

A submission presented on behalf of



To Health Canada and the Standing Committee on Health

In consideration of

**The Regulatory Proposal
for Reducing Fire Risks from Cigarettes and
Bill C-260, An Act to Amend the Hazardous Products Act
(fire-safe cigarettes)**

January 31, 2003

II. INTRODUCTION

Established in 1912, Imperial Tobacco Canada is the largest tobacco company in Canada. Operations range from leaf tobacco buying, processing, and sales to the manufacture of a full range of tobacco products. Headquartered in Montreal, Imperial Tobacco Canada employs approximately 2,030 full-time and seasonal individuals at its main office, regional sales offices throughout Canada, and its manufacturing and leaf processing facilities located in Quebec (Montreal) and Ontario (Guelph, Aylmer). Currently, Imperial Tobacco Canada through trademarks such as duMaurier, Player's and Matinée offers quality products to over approximately 5.7 million Canadian adults who choose to smoke.

On February 1, 2000, Imperial Tobacco Canada became a wholly owned subsidiary of British American Tobacco ("BAT"). Prior to that date BAT had 41.5% ownership through IMASCO, a publicly owned Canadian enterprise.

Over the years, Imperial Tobacco Canada and IMASCO have had a long history of acting in a socially responsible fashion. This social responsibility has extended beyond the ethical sales and distribution of legal products to include numerous contributions to the community at large. The company participates in the Canadian Centre for Philanthropy's "Imagine" program by donating 1% of its pre-tax profits annually.

Together, the people who make up Imperial Tobacco Canada Limited manufacture, distribute and sell approximately 60% of the cigarettes, both the conventional tailor-made as well as the "roll-your-own variety", sold in Canada. Our people are proud of their work and unswerving in their commitment to producing the best quality tobacco products for the Canadian adult consumer.

Our people also are dedicated to acting in a responsible manner and meeting the broader community's expectations of how a modern tobacco company conducts its business. Indeed, we seek constantly to exceed public expectations by making responsibility the hallmark of all of our attitudes and actions, regardless of the issue.

III. PRELIMINARY REMARKS

1. At the outset, Imperial Tobacco Canada Limited would like to state that it supports Health Canada's goal to reduce fires that may be caused by smokers carelessly discarding or leaving their cigarettes unattended and to develop standards by which the ignition propensity of cigarettes can be realistically measured. The Regulatory Proposal for Reducing Fire Risks from Cigarettes (the "Proposal") focuses on a problem that long has been of concern, the accidental fire risk posed by the careless handling of lit cigarettes. In 2002 approximately 47,000,000,000 cigarettes were smoked in Canada.¹ The vast majority of those cigarettes, more than 99.99%, are extinguished safely after having been smoked.
2. Imperial Tobacco Canada Limited would also like to express its appreciation to Health Canada for the manner in which it has tried to summarise in the Proposal a complex issue. However, we also believe that some of the areas in the Proposal, such as the discussion on test methods, do not fully reflect the current state of knowledge.
3. In Canada, Health Canada and other groups in the fire protection Community have made great strides on this issue.
4. According to the Proposal and sources cited therein, in 1999, 2868 fires were started by the careless use of smokers materials (including cigarettes, cigars and pipes) resulting in 71 deaths a year in Canada.²

¹ Represents reported legal shipments. Does not account for unreported (i.e. illicit) volumes. It is becoming increasingly difficult to assess the actual size of the market in Canada, for reasons discussed herein.

² Council of Canadian Fire Marshals and Fire Commissioners, Indian and Northern Affairs Canada and Statistics Canada. "Fire Losses in Canada, 1999 Annual Report." Council of Canadian Fire Marshalls and Fire Commissioners 1999.

5. The same source states that 95% of these, or 2,724 fires were started by cigarettes.³
6. Accepting this figure for purposes of comparison, approximately 53 billion cigarettes were smoked in Canada in 1999. This means that the odds of a cigarette starting a fire is 1 in 19,456,681.
7. While not detracting from the seriousness of the issue, these numbers show that in Canada, Health Canada and the fire protection community have been successful in educating Canadians about such fire hazards. The numbers also provide perspective to determine the appropriate course of action on this issue.
8. Further work on these important issues needs to be encouraged, supported and indeed intensified.

i) POTENTIALLY REDUCED EXPOSURE PRODUCTS (“PREPS”)

9. As a preliminary issue, we note that the Proposal is silent with respect to the relationship between PREPS and ignition propensity. Health Canada’s tobacco control strategy includes the stated goal of harm reduction. Imperial Tobacco Canada Limited believes it is important that any potential legislation on ignition propensity standards also consider the possible impact on the issue of potentially reduced exposure products or “PREPS”. We reiterate at this time our strong desire to work further with Health Canada on this important issue.
10. Imperial Tobacco Canada Limited shares the goal expressed by its parent company British American Tobacco, in the following terms:

³ Ibid.

“We aspire to be the first to launch successfully a new generation of tobacco products with critical mass appeal that will, over time, be recognized by scientific and regulatory authorities as posing substantially reduced risks to health. In setting ourselves this challenge, we do not underestimate the scientific and regulatory difficulties but this will not detract from our commitment to pursuing this aim.”

11. Indeed, Imperial Tobacco Canada has been progressing its own research on this issue, commonly known as Project Day, and has shared the results of its research to date with scientists at Health Canada in informal meetings.

12. It is in this context that the design characteristics of low ignition propensity of cigarettes need to be viewed. Some of the design characteristics inherent to low ignition propensity cigarettes, as measured against standard tests, may be directly contrary to the type of design features that may be required to develop a PREP. It would be unfortunate if the Proposal were to create a set of design constraints for further research of this kind.

ii) Bill C-260: AN ACT TO AMEND THE HAZARDOUS PRODUCTS ACT (FIRESAFE CIGARETTES)

13. Almost contemporaneously with the submission of the Proposal, a private member’s bill [Bill C-260, *An Act to amend the Hazardous Products Act* (fire-safe cigarettes) (the “Bill”)] was given first reading on October 25, 2002. It passed second reading on November 28, 2002. The Bill has now been referred to the Standing Committee on Health. As is pointed out later in this submission, the Bill is in part predicated on a substantial misquotation of a judgement of the Ontario Superior Court of Justice.⁴

14. Imperial Tobacco Canada Limited can only assume that it is not intended for Bill C-260 to go ahead at the present time in its present form. In the

⁴ Ragoonanan v. Imperial Tobacco Canada Ltd (5 December 2000), 00-CV-183165CP (Ont. Superior Court of Justice).

absence of any confirmation of the foregoing, we will also be submitting this brief to the Standing Committee on Health.

15. Because virtually all cigarettes are extinguished safely, one might be tempted to discount the need for efforts to produce cigarettes with enhanced fire-safety characteristics. However, we do recognise the serious consequences that can be caused by an accidental fire, and agree that this is an area that should be considered by the appropriate authorities.

16. Although we thus share the goals of those who have sponsored the Proposal, we oppose enactment of a Bill such as Bill C-260 in its current form. The reasons for our opposition are explained in the paragraphs that follow. We end this submission with a series of suggestions that are designed to achieve the goals underlying the Proposal without the problems summarised in this submission.

17. We have significant reservations about the wisdom of attempting to legislate low ignition propensity ("LIP") cigarettes into existence. That is, in fact, what the Proposal would ultimately cause to happen, or what Bill C-260 would cause to happen sooner. Under Bill C-260, by way of an amendment to the *Hazardous Products Act*, Health Canada would be required, without reservation, to promulgate, within six months cigarette fire safety standards for cigarettes. Cigarettes not meeting such standards would thus be prohibited.

IV. THE BILL AND THE PROPOSAL ARE PREMISED ON INCORRECT ASSUMPTIONS

18. The Bill and the Proposal are based on a series of demonstrably incorrect assumptions. The first is that the public and private research efforts that have been undertaken in the United States of America and elsewhere have

identified cigarette products, or cigarette product characteristics, having a demonstrably reduced ignition propensity. The second is that a generally accepted standard test has been developed to measure a cigarette's ignition propensity when brought into contact with a representative mix of upholstered furniture and bedding materials. In fact, no jurisdiction has yet, to our knowledge, enacted a mandatory performance standard for cigarettes.

19. Regrettably, no cigarette or cigarette design parameters have yet been identified that simultaneously would reduce the cigarette's ignition propensity in a clear or predictable way under realistic conditions and would be acceptable from both a consumer and public health perspective. Significant efforts to develop a LIP cigarette that consumers would agree to smoke have to date failed. Details of these efforts are recounted below.

