REPORT ON AN INQUIRY RESPECTING FAMILY-SIZE RECREATIONAL CAMPING TENTS

Canada

Government of Canada
Textile and Clothing Board

Gouvernement du Canada
Commission du textile et du vêtement

Government of Canada | Gouvernement du Canada

Textile and Clothing Board | Commission du textile et du vêtement

Ottawa, Canada
K1A 0H5

(613) 954-2771

January 29, 1988

The Honourable Robert R. de Cotret, P.C., M.P.
Minister of Regional Industrial Expansion
Ottawa, Ontario
K1A OH5

Mr. Minister,

In conformity with the mandate which you gave to the Board in October 1987, the Board has carried out an inquiry on the competitive situation of the Canadian family-size recreational tent manufacturing industry.

We have the honour to present to you the report of this inquiry. It contains a review of the situation of the Canadian tent industry in view of the new regulations on flame resistance for tents and of the problems associated with the procurement of fabrics for the manufacture of flame resistant tents. It also contains conclusions and recommendations which the Board trusts will be helpful in determining a future course of action for the Canadian tent industry.

The Board will be pleased to supply you, at your convenience, with any additional explanation or information you may wish.

Yours sincerely,

Otto E. Thur
Chairman

William L. Hawkins
Member

Jacques St. Laurent
Member

Canada

TEXTILE AND CLOTHING BOARD

REPORT ON AN INQUIRY
RESPECTING
FAMILY-SIZE RECREATIONAL CAMPING TENTS

Ottawa, Canada

January 29, 1988

Cat. No. Id46-4/1988
ISBN 0-662-55813-8

TABLE OF CONTENTS

I. MANDATE AND PROCEDURES FOLLOWED

On October 6, 1987, in a letter to the Textile and Clothing Board (Appendix 1) the Minister of Regional Industrial Expansion outlined the issues concerning the domestic tent industry in connection with implementation of flame retardancy (F.R.) regulations for tents (Appendix 2). In view of the fact that the issues were of particular importance for family-size recreational camping tents (tents having a minimum floor area of 6.5 square metres) the Minister requested the Board to undertake an inquiry under Section 20 of the Textile and Clothing Board Act, to:

"(1) determine the extent to which the proposed CCAC (FR) regulations are likely to affect the ability of Canadian tent producers to compete with low-cost imports of similar family-size recreational camping tents;

(2) in light of (1), determine the factors essential to maintain the international competitive position of Canadian tent producers in the Canadian market including unrestrained duty-free access to world priced tenting fabrics."

The Board announced on October 16, 1987, its inquiry on the market situation concerning family-size recreational camping tents and the fabrics used in the manufacture of those tents and made known its interest in obtaining information on the use of these same fabrics in the manufacture of other types of tents.

In the Notice of Inquiry (Appendix 3), published in the Canada Gazette of October 17, 1987, the Board invited all interested parties to submit their briefs by November 23, 1987.

The public hearings were held in Toronto on November 30, 1987 and in Montreal on December 2, 1987. Private hearings were also held in Toronto, Montreal, Winnipeg and Vancouver between November 30, 1987 and December 9, 1987 inclusive.

A total of thirteen briefs were received; eleven from fabric producers and tent manufacturers, importers and retailers, and two from organizations representing fabric producers and tent manufacturers (Appendix 4). Twelve of those parties who submitted briefs were heard by the Board as well as three other interested parties who had requested a hearing or were invited by the Board (Appendix 4). The Board had access to the results of research carried out by its staff (Appendix 5).

II. BACKGROUND

Canada has a long history of recreational and utility tent production. These tents were made of cotton fabrics because cotton was the only appropriate material then available for use in the manufacture of tents.

Over 90 per cent of Canadian production has been in family-size recreational camping tents (tents with a minimum floor area of 6.5 square metres). Their basic design has been the cabin tent. Production has been concentrated in three basic tent sizes. The fabric used has been a light, loose and low-cost cotton sheeting heavily coated with a wax emulsion to make it water resistant. It came in three colours.

Utility tents, representing approximately six per cent of the total tent production have been produced of higher quality, heavier cotton sheetings for year-round usage providing a high level of resistance to wear and tear. The demand for such tents has been mainly from institutional purchasers (government departments, utilities and telephone companies). Utility tents, including "prospector tents", have been produced by a small number of specialized domestic manufacturers. Import competition in the fabrics used for such tents has been insignificant.

In the late 70's and the early 80's smaller and lighter "back-pack" tents became popular. The fabric used in these light tents was nylon taffeta treated for water resistancy and latterly for flame retardancy. They originated mainly from Taiwan and South Korea. Canadian tent producers manufactured some of these tents in marginal quantities only.

1983 and 1984 were decisive years for the Canadian producers of family-size recreational tents. In 1983 and the first half of 1984 severe price pressures arose due to dumped imports from the German Democratic Republic, Czechoslovakia and the People's Republic of China. In 1983 and 1984 the sourcing of cotton sheeting for tents was switched completely from domestic producers to low-cost fabric imported from the People's Republic of China.

The dumping of tents from the German Democratic Republic and Czechoslovakia was stopped at the end of May, 1984 and those originating from the People's Republic of China at the end of October, 1984.

The change from domestic to foreign sourcing of low-cost cotton sheeting and the subsequent reduction of production of such sheeting by Canadian weavers caused the domestic tent manufacturers to encourage the government to admit duty-free imports of cotton, polyester and polyester/cotton fabrics for use in the manufacture of family-size recreational tents. Tent manufacturers also petitioned for duty-free importation of nylon fabrics for use in family-size recreational tents but this request was not granted since there was a domestic producer offering a nylon taffeta fabric which for all practical purposes was identical.

Having gained duty-free access to their traditional cotton fabric and having successfully fended off the threat of low-cost imports of ready-made cotton tents from the Eastern block and the People's Republic of China, Canadian manufacturers of family-size recreational tents continued to produce and market the same product in the same way. While flame retardancy was discussed with Consumer and Corporate Affairs Canada, mandatory regulations were still years away and did not appear to represent an immediate worry for the tent manufacturers.

While tents that were imported from Eastern Europe and the People's Republic of China were of the same general size and configuration as Canadian-made tents and were also made from cotton fabrics, tents that began to be imported from South Korea and Taiwan were dome-shaped, made from nylon fabrics and in many different colours and shades. In the beginning these Taiwanese and South Korean tents were smaller, (less than 6.5 square metres floor area), and served a market distinctly different from that served by Canadian tent manufacturers. Most of these nylon tents were made of flame retardant materials.

The many attractive features of these imported tents facilitated their rapid acceptance by consumers. These features included: vibrant colours; light weight; compactness; portability; ease of assembly; unique design; and various other features which differentiated these tents from the traditional Canadian cotton tent.

In the United States, standards governing the flame retardancy of materials used in the manufacture of tents were first enacted in May of 1972 in the State of Michigan. In the following five years, six other states also introduced mandatory flame retardancy. This action was to ultimately affect virtually all tents produced and imported into the United States. The test standards for flame retardancy in the United States are known as CPAI-84 (Appendix 6).

The introduction of these regulations resulted in a change in the kind of fabric used by American tent manufacturers. The difficulty, and the cost, of applying flame retardant chemicals to cotton fabrics, as well as the loss of tensile strength which resulted from such treatment, initially led American tent manufacturers to substitute polyester/cotton fabrics for the traditional cotton fabrics. The industry later moved more heavily into the use of polyester fabrics and, only more recently, into the heavy use of nylon fabrics.

Consumer and Corporate Affairs Canada consulted the domestic tent industry on the question of flame retardant tent fabrics as early as 1977. The issue lay dormant until 1983, when CCAC renewed its interest and reinstituted its consultations with the tent industry. In June 1984 the government announced its intention to develop flame retardancy regulations. Subsequently the government announced that it would be promulgating regulations to come into effect in November 1988 governing the flame retardancy of tents sold in Canada. American Standard CPAI-84 would be used as the basis for such regulations.

In the face of these regulations, all three major domestic tent manufacturers, representing for all practical purposes the entire Canadian production of family-size recreational tents, petitioned the government at the end of 1986 and on into 1987 for ex-quota and duty-free access to South Korean and Taiwanese flame retardant nylon tenting fabrics. They claimed that such relief was necessary if they were to remain viable and competitive in the Canadian tent market. Subsequently, Woods Canada Limited, the largest of the three manufacturers, disassociated itself from this action and concentrated its efforts on the development of an acceptable flame

retardant treatment for the cotton fabrics traditionally used in Canadian tent production.

The efforts of the remaining two tent manufacturers to obtain ex-quota and duty-free access to nylon fabrics were challenged by the Canadian Textiles Institute and by Consoltex Inc., the latter firm producing nylon tenting fabric which has met the standard for flame retardancy. Nevertheless, as a temporary measure, the Canadian government granted Ridgeline Products Inc., and Camp Mate Limited, permission to import certain quantities of flame retardant nylon tenting fabric outside of the existing restraint agreement with South Korea. In addition, the government also temporarily remitted the 25 per cent duty which normally would have applied to imports of flame retardant nylon fabrics for use in the manufacture of tents. The timing was arranged to cover the 1988 tent manufacturing period, i.e. the winter of 1987-88.

These temporary concessions by the government of Canada were made on September 14 and October 15, 1987, respectively. The ex-quota authority expired on December 31, 1987, while the period in which duty is being remitted extends from March 1, 1987 to March 31, 1988.

III. TENT MANUFACTURING, IMPORTS AND THE CANADIAN TENT MARKET

(A) Tent Manufacturing

There are essentially only seven manufacturers of tents remaining in Canada. Of this number, three major firms, which are all located in Toronto, (Woods Canada Limited, Camp Mate Limited and Ridgeline Products Inc.) are involved primarily in the manufacture of family-size recreational camping tents. Three other firms produce a limited volume of utility tents none of which are intended for the family recreational camping market. These manufacturers are Manta Industries Ltd. of Winnipeg, Smith Anderson Co. Ltd. of Montreal, and Jones Leisure Products Ltd. of Vancouver. One other firm in Montreal produces backpacking tents of a size not covered in this inquiry.

In addition to producing family-size recreational camping tents, the three Toronto tent manufacturers also produce specialized tents for federal government departments (National Defence and Energy, Mines and Resources). In some instances, these government contracts can be more important, in terms of the tent manufacturer's overall dollar volume, than tent sales to retailers. Other products produced by tent manufacturers include sleeping bags, clothing, backpacks, sportsbags, flags, tarpaulins, boat covers, barbeque covers and groundsheets.

Although some tents produced by the three Toronto manufacturers have a smaller floor area than the 6.5 square metre minimum specified in the Minister's reference to the Board, these tents represent only a minor part of the total tent volume produced. Domestic family camping tent production is concentrated on the 7'x10', 9'x9' and 9'x12' tents, with lesser, but increasing, volumes appearing in sizes greater than 9'x12'.

For the most part, domestic production of family-size recreational tents consists of the traditional "tourist" or "cabin" styling, with a floor area as mentioned above, and interior head room of 6 feet to 7 feet. The tent is supported by steel tubing, and has a polyethylene floor. Until the fall of 1987, almost all of the tents produced by the three major domestic manufacturers had walls and roofs made of cotton sheeting. Both the walls and roof were waterproofed by means of a heavy wax emulsion coating. With the start of production in late 1987 for the 1988 camping season, only Woods

Canada Limited continued to use cotton sheeting in their tents. The other two manufacturers had switched from cotton to nylon fabric. Nevertheless, the tent styles being produced were still the same, regardless of whether cotton or nylon fabrics were used in their construction. The domestic manufacturers still produced tourist and cabin style family-size tents, (some of which have a curved roofline) primarily using steel poles as supports. The fabrics, whether cotton or nylon, continued to be imported. The cotton sheeting originated primarily in the People's Republic of China, while the nylon fabric was imported from South Korea.

Since 1984, woven fabrics, wholly of cotton or wholly of spun polyester or of blends of cotton and polyester fibres, for use in the manufacture of family or recreational tents, having a floor area of not less than 3 square metres nor greater than 21 square metres, have been allowed duty-free entry into Canada. The cotton fabrics formerly used by all three major domestic manufacturers were imported in the greige state and dyed and waterproofed in Canada prior to being used in the manufacture of tents.

Woods Canada Limited has its own in-house facilities to dye and waterproof these cotton fabrics. The cotton fabrics used by Camp Mate and Ridgeline were processed in Toronto by Toronto Dyeing and Finishing Inc. on a commission basis. Woods continues not only to dye and waterproof cotton fabrics, but also to treat them for flame retardancy in their own plant.

In the fall of 1987, both Camp Mate and Ridgeline ceased production of family-size recreational tents made of cotton fabrics and moved totally into the production of the same tents made of flame retardant nylon fabrics. For the 1988 season most, if not all, of the nylon fabrics used have been imported duty-free and ex-quota from South Korea in a ready-to-use state, i.e. already dyed, waterproofed and flame retardant.

The two manufacturers who used duty-free flame retardant nylon fabric had a decided cost advantage since this fabric could now be landed in Canada for less than 85¢ per square yard, compared to a cost of $1.20 per square yard to import duty-free cotton and have it waterproofed and flame retardant treated in Canada. The other materials used by the three major manufacturers are essentially the same.

Woods Canada Limited is the only tent manufacturer with any direct investment to meet the proposed flame retardant regulations. This firm worked with a chemical supplier on the development of a flame retardant solution which would meet the CPA1-84 standard, and did test runs to perfect and prove the application of this chemical in conjunction with the dyeing and waterproofing process. There was no evidence submitted to indicate that either Camp Mate or Ridgeline made any such financial commitment to develop an acceptable method of applying a flame retardant treatment to cotton fabrics.

Tent manufacturing is a relatively simple operation requiring limited capital and a small number of operators. The equipment consists mainly of cutting tables, heavy duty sewing machines and some finishing equipment. Capital requirements are higher for integrated operations where the tent manufacturer finishes and coats fabrics.

Table 1 shows an average cost structure of producing family-size recreational tents from either cotton or nylon fabrics.

Table 1

AVERAGE COST STRUCTURE IN FAMILY-SIZE RECREATIONAL TENT MANUFACTURING
Per cent

Roofing	9.0
Canopy, awnings, walls and flaps	25.0
Other materials	31.0
Labour	15.0
Overhead and mark-up	20.0
Total	100.0

SOURCE: Textile and Clothing Board compilation from submissions.

The main costs of production consist of fabrics, materials and other furnishings. Labour costs represent a relatively small proportion of total costs, administration and sales costs are limited and capital costs are marginal.

Canadian family-size tent producers do not use wholesale salesmen. They do not actively pursue small accounts, but concentrate their sales efforts on the larger retail customers. They use only one quality of fabric, the least expensive available. With very limited designing capability, no sales force, only one or two major customers and only one fabric (that may come in two or three colours), Canadian family-size tent producers do not serve the upper end of the market of more luxurious and more expensive tents, nor do they enjoy any cost/price flexibility.

Employment in the tent industry has never been very high. The following data, provided by the three major manufacturers, indicate that an average of 66 people have been employed in the production of family-size tents over the past six years.

