study is to:
 - o determine whether a screening document or a full SEIA is necessary;
 - o prepare the screening document or full SEIA as appropriate.

A screening document would provide an analysis of the expected social costs and the non-allocative effects of the regulation. A SEIA would examine the expected impacts, benefits and costs of the draft proposal and of possible alternative responses to the tent flammability hazard.

3. Approach: In order to complete the study in an expeditious manner and to minimize costs, a phased approach will be used. In Phase I, information from a file review together with a limited number of interviews will be used to determine whether the regulation is major or minor. A screening document will be prepared if the regulation is a minor. In Phase II a full SEIA will be prepared if the SEIA is major.
4. Issues: The issues for this study are:
 - a) benefits
To what extent will the regulatory proposal reduce injuries and deaths due to tent fires? How does this compare with other alternatives?
 - b) price impact
How will the regulatory proposal affect consumer prices for tents? How do the alternatives compare in this respect?
 - c) other impacts
How will the regulatory proposal affect output, employment and other aspects of the Canadian tent industry? How do the alternatives compare in these respects?

5. Methodologies: The following methodologies will be used: literature review, file review, consumer analysis, consultations, expert opinion, foreign comparisons and quantitative analysis.
6. Briefing: The Deputy Minister is to be briefed and consulted as appropriate during the study and when the screening document or SEIA is completed.
7. Advisory Committee: An Advisory Committee will be established to assist the study team in carrying out the study and, to facilitate participation, will hold meetings in Toronto and Ottawa for this study. The Committee will include representation from industry, consumer groups, the Product Safety Branch, the Treasury Board and any other department or agency as deemed appropriate by the chairperson. The Director, Audit, Evaluation and Control Branch will act as the chairperson of the Advisory Committee.
8. Access: The study team is to have access to documents and personnel of Consumer and Corporate Affairs Canada as deemed necessary to carry out the work. The study team shall attempt to gather information from all relevant sources, including but not limited to: private and public firms and businesses; associations; consumer groups; the general public; federal and provincial officials; and representatives of foreign governments.
9. Timeframe: The Phase I work will be initiated immediately after approval is received to undertake the work. If a full SEIA is required, the SEIA would be presented to the Deputy Minister by June 1986.

Deputy Minister
Consumer and Corporate Affairs Canada

REGULATIONS RESPECTING THE ADVERTISING, SALE
AND IMPORTATION OF TENTS

Short Title

1. These Regulations may be cited as the Hazardous Products (Tents) Regulations.

Interpretation

2.(1) In these Regulations:

"afterflame time" means the length of time for which a material tested in accordance with the procedure in section 7 of CPAI-84 continues to flame after the ignition source has been removed; (durée de combustion résiduelle)

"CPAI-84" means A Specification for Flame Resistant Materials used in Camping Tentage, being specification CPAI-84, 1980 established by the Industrial Fabrics Association International (formerly the Canvas Products Association International) originally published in 1972, as amended in 1980; (norme CPAI-84)

"flooring material", with respect to a product, means the fabric or other pliable material that constitutes the floor of the product; (materiau de sol)

"product" means a product set out in item 31 of Part II of the schedule to the Hazardous Products Act; (produit)

"sample unit" means,

(a) in respect of flooring material of a product, four individual specimens of the flooring material and where the flooring material is woven material, four individual specimens of the flooring material with no two specimens containing the same warp or fill yarns or filaments, and

(b) in respect of wall and top material of a product, eight individual specimens and where the wall and top material is woven material, four individual specimens taken from the warp and four taken from weft direction of the material. No two warp specimens of wall and top material shall contain the same warp yarns or filaments and no two weft specimens of wall and top material shall contain the same weft yarns or filaments; (unité d'échantillonnage)

"wall and top material", with respect to a product means the fabric or other pliable material that constitutes a wall, roof, top, door, window, screen or awning of the product; (materiau pour toits et murs)

General

3. For the purposes of subsection 3(2) of the Hazardous Products Act, a person may advertise, sell or import a product into Canada on or after (effective date).

(a) but not after October 31, 1988, if the product meets the information requirements set out in sections 5 and 6; or

(b) if the product meets the information requirements and the flammability performance requirements set out in sections 7 to 9.

4. Where, pursuant to sections 5, 6 or 7, information is required to be displayed, it shall be displayed in both official languages.