20. The current situation with respect to the development of a standardised test for measuring the cigarette's ignition propensity is at least equally problematic. One of the methods investigated by the US National Institute of Standards and Technology ("NIST"), which utilises a canvas fabric stretched over a polyurethane foam assembly, does not produce reliable results from test to test and is not representative nor predictive of results in the real world. Canvas is not a fabric commonly found in home furnishings. Indeed, a series of scientific studies has confirmed that the cigarette designs that appear to perform relatively well in the NIST canvas assembly can produce substantially different results - or even diametrically opposite results - on the fabrics and other substrate materials actually found in homes. This would suggest that factors related to the flammability characteristics of the furnishing fabric itself may be more predictive of ignition propensity.⁵

⁵ A. W. Spears, A.L. Rhyne and V. Norman, "Factors for Consideration in a Test for Cigarette Ignition Propensity on Soft Furnishing" (1995) *Journal of Fire Sciences*, volume 13 at 59, Leslie S. Lewis & Michael J. Morton *et al* "The Effects of Upholstery Fabric Properties on Fabric

21. The alternative test method that has been developed, which involves the use of a standard filter paper, used commonly in laboratories to filter solids from liquids, produces results that are more reliable from test to test. But very real doubts remain concerning whether such results have any real-world significance. While results from the filter test may correlate with that of the canvas test, there is no scientific evidence that they correlate with the real-world potential for initiating fires.⁶ The latter observation remains true whether one is speaking of the United States of America or Canada. Obviously, if a test method is not predictive of results in the real world, requiring cigarette manufacturers to alter their products based on the test method makes no sense. Legislation of such a standard could have little, if any, or even possibly a negative impact on the incidence of accidental fires.
22. A further set of problems ignored by the Proposal and the Bill is the absence of any basis for assuming that the fabrics used on upholstered furniture and as bedding materials in the U.S. and Canada are identical. Indeed, there are differences between fire-safety standards for Canadian and U.S. furniture and upholstered materials.
23. In addition, there are real queries as to whether the filter paper test is reliable. Recent research undertaken by the New York State Department's Office of Fire Prevention and Control reported that only 2 of 8 commercially available cigarettes with "banded" papers that are intended to reduce ignition propensity passed a test of 75% self-extinguishment on 10 layers of

Ignitabilities by Smoldering Cigarettes.II." 1995, *Journal of Fire Sciences*, volume 13 at 445, K.C. Adiga, M. Pham, K.S. Noonan and R.H. Honeycutt, "The Implications of Modest Air Flow on Cigarette Ignition of Soft Furnishing Mockups, a report submitted to the Technical Advisory Group (TAG)/Consumer Product Safety Commission (CPSC), October 15, 1992, R.D. Flack, K. Brunn and J.B. Radford, "Convection Velocity Measurements in the Crevices of Furniture", *Journal of Fire Sciences*, volume 12 at 481, J.T. Wanna and P.X. Chen, "Cigarette Ignition Performance, *Journal of Fire Sciences*, volume 19 at 355, NIST Memo, August 22, 1994, (Comparison of New and Old versions of data files for the "500 Fabrics Study").

⁶ New Zealand House of Representatives Government Administration Committee, Report on Cigarettes (Fire Safety) Bill, No. 80.1.[hereinafter "New Zealand Report"].

filter paper. The research also reported a wide variation in results between cigarettes which question both the reproducibility of the method and the ability to make cigarettes with “banded” paper in a consistent manner.⁷

24. The consumer acceptance and public health consequences of alternative cigarette designs are of overarching importance. While the Proposal touches upon the potential health effects of low ignition propensity design features, it fails to address the issue of consumer acceptability. These issues alone provide ample reason for caution by those calling for cigarette fire-safety legislation, particularly legislation that would direct Health Canada to require changes in the design of cigarettes being sold in Canada without regard to the view of consumers and/or public health authorities.

25. The issue here is that it makes no sense to legislate into existence products that no one will smoke. Smokers will find the products they want, if they have to in roll-your-own, or in the illicit market.

V. THE PROPOSAL DOES NOT REFLECT THE CANADIAN MARKET

26. The Proposal suggests reduced ignition propensity of manufactured cigarettes is an obvious next step to reduce fire-related loss. This is most certainly worthy of consideration. Imperial Tobacco Canada Limited suggests that reducing ignition propensity of manufactured cigarettes as outlined in the Proposal is not likely to affect fire-related loss. Our reservations can be categorized principally by three factors:

- i) the absence of a reliable test;
- ii) consumer rejection, and
- iii) movement to roll-your-own type products

⁷New York State, Office of Fire Prevention and Control “Draft – Production Test Results for The First 100 Cigarette Packing Types”, October 30th, 2002, New York State, Office of Cigarette Fire Safety Performance Standard”, November 15th, 2002.

A review of contraband cigarettes is included to provide context to the issue of consumer rejection.

i) MARKET COVERAGE

27. The Proposal states that the regulation would create an ignition propensity standard for manufactured cigarettes only. The Proposal therefore ignores more than 15% of the Canadian Market.

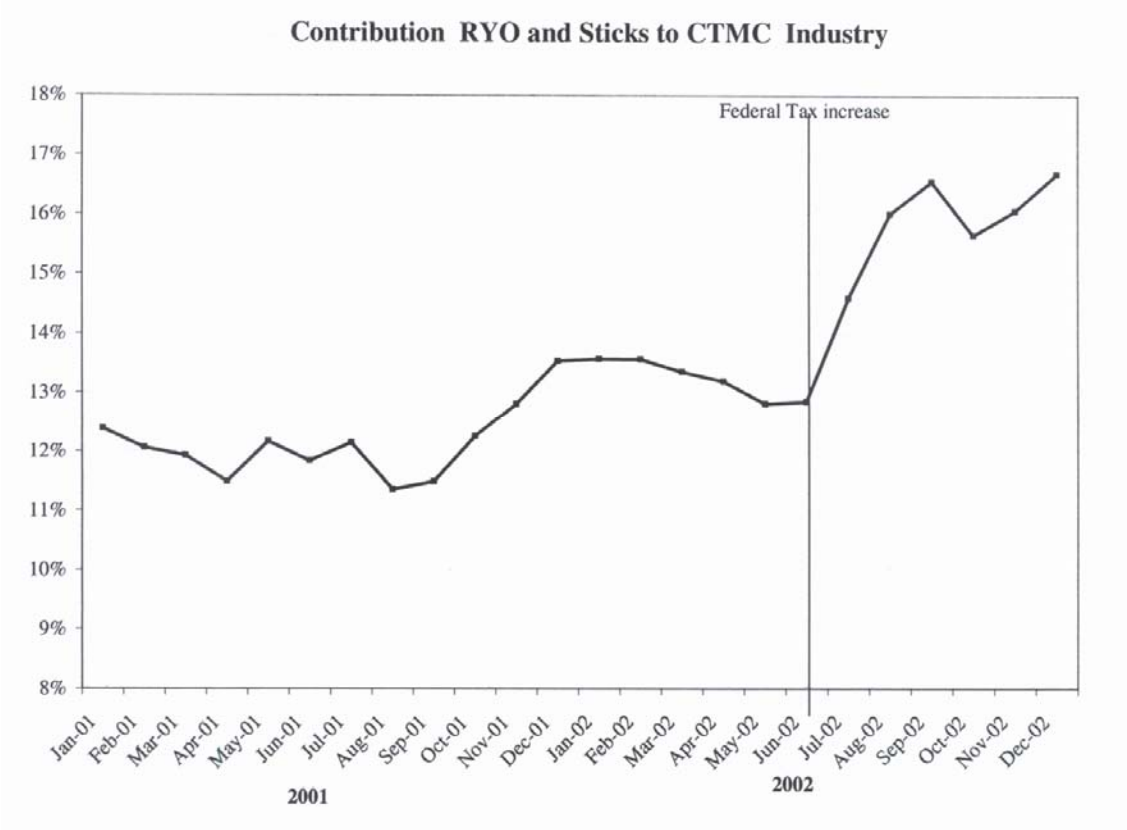
28. Moreover, cigarette smokers have more options available to them than just Canadian manufactured cigarettes.

29. In the Canadian cigarette market, 15% of cigarette consumption is in the form of non-manufactured cigarettes. The table below indicates that this figure is up to 24% in Quebec, 34% in the Atlantic provinces, and 54% in Newfoundland, with only Ontario being below the national average.

Industry Share of Non-manufactured Cigarettes Full Year 2002	
All Canada	15%
British Columbia	15%
Alberta	16%
Saskatchewan	24%
Manitoba	22%
Ontario	3%
Quebec	24%
New Brunswick	29%
Nova Scotia	27%
Prince Edward Island	28%
Newfoundland	54%

It should be noted that in the United States, Roll Your Own (“RYO”) tobacco accounts for less than 1% of the cigarette market.

30. With the recent dramatic tax increases experienced by Canadian smokers, the percentage of Canadians not smoking manufactured cigarettes continues to grow. The following table illustrates this. In the absence of LIP requirements, this growth is expected to continue.



31. If consumers find Canadian manufactured LIP cigarettes less acceptable, alternatives to manufactured cigarettes will grow even more significantly.

32. The Proposal points to “individuals with lower incomes [as] disproportionately impacted” by cigarette ignited fires. Our data shows that smokers whose annual family income is under \$35,000 are 3 times more likely to consume alternatives to manufactured cigarettes as compared to smokers with annual family incomes greater than \$35,000. The Proposal

would thus significantly reduce access to LIP products for the group deemed most vulnerable.

33. The consumers who are likely to move to RYO products in rejecting LIP cigarettes will most probably match the profile of smokers already smoking RYO, namely those with lower incomes. If this were to take place, it would only exacerbate the vulnerability of this group.

ii) CONSUMER REJECTION

34. The Proposal is silent on the issue of consumer acceptability of LIP cigarettes. Imperial Tobacco Canada Limited views this to be a significant oversight.

35. To successfully reduce fire-related loss, a standard for consumer acceptability is necessary.

36. There are two important market factors which underpin this premise. Firstly, legitimate and contraband alternatives to unacceptable LIP products exist, and will continue to be available alongside any LIP products. Moreover, high financial returns will provide sufficient incentive for contraband business to intensify.

37. Failure to gain consumer acceptability will result in the consumer uptake of alternatives that are unregulated thereby failing to achieve the Proposal's stated policy objective.