Table 2

AVERAGE ANNUAL EMPLOYMENT(1)
FAMILY-SIZE RECREATIONAL CAMPING TENTS
- number of employees -

1982	1983	1984	1985	1986	1987
75	87	48	66	59	62

(1) The above data is marginally overstated due to the inclusion of employees producing the so-called prospector, or utility, tent.

SOURCE: Textile and Clothing Board.

It should be noted that tent production is concentrated in six to eight months of the year. Production usually begins late in the fall of one year and continues into May or June of the following year. In the peak of the tent production season more people would be employed than shown in the above table.

Data was not provided by the three major manufacturers on their total employment levels (i.e. covering all the products they manufacture) for the period shown above. However, they reported that another 55 people were employed in 1987 in the production of products other than tents. Therefore, 53 per cent of total production employment in 1987 was dedicated to the production of family-size recreational camping tents (plus a limited number of prospector tents, as noted earlier).

Producing commodity-type, interchangeable goods and selling them to a very limited number of accounts has placed Canadian family-size recreational tent manufacturers in the uncomfortable position of total dependency on the actions of the large retailers. Large retailers are not only buyers of goods of domestic origin. They are also significant direct importers of tents, including family-size tents, from abroad, and sellers of similar tents bought from traditional importers.

(B) Importing of Tents

While the Board's inquiry is limited to family-size recreational camping tents having a minimum floor area of 6.50 square metres, import data published by Statistics Canada do not differentiate tents by either size or end use. Consequently, published import statistics pertain not only to all sizes of tents, but also include tents used for other than family recreational camping purposes. To collect data on family-size recreational tent imports the Board carried out a detailed import analysis covering the full year 1986 and the first eight months of 1987.

There are only two major categories of importers of tents. They are the wholesale importers who import goods for resale to retailers, and the major retailers themselves, who buy directly from offshore manufacturers. Between them, these two groups accounted for 98 per cent of tents of all kinds imported into Canada in 1986 and during the first eight months of 1987. At variance with the situation in the clothing market, domestic tent manufacturers import very minor quantities of tents.

Of a total of 317,123 tents of all sorts and sizes imported into Canada in 1986, seven major wholesale importers accounted for 50.8 per cent

and ten retailers for 44.3 per cent. "Others" represented merely 4.9 per cent of the total. These shares changed during the first eight months of 1987: imports by wholesale importers declined to 39.0 per cent and the share of the ten retailers increased to 55.5 per cent, while all the others imported 5.5 per cent of the total.

Family-size recreational tents are imported mainly by the same seven wholesale importers and ten retailers. Total imports of such tents reached 46,121 units in 1986 and 53,844 units during the first eight months of 1987.

Table 3

IMPORTS OF FAMILY-SIZE RECREATIONAL TENTS BY CATEGORY OF IMPORTER

	UNITS			PER CENT		
		JANUARY - AUGUST			JANUARY - AUGUST	
	1986	1986	1987	1986	1986	1987
Wholesale importers	34,948	32,789	32,585	75.8	79.9	60.5
Retailers	10,725	7,825	17,686	23.3	19.0	32.8
Others	448	444	3,573	0.9	1.1	6.7
Total	46,121	41,058	53,844	100.0	100.0	100.0

SOURCE: Statistics Canada and Textile and Clothing Board Import Analysis.

While wholesale importers lost market share between 1986 and 1987, retailers became more active in importing family-size recreational tents. While some of them were testing the market, others moved decisively into direct importing.

Nylon fabrics are the preferred material used in imported tents. Waterproof and flame retardant polyester is more expensive than nylon and after some experimentation tent producers abandoned the idea of tents made of polyester fabrics. Nylon tents tend to use polyester fabrics for their roof construction since dyed nylon deteriorates if continually exposed to ultra-violet rays of the sun. Cotton and cotton blend tents are not imported in any significant quantities, while vinyl/plastic tent imports have increased. This latter type of tent is used as a play tent for children.

Table 4

IMPORTS OF ALL TENTS
BY FABRIC TYPE
12 MONTHS 1986 AND 8 MONTHS 1986/87
Per cent

	1986	JANUARY - AUGUST 1986	JANUARY - AUGUST 1987
Man-made (nylon)	83	90	90
Cotton and cotton blends	4	5	2
Other (vinyl/plastic)	13	5	8
	100	100	100

SOURCE: Textile and Clothing Board Import Analysis.

The decreasing significance of cotton and cotton blend tents and the overwhelming preference for nylon tents are also apparent in the case of family-size recreational camping tents which are the subject of this inquiry. Vinyl/plastic fabrics are not appropriate for such tents. Cotton and cotton blend tent imports continue to decrease and what remains are imports of high quality and very expensive cotton tents originating from the United States and from Western Europe.

Table 5

IMPORTS OF FAMILY SIZE RECREATIONAL CAMPING TENTS
ALL FABRIC TYPES
12 MONTHS 1986 AND 8 MONTHS 1986/87
Per cent

	1986	JANUARY - AUGUST 1986	JANUARY - AUGUST 1987
Man-made (nylon)	91	90	98
Cotton and cotton blends	9	10	2
	100	100	100

SOURCE: Textile and Clothing Board.

Most wholesale importers sell a wide variety of tents in different sizes and shapes, including products comparable to domestically produced tents. Some importers concentrate on selling to the large retail chains which do not import directly or which import only one or two lines of tents. Other importers concentrate their efforts on sales to stores specializing in

the sale of recreational products. In the latter case these tents are often high quality special purpose tents or high quality family-size tents and their prices are in the multiples of the domestically produced tents. Servicing the network of specialized stores in recreational products requires considerable expenditures for sales and shipping.

Imported tents are dutiable and the rate of duty is normally determined by the rate applicable to the type of fabric used for the tents. Nylon fabrics are dutiable at a 25 per cent Most-Favoured-Nation rate and the same rate applies to tents. Polyester fabrics are dutiable at the same 25 per cent rate and polyester tents would be subjected to the same rate. However, the normal rate of duty on cotton fabrics is 15 per cent and tents made of such fabrics are dutiable at a 22.5 per cent rate.

Imports of tents have tended to grow in recent years and imports of family-size recreational tents followed the same path, despite the cost impact of a 25 per cent duty. With only three domestic producers manufacturing standardized and more or less interchangeable products at approximately the same highly competitive price points, retailers have preferred to present a wider choice to their customers and to differentiate their individual product lines from those of their competitors. The lack of diversification of family-size recreational tents made in Canada coupled with a lack of marketing effort has represented a major weakness of domestic tent manufacturing.

(C) The Canadian Tent Market

The apparent Canadian market for tents of all types is presented in Table 6.

Table 6

APPARENT CANADIAN MARKET
ALL TYPES OF TENTS
1983 - 1987

	1983	1984	1985	1986	1987
			-- Thousands of tents --		
Domestic Shipments(1)	86	46	64	64	64
Imports	327	372	330	317(2)	354(3)
of which: South Korea	(161)	(178)	(241)	(208)	(268)
Taiwan	(132)	(152)	(65)	(77)	(76)
Apparent Canadian Market	413	418	394	381	418
			-- Per cent --		
Share of market held by:					
Domestic shipments	21	11	16	17	15
Imports	79	89	84	83	85
of which: South Korea	(39)	(43)	(61)	(55)	(64)
Taiwan	(32)	(36)	(16)	(20)	(18)

(1) Consists almost exclusively of family-size recreational camping tents.
(2) Revised on basis of import analysis.
(3) Projected.

SOURCE: Textile and Clothing Board and Statistics Canada.

The market for all types of tents has remained relatively stable throughout the period. The minor fluctuations which have occurred are largely attributable to changes in the level of imports. The decline in domestic shipments in 1984 was caused primarily by dumped imports. However, domestic shipments recovered to a level of 64 thousand units in 1985 and have since remained at that level. This level of shipments has been maintained even though the volume of imports of directly competitive family-size tents has been increasing.

With 15-17 per cent in recent years the share of Canadian producers in the total market is small. However, because of the heavy concentration of domestic production on family-size recreational tents (Table 7), the position of the Canadian producers in this particular market segment is much stronger.

Table 7

APPARENT CANADIAN MARKET
FAMILY-SIZE RECREATIONAL CAMPING TENTS

	1986	1987
	--- Thousands of tents ---	
Domestic Shipments	61	61
Imports	46	61(1)
of which: South Korea	(24)	(50)
Taiwan	(13)	(5)
Apparent Canadian Market	107	122
	--- Per cent ---	
Share of market held by:		
Domestic shipments	57	50
Imports	43	50
of which: South Korea	(22)	(41)
Taiwan	(12)	(4)

(1) Estimate based on 8-month data.

SOURCE: Textile and Clothing Board and Statistics Canada.

The Canadian tent producers still retained a 50 per cent market share in this type of tent in 1987. Nevertheless, based on information gathered through questionnaires and confirmed during the hearings, domestic manufacturers will continue to lose ground in 1988.

The market demand for family-size recreational tents is continuing to move in the direction of lighter, brighter, more care-free and easy-to-assemble tents. Automobiles are becoming smaller and this has added to the demand for less bulky tents. This does not mean, however, that cotton tents will disappear from this market. For subjective reasons people may still be attached to the notion of natural fiber tents and as a result there will continue to be some demand for cotton tents. But the great majority of the customers will continue to shift towards the nylon tent.

The Canadian producers have been slow to adjust. They did not innovate in terms of fabric, shape or colour, they did not diversify into better, more expensive and more profitable product lines, they did not change their marketing approach. They stayed in the lower end mass market

where competition is only on price. Trying to remain competitive with each other at this lower end prevented them from experimenting with new fabrics, shapes and colours. They had to rely on the cheapest source of fabrics and construct their pricing around these fabric prices.

In a market of three producers, seven importers and ten retail organizations, the initiative is concentrated in the hands of retailers. Their decisions about what and where to buy determine the financial results of all three domestic producers and of a number of importers. Only importers directly tied to a major retailing organization and importing on their behalf and importers servicing the many accounts of specialized independent sporting goods retail outlets are sheltered against shifts in the buying decisions of the big department stores.

The demand for the commodity type, standardized family-size tent, often used as a loss leader in retailing, is highly price elastic and only the lowest available price will clear the market. On the other hand, the price elasticity of demand for special purpose and utility tents is low: buying decisions are based more on conformity with specifications and performance than on price. The future of the few Canadian producers of special purpose and utility tents is thus much more secure than the future of the commodity type family-size tents. Unfortunately, the market for such special purpose and utility tents is limited. Over the last few years, production of such tents was hovering in the 4,000-4,500 unit range.

Under these conditions, producers of standardized family-size recreational tents were only marginally profitable over the last few years. Consequently, they lacked the financial strength and market security necessary to experiment with new products. They are of the survivor type of companies with planning horizons limited to the next season.

It should be mentioned that some domestic tent manufacturers had made unsuccessful attempts over recent years to market family-size nylon tents to the large retail chains. Part of the reason they failed may have been the higher costs of the nylon fabric compared to the duty-free cotton

fabric. In this respect the price sensitivity of family-size tents apparently is such that a premium could not be commanded for the higher cost nylon tent in direct competition with the same tent made of cotton.

The price/cost pressures exerted on manufacturers are due not only to the "commodity" nature of the tents they manufacture, but also to the nature of retailing in Canada. Not only are there relatively few major retail chains, there are even fewer which play a significant role in the mass marketing of tents in Canada. As a consequence, these retailers exert a significant influence on the tent market in Canada. To complicate the situation, in recent years Canadian retail chains have been moving away from domestic purchasing of tents and towards direct importing. These changes began even before the impact of the flame retardant regulations came into play.

Wholesale importers catering to the needs of large retailers are also vulnerable to the buying decisions of those retailers. At present, they are more concerned about the potential consequences of the planned tax reform and the inducement that it may represent for large retailers to rely on direct import programs, thus reducing their business transfer tax liability. If this fear is realized, some of the seven major importers could lose their clients.

In summary, even though there remain only three manufacturers of family-size recreational camping tents in Canada, the production capacity of these three firms exceeds the total demand for family-size tents. Excess capacity; concentration of production on a limited number of relatively high volume, low profit tent models; intense competition to make volume sales to an extremely small number of retail chains; continued reliance on the cheapest tenting material available in the face of increasing consumer demand for lighter, more colourful, more compact, more attractive and more fashionable styles of tents: all these factors have contributed to the serious malaise facing Canadian family-size recreational camping tent manufacturers.

IV. FLAME RETARDANT REGULATIONS AND THEIR EFFECT ON CANADIAN TENT MANUFACTURING

The cotton sheeting traditionally used in Canadian tent production usually undergoes a waterproofing treatment in which a heavy wax emulsion is applied to the fabric. A greige fabric initially weighing from 4 to 4½ ounces per square yard, will nearly double in weight after this waterproofing process.

A benefit of this treatment is that the wax emulsion process is relatively inexpensive. A further benefit is that it allows the use of very inexpensive cotton sheeting as the base fabric. The loose weave of this sheeting, and any imperfections that it may contain, are covered over by the heavy wax coating. A disadvantage of this treatment, in addition to added weight, is that the wax tends to make the tent more flammable and consequently more costly to make flame retardant.

In contrast, nylon tenting fabrics are waterproofed by means of a polyurethane coating. In comparison to the wax emulsion treatment used for cotton, the polyurethane coating used for nylon does not add significant weight to the finished fabric. Furthermore, the nylon fabric by its very nature tends to be flame retardant.

Whatever the process used to waterproof the tent fabric, additional chemical costs are incurred to make the same fabrics flame retardant. In the case of cotton fabrics, the incremental cost of rendering the fabric flame retardant is approximately 30-35 per cent of the total cost of the dyed waterproof fabric, whereas the comparable cost increase for nylon fabrics is less than 10 per cent. Flame retardancy treatment is a relatively costly operation for cotton fabrics but only adds marginally to the total cost in the case of nylon fabrics.

Whether cotton, nylon, or any other fabric is used in the manufacture of family size tents, it must meet the requirements that have been established for flame retardancy. To date it does not appear that any mandatory testing program has been introduced by the government to police

this new regulation. It is also unclear as to where the ultimate liability would lie should death, injury or loss of property occur as a direct result of non-compliance with the flame retardant regulation. Retailers who specify in their purchase orders that the tents they are buying must meet the flame retardant standards, will obviously be placing the onus of responsibility on their suppliers. However, it is not clear how much, if any, liability would be accepted by non-resident tent manufacturers in South Korea, or even by Canadian tent manufacturers who have specified and purchased South Korean flame retardant nylon fabrics. Furthermore, there was no evidence submitted to the Board to indicate that either Canadian tent manufacturers, tent importers, or retailers of tents were planning to have their fabrics or tents tested in Canada for adherence to the flame retardant standard. The testing that has been carried out in Canada so far does not fully comply with the test requirements specified under CPAI-84; the Board is not aware of the existence in Canada of any commercial facility equipped to test fabrics for full compliance with CPAI-84.