Information Requirments for Non-Flame Retardant Tents

5. A product shall have a label which is permanently affixed at a prominent location on the product and which displays in a clear and legible manner

(a) the following words in upper case letters not less than three millimetres in height:

- (i) "WARNING/MISE EN GARDE"
- (ii) "WARNING/AVERTISSEMENT", or
- (iii) "WARNING/ATTENTION"; and

(b) the following information or information to the same effect:

"Tent will ignite and may burn when exposed to open flames or other ignition sources./La tent peut s'enflammer et brûler si elle est exposée à une flamme nue ou à d'autres sources d'inflammation".

6. Included with a product shall be a set of written safety precautions containing the information set out in Schedule I, or information to the same effect.

Information Requirements for Flame Retardant Tents

7. (1) A product shall have a label which is permanently affixed at a prominent location on the product and which displays in a clear and legible manner

(a) the following statement in upper case letters not less than three millimetres in height:

"WARNING: KEEP ALL FLAME AND HEAT SOURCES AWAY FROM THIS TENT FABRIC/
MISE EN GARDE TENIR LE TISSU DE CETTE TENTE LOIN DE TOUTE FLAMME ET DE TOUTE SOURCE DE CHALEUR";

(b) the following information:

"This tent is made with flame resistant fabric. It is not "fireproof". The fabric will burn if left in continuous contact with any flame source./Cette tente est fabriquée d'un tissu résistant au feu, mais qui n'est pas ignifuge. Ce tissu brûlera s'il est laissé en contact continu avec une source d'inflammation."; and

(c) the information specified in Schedule I or information to the same effect.

Performance Requirements for Flame Retardant Tents

8. When prepared and tested in accordance with the procedures set out in Schedule II, no individual specimen of a sample unit of flooring material of a product shall be damaged within 2.5 centimetres of the edge of the hole in the flattening frame.

9. When prepared and tested in accordance with the procedures set out in Schedule II,

(a) no individual specimen of wall and top material of a product shall have an afterflame time of more than 4.0 seconds and the average afterflame time for all specimens shall not exceed 2.0 seconds;

(b) the maximum average damaged length of specimens in a sample unit of wall and top material of a product and the maximum damaged length of an individual specimen of wall and top material of a product shall be as follows:

Area Density of Specimen Being Tested g/m ²	Maximum Average Damaged Length for Sample Unit cm	Maximum Damaged Length for an Individual Specimen cm
greater than 340	11.5	25.5
271 to 340	14.0	25.5
201 to 270	16.5	25.5
136 to 200	19.0	25.5
51 to 135	21.5	25.5
less than 51	23.0	25.5

(c) no individual specimen of wall and top material of a product shall have portions or residues that break or drip from the specimen and continue to flame after they reach the floor of the test cabinet.

SCHEDULE I

ANNEXE I

The following precautions should be followed when camping:

- . Never use candles, matches or open flames of any kind in or near a tent.
- . Cooking inside the tent is dangerous.
- . Build campfires downwind and several meters away from the tent. Always be sure to fully extinguish camp fires before leaving camp or before retiring for the night.
- . Practice extreme caution when using fuel-powered lanterns and heaters inside the tent. Use battery-operated equipment whenever possible.
- . Never refuel lamps, heaters or stoves inside the tent.
- . Extinguish or turn off all lanterns before going to sleep.
- . Avoid smoking in the tent.
- . Never store flammable liquids inside the tent.

Les précautions suivantes doivent être adoptées en camping:

- . Ne jamais utiliser de bougies, d'allumettes, ni aucune autre flamme nue à l'intérieur ou à proximité de la tente.
- . Éviter de faire de la cuisson à l'intérieur de la tente.
- . Faire les feux de camp sous le vent et à plusieurs mètres de la tente; s'assurer de toujours bien éteindre les feux de camp avant de quitter le terrain ou de se coucher.
- . Être extrêmement prudent lorsque des lanternes ou des appareils de chauffage sont utilisés sous la tente et se servir autant que possible d'appareils fonctionnant à piles.
- . Ne jamais remplir le réservoir des lampes, des appareils de chauffage ou des poêles à l'intérieur de la tente.
- . Éteindre toutes les lanternes avant de se coucher.
- . Éviter de fumer à l'intérieur de la tente.
- . Ne jamais ranger des liquides inflammables à l'intérieur de la tente.