38. As previously mentioned, current LIP technology has not been proven to be acceptable to consumers. Much has been made of Philip Morris' developing an acceptable fire-safe cigarette in the United States, namely Merit. Although Philip Morris may have had the best intentions of introducing a

commercially successful innovation to the market place with its patented 'Paper Select' technology the actual performance of Merit since its national introduction of the new paper in July 2000 has been unremarkable.

39. Merit is a brand that has been on the market in the United States since 1976. The year prior to the change to 'Paper Select' it had a market share of 1.84%. In 2002 Merit's market share was 1.07%.

40. Not only did Merit fail to attract new smokers to its modified product but it apparently lost smokers who were already smoking the brand.

41. Merit was introduced in New Zealand and has achieved a share of only 0.003% in 2002, down from 0.01% in 2001. Its overall performance indicates that the product has not been accepted by consumers. This serves to illustrate the point that if LIP products are legislated into existence in disregard of consumer preferences, demand will increase the size of legitimate and contraband alternatives. As the Proposal does not cover either of these, the policy objective is largely negated. The subsequent review of contraband and its likely growth is provided as evidence of ease of both international and domestic product contraband supplies.

VI. CONTRABAND REVIEW

42. It is in our view inevitable that contraband volumes would increase as a result of the consumer unacceptability of LIP products. Contraband supply channels continue to supply contraband products to consumers today. Current estimates suggest that 7 billion cigarettes consumed in Canada in 2002 were contraband.

43. Contraband takes the following forms:

- i) Illegal importation;
- ii) Non-compliant production and purchases, and
- iii) Counterfeit products.

i) ILLEGAL IMPORTATION

44. Smugglers have access to international products not covered by the Proposal. Sourcing of tobacco products destined for the Canadian market has become more international and is not limited to Canada or the United States. Consumers wanting to find alternatives to LIP products will generate demand that smugglers will be eager to fill. Consumer access to illegal products is further facilitated by the expansion of the Internet. For this reason, amongst others, we have recommended to Health Canada a ban of internet sales.

ii) NON-COMPLIANT PRODUCTION AND PURCHASE

45. In addition to contraband product, again largely the result of increased taxation, there has been a dramatic growth in the number of cigarette manufacturers. Some of these manufacturers operate on native lands. The ability of the government to enforce regulations with respect to these manufacturers has been uneven and sporadic.

iii) COUNTERFEIT PRODUCTS

46. Counterfeit cigarettes are fast becoming a major problem worldwide. It is currently difficult to estimate the impact they have had in the Canadian market. Excess international and domestic production capacity combined with widespread and relatively inexpensive access to both tobacco and packaging materials can make this an attractive option. FIA International research reported in 2001 that counterfeit products are available in the

United States. Some sources report that a significant portion of the UK volume is comprised of counterfeit product. These unregulated products have high levels of tar and nicotine and would obviously be LIP non-compliant. Consumer unacceptability of Canadian LIP products combined with an active smuggling channel will create appropriate conditions for counterfeit products which do not conform to the new standard to flourish in Canada.

47. Imperial Tobacco Canada Limited believes that the Proposal will not achieve the policy goals of reducing loss associated with ignition of manufactured cigarettes. Any such regulations would also have ancillary negative affects, namely:

- A potential increase in the amount of tar and nicotine in tobacco products;
- Increases in consumer exposure to higher strength products;
- Smuggling;
- Increased youth access;
- Increased smoking incidence resulting from lower priced product availability;
- Government revenue loss.

VII. DESIGN FEATURES

48. The Proposal makes reference to several key design features which historically have been identified as possible approaches to reducing the ignition propensity of cigarettes and it is appropriate that we provide some detailed comments on this issue. These design features are:

- i) reduced tobacco density;
- ii) reduced paper porosity;
- iii) decreased circumference;
- iv) reduction or removal of burn additives.

i) REDUCED TOBACCO DENSITY

49. Reducing tobacco density is achieved in part by the use of “expanded tobacco”, which is tobacco that is subjected to a freezing and then a thawing process to allow it to expand volume but maintain its weight. While significantly reducing tobacco density may reduce ignition propensity of a cigarette resting on the standard test medium, it is also widely known that significant levels of expanded tobacco inclusion can significantly increase the incidence of coal fall-out, which in itself is a potential fire hazard.

ii) REDUCED PAPER POROSITY

50. Although reduced paper porosity can reduce ignition propensity, it will also significantly increase the delivery and relative proportion of various toxic constituents, such as carbon monoxide (CO), hydrogen cyanide (HCN), oxides of nitrogen (NO_x) and volatile aldehydes. This effect was noted in Canada’s Expert Committee Report on Cigarette Smoke Toxicity in 1998. In addition, increased levels of oxides of nitrogen can result in increases in the deliveries of volatile and tobacco specific nitrosamines. This could offset a dramatic reduction in the amount of tobacco specific nitrosamines that is being achieved in 2003 and future years resulting from changes that have occurred to the curing process for tobacco in Canada.

iii) DECREASED CIRCUMFERENCE

51. Decreased circumference cigarettes may seem to lead to reduced ignition propensity in standard tests. However, as the Proposal notes, the zone of contact between the burning coal and the substrate is important. Standard tests do not measure what may happen when a cigarette falls in a crevice.

In the real world reduced circumference cigarettes are more likely to lodge in crevices, produce a large zone of contact, and initiate fires.

52. In addition, past experience of gaining consumer acceptance of reduced circumference cigarettes has also proven to be difficult. There is a relatively limited market for “slim” type products in Canada.

iv) REDUCTION OR REMOVAL OF BURN ADDITIVES

53. Canadian cigarettes use conventional levels of burn additives on the cigarette paper (0.5 – 2.0%) which have a long history of use for cigarette design purposes to help ensure a consistent burn and hence less cigarette to cigarette variation in tar deliveries and to help to hold the cigarette ash together. As the Proposal recognizes, reduction in levels of these conventional additives alone has not been shown to result in a product with reduced ignition propensity.

54. An additional concern with low ignition propensity cigarettes is the re-lighting of LIP cigarettes. This concern is shared by the New Zealand regulators who state that:

“We are concerned there is no evidence of testing the effects of re-lighting a cigarette. The extinguishing of a cigarette could result in the tar condensing and therefore increases the detrimental effect of smoking. Further, we are concerned that no attempts have been added to test the effects of changing the characteristics of a cigarette, such as when a cigarette is extinguished and re-lit. We believe a testing regime is essential to ensure that the smoker is not at any additional health risk from any changes to conventional cigarettes.”⁸

55. The Proposal asks the question “How can Health Canada ensure that LIP cigarettes are not more toxic than cigarettes currently available?” This important issue was addressed even more broadly by Canada’s Expert

Committee on Cigarette Toxicity Reduction that reported in 1998. This was one of the few committees where representatives of tobacco manufacturers were allowed to participate. This Committee recommended that Health Canada develop a framework for the assessment of the toxicity and general biological activity of tobacco products. We are unaware of any progress in response to this recommendation, which means that a framework for assessing the toxicity of a potential reduced ignition propensity cigarette against a conventional product is not available, and, indeed, has not even been agreed upon.

56. Some other bodies have considered the issue of testing the relative toxicity of cigarette smoke. One was the Technical Advisory Group (“TAG”) of the US Consumer Product Safety Commission who in 1993 suggested a four tier approach to such testing. This included measurements of chemistry, *in vitro* and *in vivo* animal testing and human smoking behaviour. In fact, this report (at page 28) emphasises that:

“... it is essential that changes in the physical properties of cigarettes for the purpose of achieving reduced ignition potential do not result in additional adverse health effects. Even a small increase in human toxicity could outweigh the beneficial effects of fewer fires.”⁹

57. However, the TAG also noted that their recommendations were neither detailed nor complete, and did not cover the range of diseases associated with smoking.

58. More recently, the United States Institute of Medicine also considered the issue of comparative testing of potentially reduced exposure products, concluding that more research was required to determine a battery of tests

⁸ New Zealand Report, *supra* note 6

⁹ U.S. Consumer Product Safety Commission, *Overview of the Practicality of Developing a Performance Standard to Reduce Cigarette Ignition Propensity*, August 1993 at p.28

that would adequately predict the impact of product modifications on long-term human health.

59. In addition, it is notable that Canada's Minister of National Health and Welfare stated in 1996

“Studies on “fire-safe” or “self-extinguishing” cigarettes in the United States indicated that the smoke produces a different mixture of constituents from that of ordinary cigarettes. The health impact of these different constituents would need to be assessed to determine whether a “fire-safe” cigarette would contribute to an overall improvement to the health of Canada.”¹⁰

60. Evaluation of products with banded papers intended to reduce ignition propensity in standard tests has raised some issues. For example, G. Patskan of Philip Morris USA, researching cigarettes with banded paper, reported no changes in a limited set of biological activity tests but a 27% increase in the yield of cadmium in mainstream smoke.¹¹

61. Other studies suggest that cigarettes with banded paper may perform well in filter paper tests, but not be effective on real-world materials. This in part may be due to the production of hot spots around the banding as combustion slows on approach to the band – hot spots that may increase the potential for ignition. “Hot spots” may be defined as a build up of heat under the cigarette rod as the heat source approaches and then abuts the band.

62. In our view, it is fundamentally important that the issue of a framework for risk assessment that could be used to compare one product against another is addressed, since it is clear that modifying the combustion characteristics

¹⁰ Dingwall, David C., Minister of National Health and Welfare Canada, letter to Mr. Sean O'Connell, April 15, 1996.