The exception to the foregoing is that Consoltex Inc. had had their nylon fabrics fully tested in Canada several years ago when such testing facilities were in place. At that time their fabrics were found not only to meet, but to exceed the specified standards. This firm has offered to supply flame retardant nylon fabrics to the tent industry for a one year period at the concessional price of $1.175 per square yard. It should be recognized, however, that the fabric offered by Consoltex far exceeded the technical specifications required by Camp Mate and Ridgeline with respect to waterproofing.

Only Woods Canada Limited elected to continue to use cotton sheeting to manufacture tents. As noted earlier, Woods has its own finishing and coating equipment and is able to treat its own fabrics for both waterproofing and flame retardancy at a lower cost than could be obtained from a commission finisher. The cost of waterproofing and flame retardancy treatment by commission finishers would be equivalent to about the price of imported greige cotton fabrics and result in a total fabric cost of around $1.20 per square yard. Through its in-house facilities Woods Canada Limited can compress its treated fabric costs significantly.

Camp Mate and Ridgeline decided to switch from cotton fabric to nylon but objected to the price quoted by Consoltex Inc. for its domestically produced flame retardant nylon fabric. They claimed that they could not compete with imported nylon tents on the basis of such fabric prices. Furthermore, not only did they consider access to imported nylon fabrics essential to their survival, this access had to be free of duty charges.

Therefore, while Woods Canada Ltd. was proceeding into production on the basis of fabric costing less than $1.20 per square yard, the other two manufacturers claimed an inability to compete, not only at the $1.20 per square yard they would have had to pay for flame retardant cotton, but also at the $1.175 price quoted by Consoltex for flame retardant nylon fabric, and at the duty-paid price for imported flame retardant nylon fabric. They insisted that only duty-free South Korean flame retardant nylon fabric currently priced at around $.85 per square yard c.i.f. Toronto, would allow their survival. This latter price is lower than the approximately $.90 per square yard they had previously paid for waterproof but non-flame retardant cotton tenting fabric.

This situation was further complicated by the fact that nylon fabric was under restraint with South Korea, and it was uncertain whether sufficient quota existed to satisfy the needs of the two Canadian tent manufacturers. Their request to the government for special consideration therefore consisted not only of a request for duty-free entry of flame retardant nylon fabric, but also of a request for ex-quota permits to import this fabric from South Korea.

Flame retardancy regulations apply to both family-size recreational tents and utility tents whenever these latter are used for sleeping. This raises problems for the producers and users of utility tents.

As noted earlier, utility tents are produced of heavier cotton duck fabrics, predominantly in ten ounce per square yard weight. These fabrics are used in greige form and about half of the utility tents produced are waterproofed. Many buyers find waterproofing either unnecessary or undesirable for their particular use.

The cost of a ten ounce domestically produced cotton duck fabric is approximately $2.00 per square yard. Not only does waterproofing increase this cost but it adds four or five ounces of weight per square yard to the fabric. This fifty per cent increase in the weight of the tent may represent inconvenience and added cost for transportation and handling.

If waterproofing is required, the additional cost of the flame retardant treatment is not prohibitive. Flame retardant chemicals are added to the water repellant wax emulsion and both flame retardancy and waterproofing are obtained in a one-step process. The total cost of such treatment is around $1.00 per square yard, more than half of it for flame retardancy and less than half for waterproofing. This cost can be reduced significantly if a tent manufacturer can apply this wet process with his own equipment.

If waterproofing is not required, the cost of flame retardant treatment rises considerably since a dry process treatment is then required to apply the fire retardant chemicals. At present, the cost of a dry chemical process treatment doubles the cost of the cotton fabric. Tent producers and commission dyers and finishers are now working hard to compress this cost to $1.00-1.20 per square yard which would be more comparable to, even if slightly higher than, the cost of the wet process.

Fire incidents involving utility tents are infrequent. Of the 17 fire incidents used by Consumer and Corporate Affairs Canada in the assessment of benefits of flame retardancy there was only one incident cited in which the tent had any of the characteristics associated with utility tents, namely year-round use. This sole incident was due to arson and occurred in a permanent log and canvas structure in Manitoba. It is doubtful that this structure can be considered a tent at all. In these circumstances, the flame retardancy requirements for utility tents when used for sleeping may appear much more as a preventive measure than a response to actual reasonable risk.

In the opinion of the Board, utility tents could have been exempted from mandatory flame retardancy requirements. While institutional users can absorb the additional costs stemming from flame retardant treatment without major problems, it may represent a major financial burden for individual users, namely native people and individual prospectors.

V. DUTY AND QUANTITATIVE RESTRAINT STATUS OF IMPORTS OF FABRICS AND TENTS

Canadian manufacturers of tents enjoy the protection of a 22.5 to 25 per cent tariff on imported tents and currently import the principal fabrics used in the manufacture of tents free of duty.

Approximately 98 per cent of the family-size tents imported into Canada in 1987 were made primarily of nylon fabric and as such attracted an ad valorem duty of 25 per cent under the Most-Favoured-Nation tariff. The remaining imported family-size tents were made of cotton and were dutiable at a rate of 22.5 per cent ad valorem (Appendix 7).

Cotton has been the principal fabric used in the manufacture of family-size tents in Canada. The fabric, which for the most part has been sourced in the People's Republic of China, may be imported free of duty when used in family or recreational tent manufacturing; otherwise it is dutiable at 15 per cent ad valorem (Appendix 8). This duty exemption was granted in 1984 after the major producer of this fabric closed its doors and the fabric produced by the second manufacturer reportedly did not meet the specifications of the family-size recreational tent manufacturers.

The supply of the greige cotton fabric was not affected by the bilateral restraint arrangement between Canada and the People's Republic of China which does not impose any limitations on the quantity of greige fabric being exported to Canada.

The nylon fabric now used by two of Canada's three major manufacturers of tents originates in South Korea. Whereas the ad valorem rate of duty on flame retardant nylon fabric from South Korea is 25 per cent when imported for general use (Appendix 8), on October 15, 1987, as an interim measure, Order in Council P.C. 1987-2137 (Appendix 9) was passed granting remission of duties payable on such fabric retroactive to March 1, 1987 and for the period ending March 31, 1988. The benefits of the Order in Council are available to any importer purchasing the fabric for use in the manufacture of family or recreational tents for the 1988 tenting

season. This duty remission came as a surprise because nylon taffeta fabrics of Canadian origin have been available for some time and because duty remission on nylon fabrics was denied in 1984 exactly for the same reason, i.e. the availability of comparable fabric from a domestic source.

This decision has had a discriminating effect on domestic family-size recreational tent producers. As noted earlier, the largest producer (Woods Canada Limited) developed an acceptable flame retardant treatment. The other two producers simply switched from cotton to imported flame retardant nylon fabric. With the normal rate of duty on nylon fabrics, all three manufacturers would have had access to their treated fabric supplies at approximately the same cost, somewhat above $1.00 per square yard. The decision to remit the duty on the nylon fabric created a major imbalance: the fabric costs of the most important producer are now significantly out of line with those of his direct competitors.

The five-year bilateral restraint agreement between Canada and South Korea provides for a restraint level for nylon fabric which includes coated fabric (Appendix 10). The restraint level for 1987 was 233,941 kg of which 74,941 kg was a sub-level reserved for uncoated nylon fabrics, leaving 159,000 kg for coated nylon fabric. In using all the flexibility provisions of the agreement, the restraint level could have been stretched to a total of 245,639 kg, of which 78,689 kg could have been reserved for uncoated and 166,950 kg for coated nylon fabrics.

On September 14, 1987, Camp Mate and Ridgeline were informed that, on an interim basis, authorization would be granted to them to import ex-quota limited quantities of flame retardant nylon fabrics from South Korea during the balance of 1987. Presumably, similar consideration would have been given to other manufacturers of family-size recreational tents who might have requested ex-quota authorization. The quantities imported ex-quota are determined by the use by each manufacturer of fabrics for tents in the previous year.

While in the December report of the Department of External Affairs the utilization of the nylon restraint, as measured by import

permits issued, was only 61 per cent, the additional fabric requirements of the two family-size recreational tent manufacturers switching from cotton to nylon would have pushed the utilization rate to 97 per cent. Their import needs represented 36 per cent of the original and 34 per cent of the adjusted restraint level. If all three manufacturers of family-size recreational tents had elected to produce tents from nylon fabrics, their entitlements alone would have represented 71 per cent of the original restraint level for 1987 or 67 per cent of the adjusted level. This is probably the fundamental reason for the decision by the Department of External Affairs to allow ex-quota access to coated nylon fabrics for use in family-size recreational tents. Imports of light weight polyurethane coated nylon woven fabrics from South Korea in 1986 reached, to our best knowledge, 171,485 kg, somewhat more than the total South Korean restraint level for such fabrics in 1987. Adding the requirements of the domestic family-size recreational tent manufacturers to this demand would have produced a severe quota shortage.

In their briefs the primary textile producers recommended the re-imposition of quotas and tariffs wherever these had been temporarily lifted. For better protection for the domestic family-size recreational tent manufacturers, they also recommended negotiating restraints with South Korea on ready-made tents.

Family-size recreational tent manufacturers recommended the replacement of temporary by permanent relief. They considered this relief as absolutely essential for their survival and the future development of their activities. Thus ex-quota and duty-free access to cotton fabrics from the People's Republic of China and coated flame retardant nylon fabrics from South Korea should be rendered permanent. On the other hand, tent manufacturers did not recommend restraints on the finished product.

VI. CONCLUSIONS AND RECOMMENDATIONS

Confined to the most vulnerable segment of the market, that of the standardized, inexpensive cabin type recreational tent, the tent manufacturers have been completely dependant on the buying decisions of a handful of major retail accounts. Retailers have regarded the domestic manufacturers as a source of loss-leader products where the lowest price has been the decisive factor in the buying decision. For the family-size recreational tent manufacturers that has meant the use of the lowest priced intermediary products possible and continuing low profitability. Under such circumstances, the manufacturers could not afford to diversify into more profitable lines of tents, to develop their designing capabilities, nor to build a marketing strategy. Nevertheless, some diversification has taken place in other related products such as parkas and sleeping bags.

The share of the domestic producers in the apparent Canadian market for family-size recreational tents has been decreasing regularly since the early 80's. Imported tents originating at first from Eastern Europe manufactured of dry process waterproofed cotton and then from South Korea and Taiwan manufactured of flame retardant nylon have been displacing Canadian tents because of their fabrics, styling and colours. Nevertheless, Canadian family-size recreational tent producers have continued to produce the lower cost, wet process treated, cotton tents despite the rising market demand for tents made of nylon fabric.

The industry continues to be plagued by considerable overcapacity. With the production of some 60,000 family-size recreational tents, capacity utilization is at 60 per cent on a nine months production season basis and at less than 50 per cent on a yearly basis. Installed capacity is higher than the total apparent market for family-size recreational tents.

Family-size recreational tent manufacturing is not a significant employer. On average some 60 people are involved directly in the manufacturing process, more during the seasonal peaks, less during the seasonal troughs. In the three producing companies only slightly more than half of the total number of employees are devoted to tent making.

It was not until the announcement that mandatory flame retardancy regulations would come into effect in November 1988 that some domestic family-size recreational tent producers decided to substitute nylon for cotton fabrics. The flame retardant treatment implied additional cost which was significant for cotton fabrics but marginal for nylon. This was a major consideration in the decision of two of the three manufacturers to switch fabrics. This cost differential was widened further by the government's decision to admit flame retardant nylon fabrics free of quota and free of duty for use by the family-size recreational tent producers. As a direct consequence the flame retardant nylon fabric from South Korea became even less expensive than the waterproofed but not flame retardant cotton fabric that these producers had been using.

The flame retardancy regulations of Consumer and Corporate Affairs Canada do not seriously inhibit the ability of Canadian family-size recreational tent producers to compete with low-cost imports. The fabric represents some 25 per cent of the total cost of a tent. The share of other materials in the total cost is more significant at around 40 per cent and that of direct labour at 15 per cent or less. In the light of these shares of total cost it is difficult to conclude that the competitive capacity of the industry is determined by a variation in the cost of fabric. Furthermore, given the low share of labour cost in total production cost it is difficult to conclude that quantitative restraints on tents imported from low-cost countries are necessary. Besides, as has been noted, tent manufacturers, the most directly affected party, voiced their opposition to such a move.

Currently, the family-size recreational tent sector is in turmoil and some shake-out in the industry may well occur in the future. Two of the three manufacturers are working with a new fabric and the third was seriously impaired by the delay in the government decision to let flame retardant nylon fabrics in free of duty. This decision upset the previous cost balance among the domestic competitors and put the largest manufacturer at a clear cost disadvantage. While importing duty free lowers the cost of flame retardant nylon fabric, it is not clear that such a lowered cost was necessary to maintain the competitive position of the Canadian family-size

recreational tent producers. The import programs of the large retailers and importers have not been built on price alone. Product diversification through new tent shapes and colours, and niche marketing of specialized lines of tents have been factors even more significant than price.

In light of these conclusions, the Textile and Clothing Board recommends:

- that the granting of the remission of the customs duties and part of the sales tax paid or payable on flame retardant nylon fabrics for use in the manufacture of family-size recreational tents not be extended beyond the period ending March 31, 1988;

- that ex-quota imports of flame retardant nylon fabrics be maintained for two more years.

In the opinion of the Board, the implementation of its recommendations would restore the competitive balance among the domestic family-size recreational tent manufacturers. The competitive advantage enjoyed by certain manufacturers as a result of the retroactive duty measures affecting nylon fabric would be eliminated. In this respect waterproofed and flame retardant cotton and nylon fabrics would both be available to family-size recreational tent manufacturers at reasonably comparable costs. The reinstatement of the duty should have relatively minor impact on retail sales volumes since it should represent less than 6 per cent of the total manufacturing cost of a family-size recreational tent. Furthermore, it will offer the Canadian fabric manufacturers an opportunity to work with the domestic tent manufacturers in order to develop an acceptable waterproof, flame retardant tent fabric at a mutually acceptable price.

The continuation of ex-quota treatment for nylon fabric for use in the manufacture of family-size recreational tents will assure the availability of an adequate supply of this fabric for domestic tent manufacturing. There is every indication that the existing bilateral restraint agreement for nylon fabrics with South Korea, for example, did not recognize the potential demand from the domestic family-size tent sector.

The recommendations also challenge the domestic tent manufacturers to broaden the market appeal of their family-size, recreational tents through changes in design, colour and variety of componentry, and to subsequently broaden their marketing efforts into more profitable market segments.

Ministre de l'Expansion industrielle régionale

CANADA

Minister of Regional Industrial Expansion

L'honorable The Honourable

Robert R. de Cotret

OCT 6 1987

Dr. Otto Thur
Chairman
Textile and Clothing Board
235 Queen Street
Ottawa, Ontario
K1A 0H5

Dear Dr. Thur:

As you may know, Consumer and Corporate Affairs Canada (CCAC) is planning to implement new regulations, effective in 1988, requiring that all tents manufactured and/or sold in Canada be constructed of materials meeting flame retardant (FR) specifications. You may further know that such fabrics coming from foreign sources are subject to export restraint measures recently concluded with all our major low-cost suppliers including the Republic of Korea and Taiwan, and that they have been preferred by domestic tent manufacturers, although they are also available from domestic production.