Schedule II

Conditioning and Testing Procedures

(1) Cut 12 individual specimens from the flooring material of the product to be tested. The individual specimens shall meet the requirements for test specimens set out in subsection 6.1 of CPAI-84. Divide the individual specimens into 3 sample units. Prepare one sample unit according to the leaching requirements specified in subsections 5.2.2 and 5.2.3 of CPAI-84. Prepare a second sample unit according to the accelerated weathering requirements specified in subsections 5.3.2 and 5.3.3 of CPAI-84. Condition all three sample units in accordance with the procedures set out in sections 5.1.1 and 5.1.2 of CPAI-84.

(2) Cut 24 individual specimens from the wall and top material of the product to be tested. Determine the area density of the specimens to be tested to the nearest g/m^2 . The individual specimens shall meet the requirements for test specimens set out in subsection 7.1 of CPAI-84. Divide the individual test specimens into three sample units. Prepare one sample unit according to the leaching requirements specified in subsection 5.2.2 and 5.2.3 of CPAI-84. Prepare a second sample unit according to the accelerated weathering requirements specified in subsections 5.3.2 and 5.3.3 of CPAI-84. Condition all three sample units in accordance with the procedures set out in sections 5.1.1 and 5.1.2 of CPAI-84.

(3) Flame tests shall be performed under or upon immediate removal from the standard atmosphere conditions specified in subsection 5.1.1 of CPAI-84 and on specimens in moisture equilibrium, at standard atmosphere conditions, as specified in subsection 5.1.2 of CPAI-84.

(4) The sample units of flooring material prepared in accordance with section (1) shall be tested according to the procedures set out in section 6 of CPAI-84.

(5) The sample units of wall and top material prepared in accordance with section (2) shall be tested according to the procedures set out in section 7 of CPAI-84 except that, with respect to subsection 7.3.6.1, the loads for determining damaged length shall be as follows:

Area Density of Specimen Being Tested <u>g/m^2</u>	Total Tear Weight for Determining the Damaged Length <u>g</u>
100 or less	50
101 to 200	100
201 to 340	200
greater than 340	300

ANNEX C

1 Workplan

The study will undertake the following tasks in a phased manner as required in order to address the issues. Not all tasks will necessarily be undertaken. This depends on the results of the Phase I work and the information already available in program files.

- 1.1 Document the background of the product and the industry including:
 - 1.1.1 Description of main products
 - 1.1.2 Description of present technology
 - 1.1.3 Recent trends in output, exports, imports and apparent consumption
 - 1.1.4 Recent trends in employment
- 1.2 Review and assess the flammability risk due to tents including:
 - 1.2.1 Number of tent fires per 1000 camping nights by type of tent
 - 1.2.2 Number and severity of injuries per 1000 camping nights by type of tent and age/sex of victim
 - 1.2.3 Number of deaths per 1000 camping nights by type of tent and age/sex of victim
 - 1.2.4 Comparison of 1.2.1-.4 with US as control group
- 1.3 Determine the importance of various product attributes in tent purchasing decisions including:
 - 1.3.1 Ranking of product attributes in order of importance
 - 1.3.2 Willingness to pay to reduce risk
 - 1.3.3 Consumers' perception of nature/extent of current risk
 - 1.3.4 Price elasticity of demand

- 1.4 Develop prototypes of labels and determine effectiveness and benefits of labels including:
 - 1.4.1 Design of single warning label to be applied to all tents
 - 1.4.2 Design of dual label system (one for fire resistant tents, one for non-fire resistant tents)
 - 1.4.3 Consumer understanding of labels
 - 1.4.4 Consumer use of labelling information
- 1.5 Estimate the cost to industry of labelling including:
 - 1.5.1 Testing costs
 - 1.5.2 Costs of labelling existing stock
 - 1.5.3 Costs of labelling new tents
 - 1.5.4 Any other costs
- 1.6 Determine the impact of more stringent regulations on industry (all segments including fabric manufacturers, proofers, tent manufacturers, importers, retailers) including:
 - 1.6.1 Structure of the industry, key materials suppliers to industry (ancillary industries such as tubing, plastic parts, flooring)
 - 1.6.2 Existing production methods and facilities
 - 1.6.3 Availability and source of fabrics presently used and fabrics meeting increased flammability regulations
 - 1.6.4 Domestic versus foreign share of Canadian market
 - 1.6.5 Potential for exports of Canadian tents
 - 1.6.6 Employment (direct and indirect, multiplier effects if justified)
 - 1.6.7 Health and safety hazards associated with processing fire resistant materials
 - 1.6.8 Alternative implementation dates