¹¹ G. Patskan et al, Toxicological characterisation of a novel cigarette paper, Society of Toxicology Annual Meeting, 2000.

of a product can significantly alter the nature and the concentration of combustion by-products. Such a framework is essential to underpin the direction for cigarettes that may reduce the health impact on smokers, as well as being used to evaluate the toxicity of reduced ignition propensity cigarettes. Imperial Tobacco Canada wishes to support Health Canada in the development of such a risk assessment framework.

VIII. FIRE-SAFE CIGARETTES: THE AMERICAN EXPERIENCE

63. The history of fire-safe cigarettes in the United States of America dates back nearly 70 years to 1932, when US Congresswoman Edith Norse Rogers called for a national standard requiring cigarettes to "self extinguish" within an unspecified period after having been discarded. The assumption, now largely discredited, made by Congresswoman Rogers was that the incidence of accidental fires involving cigarettes could be reduced if cigarettes could be made to go out quickly if not being puffed.

64. Over the following decades, a substantial amount of research on so-called "fire-safe" cigarettes was conducted in the United States of America and elsewhere. Possible improvements in the fire-safety characteristics of cigarettes were claimed in more than 100 patents awarded by the US Patent Office between 1932 and 1979. Although no legislation on fire-safe cigarettes was enacted during the period, cigarette manufacturers in a number of countries consulted repeatedly with public authorities concerning cigarette fire safety, looking at all times for approaches that might reduce the incidence of accidental fires involving cigarettes.

65. The approaches described in many of the patents awarded during the foregoing period were, at the very least, imaginative - ranging from the implantation of a water-filled balloon in the middle of the tobacco column to

the use of a metal sheathing requiring the cigarette to be smoked as if one were playing a trombone.

66. Other patented approaches, such as the suggested use of asbestos in cigarette paper, had obvious drawbacks. For reasons that have been described in various articles in scholarly publications, none of the patents awarded during this early period actually were used in a commercial cigarette.

i) CIGARETTE SAFETY ACT OF 1984

67. In 1979, United States Congressman Joseph Moakley introduced the first of a series of bills that would have required cigarettes to "self-extinguish" within a stated period - initially, five minutes - when not being puffed. After having been informed of the technical difficulties and the likely public health implications of any such requirement, Representative Moakley changed course in 1983, introducing a bill at that time requiring a federal study to be undertaken of various aspects of cigarette fire safety. The leading US cigarette manufacturers supported the latter bill, which was enacted as the Cigarette Safety Act of 1984.¹²

68. The lead on the study mandated by the Cigarette Safety Act of 1984 was taken by the US National Bureau of Standards (now called the National Institute of Standards and Technology or NIST). A Technical Study Group ("TSG") was created to support the federal study effort, comprised of representatives of the National Institute for Standards and Technology (NIST), tobacco manufacturers, upholstered furniture industry, the Consumer Product Safety Commission (CPSC) and health and consumers

¹² Cigarette Safety Act of 1984, 15 U.S.C. 2054, Public Law 98-567, 98 Stat. 2925, October 30, 1984.

advocates. The TSG met frequently during the three-year study period authorised by the Cigarette Safety Act of 1984.

69. A report on the work of the TSG was approved unanimously by the members of the TSG, including those representing tobacco manufacturers, in October 1987.¹³ The TSG report was followed in December 1987 by Recommendations of the Interagency Committee on Cigarette and Little Cigar Fire Safety. (the "Interagency Committee").¹⁴

70. The Interagency Committee, a second body created by the Cigarette Safety Act of 1984, was composed of the Chairman of the US Consumer Product Safety Commission, the United States Fire Administrator in the US Federal Emergency Management Agency and the Assistant Secretary of Health in the US Department of Health and Human Services.

ii) THE 1987 TSG REPORT

71. The report of the TSG, which merits careful reading, states as its opening conclusion that "it is technically feasible and may be commercially feasible to develop cigarettes that will have a significantly reduced propensity to ignite upholstered furniture or mattresses." That being said, the report did not recommend a standard test to measure ignition propensity, instead noting that no viable test method had yet been developed.¹⁵

72. The report then went on to describe a variety of subsidiary findings and summarize the work that still needed to be completed successfully before a cigarette ignition propensity test could be established.

¹³ Technical Study Group, *Cigarette Safety Act of 1984, Toward a Less Fire-Prone Cigarette*, October 1987 [hereinafter "TSG Report"].

¹⁴ *Recommendations of the Interagency Committee on Cigarette and Little Cigar Fire Safety*, December 1987 [hereinafter Interagency Committee Recommendations]

¹⁵ TSG Report, *supra* at p. 1.

73. The TSG report noted, for example, that any differences in ignition propensity among selected current commercial cigarettes, including those for which reduced ignition propensity claims had been made by supporters of the early Moakley bills, "are unimportant."¹⁶

74. The report then identified a series of cigarette characteristics that, when adjusted well beyond any hope of consumer acceptability, appeared in the laboratory to reduce the cigarette's ignition propensity.

75. The characteristics thus identified included reducing the circumference of the cigarette and the porosity of cigarette paper, using expanded (*i.e.*, low density) tobacco, reducing the amount of citrate (a salt used to even the rate of burn and to help hold the ash together) added to the cigarette paper and "possibly" requiring the presence of a filter.¹⁷ Unfortunately, the foregoing conclusions were based on tests conducted in the laboratory using the now largely discredited canvas assembly that the US National Bureau of Standards had constructed.

76. The problems that were to be documented subsequently with the canvas assembly were in fact hinted at in the 1987 TSG report. As stated there, "the wide lot-to-lot variation in the [canvas materials used in the test] limits the use of such mock-ups for cigarette testing over a long period of time and by different laboratories."¹⁸

77. The TSG report therefore emphasised that further progress on cigarette fire safety depended upon the future development of "[a] valid and reliable

¹⁶ *Ibid.*

¹⁷ *Ibid.*

¹⁸ *Ibid.*

measurement method...to determine that a cigarette is less ignition prone."¹⁹

78.The TSG report also underscored the need "to collect information on cigarette-ignited fires to determine how successfully future cigarettes perform."²⁰

79.Because of time considerations, the TSG was unable to complete any consumer acceptance research or research on the health implications of modified cigarettes. It noted that "... no cigarettes were tested for their acceptability to the smoking public". It also pointed out that while some of the cigarette characteristics that had been addressed during the study had been varied in individual brands, "... combinations of all characteristics have not been incorporated in any commercial cigarettes."

80.The reason, as later research would document, is that the extreme variations tested by the TSG went well beyond anything that ever could be used in a commercial product because the product would be essentially unsmokeable.

81.Finally, the TSG emphasised that:

*" the toxicity of smoke from a future low ignition propensity cigarette needs to be addressed, as would the smoke from any substantially modified commercial cigarette, before its introduction into the marketplace."*²¹

82.Unfortunately, the TSG did not describe the kind of testing that would be needed to assess toxicity changes or the amount of time or resources

¹⁹ *Ibid.*

²⁰ *Ibid.*, at p. 2.

that would have to be devoted to the task. All of those issues were left by the TSG to the future.

iii) THE 1987 INTERAGENCY COMMITTEE RECOMMENDATIONS

83. The Recommendations of the Interagency Committee on Cigarette and Little Cigar Fire Safety ("Interagency Committee") issued in December 1987, began by pointing out that the TSG report had left "unanswered" a variety of potentially pivotal questions. The Interagency Committee noted in this connection that:

"... as the text [of the TSG report] makes clear, the TSG did not test any experimental or patented cigarettes...for consumer acceptance. Thus, it was not possible to reliably estimate the number of less fire-prone cigarettes that might be smoked which, in turn, could have an impact on both the incidence of cigarette-ignited fires and smoking-related disease. Nor, due to time constraints, was an attempt made to develop prototype cigarettes that are likely to reduce ignition propensity and achieve such acceptance".²²

84. On the issue of the health implications of modified cigarettes, the Interagency Committee sounded an even clearer note of caution. As the Interagency Committee explained:

"The TSG was not able to determine whether the smoke chemistry of such prototypes would differ in significant ways from that of cigarettes currently on the market, a consideration of paramount importance since even a small increase in the likelihood of cancer, heart attacks or lung disease would more than offset the reduction in deaths and injuries projected to result from a decrease in cigarette ignited fires. Thus, the commercial feasibility and health implications of developing a less fire-prone cigarette are undetermined and will remain that way until such time

²¹ *Ibid.*, at p. 1.

²² Recommendations of the Interagency Committee on Cigarette and Little Cigar Fire Safety, December 1987.

*as potentially marketable varieties are developed, test marketed and analyzed for toxicity.*²³

85. Clearly, the process envisaged by the Interagency Committee with respect to health would be both costly and time consuming, undoubtedly involving animal and other testing in the laboratory prior to marketing as well as post-marketing epidemiological studies to identify any differential health effects among actual smokers. Like the TSG, the Interagency Committee left such research to the future, while emphasising that no alterations in cigarette design ought to be required until appropriate health impact research had been completed and reviewed.

iv) FIRE SAFE CIGARETTE ACT OF 1990

86. Given the inconclusiveness of the TSG's 1987 report, the Federal Fire Safe Cigarette Act of 1990 was enacted to complete the work started under the 1987 Act. Following the receipt of written submissions and several rounds of hearings, the US Congress enacted and the US President signed on August 10, 1990, the follow-up bill that had been recommended by the Interagency Committee.²⁴

87. Again, the legislation was supported by the major US cigarette manufacturers. The August 1990 legislation, which was entitled the "Fire Safe Cigarette Act of 1990," required the US Consumer Product Safety Commission ("CPSC") to contract with the Center for Fire Research at the National Institute of Standards and Technology to:

- develop a standard test method to determine cigarette ignition propensity;

²³ *Ibid.*

²⁴ Fire Safe Cigarette Act of 1990, 15 U.S.C. 2054 note, Public Law 101-352, 104 Stat. 405, August 10, 1990.