To date, domestic tent manufacturers have not been able to reach a consensus on their capability to compete with low-cost imported tents in the domestic market environment brought about by the implementation of the FR regulations. Indeed, in a joint action, two of the major domestic tent manufacturers have underlined their difficulty to market Canadian-made tents using FR cotton. They claim that, in the face of declining retail prices, they need to remain inasmuch as possible within existing production cost structures and that unrestrained, duty-free access to FR nylon fabrics is essential to allow them to remain competitive with low-cost imports. Conversely, certain domestic tent manufacturers anticipate continuing to produce tents using FR cotton fabrics and Woods Inc., Toronto, a third major manufacturer, remains convinced that the domestic tent industry can adapt to the new market conditions without further government intervention and has already sourced tenting fabrics including cotton and FR nylon.

... 2

Meanwhile, the major domestic fabric manufacturer that has the capability of producing FR tenting fabric including nylon cannot meet the price requested by the two domestic tent manufacturers, which they claim is necessary to compete with low-cost tent imports. Furthermore, the Canadian Textiles Institute, on behalf of the textile industry, is of the opinion that domestic tent manufacturers ought to be supported by the negotiation of restraints on imported finished tents, especially from the Republic of Korea and Taiwan.

As well, there are other unknowns that cloud the issue. These include the questions of the extent to which consumers currently served by domestic tent manufacturers will switch to tents made of fabrics other than cotton, consumer willingness to absorb an increase in price for retaining a preference for cotton canvas family tents as opposed to tents made of man-made fabrics, the use of fire retardant technology by domestic tent manufacturers themselves, and the extent to which domestic tent manufacturers are able to compete head-on with low-cost countries even with unrestrained, duty-free imports of FR fabrics.

Considering that the interest groups involved continue to uphold conflicting assessments of the tenting fabric issue and the fact that the lack of consensus is exacerbated by the differences of opinion among major domestic manufacturers themselves, I believe that it would be appropriate for the Board to undertake, on an urgent basis, an enquiry on the competitiveness of the Canadian tent industry sector.

Specifically, you are requested to:

(a) determine the extent to which the proposed CCAC (FR) regulations are likely to affect the ability of Canadian tent producers to compete with low-cost imports of similar family-size recreational tents; and

(b) in light of (a), determine the factors essential to maintain the international competitive position of Canadian tent producers in the Canadian market including unrestrained duty-free access to world priced tenting fabrics.

A comprehensive statement of the terms of reference for this enquiry is attached.

... 3

Bearing in mind that it is desirable for the Government to receive the Board's report in order to determine import policies for the domestic tent industry sector for the period beyond 1987, I would urge the Board to proceed as expeditiously as possible with this enquiry for completion within three months of this referral. In this context, I wish to inform you that the Honourable Harvie Andre, Minister of Consumer and Corporate Affairs, has asked to convey the assurance of his department's cooperation in making available information gathered in the process of developing these FR regulations for tents.

In the interim, the Department of External Affairs has approved temporary ex-quota allocations for FR nylon fabrics and the Department of Finance has similarly approved temporary duty relief on these fabrics.

Yours sincerely,

Robert R. de Cotret

Attach.

TEXTILE AND CLOTHING BOARD

TERMS OF REFERENCE OF AN INQUIRY REGARDING THE COMPETITIVENESS OF THE CANADIAN TENT INDUSTRY SECTOR

Whereas the Canadian tent industry sector produces family-size, recreational tents (*) and since 1984, have been competing with low-cost imports of finished tents on the basis of unrestrained, duty-free access to certain types of cotton and polyester/cotton fabrics;

Whereas the Product Safety Branch of Consumer and Corporate Affairs Canada (CCAC) intends to include tents under the Hazardous Products Act which will require all tents sold in Canada to be in compliance with regulations requiring construction using flame retardant (FR) materials;

Whereas CCAC (FR) regulations, expected to be introduced in November 1988, have already begun to affect the buying decisions of Canadian mass merchandisers who sell tents directly to retail customers;

Whereas the Canadian Government, pursuant to its textile and clothing import policy, has negotiated bilateral restraint arrangements with a number of low-cost textile fabric producers, affecting both the cost and availability of various tenting fabrics, in either the greige or finished state;

Whereas Canadian tent producers face competition from unrestrained imports of low-cost finished tents which meet the CCAC (FR) regulations.

Therefore, pursuant to Section 20 of the Textile and Clothing Board Act, the Textile and Clothing Board is requested to undertake forthwith an inquiry to:

(1) determine the extent to which the proposed CCAC (FR) regulations are likely to affect the ability of Canadian tent producers to compete with low-cost imports of similar family-size recreational camping tents;

(2) in light of (1), determine the factors essential to maintain the international competitive position of Canadian tent producers in the Canadian market including unrestrained duty-free access to world priced tenting fabrics.

Given the need for the Government to consider and determine import policies for domestic tent producers for the period beyond 1987, the inquiry will proceed as expeditiously as possible and a final report made no later than three months after the date of referral to the TCB.

(*) For the purpose of the inquiry, family-size recreational camping tents are defined as having a minimum floor area of 6.50 sq. metres (70 sq.ft.).

Hazardous Products Act—Amendment and Hazardous Products (Tents) Regulations

Statutory Authority

Hazardous Products Act, R.S.C. 1970, c. H-3, s. 8

Sponsoring Department

Department of Consumer and Corporate Affairs

REGULATORY IMPACT ANALYSIS STATEMENT

Description

Tent fires have resulted in 32 deaths and 40 injuries over the past 15 years. More than half of these have involved children. Some tents can burn to the ground in as little as 45 seconds. The rapidity and intensity of these fires limit the opportunity for escape.

The Hazardous Products Act is an act which can be used to prohibit or regulate the advertising, sale, or importation of products which are or are likely to be a danger to the health or safety of the public. In response to the above-noted hazard, proposed regulations have been drafted under the Hazardous Products Act which would require:

(1) hazard warning labels to be affixed to tents, and

(2) tents to be constructed of flame-retardant fabric.

These regulations address the first item, that of warning labels. The proposed fabric flammability requirements are planned to be introduced later as an amendment to the labelling regulations.

The labelling requirements are designed to alert consumers to the flammability hazard posed by tents so that they may exercise caution in the use of potential sources of ignition in and around tents. The regulations would require that all camping tents, children's play tents, dining shelters and tent trailers advertised, sold or imported into Canada bear a label with a specific warning statement as described in the regulations and that information on precautions to be observed to prevent accidental ignition be included with the product at point of sale.

Alternatives Considered

Other forms of consumer education were considered but mandatory warning information accompanying the product was judged to be the most effective. Pamphlets, posters, radio messages and articles in outdoor magazines and consumer columns were also considered and have been used as an

Loi sur les produits dangereux—Modification et Règlement sur les produits dangereux (tentes)

Fondement législatif

Loi sur les produits dangereux, S.R.C. 1970, ch. H-3, art. 8

Ministère responsable

Ministère de la Consommation et des Corporations

RÉSUMÉ DE L'ÉTUDE D'IMPACT DE LA RÉGLEMENTATION

Description

Les feux de tente ont entraîné la mort de 32 personnes et causé des blessures à 40 autres au cours des 15 dernières années. Plus de la moitié des victimes étaient des enfants. Certaines tentes peuvent brûler complètement en 45 secondes ou moins. La rapidité et l'intensité de ces incendies réduisent les possibilités d'y échapper.

La *Loi sur les produits dangereux* permet d'interdire ou de réglementer l'annonce, la vente ou l'importation de produits qui présentent ou présenteront vraisemblablement un danger pour la santé ou la sécurité du public. Vu le risque d'incendie susmentionné, un règlement a été rédigé en vertu de la *Loi sur les produits dangereux*, lequel stipule que:

(1) des étiquettes de mise en garde contre le danger devront être apposées sur les tentes, et

(2) les tentes devront être fabriquées en tissus ignifugés.

Ce règlement porte sur le premier point, à savoir les étiquettes de mise en garde. Les exigences en matière d'inflammabilité des tissus, qui ont été proposées, devraient être introduites plus tard par voie de modification du Règlement sur l'étiquetage.

Les exigences en matière d'étiquetage ont pour objet de mettre les consommateurs en garde contre le danger d'inflammabilité des tentes afin qu'ils fassent preuve de prudence dans l'utilisation de sources possibles d'ignition près des tentes et à l'intérieur de celles-ci. Toutes les tentes de camping, les tentes-jouets pour enfants, les tentes-réfectoires et les tentes-roulottes annoncées, vendues ou importées au Canada doivent être munies d'une étiquette de mise en garde précise conforme à celle prescrite par le Règlement. Des renseignements sur les précautions à prendre afin d'éviter qu'elles ne prennent feu accidentellement doivent également accompagner le produit.

Autres mesures envisagées

D'autres formes de sensibilisation des consommateurs ont été examinées, mais la mise en garde obligatoire accompagnant le produit était la meilleure solution. L'utilisation de dépliants, d'affiches, messages radiophoniques et d'articles publiés dans les revues de plein air a été également envisagée.

interim measure. The impact of these forms of communication on the consumer is not considered to be as effective as a label directly affixed to the product and also creates an ongoing demand on the information resources of the Department.

When the Department looked at the tent flammability problem in 1983, some tent manufacturers affixed hazard warning labels while others did not. The messages varied and some were not in both official languages. In anticipation of the proposed regulations, Canadian manufacturers have adopted the proposed warning labels. However, 75% of all tents sold in Canada are imported and many of these do not carry the proposed labels. The labelling regulations would introduce uniformity in labelling practices and warn consumers of the potential hazard.

Consistency with Regulatory Policy and Citizens' Code

The proposal is consistent with the Regulatory Policy and the Citizens' Code of Regulatory Fairness. The proposed regulations would provide the least costly and most effective means of warning consumers of the flammability hazard.

Anticipated Impact

The hazard warning labels are intended to increase consumer awareness of the potential danger of tent fires. It is difficult to assess quantitatively the impacts of such warnings; however, it is anticipated that consumers will use increased caution in the use of matches, candles, lanterns, campfires, etc., in and around tents and thus reduce the number of tent fire incidents.

The cost of providing the information is small. Many tents now carry some form of warning label. Some tents currently comply with the regulations and others will require modification. For manufacturers or importers not currently affixing labels to their tents, the cost of the label and sewing labour has been estimated at $0.25 per tent. Modifying existing labels is estimated to cost $0.10 per tent. The total cost for labelling the approximately 400,000 tents sold annually will be $17,000.

Consultation

In developing the elements of the proposed labelling regulations, the Department consulted with a broad cross-section of interested parties including Canadian tent manufacturers, importers and retailers, textile manufacturers and finishers, standards bodies, fire services, government and private research and testing laboratories, provincial departments of consumer affairs, the Consumers' Association of Canada, the Boy Scouts of Canada, the Ontario Camping Association and others. In all, 250 organizations were mailed copies of the various draft regulations to review. All parties recognized the need for hazard warning labels on tents and were in agreement with the content of the labels and the implementation timing.

Ces méthodes ont même été utilisées à titre de mesures provisoires, mais on a jugé que leur impact sur le consommateur n'était pas aussi efficace qu'une étiquette apposée directement sur le produit. En outre, elles puisent constamment dans les ressources en matière d'information du Ministère.

Quand le projet a été lancé en 1983, certains fabricants de tentes apposaient des étiquettes de mise en garde. Le contenu variait et certaines étiquettes n'étaient pas dans les deux langues officielles. En prévision de la nouvelle réglementation, les fabricants canadiens ont adopté les étiquettes de mise en garde proposées. Cependant, 75 % des tentes vendues au Canada sont importées et aucune étiquette de mise en garde n'est apposée à un grand nombre d'entre elles. Le règlement sur l'étiquetage des tentes uniformisera le contenu de l'étiquette et mettra les consommateurs en garde contre les dangers possibles.

Conformité à la politique de réglementation et au Code d'équité

La proposition est conforme à la politique de réglementation et au Code d'équité. Le Règlement proposé offre le moyen le moins coûteux et le plus efficace pour mettre en garde les consommateurs contre le danger d'inflammabilité des tentes.

Répercussions prévisibles

Les étiquettes de mise en garde visent à sensibiliser davantage les consommateurs au danger possible d'incendie des tentes. Il est difficile d'évaluer quantitativement l'incidence de telles mises en garde; toutefois, le Ministère prévoit que les consommateurs feront preuve d'une plus grande prudence dans l'utilisation d'allumettes, de chandelles, de lanternes, de feux de camp, etc. près des tentes et à l'intérieur de celles-ci, ce qui permettra de réduire le nombre d'incendies de tente.

Le coût de diffusion de ces renseignements est peu élevé. De nombreuses tentes ont déjà une étiquette de mise en garde, sous une forme ou une autre. Certaines sont conformes au Règlement et d'autres devront être modifiées. Le coût de l'étiquette et de la pose devrait être de 25 ¢ par tente pour les fabricants ou les importateurs qui n'apposent pas encore d'étiquettes sur les tentes. La modification des étiquettes existantes devrait coûter 10 ¢ par tente. Le coût total d'étiquetage des quelque 400 000 tentes vendues chaque année sera de 17 000 $.

Consultations

Dans le cadre de l'élaboration du projet de réglementation relatif à l'étiquetage, le Ministère a consulté un groupe représentatif de parties intéressées y compris notamment des fabricants, des importateurs et des détaillants canadiens de tentes; des fabricants et apprêteurs de textile, des organismes de normalisation, des services d'incendie, des laboratoires de recherche et d'essai gouvernementaux et privés, les ministères provinciaux de la Consommation, l'Association des consommateurs du Canada, les Boy Scouts du Canada, l'«Ontario Camping Association». En tout, 250 organisations ont reçu des copies des divers projets de réglementation pour examen. Toutes les parties ont reconnu la nécessité d'apposer des étiquettes de mise en garde sur les tentes. Une entente a été conclue relativement au contenu des étiquettes et au calendrier de mise en œuvre.

Compliance Mechanism

Enforcement strategies which will be employed by inspectors of the Department of Consumer and Corporate Affairs to ensure compliance range from statutory actions under the Hazardous Products Act to the negotiation of voluntary agreements with traders for the withdrawal or correction of labelling on non-complying products. Enforcement would be conducted nationally, at retail, import and manufacturing levels.

For Further Information Contact

Dr. Richard Viau, Chief, Flammability Hazards Division, Product Safety Branch, Department of Consumer and Corporate Affairs, 16th Floor, Zone 5, Place du Portage, Phase I, Hull, Quebec K1A 0C9, 819-997-1194.

Mécanismes d'observation à prévoir

Les stratégies de mise en application à être appliquées par les inspecteurs du ministère de la Consommation et des Corporations en vue d'assurer la conformité iront des mesures prévues dans la *Loi sur les produits dangereux* à la négociation d'ententes volontaires avec les commerçants concernant le retrait des produits non conformes ou la correction de l'étiquette. La surveillance sera exécutée à l'échelle nationale, à tous les niveaux de commerce (vente au détail, importation et fabrication).