- 1.7 Estimate the cost to industry of more stringent regulations including:
 - 1.7.1 Capital costs to alter existing production facilities
 - 1.7.2 Processing costs
 - 1.7.3 Costs of fibres and fabrics
 - 1.7.4 Cost of testing to ensure compliance with regulations
 - 1.7.5 Any other costs
- 1.8 Determine the impact on consumers of more stringent regulations including:
 - 1.8.1 Durability of tents
 - 1.8.2 Product choice
 - 1.8.3 Any other impacts
- 1.9 Estimate the cost to consumers of more stringent regulations including:
 - 1.9.1 Costs due to changes in present models of tents
 - 1.9.2 Reduction in consumer surplus
 - 1.9.3 Any other costs
- 1.10 Estimate the benefits of more stringent regulations including:
 - 1.10.1 Reduction in number of tent fires and associated losses of property per 1000 camping nights
 - 1.10.2 Reduction in number and severity of injuries per 1000 camping nights
 - 1.10.3 Reduction in number of deaths per 1000 camping nights
 - 1.10.4 Reduction in burn treatment and rehabilitation costs per 1000 camping nights
 - 1.10.5 Reduction in costs due to lost employment per 1000 camping nights
 - 1.10.6 Any other benefits

- 1.11 Estimate the costs of enforcement including:
 - 1.11.1 Costs of inspections, testing and related activities
 - 1.11.2 Costs of information programs
 - 1.11.3 Any other enforcement costs
- 1.12 Undertake cost effectiveness or cost benefit analyses including:
 - 1.12.1 Discounted present value(s) of total costs and benefits
 - 1.12.2 Net present values, cost benefit ratios or cost effectiveness ratios
 - 1.12.3 Sensitivity analyses
- 1.13 Undertake analysis of non-allocative effects including:
 - 1.13.1 Market structure and competition
 - 1.13.2 Technological progress
 - 1.13.3 Output and employment
- 1.14 Examine other significant information on proposals that may arise during the study
- 1.15 Prepare draft report.

2. Study Modules

The basic approach to be utilized in this study is that of multiple lines of evidence using independent teams in several study modules. These study modules include:

2.1 Preliminary Analysis (Phase I)

This is Phase I of the planned work. Information on costs and non-allocative impacts will be gathered through:

- o review of relevant program files, submissions to the Department and other relevant documents; and
- o limited number of face-to-face interviews.

The results of this module will affect the tasks to be undertaken in all the other modules.

2.2 Consumer Issues

Information will be gathered on consumer views, perceptions and behaviour through:

- o review of relevant program files (the results of this task will impact on all other tasks within this module);
- o face-to-face interviews with representatives of consumer groups and camping and related organizations;
- o survey of recent purchasers of tents; and
- o review of submissions to the Department and other relevant documents.

This module will also include:

- o design of a warning label and of a label indicating whether or not a rigorous flammability standard is met.

2.3 Industry Views

Information will be gathered on industry views through:

- o review of relevant program files (the results of this task will impact on all other tasks within this module);

- o face-to-face interviews with fabric manufacturers, proofers, tent manufacturers, importers and retailers;
- o study of cost information to be collected through industry associations and other sources; and
- o review of submissions to the Department and other relevant documents.

2.4 Expert Opinion and Foreign Comparisons

Information on expert opinions and foreign comparisons will be gathered through:

- o face-to-face and telephone interviews with physicians, scientists, fire marshalls, safety associations and government officials;
- o face-to-face interviews with American industry officials and state and federal American government officials; and
- o review of relevant academic and non-academic literature.

2.5 Coordination and Analysis

The cost effectiveness or cost benefit analysis will be based on:

- o information contained in the Consumer Issues, Industry Views and Expert Opinion and Foreign Comparisons modules;
- o review of relevant academic and non-academic literature; and
- o review of relevant statistical sources.

The analysis of non-allocative impacts will use similar sources.

The consultant will also be responsible for providing additional advice and assistance to the study director as required.

2.6 Report Writing

Prepare preliminary report on labelling and related issues.

The draft SEIA report will be based on information provided through the Consumer Issues, Industry Views, Expert Opinion and Foreign Comparisons and Coordination and Analysis modules and will follow the usual format. The consultant will be responsible for arranging an appropriate meeting room for the planned meetings of the Advisory Committee in Toronto.

2.7 Outside Experts

The outside experts will:

- o critically examine the draft and final reports produced by the other evaluation modules, attend meetings and present his/her views in verbal and written form; and
- o provide other advice as required

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