- compile performance data for cigarettes using the standard test method; and
- conduct laboratory studies on and computer modeling of ignition physics and develop valid, user-friendly predictive capability.

88. The Fire Safe Cigarette Act of 1990 also required the CPSC to design and implement a study to collect baseline and follow-up data about the characteristics of cigarettes, products ignited, and smokers involved in fires and to develop information on the societal costs of cigarette-ignited fires. Finally, the Fire Safe Cigarette Act of 1990 instructed the CPSC, working with the US Department of Health and Human Services, to "develop information on changes in the toxicity of smoke and resultant health effects from cigarette prototypes."

89. Under the Fire Safe Cigarette Act of 1990, the former TSG was reinstated but given a new name: the Technical Advisory Group ("TAG"). The Fire Safe Cigarette Act of 1990 required the TAG to "advise and work with the Consumer Product Safety Commission and National Institute for Standards and Technology's Center for Fire Research on the implementation of this Act."

90. A series of reports also was mandated, on both an interim and final basis, with the final report from the CPSC being made "not later than 36 months after [the Act's effective date]."

v) THE 1993 CONSUMER PRODUCT SAFETY COMMISSION REPORT

91. An intensive research program was initiated shortly after the Fire Safe Cigarette Act of 1990 was approved, which continued for the following 36 months. Among the core conclusions reached by the CPSC at the end of the process, in a report published in August 1993, were the following:

“While the [CPSC] concludes that it is practicable to develop a performance standard to reduce cigarette ignition propensity, it is unclear that such a standard will effectively address the number of cigarette-ignited fires.

Further, the effort to achieve such an objective is beyond both the jurisdiction and the technical capability of the [CPSC].

It would, therefore, be prudent for Congress, if it determines that achieving this objective is in the national interest, to identify and delegate to a more appropriate agency the task of working with industry to develop a performance standard to reduce cigarette ignition propensity.

To [the latter] end, broad parameters have been identified through the research specified in the Fire Safe Cigarette Act [of 1990]. The actual development of a standard would require the following:

- *setting appropriate acceptance criteria for the ignition test method;*
- *establishing the appropriate series of tests for toxicity and setting acceptance criteria for each of those tests;*
- *estimating the benefits to be derived from the imposition of such tests; and*
- *determining the costs to cigarette manufacturers, consumers and others of such a standard.*
- *[Finally, the CPSC] emphasises the importance of including toxicity tests in a standard, since even a small increase in toxicity could outweigh the beneficial effect of fewer fires.²⁵*

92. Once again, the 1993 Report did not recommend a performance standard.

93. One report commissioned by the NIST²⁶ concluded:

“Thus this method (the filter paper method) is less appropriate than the mock-up method for distinguishing initial progress from current market

²⁵ U.S. Consumer Product Safety Commission, *Overview of the Practicality of Developing a Performance Standard To Reduce Cigarette Ignition Propensity*, August 1993, at p. vii.

²⁶ “Test Methods for Quantifying the Propensity of Cigarettes to Ignite Soft Furnishings”, NIST Special Publication 851, August 1993, at p.102

cigarettes towards those of low-ignition propensity. It is apparent that the Cigarette Extinction Test cannot make fine distinctions in ignition propensity among cigarette designs. Again, this places a limit on the degree of resolution possible for regular use of this method.”

94. The same report²⁷ also states:

“The variability of the test results produced by the filter paper method was reported by its developers to be approximately 40%. It is also acknowledged that this wide variation in the results limits its suitability for regulatory purposes.”

95. While several of the CPSC's recommendations to the US Congress at the end of the study mandated by the Cigarette Fire Safety Act of 1990 were phrased rather indirectly, there could be little doubt then, and there is no doubt today, what the CPSC was attempting to communicate.

Despite the truly massive research effort that had been undertaken in the United States of America, involving many leading researchers from both the public and private sectors, the complexity of the issues involved had precluded the development of either:

- a standardised ignition propensity test having predictive value in the real world;
- specific cigarette design parameters that would reduce the number of accidental fires in US homes involving cigarettes, and
- the acceptability to consumers and the health implications of reduced ignition propensity cigarettes remained in doubt.²⁸

²⁷ Ibid., p. xi

²⁸ Brown and Williamson Tobacco Company, a member of the British American Tobacco group, is currently working with the American Society of Testing and Materials, to refine the ignition propensity test methods suggested by NIST. The major challenge in that work, for reasons already described, is to ensure that the test ultimately adopted is both reliable and reliably predictive of behaviour in the real world.

IX. JUDICIAL VIEWS

96. Various courts in the United States of America have had occasion to consider many of the issues summarised above in the context of individual lawsuits. The courts in all such cases have agreed with our summary observations, to the extent that the particular issues were relevant to the matter being considered by the court.²⁹

97. The most extensive opinion was published in February 1996 by the US District Court for the District of Massachusetts in *Kearney v. Philip Morris* (Civil Action No. 92-11079-REK). Following extensive briefing and oral argument, the District Court entered judgment in *Kearney* for the sole defendant (Philip Morris) concluding, along the way, that there were no disputes of material fact.

98. In ruling against the plaintiff in *Kearney*, the District Court first concluded that the canvas over polyurethane foam assembly initially recommended by the US National Bureau of Standards to measure the ignition propensity of cigarettes was of no value. As the District Court explained:

²⁹ Judicial discussion from the United States of America relating to at least some of the issues covered in these comments, including many of the technical issues, can be found in *Sacks v. Phillip Morris Inc.*, 1996 U.S. Dist. LEXIS (D. Md.), *affirmed*, 1998 U.S. App. LEXIS 5777 (4th Cir.); *Kearney v. Philip Morris Inc.*, 916 F. Supp. 61 (D. Mass. 1996); *Frulla v. Phillip Morris Inc.* (W.D. Tenn.) (January 10, 1990) [unreported]; *Lamke v. Futorian Corporation*, 709 P.2d 684 (Okla. S.C. 1985); *Griesenbeck v. American Tobacco Company*, 897 F. Supp. 815 (D.N.J. 1995). All of the foregoing cases were decided in favor of a particular defendant. In Canada, the reader may wish to review the opinion in *Ragoonanan et al. v. Imperial Tobacco Canada Limited* (5 December 2000), No. 00-CV-183165CP. The Canadian decision in *Ragoonanan* is on a preliminary issue only, namely, whether there exists a “triable issue” in a class action application seeking to certify a class of persons who have suffered property damage and/or physical harm from fires caused by cigarettes that did not “self-extinguish”. Unfortunately, the sponsor of Bill C-260, Mr. Mackay, substantially misquoted an article about the decision in the *Toronto Globe & Mail* when he declared that the judge had found that “... *cigarettes have a design defect, and that manufacturers have deliberately designed their product in a way as to cause misuse*”. In fact, no such comment was actually made by the judge.

*“[p]laintiff's expert acknowledged that different kinds of materials used for furniture upholstery and specific fabric and padding/cushioning combinations ("substrates") have different propensities to ignite when in contact with burning cigarettes. In fact, plaintiff's experts state that "because of the differences in substrates with regard to cigarette ignition resistance, the choice of a test substrate is critically important in being able to discriminate between various types of cigarettes with respect to their propensity to ignite soft furnishings." Dr. Krasny [who had been a senior government advisor on the initial US National Bureau of Standards tests] acknowledges that no differences in the ignition propensity of different cigarettes can be observed on most substrates either all cigarettes ignite, or none do. Despite the critical importance of choice of substrate, the NIST study used cotton duck number 4 [canvas] for the substrate, a material that is almost never used for upholstered furniture”.*³⁰ (our emphasis)

99. The District Court then went on to point out that tests conducted during the late 1980s and early 1990s on a wide range of fabrics actually used on upholstered furniture sold in the United States of America had documented "a number of 'reversals' of the NIST ...cigarette ignition rankings on some real-world fabrics."³¹ That is, experimental cigarettes that had appeared to perform better on the initial National Bureau of Standards canvas assembly than other cigarettes actually performed worse when any of a number of commonly-used upholstery fabrics were used instead of canvas. The plaintiff in *Kearney* did not even attempt to convince the court that the alternative test method that NIST had developed, which involves the use of standardised filter paper, has any predictive value in the real world.

X. THE USE OF RIBBED OR “BANDED” CIGARETTE PAPER

100. Two other developments from the United States even more recent than those summarised above, deserve at least some attention here, if only for the sake of completeness. In early January 1999, Philip Morris announced

³⁰ Slip Opinion, at pp. 14-15 (emphasis in original, citations omitted).

³¹ *Ibid.*, at pp. 15-16.

that it had developed a "ribbed" cigarette paper that might reduce the cigarette's ignition propensity.³² Despite the announcement, Philip Morris issued the following warning:

"... Cigarettes made with this paper were evaluated under a laboratory test method designed by the National Institute of Standards and Technology to measure the likelihood that cigarettes will ignite the three test fabrics specified in this test method. Under this testing method, these cigarettes produced fewer ignitions of the three test fabrics as compared to the same cigarettes made without the special paper. It is important to note that the test fabrics are not necessarily representative of the kinds of fabrics one might find in a particular home or elsewhere. These cigarettes are not "fire safe." Do not handle or dispose of cigarettes made with this special paper with any less care than other cigarettes. Anything that burns, including cigarettes or cigarette ashes, can cause a fire if handled carelessly."