Pour de plus amples renseignements, communiquer avec

Richard Viau, Chef, Division de l'inflammabilité, Direction de la sécurité des produits, Ministère de la Consommation et des Corporations, 16e étage, Aire 5, Place du Portage, Tour I, Hull (Québec) K1A 0C9, 819-997-1194.

PROPOSED REGULATORY TEXT

Notice is hereby given that the Governor in Council proposes, pursuant to section 8 of the Hazardous Products Act, to make the annexed amendment to Part II of the schedule to the Act.

The proposed effective date of this amendment is the date of registration thereof with the Clerk of the Privy Council.

Interested persons may make representations concerning the proposed amendment to the Chief, Flammability Hazards Division, Product Safety Branch, Department of Consumer and Corporate Affairs, Ottawa, Ontario K1A 0C9, within 60 days of the date of publication of this notice. All such representations should cite *Canada Gazette*, Part I and the date of publication of this notice.

July 30, 1987

HENRI CHASSÉ
Assistant Clerk of the Privy Council

SCHEDULE

1. Part II[1] of the schedule to the *Hazardous Products Act* is amended by adding thereto, immediately after item 30 thereof, the following item:

"31. Tents that are made in whole or in part of fabric or other pliable materials, including

(*a*) camping tents,

(*b*) play tents,

(*c*) tent trailers, and

(*d*) dining shelters,

but not including canopies, awnings, tarpaulins, air-supported structures or tents to which the *National Building Code of Canada, 1985*, issued by the Associate Committee on the

[1] SOR/85-378, 1985 *Canada Gazette* Part II, p. 2056.

PROJET DE RÉGLEMENTATION

Il est par les présentes donné avis que le gouverneur en conseil propose, en vertu de l'article 8 de la *Loi sur les produits dangereux*, de modifier, conformément à l'annexe ci-après, la partie II de l'annexe de cette Loi.

La date proposée pour l'entrée en vigueur de la modification est celle de son enregistrement auprès du greffier du Conseil privé.

Les personnes intéressées pourront faire connaître leurs vues par écrit au Chef de la division de l'inflammabilité, Direction de la sécurité des produits, ministère de la Consommation et des Corporations, Ottawa (Ontario) K1A 0C9 dans les 60 jours suivant la publication du présent avis. Dans chaque cas, il faudra citer la *Gazette du Canada*, Partie I, et la date de publication du présent avis.

Le 30 juillet 1987

Le greffier adjoint du Conseil privé
HENRI CHASSÉ

ANNEXE

1. La Partie II[1] de l'annexe de la *Loi sur les produits dangereux* est modifiée par insertion, après l'article 30, de ce qui suit:

«31. Les tentes qui sont fabriquées en tout ou en partie de tissu ou d'autres matériaux souples, incluant

a) les tentes de camping,

b) les tentes de jeu,

c) les tentes-roulottes, et

d) les abris pour manger,

à l'exclusion des vélums, des auvents, des bâches, des structures gonflables et des tentes auxquelles s'applique le *Code national du bâtiment du Canada 1985* publié par le Comité

[1] DORS/85-378, *Gazette du Canada*, Partie II, 1985, p. 2056.

National Building Code, National Research Council of Canada, dated 1985, applies."

associé du Code national du bâtiment, Conseil national de recherches du Canada.»

REGULATIONS RESPECTING THE ADVERTISING, SALE AND IMPORTATION INTO CANADA OF TENTS

Short Title

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

Interpretation

2. In these Regulations,

"after-flame time" means the length of time a material tested in accordance with the procedure described 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*)

"flame-retardant tent" means a product made of flooring material that meets the performance requirements as described in section 8 and of wall and top material that successfully meets the performance requirements as described in section 9; (*tente ignifugée*)

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

"product" means a tent that is included in item 31 of Part II of the schedule to the *Hazardous Products Act*; (*produit*)

"sample unit" means

(*a*) in respect of flooring material, four specimens of the material of a product that meet all the requirements for test specimens as described in Schedule II; and

(*b*) in respect of wall and top material, eight specimens of the material of a product that meet all the requirements for test specimens described in Schedule II; (*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. (*matériau pour murs et toits*)

General

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

(*a*) not a flame-retardant tent, if it meets the information requirements set out in sections 5 and 6; or

(*b*) a flame-retardant tent, if it meets the information requirements set out in section 7 and the performance requirements described in sections 8 and 9.

RÈGLEMENT CONCERNANT L'ANNONCE, LA VENTE ET L'IMPORTATION AU CANADA DE TENTES

Titre abrégé

1. *Règlement sur les produits dangereux (tentes)*.

Définitions

2. Les définitions qui suivent s'appliquent au présent règlement.

«durée de combustion résiduelle» Le temps durant lequel un matériau, lorsque soumis à l'épreuve décrite à l'article 7 de la norme CPAI-84, continue de brûler après le retrait de la source d'inflammation. (*after-flame time*)

«matériau de sol» Tissu ou autre matériau flexible dont est fait le plancher du produit. (*flooring material*)

«matériau pour murs et toit» Tissu ou autre matériau flexible dont sont faits les murs, le toit, le dessus, les portes, les fenêtres, les moustiquaires ou les auvents du produit. (*wall and top material*)

«norme CPAI-84» La norme intitulée «*Normes de résistance aux flammes des matériaux utilisés dans la fabrication des tentes de camping*» de l'*Industrial Fabrics Association International* (anciennement *Canvas Products Association International*), publiée en 1972 et modifiée en 1980. (*CPAI-84*)

«produit» Le produit mentionné à l'article 31 de la partie II de l'annexe de la *Loi sur les produits dangereux*. (*product*)

«tente ignifugée» Produit dont le matériau de sol satisfait aux exigences de rendement énoncées à l'article 8 et dont le matériau pour murs et toit satisfait aux exigences de rendement énoncées à l'article 9. (*flame-retardant tent*)

«unité d'échantillonnage»

a) quant au matériau de sol, quatre spécimens de ce matériau qui satisfont aux exigences applicables de l'annexe II;

b) quant au matériau pour murs et toit, huit spécimens de ce matériau qui satisfont aux exigences applicables de l'annexe II. (*sample unit*)

Dispositions générales

3. Pour l'application du paragraphe 3(2) de la *Loi sur les produits dangereux*, il est permis, à compter du (date d'entrée en vigueur), d'annoncer, de vendre ou d'importer au Canada un produit, si:

a) dans le cas d'une tente non ignifugée, celle-ci satisfait aux exigences de renseignements énoncées aux articles 5 et 6;

b) dans le cas d'une tente ignifugée, celle-ci satisfait aux exigences de renseignements énoncées à l'article 7 et aux exigences de rendement énoncées aux articles 8 et 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 Requirements for Products That Are Not Flame-retardant

5. A product that is not a flame-retardant tent shall have a label that is permanently affixed to the product at a prominent location and that displays in a clear and legible manner

(*a*) the following words in upper case letters not less than 3 mm in height:

(i) "WARNING/MISE EN GARDE"

(ii) "WARNING/AVERTISSEMENT", or

(iii) "WARNING/ATTENTION"; and

(*b*) the following statements or other information to the same effect:

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

6. A set of written precautions containing the information set out in Schedule I or other information to the same effect shall be included with a product.

Information Requirements for Flame-retardant Tents

7. A product that is a flame-retardant tent shall have a label that is permanently affixed to the product at a prominent location and that displays in a clear and legible manner

(*a*) the following statements in upper case letters not less than 3 mm 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 statements:

"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 ininflammable. Ce tissu brûlera s'il est laissé en contact continu avec une source d'inflammation."; and

(*c*) the information set out in Schedule I or other 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 that is a flame-retardant tent shall be damaged within 2.5 cm 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 a sample unit of wall and top material of a product that is a flame-retardant tent shall

4. Les renseignements requis en vertu des articles 5, 6 ou 7 doivent figurer dans les deux langues officielles.

Renseignements requis pour les produits qui ne sont pas des tentes ignifugées

5. Le produit qui n'est pas une tente ignifugée doit porter une étiquette fixée en permanence à un endroit bien en vue et sur laquelle figurent de façon claire et lisible ce qui suit:

a) en lettres majuscules d'au moins 3 mm de hauteur, l'un des termes suivants:

(i) «MISE EN GARDE/WARNING»,

(ii) «AVERTISSEMENT/WARNING»,

(iii) «ATTENTION/WARNING»;

b) un énoncé formulé de la façon suivante ou en des termes analogues:

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

6. Le produit doit être accompagné d'une consigne de sécurité qui comporte les renseignements prévus à l'annexe I ou des renseignements ayant le même sens.

Renseignements requis pour les tentes ignifugées

7. Le produit qui est une tente ignifugée doit porter une étiquette fixée en permanence à un endroit bien en vue et sur laquelle figurent de façon claire et lisible ce qui suit:

a) en lettres majuscules d'au moins 3 mm de hauteur, les énoncés suivants:

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

b) les énoncés suivants:

«Cette tente est fabriquée d'un tissu résistant au feu, mais qui n'est pas ininflammable. Ce tissu brûlera s'il est laissé en contact continu avec une source d'inflammation./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.»;

c) les renseignements prévus à l'annexe I ou des renseignements ayant le même sens.

Exigences de rendement des tentes ignifugées

8. Lorsqu'une unité d'échantillonnage du matériau de sol du produit qui est une tente ignifugée est conditionnée et mise à l'essai conformément à la méthode prévue à l'annexe II, aucun spécimen de l'unité ne doit être endommagé dans un rayon de 2,5 cm du bord du trou pratiqué dans le cadre de mise à plat.

9. Lorsqu'une unité d'échantillonnage du matériau pour murs et toit du produit qui est une tente ignifugée est conditionnée et mise à l'essai conformément à la méthode prévue à l'annexe II:

a) la durée de combustion résiduelle de chacun des spécimens de l'unité d'échantillonnage ne peut être supérieure à

have an after-flame time of more than 4.0 seconds and the average after-flame time for all specimens of the sample unit shall not exceed 2.0 seconds;

(*b*) the maximum damaged length of an individual specimen of a sample unit of wall and top material of a product that is a flame-retardant tent and the maximum average damaged length for all specimens of the sample unit shall be as follows:

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

4,0 secondes, et la durée de combustion résiduelle moyenne de tous les spécimens ne peut dépasser 2,0 secondes;

b) la longueur maximale endommagée de chacun des spécimens de l'unité d'échantillonnage et la longueur maximale moyenne endommagée de tous les spécimens sont les suivantes:

c) il ne doit y avoir aucune partie qui se détache et aucun résidu qui s'échappe des spécimens de l'unité et qui continue à brûler après avoir atteint le plancher de la chambre d'essai.

Mass per Unit Area of Specimen Being Tested (g/m^2)	Maximum Average Damaged Length for Sample Unit (cm)	Maximum Damaged Length for 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 and	23.0	25.5

Masse par unité de superficie du spécimen mis à l'essai (g/m^2)	Longueur maximale moyenne endommagée de l'unité d'échantillonnage (cm)	Longueur maximale endommagée du spécimen (cm)
supérieur à 340	11,5	25,5
de 271 à 340	14,0	25,5
de 201 à 270	16,5	25,5
de 136 à 200	19,0	25,5
de 51 à 135	21,5	25,5
inférieure à 51	23,0	25,5

SCHEDULE I

(*Sections 6 and 7*)

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 metres away from the tent. Always be sure to fully extinguish campfires before leaving camp or before retiring for the night.

—Practise 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.

ANNEXE I

(*articles 6 et 7*)

Les précautions suivantes doivent être prises 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 quelques 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

(*Sections 8 and 9*)

CONDITIONING AND TESTING PROCEDURES

1. Cut 12 individual specimens from the flooring material of the product to be tested. The individual specimens shall meet

ANNEXE II

(*articles 8 et 9*)

MÉTHODE DE CONDITIONNEMENT ET DE MISE À L'ESSAI

1. Couper 12 spécimens distincts du matériau de sol du produit mis à l'essai. Chaque spécimen doit satisfaire aux

the requirements for test specimens set out in subsection 6.1 of CPAI-84. Divide the individual specimens into 3 sample units. Where the flooring material is woven, none of the specimens within a sample unit shall contain the same warp, weft yarns or filaments as any other specimen in that sample unit. 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 3 sample units according to 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. The individual specimens shall meet the requirements for test specimens set out in subsection 7.1 of CPAI-84. Divide the individual specimens into 3 sample units. Where the wall and top material is woven, each sample unit shall contain 4 specimens from the warp direction and 4 specimens from the weft direction of the wall and top material; none of the specimens from the warp direction shall contain the same warp yarns or filaments as any other specimen from the warp direction and none of the specimens from the weft direction shall contain the same weft yarns or filaments as any other specimen from the weft direction. Condition the specimens according to the procedures set out in sections 5.1.1 and 5.1.2 of CPAI-84. Determine the mass per unit area of the specimens to be tested to the nearest g/m^2. 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 according to the procedures set out in sections 5.1.1 and 5.1.2 of CPAI-84.

3. Flame tests shall be performed under or on immediate removal of the specimens from the standard atmospheric conditions specified in subsection 5.1.1 of CPAI-84 and, on specimens in moisture equilibrium, at standard atmospheric 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 the damaged length shall be as follows:

Mass per Unit Area of Specimen being Tested (g/m^2)	Loads for Determining Damaged Length (g)
100 or less	50
101 to 200	100
201 to 340	200
greater than 340	300

[32-1-o]

exigences applicables énoncées au paragraphe 6.1 de la norme CPAI-84. Diviser les spécimens en trois unités d'échantillonnage. Si le matériau de sol est tissé, aucun des spécimens d'une même unité d'échantillonnage ne doit contenir les mêmes fils ou filaments de chaîne ou de trame. Préparer une unité d'échantillonnage selon la procédure de lessivage prévue aux paragraphes 5.2.2. et 5.2.3 de la norme CPAI-84. Préparer une autre unité d'échantillonnage selon la procédure de vieillissement accéléré prévue aux paragraphes 5.3.2 et 5.3.3 de la norme CPAI-84. Conditionner les trois unités d'échantillonnage de la façon prévue aux paragraphes 5.1.1 et 5.1.2 de la norme CPAI-84.

2. Couper 24 spécimens distincts du matériau pour murs et toit du produit mis à l'essai. Chaque spécimen doit satisfaire aux exigences applicables énoncées au paragraphe 7.1 de la norme CPAI-84. Diviser les spécimens en trois unités d'échantillonnage. Si le matériau pour murs et toit est tissé, chaque unité d'échantillonnage doit contenir quatre spécimens pris dans le sens de la chaîne et quatre spécimens pris dans le sens de la trame; aucun des spécimens pris dans le sens de la chaîne ne doit contenir les mêmes fils ou filaments de chaîne et aucun des spécimens pris dans le sens de la trame ne doit contenir les mêmes fils ou filaments de trame. Conditionner les spécimens de la façon prévue aux paragraphes 5.1.1 et 5.1.2 de la norme CPAI-84. Déterminer la masse par unité de superficie des spécimens mis à l'essai au g/m^2 près. Préparer une unité d'échantillonnage selon la procédure de lessivage prévue aux paragraphes 5.2.2 et 5.2.3 de la norme CPAI-84. Préparer une autre unité d'échantillonnage selon la procédure de vieillissement accéléré prévue aux paragraphes 5.3.2 et 5.3.3 de la norme CPAI-84. Conditionner les trois unités d'échantillonnage de la façon prévue aux paragraphes 5.1.1 et 5.1.2 de la norme CPAI-84.