101. Philip Morris emphasised in its announcement, however, that the test method it had utilized to evaluate cigarettes made with the new paper was the initial NIST method. As stressed in the Philip Morris announcement, "[i]t is important to note that the test fabrics [employed in the NIST test] are not necessarily representative of the kinds of fabrics one might find in a particular home or elsewhere."

102. Philip Morris emphasised that "...these cigarettes [*i.e.*, those using the ribbed paper] are not 'fire safe.'" It followed that observation by urging consumers not to "handle or dispose of cigarettes made with this special paper with any less care than other cigarettes."

³² Philip Morris U.S.A., Media Release, July 12, 2000. The ribbed paper developed by Phillip Morris is known as "PaperSelect." As described in the Philip Morris media release, PaperSelect has "rings of ultra thin paper that are applied on top of the traditional cigarette paper during the paper-making process. These rings act as 'speed bumps' to slow down the rate at which the cigarette burns as the lit end crosses over them." Currently, only one Philip Morris brand, Merit cigarettes, is utilizing PaperSelect the product having been put into national circulation in the United States of America in July 2000.

103. The reason, Philip Morris explained, is that "...anything that burns, including cigarettes or cigarette ashes, can cause a fire if handled carelessly."³³ Similar points have been made by the US National Association of State Fire Marshals in its news release commenting on the Philip Morris announcement.³⁴

104. It is worth noting in the context of consumer acceptance of "fire-safe" products that the only product currently on the market in the United States with this ribbed paper technology has a market share of just over 1%, as noted above. Moreover, since its release in July 2000, sales audit data indicates that the brand is losing share. The same brand in New Zealand had a market share of 0.003%.

XI. FIRE-SAFE CIGARETTE LEGISLATION IN NEW YORK

105. Finally, one US state, the State of New York, recently adopted legislation calling upon the New York Office of Fire Prevention and Control to seek to set fire safety standards for cigarettes sold or distributed within New York.³⁵ **In a very recent development, (January 30, 2003) however, the Budget Proposal tabled by the Governor of New York requested that the legislation be deferred for a period of two years.**

106. No standards are to be set, however, if the Office of Fire Prevention and Control, in consultation with the New York Department of Health, concludes that "cigarettes manufactured in accordance with such standards may reasonably result in increased health risks to consumers."³⁶ The New York

³³ *Ibid.*

³⁴ News Release, National Association of State Fire Marshals Comment on New Philip Morris Cigarette, January 12, 1999.

³⁵ See Assembly Bill 11162-B as introduced by Mr. Grannis and others in the New York Assembly, May 26, 2000.

³⁶ *Ibid.*, at section 2(b).

legislation does not require the Office of Fire Prevention and Control to take into account whether consumers would reject any cigarettes produced to comply with the standard, despite the obvious importance of that issue.

107. One indication of the problems confronting the New York Office of Fire Prevention and Control is that the legislation was passed without its endorsement. Moreover, the legislation was passed without any hearings or evaluations with respect to the feasibility or merit of the test method proposed. During the period preceding the legislation's adoption, a number of experts questioned whether the setting of standards such as those called for in the legislation was feasible or prudent and whether, in any event, the New York Office of Fire Prevention and Control possessed the requisite expertise.

108. Significantly, the New York legislation provides that the legislation "shall not take effect if federal fire safety standards for cigarettes that pre-empt this act are enacted"³⁷ That suggests that the legislation's sponsors, and perhaps many of those who voted to approve it, saw the legislation not as a predicate for regulatory action in New York but has a means of forcing the US Congress to enact further legislation in the area.

109. If this was the intention, it is interesting to note that Congress has not followed New York's initiative notwithstanding its involvement in this issue since 1979. Moreover, other States, including California, have considered legislation on ignition propensity but have not passed new laws. The approach in California, which is one of the few American States to have legislation on the fire resistance of furniture and bedding, has been to further improve the standards for these materials. California is a leader in the area of upholstery standards, and the State has enacted some of the most comprehensive fire-safety standards for furnishings. For example,

³⁷ *Ibid.*, at section 2.

since 1970, all mattresses sold in California are required to be fire retardant. Since 1972, all upholstered furniture sold in the State must also be fire retardant. Although these laws did not stipulate a specific standard, they mandated the Department of Consumer Affairs, Bureau of Home Furnishings to develop the relevant performance standards.³⁸

110. The Upholstered Furniture Action Council (“UFAC”) has also developed a voluntary code, which has been widely adhered to in the United States. The Code requires manufacturers to respect criteria for construction and labelling, and to submit samples of furnishings for ignition testing. UFAC (U.S.A) attributes a 78.6% drop in cigarette fires to adherence to the Voluntary Code.³⁹

111. Canada also has a legislative framework in place. Since 1980, the Hazardous Products Act regulations require all mattresses sold in Canada to meet a fire-safety standard. The UFAC Voluntary Code was introduced in Canada in 1987. In fact, Industry Canada indicated a 75% drop in upholstery fires caused by cigarettes in the 7 years following the introduction of the UFAC initiative.⁴⁰

112. The proposed regulations were published on January 7, 2003, for comment. Given the recent request to delay the legislation, it is impossible to guess the final outcome of the proposed regulations. Manufacturers will have six months from the date of publication of the final regulations to comply.

³⁸ State of California Department of Consumer Affairs Bureau of Home Furnishings, Technical Bulletin 106, Federal Standard 16 CFR 1632 (FF4-72), California Administrative Code Title 4, Chap. 3, S. 1371, January 1986 Technical Bulletin 116, January 1980, Technical Bulletin 117, January 1980 Although compliance with Technical Bulletin 116 was voluntary, Technical Bulletin 117 was mandatory.

³⁹<http://homefurnish.com/UFAC/>

⁴⁰ UFAC Flammability Program, <http://strategis.ic.gc.ca//SSG/ff02633e.html>

113. Thus it is wrong for the Proposal to state that by July 2003 all cigarettes sold in New York must comply. The New York State Department's Office of Fire Prevention and Control has tested 100 available brands and found that there is considerable variability between brands, and between batches of the same brand, triggering a recognition that compliance with the current proposed standard will be problematic for all manufacturers, even Philip Morris. The results suggest that the majority of the brands incorporating banded paper called "Paperselect" do not pass sufficiently often to meet the standard proposed. Of eight variants of the Merit brand to be tested, only two passed.

114. At this stage, with the difficulties identified and to answer the question of whether the proposed standard will adversely affect consumers health unanswered, there must be considerable doubt whether New York will adopt a meaningful standard for reducing the fire propensity of cigarettes.

XII. FIRE-SAFE CIGARETTES: EXPERIENCE OUTSIDE THE UNITED STATES

115. The Regulatory Proposal states the following with respect to New Zealand:

In New Zealand, a Member's Bill named "Cigarettes (firesafety) Bill" made it to second reading in July 2002, but was later withdrawn (on May 30, 2002) after the Acting Minister of Consumer Affairs agreed that he would follow up on the issue, stating:

" (...) This could involve requesting Standards New Zealand to develop a standard for cigarettes. The Ministry of Consumer Affairs will then

*investigate making the standard mandatory, through normal channels using the Fair Trade Act ...*⁴¹

116. The LIP cigarette currently available in the United States and New Zealand uses a patented paper which has concentric bands of ultra-thin paper applied on top of traditional cigarette paper. The manufacturer claims that "... These bands or rings act as "speed bumps" to slow down the rate at which the cigarette burns as the lit end crosses over them." Of particular importance to this process is the width and the air permeability of the bands, both of which have been found to have relatively strong linear relationships with performance in the filter paper test.

117. The federal and state governments in the United States of America have not been alone in considering whether something might be done to reduce the ignition propensity of cigarettes. Government sponsored research on at least some of the issues discussed above has been conducted in recent years, for example, in the United Kingdom. Canada has also played its part in these efforts. For example, researchers at the Research Foundation Fire and Flammability Centre published research on cigarette ignitability of furniture in the 1980s, and in 1996 the Minister of National Health and Welfare noted that cigarettes believed to possess "self-extinguishing" properties were as likely as others to be involved in accidental fires.⁴² No cigarette fire safety standards have been enacted thus far in any jurisdiction country, undoubtedly because of the technical and other problems summarised above as well as those described below.

118. In fact, many countries that have addressed the issue of fires involving upholstered furniture and bedding materials - the materials most commonly

⁴¹ New Zealand Member of Parliament Grant Gillon press releases. November 2001 and July 2002. <http://www.grantgillon.co.nz>.

⁴² Dingwall, David C., Minister of National Health and Welfare Canada, Letter to Mr. Sean O'Connell, April 15, 1996

ignited by cigarettes - have chosen to focus on such materials rather than on the cigarette. An International Organisation for Standardisation ("ISO") method has been developed for testing the fire resistance of such materials.⁴³ This uses a lit cigarette placed on the materials – if the cigarette does not cause the material to ignite then the material passes the test.

119. A number of commentators believe that the way forward in this area involves the implementation of already-proven standards for upholstered furniture and bedding materials and/or the tightening of standards already in place.

120. Still other countries have been relying upon public education designed to remind smokers of the need to extinguish their cigarettes carefully before disposing of them. In addition to the government sponsored public education that has been undertaken for that purpose, fire prevention organisations in a number of countries - including France, Germany and the United Kingdom - have undertaken notable public education efforts.

121. Finally, a number of governments as well as fire prevention organisations have designed programs focusing on the installation of sprinkler systems in commercial establishments and fire alarms in the home as means of avoiding the personal injuries that can be caused by accidental fires, whether started by the inappropriate disposal of a lit cigarette or any other potential ignition source. Although such programs cannot be regarded as providing a fail-safe solution to accidental fires, particularly the property damage such fires can cause, substantial success with such programs has been widely reported.