3. Les essais de flamme doivent être faits dans les conditions atmosphériques normales précisées au paragraphe 5.1.1 de la norme CPAI-84, ou immédiatement après que les spécimens ont été soumis à ces conditions et sur des spécimens en équilibre du point de vue de l'humidité, aux conditions atmosphériques normales, selon le paragraphe 5.1.2 de la norme CPAI-84.

4. Les unités d'échantillonnage du matériau de sol qui ont été conditionnées conformément à l'article 1 doivent être mises à l'essai selon la méthode prévue à l'article 6 de la norme CPAI-84.

5. Les unités d'échantillonnage du matériau pour murs et toit qui ont été conditionnées conformément à l'article 2 doivent être mises à l'essai selon la méthode prévue à l'article 7 de la norme CPAI-84, sauf que les charges permettant de déterminer la longueur endommagée prévues au paragraphe 7.3.6.1 sont remplacées par les suivantes:

Masse par unité de superficie du spécimen mis à l'essai (g/m^2)	Charge permettant de déterminer la longueur endommagée (g)
100 ou moins	50
101 à 200	100
201 à 340	200
plus de 340	300

[32-1-o]

TEXTILE AND CLOTHING BOARD

NOTICE OF INQUIRY

FAMILY SIZE, RECREATIONAL CAMPING TENTS

The Textile and Clothing Board hereby gives notice of its intention to conduct an inquiry on the competitive situation of Canadian producers of family-size, recreational camping tents*, pursuant to a request received from the Minister of Regional Industrial Expansion. The terms of reference for the inquiry, as received from the Minister, read as follows:

"Where as the Canadian tent industry sector produces family-size, recreational tents and since 1984, has been competing with low-cost imports of finished tents on the basis of unrestrained, duty-free access to certain types of cotton and polyester/cotton fabrics;

Whereas the Product Safety Branch of Consumer and Corporate Affairs Canada (CCAC) intends to include tents under the Hazardous Products Act which will require all tents sold in Canada to be in compliance with regulations requiring construction using flame retardant (FR) materials;

Whereas CCAC (FR) regulations, expected to be introduced in November 1988, have already begun to affect the buying decisions of Canadian mass merchandisers who sell tents directly to retail customers;

Whereas the Canadian Government, pursuant to its textile and clothing import policy, has negotiated bilateral restraint arrangements with a number of low-cost textile fabric producers, affecting both the cost and availability of various tenting fabrics, in either the greige or finished state;

Whereas Canadian tent producers face competition from unrestrained imports of low-cost finished tents which meet the CCAC (FR) regulations.

Therefore, pursuant to Section 20 of the Textile and Clothing Board Act, the Textile and Clothing Board is requested to undertake forthwith an inquiry to:

(1) determine the extent to which the proposed CCAC (FR) regulations are likely to affect the ability of Canadian tent producers to compete with low-cost imports of similar family-size recreational camping tents;

(2) in light of (1), determine the factors essential to maintain the international competitive position of Canadian tent producers in the Canadian market including unrestrained duty-free access to world priced tenting fabrics.

---

* For the purpose of the inquiry, family-size recreational camping tents are defined as having a minimum floor area of 6.50 square metres (70 square feet).

Given the need for the Government to consider and determine import policies for domestic tent producers for the period beyond 1987, the inquiry will proceed as expeditiously as possible and a final report made no later than three months after the date of referral to the Textile and Clothing Board."

Although the Minister's request only mentions family-size recreational camping tents and the fabrics which go into their manufacture, the Board will be interested in receiving, as part of the inquiry, data and comments regarding the supply and use in the manufacture of other types of tents of the same fabrics that are used for family-size recreational camping tents.

The Board invites all interested parties to submit to it, not later than November 23, 1987, briefs relating to this inquiry. Ten copies of each brief should be supplied. The Board will not make such briefs public, and the confidentiality of confidential material contained in them will be maintained. Those submitting briefs are free to make them public if they wish.

Public hearings relating to this inquiry are expected to be held by the Board in Toronto, Montreal and Vancouver, if required, in early December 1987. Specific dates and places for hearings will be announced at a later date.

These public hearings will be for the purpose of receiving supplementary explanations or arguments from organizations or persons who will have presented briefs by November 23, 1987 and who have asked or been invited to appear before the Board.

The Board will also receive requests for private hearings from parties who have presented or supported the presentation of briefs and wish to discuss confidential matters. These private hearings will be arranged at mutually convenient times for the parties.

All correspondence and briefs relating to this inquiry should be addressed to the Secretary, Textile and Clothing Board, 235 Queen Street, Ottawa, Ontario, K1A 0H5 (Telephone (613) 954-5015).

Ottawa, Canada
October 16, 1987.

FIRMS AND ORGANIZATIONS WHICH PRESENTED BRIEFS TO THE BOARD AND/OR APPEARED AT HEARINGS OF THE BOARD

FIRM OR ORGANIZATION	LOCATION	PRESENTED A BRIEF	APPEARED AT A HEARING
- C.D. Arthur and Associates Inc. on behalf of Campmate Limited and Ridgeline Products Inc.	Ottawa, Ontario	X	Public
- Campmate Limited	Scarborough, Ontario	X	Private
- Canadian Textiles Institute	Ottawa, Ontario	X	Public
- Canadian Tire Corporation	Toronto, Ontario	X	Private
- Consoltex Canada Inc.	Montréal, Québec	X	Private
- Dominion Textile Inc.	Montréal, Québec	X	Private
- Doubletex Inc.	Montréal, Québec	X	
- Guarantee Fit Products - Trekk Inc. for American Recreation Products	Montréal, Québec	X	Private
- The Hudson's Bay Company and Zellers Inc.	Toronto, Ontario	X	Private
- Johnson Diversified Canada Inc.	Burlington, Ontario	X	Private
- Jones Leisure Products Limited	Vancouver, B.C.		Private
- Manta Industries Limited	Winnipeg, Manitoba		Private
- Ridgeline Products Inc.	Toronto, Ontario	X	Private
- Taymor Industries Limited	Vancouver, B.C.	X	Private
- Woods Canada Limited	Toronto, Ontario	X	Private
- Woolco/F.W. Woolworth Limited	Toronto, Ontario		Private

RESEARCH

Data on manufacturing, importing and retailing activities were obtained from tent fabric producers, and tent manufacturers, importers and retailers. These data were obtained by personal interview and by means of mailed questionnaires.

An analysis of imports of tents was carried out in collaboration with Statistics Canada.

Consultations were held with officials of Consumer and Corporate Affairs Canada with regard to flame retardancy regulations.

CPAI-84

A SPECIFICATION FOR FLAME RESISTANT MATERIALS USED IN CAMPING TENTAGE

Camping Products Manufacturers' Division
Canvas Products Association International
350 Endicott Bldg. St. Paul, Minnesota 55101
612-222-2508

This Standard represents the judgement of the members of the Camping Products Manufacturers' Division of the Canvas Products Association International as to the basic performance requirements for products to be certified under this Standard. Inasmuch as the Canvas Products Association International does not inspect, approve, or certify any procedures, equipment, materials or products nor does it approve or evaluate actual testing, it assumes no liability or responsibility for the effect of observance or non-observance of any or all of the Standards set forth herein.

Table of Contents

1. Scope

1.1 Scope. This standard provides performance requirements and test methods for evaluating the flame resistance of fabric and other pliable materials used in camping tentage. It also provides for certification of materials by suppliers and for labeling programs to caution the user against actions detrimental to flame retardant finishes, as well as to facilitate the identification of tentage as being constructed of flame resistant materials and to identify the manufacturer.

2. Definitions

2.1 Camping Tentage: Any portable temporary shelter or structure designed to protect persons from the elements, all or a portion of the covering of which is made of fabric or other pliable materials. This includes, though not exclusively, the following: camping tents; play tents; recreational vehicle awnings; dining flies and canopies; fabric screen houses; add-a-rooms; ice fishing tents.

2.2 Material Classifications. All materials covered in this standard fall under one of the following definitions:

2.2.1 Flooring Material: Any pliable material used for flooring in camping tentage but excluding such things as rugs or carpets placed in the tent which are not an integral part of the item.

2.2.2 Wall and Top Material: Any pliable material used in camping tentage for other than flooring including walls, roofs, tops, doors, windows, screens, awnings, flies, and canopies.

2.3 Sample Unit. A sample unit shall consist of the following:

2.3.1 Flooring Material: Four individual specimens, no two specimens containing the same warp or fill yarns or filaments.

2.3.2 Wall and Top Material: Eight individual specimens, four taken from the warp and four from the fill direction of the test material. No two warp specimens shall contain the same warp yarns or filaments and no two fill specimens shall contain the same fill yarns or filaments.

3. Performance Requirements

3.1 Flooring Material. When subjected to the test described in Section 6, no specimen from a sample unit of flooring material shall be damaged within 1.0 inch of the edge of the hole in the flattening frame.

3.2 Wall and Top Material. When subjected to the test described in Section 7, no specimen from a sample unit of wall and top material shall have an after-flame time (length of time a specimen continues to flame after removal of the test flame source) of more than 4.0 seconds; the average after-flame time for all specimens in a sample unit shall not exceed 2.0 seconds. The damaged length (distance from the bottom of the specimen to a point above which all material is sound) for the sample unit and individual specimens shall not exceed the values shown in Section 3.2.1. Portions or residues which break or drip from the test specimens shall not continue to flame after they reach the floor of the test cabinet.

3.2.1 Damaged Length. The maximum permissible damaged lengths for wall and top material shall be as follows:

Untreated Weight of Material Being Tested - Ounces Per Square Yard	Maximum Average Damaged Length for Sample Unit - Inches	Maximum Damaged Length for an Individual Specimen - Inches
Over 10	4.5	10.0
Over 8 but not over 10	5.5	10.0
Over 6 but not over 8	6.5	10.0
Over 4 but not over 6	7.5	10.0
Over 1.5 but not over 4	8.5	10.0
Not over 1.5	9.0	10.0

4. Certification and Labeling

4.1 Material Certification. Each lot of flame resistant material supplied to a manufacturer of camping tentage shall be accompanied by a written certification from the supplier stating that it meets the flame retardance requirements of CPAI-84 and giving the lot number and yardage therein.

4.2 Labeling of Camping Tentage. A label or labels shall be permanently affixed to each item of camping tentage containing the following information:

4.2.1 Certification: A statement that the materials used in the manufacture of the item meet the flame resistance requirements of CPAI-84.

4.2.2 Manufacturer Identification: An identification of the manufacturer of the item, unless the item bears a private label, in which case, it shall identif the private labeler and shall also contain a code mark which will permit the seller of the item to identify the manufacturer thereof to the purchaser upon his request.

4.2.3 Code Number: A number enabling the manufacturer to identify from his records the suppliers and suppliers' lot numbers of the certified materials used in the item. The manufacturer shall also maintain records identifying the parties to whom he sold camping tentage. Further, he shall maintain records identifying items manufactured from lots of certified material. Records shall be maintained for 4 years.

4.2.4 Warning Label:

24 pt. type

16 pt. type

12 pt. type

WARNING

KEEP ALL FLAME AND
HEAT SOURCES AWAY
FROM THIS TENT FABRIC

This tent is made with flame resistant fabric which meets CPAI-84 specifications. It is not fire proof. The fabric will burn if left in continuous contact with any flame source.

The application of any foreign substance to the tent fabric may render the flame resistant properties ineffective.

This warning label or its equivalent must be permanently affixed to the tent at one conspicuous location, and must contain block letters on a white background. The first paragraph of the body of the label must be placed in a conspicuous location on each carton containing the tent.

5. Conditioning

5.1 Standard Conditions for Testing. Flame tests shall be performed under or upon immediate removal from Standard Atmospheric Conditions and on specimens in moisture equilibrium under Standard Atmospheric Conditions.

5.1.1 Standard Atmospheric Conditions. Standard Atmospheric Conditions for testing are 65 percent ± 2 percent relative humidity at a temperature of 70°F. ± 2°F. (21.1°C. ± 1.1°C.)

5.1.2 Moisture Equilibrium. Moisture equilibrium is considered to have been reached when, after free exposure of the material to air in motion controlled at Standard Atmospheric Conditions as defined above, the change in weight of successive weighings made at intervals of 1 hour is no greater than 0.25 percent.

5.1.3 Preconditioning. In the event of dispute concerning the results of tests that may be affected by the moisture content, the material shall be preconditioned by being brought to moisture equilibrium with an atmosphere having a relative humidity of not over 10 percent and a temperature not over 125°F. (52°C.). The material shall than be brought to moisture equilibrium under Standard Atmospheric Conditions as defined above and then tested.

5.2 Leaching. Tests in Sections 6 and 7 shall be performed both before and after leaching.

5.2.1 Test Specimen. Test specimens to be leached shall be of the following dimensions:

5.2.1.1 Flooring Material. Each test specimen shall be a 9 inch by 9 inch (± 1/16 inch) section of the flooring material to be tested.

5.2.1.2 Wall and Top Material. Test specimens shall be rectangles of cloth 2 3/4 inches by 12 inches (± 1/16 inch) with the long dimensions parallel to either the warp or filling directions of the material.

5.2.2 Apparatus

5.2.2.1 Water container or tank of such shape and size that the specimen can be submerged therein with all surfaces of the specimen having full access to the water. For cloth specimens the container shall allow not less than 1/2 gallon of water for each square foot of specimen. The water shall be changed by a continuous flow or by emptying and refilling so that there shall be at least six complete changes of water in a 72-hour period.

5.2.2.2 Means of maintaining water at a temperature of 60°F. to 70°F. (15.5°C. to 21.1°C.) and a pH of 6.0 to 8.0 during the test.

5.2.2.3 Means for holding the specimen submerged throughout the leaching period.

5.2.3 Procedure. The specimens shall be immersed in water at a temperature of 60°F. to 70°F. (15.5°C. to 21.1°C.) and a pH of 6.0 to 8.0 for 72 hours. The specimen shall then be removed, air-dried, and brought to Standard Atmospheric Conditions prior to further testing.

5.3 Accelerated Weathering. Tests in Sections 6 and 7 shall be performed both before and after accelerated weathering.

5.3.1 Test Specimen. Test specimens to be weathered shall be of the following dimensions:

5.3.1.1 Flooring Material. Each test specimen shall be a 9 inch by 9 inch (± 1/16 inch) section of the flooring material to be tested.

5.3.1.2 Wall and Top Material. Test specimens shall be rectangles of cloth 2 3/4 inches by 12 inches (± 1/16 inch) with the long dimensions parallel to either the warp or filling directions of the material.

5.3.2 Apparatus

5.3.2.1 Vertical carbon arc mounted at the center of a vertical cylind The arc shall be designed to accommodate either two or three pairs of carbons but shall burn only one pair at a time, automatically transferring from one pair to another as the carbons are consumed. The carbons shall be Sunshine-cored and copper-coated, No. 22 for the upper pair and No. 13 for the lower pair. The arc shall be operated on 60 amperes and 50 volts across the arc for alternating curren and on 50 amperes and 60 volts across the arc for direct current.

5.3.2.2 A rotating rack with holder in which the specimens are suspende vertically and normally to radiation from the arc with the center of the face of the specimen at a radial distance of approximately 18 inches from the arc.

5.3.2.3 Water-spray nozzles shall be mounted horizontally (the water-spray assembly vertically) in the test chamber inside the specimen rack and so placed that the water shall strike the specimens evenly over their entire length in the form of a fine spray in sufficient volume to cover specimens immediately on impact. The apparatus shall be so operated that the specimens are exposed to successive cycles of 102 minutes of light without spray and 18 minutes of light with spray.

5.3.2.4 Means for maintaining the required temperature of water in the spray.

5.3.2.5 Means for maintaining the required pressure of water entering the spray.

5.3.2.6 Means for delivering the required quantity of water per spray nozzle to the specimen.

5.3.2.7 Exhaust fan to ventilate the arc effectively.

5.3.2.8 Black panel thermometer unit for measuring the temperature within the machine. This unit shall consist of a metal panel to the base of which is attached the sensitive portion of a bimetallic dial-type thermometer. The entire base is then coated twice with long lasting baked enamel paint.

5.3.3 Procedure

5.3.3.1 The rack shall rotate about the arc at a uniform speed of one revolution per minute.

5.3.3.2 The temperature of water in the spray shall be $80^{\circ} \pm 10^{\circ}$ F. ($26.7^{\circ} \pm 5.6^{\circ}$ C.)

5.3.3.3 The pressure of the water entering the spray shall be 1 - 18 psi inclusive.

5.3.3.4 The quantity of water delivered to the specimen shall be .12 to .25 gallons, inclusive, per hour per spray nozzle.

5.3.3.5 The black panel temperature at the exposure plane of the specimen rack shall be $155^{\circ} \pm 10^{\circ}$ F. ($68^{\circ} \pm 5.7^{\circ}$ C.) when measured in the followir manner:

Before reading the temperature the machine shall be full of specimens and shall be in operation long enough for thermal equilibrium to be established. The black panel shall be mounted in the test-panel rack and readings taken at the point where water spray is not striking the panel.

5.3.3.6 The specimen shall be suspended on the rotating rack without tension and in such a way that the ends or corners cannot curl. The long dimensio of the specimen shall be in the vertical position and shall be indicated on the reverse side of the cloth. No test portion of the specimen shall be over 7 inches above or below the horizontal plane of the arc.

5.3.3.7 The specimen shall be exposed to normal radiation from the arc for 100 hours.

5.3.3.8 At the end of the exposure period, the specimen shall be remove from the machine, allowed to dry, and brought to Standard Atmospheric Conditions prior to further testing.

6. Test Method, Flooring Material

6.1 Test Specimen. Each test specimen shall be a 9 inch by 9 inch ($\pm$ 1/16 inch) section of the flooring material to be tested.

6.2 Apparatus

6.2.1 Test Chamber. The test chamber shall consist of an open top hollow cube made of noncombustible material with inside dimensions 12 x 12 x 12 inches and a minimum of 1/4 inch wall thickness. The flat bottom of the box shall be made of the same material as the sides and shall be easily removable. The sides shall be fastened together with screws or brackets and taped to prevent air leakage into the box during use.

6.2.2 Supporting Frame. A steel plate, 9 inches by 9 inches, 1/4 inch thick with an 8 inch diameter hole in its center and a 1 inch be 1 inch by 1/16 inch thick shim affixed to the underside of each corner is required to support the material above the floor of the chamber during the course of the test.

6.2.3 Flattening Frame. A steel plate 9 inches by 9 inches, 1/4 inch thick with an 8 inch diameter hole in its center is required to hold the flooring material flat during the course of the test.

6.2.4 Punch: A punch capable of making a 1/4 inch diamter hole in the center of the specimen of flooring material to be tested.

6.2.5 Standard Igniting Source: No. 1588 methenamine timed burning tablet or an equal tablet. These tablets shall be stored in a desiccator over a desiccant for 24 hours prior to use. (Small quantities of sorbed water may cause the tablets to fracture when first ignited. If a major fracture occurs, any results from that test shall be ignored, and it shall be repeated.)

6.2.6 Hood: A hood capable of being closed and having its draft turned off during each test and capable of rapidly removing the products of combustion following each test. The front or sides of the hood should be transparent to permit observation of the tests in progress.

6.2.7 Mirror: A small mirror mounted above the test chamber at an angle to permit observation of the specimen from outside of the hood.

6.3 Procedure

6.3.1 Place the test chamber in the draft-protected environment (hood with draft off) with its bottom in place and the supporting frame centered in the bottom of the chamber, shimmed side down.

6.3.2 Punch a 1/4 inch diameter hole in the center of the specimen of flooring material to be tested.

6.3.3 Place the specimen on the supporting frame in the position in which it will be used, exercising care that the specimen is horizontal and flat. Place the flattening frame on the specimen and position a methenamine tablet on one of its flat sides with its edge within 1/8 inch of the edge of the hole in the center of the specimen.

6.3.4 Ignite the tablet by touching a lighted match or an equivalent igniting source carefully to its top.

6.3.5 Continue each test until the last vestige of flame or glow disappears (this is frequently accompanied by a final puff of smoke) or the flaming or smoldering has approached within 1.0 inch of the edge of the hole in the flattening frame at any point. (Any test in which the tablet is extinguished by physical action of the specimen of flooring material shall be disregarded and the test repeated.)

6.3.6 When all combustion has ceased, ventilate the hood and measure the shortest distance between the edge of the hole in the flattening frame and the damaged area. Record the distance measured for each specimen.

6.3.7 Remove the specimen from the chamber and remove any burn residue from the floor of the chamber. Before proceeding to the next test, the floor must be cooled to normal room temperature or replaced with one that is at normal room temperature.

6.4 Report. The number of specimens of the four tested in which the damaged area does not extend to within 1.0 inch of the edge of the hole in the flattening frame shall be reported.

6.5 Notes

6.5.1 The No. 1588 methenamine tablet may be procured from a local pharmacy or from Eli Lilly & Co., 740 S. Alabama, Indianapolis, Indiana 46206.

7. Test Method, Wall and Top Material

7.1 Test Specimen. The test specimens shall be rectangles of cloth 2 3/4 inches by 12 inches (± 1/16 inch) with the long dimensions parallel to either the warp or filling directions of the material.

7.2 Apparatus

7.2.1 Cabinet: A cabinet and accessories, fabricated in accordance with the requirements specified in Figures A, B, and C. Galvanized sheet metal or other suitable metal shall be used. The entire inside back wall of the cabinet shall be painted black to facilitate the viewing of the test specimen and pilot flame.

7.2.2 Burner. The burner shall be equipped with a variable orifice to adjust the flame height, a barrel having a 3/8 inch inside diameter, and a pilot light.

7.2.2.1 The burner may be constructed by combining a 3/8 inch inside diameter barrel 3 ± 1/4 inches long from a fixed orifice burner with a base from a variable orifice burner.

7.2.2.2 The pilot light tube shall have a diameter of approximately 1/16 inch and shall be spaced 1/8 inch away from the burner edge with a pilot flame 1/8 inch long.

7.2.2.3 The necessary gas connections and the applicable plumbing shall be as specified in Figure D except that a solenoid valve may be used in lieu of the stopcock valve to which the burner is attached. The stopcock valve or solenoid valve, whichever is used, shall be capable of being fully opened or fully closed in 0.1 second.

7.2.2.4 On the side of the barrel of the burner, opposite the pilot light there shall be a metal rod of approximately 1/8 inch diameter spaced 1/2 inch from the barrel and extending above the burner. The rod shall have two 5/16 inch prongs marking the distances of 3/4 inch and 1 1/2 inches above the top of the burner.

7.2.2.5 The burner shall be fixed in a position so that the center of the barrel of the burner is directly below the center of the specimen.

7.2.3 A control valve system with a delivery rate designed to furnish gas to the burner uder a pressure of 2 1/2 ± 1/4 lbs. per square inch at the burner inlet (see 7.5.1). The manufacturer's recommended delivery rate for the valve system shall include the required pressure.

7.2.4 The gas used shall be Matheson Manufactured Gas Type B or the equivalent.

7.2.5 Metal hooks and weights to produce a series of total loads to determine damaged length. The metal hooks shall consist of No. 19 gauge steel wire or equivalent and shall be made from 3 inch lengths of the wire and bent 1/2 inch from one end to a 45 degree hook. One end of the hook shall be fastened around the neck of the weight to be used.

7.2.6 Stop watch or other device to measure the burning time to 0.2 second.

7.2.7 Scale, graduated in 0.1 inch to measure the damaged length.

7.3 Procedure

7.3.1 The specimen in its holder shall be suspended vertically in the cabinet in such a manner that the entire length of the specimen is exposed and the lower end is 3/4 inch above the top of the gas burner. The apparatus shall be set up in a draft free area.

7.3.2 Prior to inserting the specimen, the pilot flame shall be adjusted to approximately 1/8 inch in height measured from its lowest point to the tip. The burner flame shall be adjusted by means of the needle valve in the base of the burner to give a flame height of 1 1/2 inches (± 1/16 inch) with the stopcock fully open and the air supply to the burner shut off and taped. The 1 1/2 inch flame height is obtained by adjusting the valve so that the uppermost portion (tip) of the flame is level with the tip of the metal prong (see Figure B) specified for adjustment of flame height. It is an important aspect of the evaluation that the flame height be adjusted with the tip of the flame level with the tip of the metal prong. After inserting the specimen, the stopcock shall be fully opened, and the burner flame applied vertically at the middle of the lower edge of the specimen for 12 seconds (± .2 second) and the burner turned off. The cabinet door shall remain shut during testing.

7.3.3 The after-flame time for each specimen shall be recorded to the nearest 0.2 seconds. After flaming and glowing have ceased, the specimen shall be removed from the cabinet.

7.3.4 After each specimen is removed, the test cabinet shall be cleared of fumes and smoke prior to testing the next specimen.

7.3.5 After both flaming and glowing have ceased, the damaged length shall be measured. The damaged length shall be the distance from the end of the specimen, which was exposed to the flame, to the end of a tear (made lengthwise) of the specimen through the center of the damaged area as follows: The specimen shall be folded lengthwise and creased by hand along a line through the highest peak of the damaged area. The hook shall be inserted in the specimen (or a hole, 1/4 inch diameter or less, punched out for the hook) at one side of the damaged area 1/4 inch from the adjacent outside edge and 1/4 inch in from the lower end. A weight of sufficient size such that the weight and hook together shall equal the total tearing load required in 7.3.6.1 shall be attached to the specimen.

7.3.6 A tearing force shall be applied gently to the specimen by grasping the corner of the cloth at the opposite edge of the char from the load and raising the specimen and weight clear of the supporting surface. The end of the tear shall be marked off on the edge and the damaged length measurement made along the undamaged edge.

7.3.6.1 Loads for Determining Damaged Length. The specific load applicable to the weight of the test material shall be as follows:

Untreated Weight of Material Being Tested - Ounces per Square Yard	Total Tear Weight for Determining the Damaged Length - Pounds
Not exceeding 6.0	0.25
Over 6.0 and not exceeding 15.0	0.50
Over 15.0 and not exceeding 23.0	0.75
Over 23.0	1.00

7.3.7 The damaged length for each specimen shall be recorded to the nearest 0.1 inch.

7.4 Report

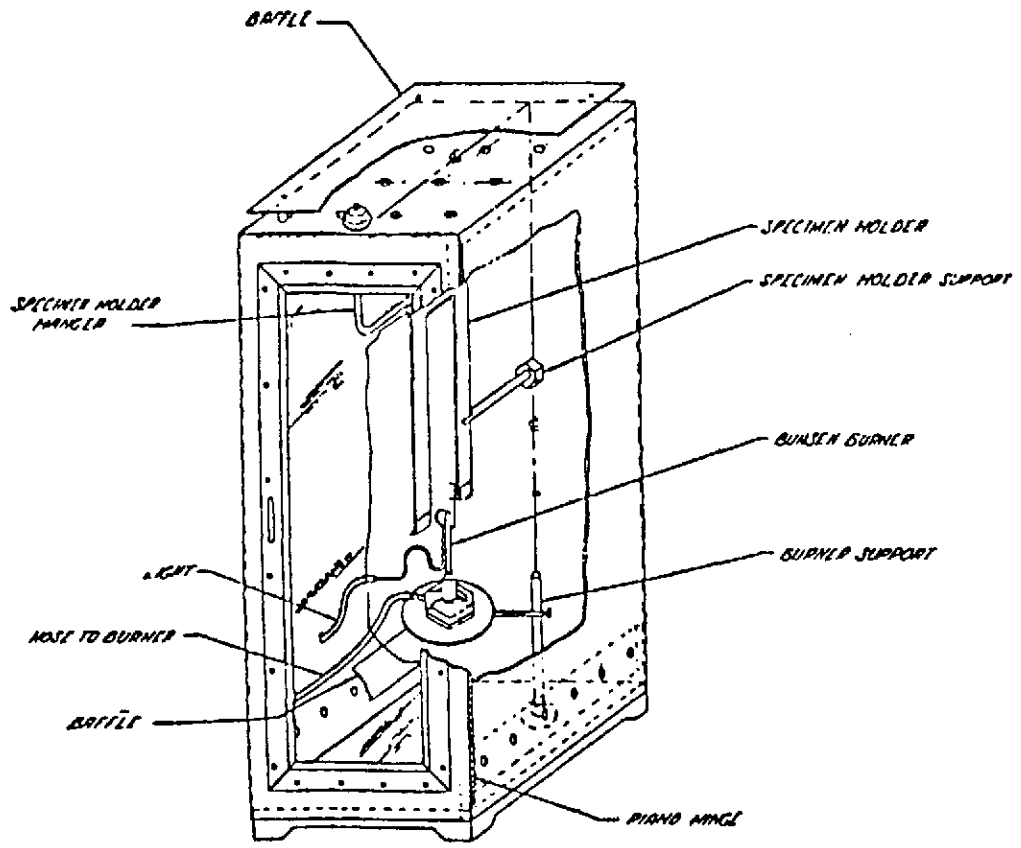
7.4.1 The after-flame time and damaged length of the sample unit shall be the average of the results obtained from the individual specimens tested. All values obtained from the individual specimens shall be recorded.

7.4.2 The after-flame time shall be reported to the nearest 0.2 second and the damaged length to the nearest 0.1 inch.

7.5 Notes

7.5.1 The gas and the regulator valve system, Models IL-350 and 70 with hose and fittings connected in series may be obtained from Matheson Gas Products, P. O. Box 85, East Rutherford, New Jersey 07073.