⁴³ISO 8191-Part 1 1987, Reviewed 1997-10-15, ISO TC 136.

122. The Proposal exaggerates the extent to which fire safe cigarette standards are being enacted into law in other parts of the world. New York is the only legislature that has committed to a standard and even there the final outcome is difficult to predict, as explained above. It does correctly state that there was a private members bill in New Zealand, which sought to enact legislation requiring the Standards Council in New Zealand to develop a fire safety standard for cigarettes. It neglected, however, to follow the legislative proposal in New Zealand through to its conclusion. In the final report of the Select Committee in New Zealand, it was concluded that there already existed a mechanism in New Zealand for developing a standard (if it was thought appropriate). More importantly, in light of the question affecting the health of smokers, it also concluded that before a standard were adopted there were certain concerns which the Select Committee would wish to see addressed.

123. The Committee was particularly concerned about the health implications of adopting a standard for fire safety. Notwithstanding the evidence of Action on Smoking and Health (New Zealand) and Philip Morris (which sought to reassure in this respect), the Select Committee noted that

“The Ministry of Health (the Ministry) considers the scientific information inconclusive. The Ministry believes it is uncertain whether modifications leading to fire-safety through cigarette design would result in greater exposure in inhaled intoxicants released as a cigarette burns and as a consequence an increase in the number of lives lost as a result of tobacco use” (p. 3).

As noted above at paragraph 25, the Select Committee expressed its concern that, “ there is no evidence of testing the effects of re-lighting a cigarette. The extinguishing of a cigarette could result in the tar condensing and therefore increase the detrimental effect of smoking” and concluded, “ We believe that a fire safety standard for cigarettes in New Zealand must not, in any way, increase the detrimental health effects of smoking.”

XIII. REMAINING CHALLENGES IN DESIGNING A CIGARETTE WITH A REDUCED IGNITION PROPENSITY

124. The New Zealand Select Committee also recognised the importance of not seeking to develop a standard without taking account of consumer acceptability, “ We recommend that a consumer acceptability survey should be part of developing a fire safety standard for cigarettes.” This is a glaring omission from the Proposal and raises concerns that Health Canada would be willing to adopt a standard that was not acceptable to consumers as part of its goal of reducing tobacco consumption.

125. The New Zealand Select Committee also recognised that if fires were really to be reduced by a fire safety standard it should include consideration of fine cut tobacco or roll-your-own cigarettes. The Proposal recognizes this issue and invites comment but does not make any recommendation. Our view is that if a standard is to be developed it must necessarily encompass roll-your-own products. The New Zealand report recognizes that in New Zealand, roll-your-own smokers tend to come from lower socio-economic groups. This is also the case in Canada as we outline above. It is recognized by the New Zealand Select Committee that currently roll-your-own cigarettes represent a significant fire risk. Their concerns arise from the way they are constructed by consumers which may result in the burning coal at the tip of the cigarette falling out. This is more likely to occur with a roll-your-own product than a tailor made product.

126. It is also understood by Health Canada that the highest risk group for fires caused by cigarettes are those in the lower socio-economic groups. Accordingly, if any standard is developed that does not apply to RYO products it will fail to address the most vulnerable group identified.

127. There is a further reason why any standards must apply to RYO cigarettes. As stated above, there is a real risk that consumers will not accept cigarettes manufactured to an LIP standard. These consumers may either buy smuggled product from abroad or resort to making their own cigarettes. Is there therefore a significant risk that this Proposal will drive consumers to make cigarettes that are potentially more risky from a fire safety stand point? Nobody knows. The New Zealand Select Committee also recognised that so far, no research has been done to address how a standard would apply to roll-your-own products;

“... no effort has been made to develop a standardised ignition propensity test for roll-your-own products anywhere in the world.”...

128. In conclusion, we submit that if a standard is to be developed, it must cover RYO products and that before further steps are taken to develop a fire safety standard for cigarettes, the necessary research be carried out to determine how this could be done.

129. Despite the very substantial efforts summarised above, no one has yet discovered a way of producing a cigarette with a demonstrably reduced ignition propensity on real-world materials that also would be acceptable to consumers and public health authorities. The problem with cigarettes wrapped in reduced porosity or comparatively thick paper, whether or not the product self-extinguishes, is that such paper reduces the flow of oxygen to the tobacco ember, thus reducing the efficiency of the combustion process. That in turn increases the "tar" yield to the smoker and also tends to increase the biological activity of the smoke as measured by standard toxicological tests. Both of those consequences run counter to advice being given by public health authorities and others.

130. Reducing the circumference of the cigarette was believed at one time to be a promising approach to reducing the cigarette's ignition propensity. But

few would voice confidence in that possibility today. Part of the problem, of course, is the absence of a reliable and reliably predictive ignition propensity test - a point covered in some detail above. As previously mentioned, small circumference cigarettes can wedge more deeply and securely in the crevices of upholstered furniture than conventional size cigarettes - thus increasing the zone of contact of the cigarette with the substrate (because contact is on more than one side) and the consequent likelihood of a fire.

131. Designing cigarettes to self-extinguish within a stated period if not being puffed presents many of the foregoing as well as other problems. Smouldering can start in vulnerable furniture or bedding substrate rather quickly, sometimes within 30 seconds and more often within a minute or two. As Canadian research for the Department of Consumer and Corporate Affairs has shown, it is not at all clear that time to extinguish is an important cigarette characteristic so far as fire safety is concerned.⁴⁴

132. Reduced to its essentials, a cigarette will go out if insufficient oxygen reaches the burning ember. A cigarette designer can ensure or facilitate that result in any of a variety of ways.⁴⁵ But all suffer from a major drawback - when the flow of oxygen to the tobacco is reduced, whether by the use of low porosity paper, paper of unusual thickness or paper that has been coated with some material, one reduces the efficiency of the combustion process, increases the yield of deliveries to the smoker and prompts the generation of smoke with potentially increased biological activity.

⁴⁴H.J. Campbell, Fire and Flammability Centre, Ontario Research Foundation, Cigarette Ignitability of Upholstered Furniture, March 30, 1984, Department of Consumer and Corporate Affairs.

⁴⁵ A further problem is that consumers do not like cigarettes that go out when not being puffed. That is, in fact, a common complaint to tobacco companies from consumers. In addition to the inconvenience involved, re-lighting a cigarette that has self-extinguished tends to leave a bitter and unpleasant taste in the smoker's mouth.

133. Although Philip Morris has attempted to design around the problems noted above by coating the cigarette paper with bands at predetermined distances, that smokers can smoke through when he/she draws on the cigarette, it is not at all clear, for the reasons already stated, that the Philip Morris banding approach guarantees a reduced ignition potential cigarette. Even Philip Morris appears to be aware of that fact and thus has continued to caution consumers about the need for careful handling and disposal of lit cigarettes incorporating the banding technology.⁴⁶

XIV. CONCLUSIONS

134. The first and perhaps most fundamental reservation we have concerning the Regulatory Proposal is clear from the foregoing discussion. Despite the assumptions apparently being made by the Bill's sponsors, we still do not have a reliable and reliably predictive method to measure the comparative ignition propensity of individual cigarette brands.

135. This, in our view, should give pause to anyone who would be tempted to support the Proposal. The Proposal itself acknowledges many of the problems discussed in these comments. At the very least, the utilisation of a test method lacking predictive value would place cigarette manufacturers in the position of changing their products without any assurance of a positive result so far as fire safety is concerned.

136. The lack of efficacy is not the only problem, as public health authorities in the United States have been at pains to emphasise. If consumers are

⁴⁶ It has been suggested that citrate is added to cigarette paper in order to keep the cigarette burning and that removal of the citrate would improve the cigarette's fire-safety performance. The suggestion is incorrect. Citrates and other burn control agents are added to cigarette paper to ensure consistency and accuracy in the delivery of constituents to the smoker. They also are used to help maintain the integrity of the ash at the end of the rod. Although various groups in the United States of America claimed at one time that the required removal of citrate

told that a cigarette has enhanced fire-safety characteristics, one has to be concerned about a reduction in the care that is taken by smokers in disposing of their cigarettes. As already noted, the overwhelming majority of cigarettes are disposed of safely. Only a small increase in the careless handling of cigarettes by a relatively small number of people could have most unfortunate consequences. This problem could include the careless discarding of lit cigarettes giving rise to forest fires. Health Canada may therefore wish to consider an additional warning about proper disposal of cigarettes as one of the 16 health warnings currently mandated by law.

137. Further, it is important to recognise that approximately 15% of the cigarette tobacco consumed in Canada is in a form other than manufactured cigarettes and therefore exempt from the Proposal. This figure is even higher in the province of Quebec (24%) and the Atlantic Provinces (34%).

138. The rejection by consumers of manufactured cigarettes designed to satisfy a less than optimum fire-safety performance standard would tend to increase the percentage of the trend towards RYO products that has been exacerbated by the recent dramatic tax increases on tobacco across Canada. RYO cigarettes, because of a differential tax treatment, are less expensive than conventional cigarettes.

139. There is certainly no reason to believe that cigarettes made from roll-your-own or loose tobacco are safer than manufactured cigarettes from a fire-safety perspective. Indeed, for the abovementioned reasons, the contrary may be the case.⁴⁷

from tobacco paper would improve the fire-safety performance of cigarettes, the claim has been largely abandoned because of the absence of empirical support.

⁴⁷ One problem that can occur with roll-your-own cigarettes is the loss of the burning ember, which can drop off the end of the lit cigarette if care is not taken in placing the tobacco in the cigarette paper. This issue, which is of special importance in some provinces in view of the

140. That brings us to an even more fundamental issue whether there are already on the market cigarettes with a demonstrably reduced ignition propensity or whether such technology is waiting to be legislated into existence. The answer, most assuredly, is "no."

141. If cigarette manufacturers knew of a way to produce cigarettes with proven enhanced fire-safety characteristics, they already have ample incentive to do so. In addition to the any competitive advantages they would derive from moving in that direction, assuming the altered products proved to be acceptable to consumers, they would solve thereby a series of difficult problems. The fact that no cigarette manufacturer, and no public official who has studied the issue, can say with assurance that one cigarette design is safer than any other from a fire-safety performance simply cannot be ignored. All cigarettes are lit, burned and have the potential, if carelessly discarded, to cause fires. The same can be said of candles left unattended.

142. There is also, of course, the public health issue that has consumed so much attention by public health authorities in the United States of America. Even a small increase in the health risks presented by cigarettes designed to reduce ignition propensity would be a cause of concern.

143. To enact legislation in this area that ignores that issue entirely, as the Proposal or Bill would do, seems to us to be most imprudent.

144. As we have noted, the foregoing issues have been tackled in the United States of America - albeit thus far unsuccessfully - by a series of multi-disciplinary task forces drawn from both the public and private sectors. To adopt a narrower approach here while assuming that the problems that

substantial percentage which smokes roll-your-own products, is very much in need of further study.

have been identified can be overcome seems to us, once again, to be highly imprudent.

145. It is therefore the considered view of Imperial Tobacco Canada Limited, in light of the many unresolved issues discussed above, that the enactment of legislation in this area would be premature. However, if legislation is to be developed in this area, we would urge an approach that is at once more comprehensive and more cautious than that taken in the Proposal and the Bill for the following reasons:

146. Any legislation that is approved in this area needs to take into account the full range of factors that can affect the likelihood of an accidental fire in the event a lit cigarette is dropped, including the composition of the substrate materials and other environmental factors such as air flow and moisture. To focus solely and exclusively on the cigarette is, as public authorities in the United States have pointed out, to ignore the most critical elements of the equation.

147. Substantial additional work needs to be undertaken to develop and validate a method to measure the ignition propensity of individual cigarette brands and brand characteristics.

148. Any standardised ignition propensity test method that is adopted in Canada needs to take into account the kinds of furniture and bedding materials that actually are found in the homes of Canadians - the composition of the covering materials, the construction and composition of the underlying substrate and so forth. Without such information, no test can be expected to have any predictive value for the real world.

149. To our knowledge, no efforts have been made anywhere in the world to develop a standardised ignition propensity test for RYO tobacco products.

This is a major gap that must be filled in view of the substantial share of the cigarette market in Canada that roll-your-own products occupy.

150. Once an appropriate standardised test has been developed and validated, alternative cigarette designs need to be evaluated from a fire-safety perspective.

151. Tests also need to be developed and validated to assess the health implications of alternative cigarette designs. Subsequently, any alternative design believed to hold some degree of promise so far as fire safety is concerned needs to be assessed and a judgment made concerning the prudence of requiring the design to be used in commercially-marketed cigarettes.

152. The consumer acceptability of alternative cigarette designs also needs to be evaluated. To require cigarette manufacturers to replace their current brands with brands that are essentially unsmokeable would be more than a futile gesture. It would create an even larger opening in Canada than exists today for contraband tobacco products. It is the view of Imperial Tobacco Canada Limited that the Canadian industry is on the verge of an explosion in smuggled tobacco products. As previously mentioned, it is roughly estimated that approximately 7 billion of cigarettes were either smuggled into Canada or illegally made in Canada in 2002. The sources for much of this contraband is unclear but other international and new illegal brands have taken a foothold here. Smokers may very well decide to these increasingly available standard cigarettes rather than continuing to smoke a form of LIP cigarettes they find unpalatable.

153. Careful consideration needs to be given to the appropriate agency and combinations of expertise needed to undertake the work summarised above. Although Health Canada obviously has a significant role to play, we

question whether other fire-protection agencies, including fire science and fire flammability experts could not have a role to play. In addition, furniture and textile manufacturers as well as tobacco manufacturers clearly need to be involved.

154. Legislation requiring a standard to be set with no opting out clauses - clauses that would suspend or delay the duty to impose a cigarette-fire safety standard if the foregoing work is not completed successfully - is a recipe for disaster. It is foolhardy in the extreme to believe that science can be legislated into existence, in this or any other area.

155. Finally, any actions that are taken in here with respect to cigarette fire-safety need to be structured as a collaborative effort, with health authorities, the tobacco manufacturers and members of the fire protection community, among others, being given an opportunity to participate as full partners.

XV. CIGARETTE FIRE SAFETY IN CANADA: THE WAY FORWARD

156. Imperial Tobacco Canada Limited, like the other British American Tobacco operating companies around the world, is committed to working with public authorities as well as others to work towards a resolution of the issues that have been raised concerning cigarette smoking, including the fire-safety issues discussed in these comments.

157. Although we have offered above a reasonably comprehensive set of suggestions concerning the way forward on cigarette fire safety, we would suggest - most immediately - that thought be given to authorizing Health Canada to undertake a comprehensive review of work that has been completed thus far on cigarette/upholstered furniture/bedding material fire safety around the world. That research ought to enable the agency

involved to devise a set of recommendations for actions that might appropriately be taken here.

158. One of the major components of any such set of recommendations, we believe, is a systematic assessment of the extent to which study results generated in other areas of the world, - including the United States of America - can be transferred here.

159. We also would encourage additional efforts in the area of fire safety education, efforts that can be undertaken most effectively by public authorities and members of the fire protection community.

160. We are prepared to cooperate in any way we reasonably can in such efforts and we hope to be given an opportunity to do so. In particular, we are prepared to participate further in the development of a framework for the assessment of the toxicity and general biological activity of tobacco products, in the development of appropriate testing for LIP products and in particular in research in the areas of harm reduction and potentially reduced exposure products. We are confident of our ability to demonstrate by our actions the reality of the sentiments we have expressed so far as cigarette fire safety is concerned.

161. In addition, we would encourage additional attention to the experience that has been obtained in countries such as the United States of America and the United Kingdom to advances in upholstered furniture and bedding materials composition and construction. Again, we would caution against the uncritical transfer of that experience to Canada. But understanding the experience of other countries, and being able as a consequence to make a reasoned assessment of its transferability, would be an important step.

XVI. SPECIFIC ANSWERS TO THE QUESTIONS POSED IN THE PROPOSAL

162. The Proposal for Reducing Fire Risks from Cigarettes –asks for input on three specific questions (5.1, 5.2 and 5.3). In our view these questions are key to the development of effective and meaningful regulation of the issue. Our considered comments to these questions are as follows:

“5.1 How can we be sure that RIP cigarettes are not more toxic than current cigarettes? Is this a valid concern? If so, how can Health Canada ensure that RIP cigarettes are not more toxic than cigarettes currently available?”

We believe this to be a valid concern. We propose that Health Canada, in conjunction with the industry, establish an appropriate toxicological testing program. Such programs should draw on proposals made to regulators in other jurisdictions such as the United States (eg, 1993 CPSC Toxicity Testing Plan to the US Congress and the US Institute of Medicine report of 2001), as well as the recommendations set out in the 1998 Health Canada Expert Committee findings on “Cigarette Smoke Toxicity Reduction”. Imperial Tobacco Canada Limited scientists are willing to participate actively in this initiative.

5.2 How can we be sure that our efforts will not cause a false sense of security amongst smokers? Is this a valid concern? If so, how can Health Canada guard against a possible increase in unsafe behaviour?”

We believe this to be a valid concern due to the unsatisfactory and unproven nature of the test method. It is our view that the current test methods do not truly reflect the flammability properties of cigarettes in contact with fabrics and furnishings and will result in misleading interpretations by smokers. While it may be possible using the currently

proposed tests to produce products which pass, it is our view that this will not represent a product with a genuine reduced ignition potential. Health Canada should work diligently to ensure that any test methodology is truly reflective of the real life situation. Again, Imperial Tobacco Canada Limited scientists welcome the opportunity to participate in the establishment of a meaningful test method.

5.3 What about other products such as tobacco sticks, fine cut tobacco (roll-your-own), or Kreteks? What are your views and ideas on regulating the ignition propensity of other tobacco products?

If a regulation on ignition propensity is enacted, we believe that it must apply to all tobacco products sold in Canada. This should include fine cut, tubes, paper, sticks, cigarillos, cigars, and Kreteks. We are particularly concerned that adopting a LIP standard for cigarettes alone would increase the incentive for smuggling and/or persuade smokers to switch to roll-your-own cigarettes. If the conclusion of the New Zealand Select Committee is correct (i.e. that RYO products are potentially less fire-safe), this may actually result in an increase in fires. Furthermore, we are adamantly opposed to any regulation which would provide any exemption for any manufacturers however small their market share may be, whatever their product may be, and whether it is imported or not.

163. Imperial Tobacco Canada Limited appreciates the opportunity we have been provided to submit written comments on the Proposal and we look forward to the opportunity of presenting oral submissions on the Proposal and on the Bill at the appropriate time. In the interim, we would be happy to respond in writing to any immediate questions members of the Committee may have and/or provide copies of the reports and other documents discussed in these comments.

Montreal, January 31st, 2003

Imperial Tobacco Canada Limited