7.5.2 The test cabinet of the type described in this test method may be obtained from U.S. Testing Company, 1941 Park Avenue, Hoboken, New Jersey 07030 or from the Govmark Organization, Inc. P.O. Box 807, Bellmore, New York 11710.



ILLUSTRATION

FIGURE A – Verticle flame resistance textile apparatus.

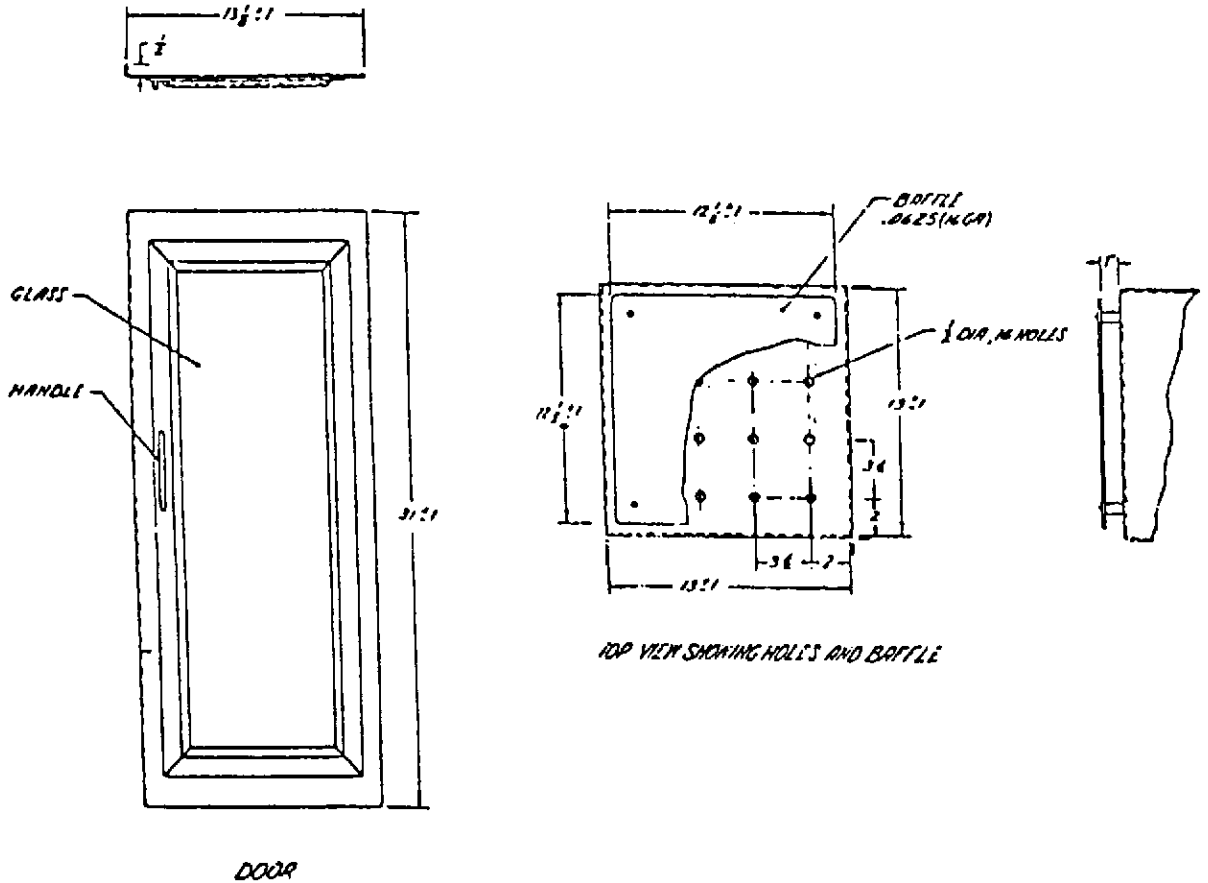


FIGURE B - Vertical flame resistance textile apparatus, door and top view w/baffle.

CPAI-84

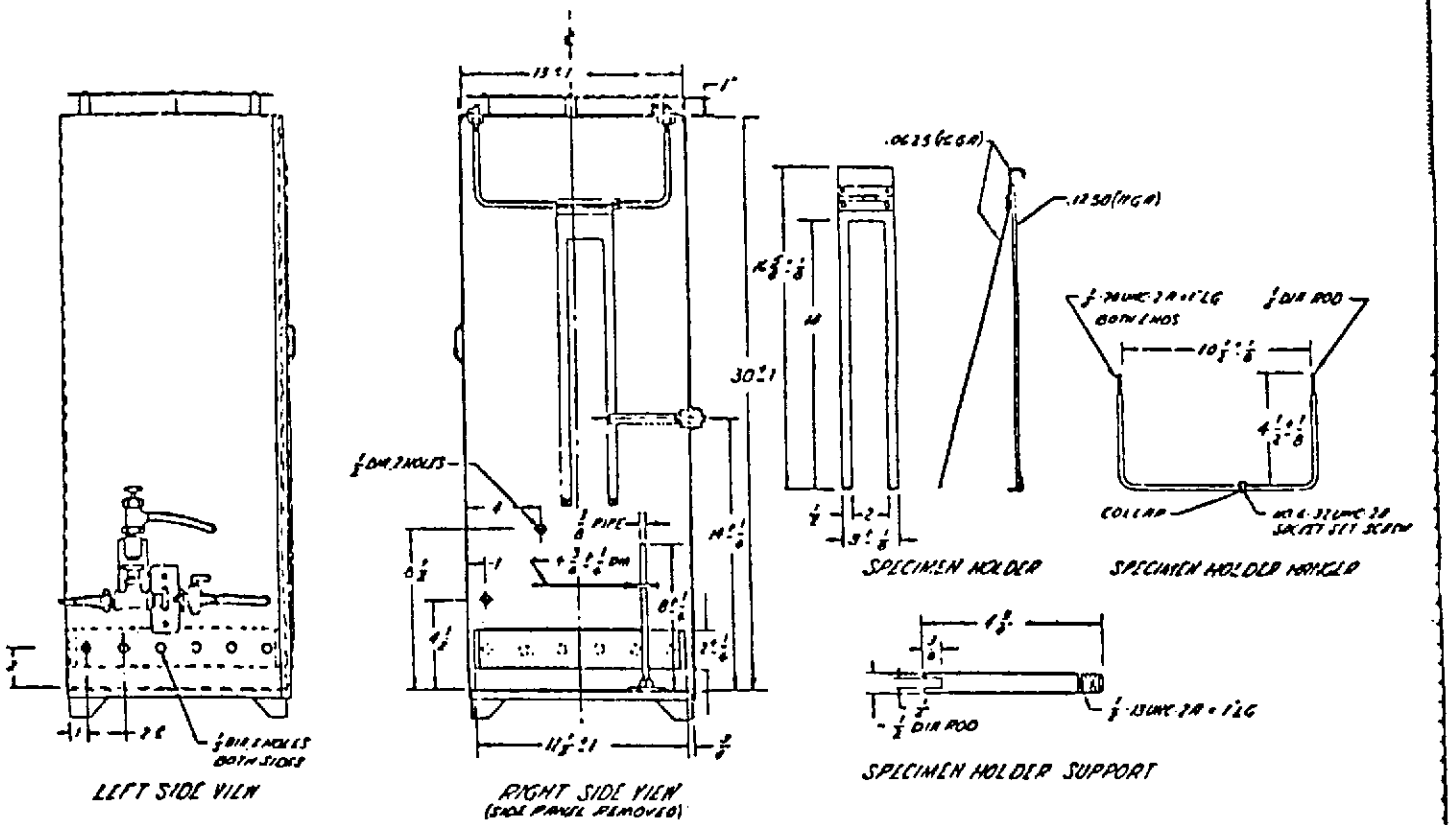
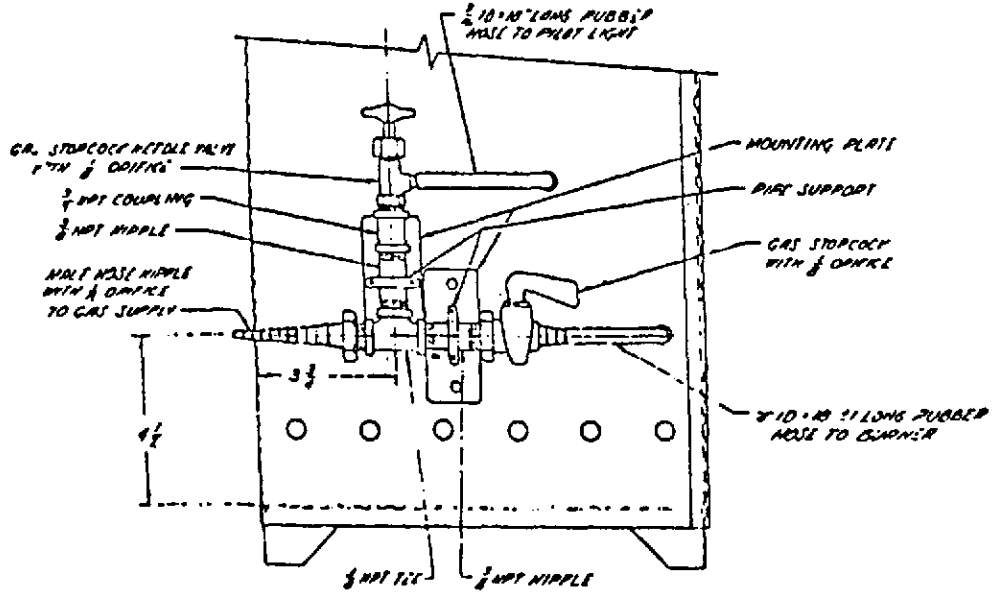


FIGURE C - Verticle flame resistance textile apparatus, views and details.



SIDE VIEW SHOWING GAS HOSE CONNECTION

NOTE
ALL PIPE FITTING TO BE BLACK IRON PIPE

FIGURE D - Vertical flame resistance textile apparatus.

THE TARIFF CLASSIFICATION
AND
MOST-FAVOURED-NATION RATES OF DUTY
APPLICABLE TO IMPORTS OF TENTS

	TARIFF ITEM	DESCRIPTION	M-F-N DUTY
Tents, made from cotton fabrics	52305.1	Clothing, wearing apparel and other articles, made from woven fabrics wholly of cotton; all textile manufacturers, wholly or partially manufactured, the component fibre of which is wholly cotton, n.o.p.	22.5%
Tents, made from polyester; polyester/cotton; or nylon	56300.1	Clothing, wearing apparel and articles made from woven fabrics, and all textile manufacturers, wholly or partially manufactured, the textile component of which is fifty per cent or more, by weight, of man-made fibres or filaments or of glass fibres or filaments, not containing wool or hair.	25%

TARIFF CLASSIFICATION AND MOST-FAVOURED-NATION RATES OF DUTY APPLICABLE TO FABRIC IMPORTED FOR GENERAL USE AND FOR THE MANUFACTURE OF TENTS

FABRIC	FOR GENERAL USE			FOR THE MANUFACTURE OF TENTS		
	TARIFF ITEM	DESCRIPTION	M-F-N DUTY	TARIFF ITEM	DESCRIPTION	M-F-N DUTY
Cotton	52201.1	Woven fabrics, wholly of cotton not bleached, mercerized nor coloured, n.o.p.	15%	52260.1	Woven fabrics, wholly of cotton or wholly of spun polyester or of blends of cotton and polyester fibres, for use in the manufacture of family or recreational tents, having a floor area of not less than $3M^2$ nor greater than $21M^2$	Free
Polyester; Polyester/ Cotton;	56205.1	Woven fabrics, wholly or in part of man-made fibres or filaments or of glass fibres or filaments, not containing wool or hair, not including fabrics more than fifty per cent, by weight, of silk: exceeding 30 cm in width	25%			
Flame resistant nylon	56205.1		25%	Order in Council	Subject to Section 4 of The Flame Resistant Nylon Fabrics for Tent Remission Order (copy attached) remission is granted of the customs duty paid or payable on flame resistant nylon fabrics, woven, composed of yarns of 77.78 DTEX, having in the warp and in the weft a minimum of 748 threads per 10 cm, that are: a) purchased for use in the manufacture of family or recreational tents for the 1988 tenting season; and b) imported during the period commencing on March 1, 1987 and ending on March 31, 1988.	Duty remission

Appendix 9

P.C. 1987-2137
15 October, 1987

HER EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL,

considering that it is in the public interest to do so, is pleased hereby, on the recommendation of the Minister of Finance and the Treasury Board, pursuant to section 17 of the Financial Administration Act, to make the annexed Order respecting the remission of the customs duties and part of the sales tax paid or payable on flame resistant nylon fabrics for tents.

ORDER RESPECTING THE REMISSION OF THE CUSTOMS DUTIES AND PART OF THE SALES TAX PAID OR PAYABLE ON FLAME RESISTANT NYLON FABRICS FOR TENTS

Short Title

1. This Order may be cited as the Flame Resistant Nylon Fabrics for Tents Remission Order.

Remission of Customs Duties

2. Subject to section 4 of this Order, remission is hereby granted of the customs duties paid or payable under the Customs Tariff on flame resistant nylon fabrics, woven, composed of yarns of 77.78 dtex, having in the warp and in the weft a minimum of 748 threads per 10 cm, that are

(a) purchased for use in the manufacture of family or recreational tents for the 1988 tenting season; and

(b) imported during the period commencing on March 1, 1987 and ending on March 31, 1988.

Remission of Sales Tax

3. Subject to section 4, remission is hereby granted of the sales tax paid or payable under the Excise Tax Act on the goods for which customs duties are remitted pursuant to section 2 of this Order, in an amount equal to the difference between

(a) the amount of sales tax paid or payable on the goods; and

(b) the amount of sales tax that would be payable in respect of the goods if the duty paid value used to calculate the sales tax on the goods were reduced by the amount of the remission of customs duties remitted under this Order.

Condition

4. The remission granted under this Order is on the condition that a claim for remission is made to the Minister of National Revenue within two years of the date of importation of the flame resistant nylon fabric for which remission is claimed.

EXPLANATORY NOTE

(This note is not part of the Order)

This Order remits the duties and part of the sales tax on flame resistant nylon fabrics for manufacturing recreational and family tents during the period beginning on March 1, 1987 and ending on March 31, 1988.

THE CANADA - KOREA

BILATERAL RESTRAINT ARRANGEMENT

ON

UNCOATED AND COATED NYLON FABRICS

FABRIC	RESTRAINT AND UTILIZATION		1987	1988	1989	1990	1991
1. Nylon broadwoven fabrics in which the nylon fibre accounts for 50 per cent or more by weight or thread count or where the nylon fibres represent the chief value including both uncoated fabrics and coated fabrics where the coating accounts for 50 per cent or less by weight.	original restraint	kg	233,941	247,977	262,856	278,627	295,345
	adjusted restraint	kg	245,639				
	utilization(1)	%	61				
of which: uncoated nylon	original restraint	kg	74,941	79,437	84,204	89,256	94,611
	adjusted restraint	kg	78,689				
	utilization(1)	%	67				

(1) Report dated December 4, 1987, Department of External Affairs.

SOURCE: Department of External Affairs.