IN THE SUPREME COURT OF BRITISH COLUMBIA

BETWEEN:

KENNETH KNIGHT

Plaintiff

- and -

IMPERIAL TOBACCO CANADA LIMITED

Defendant

AFFIDAVIT OF A.J. LISTON

I, **A.J. LISTON** of the City of Nepean, in the Province of Ontario, MAKE OATH AND SAY AS FOLLOWS:

1. I have personal knowledge of the matters to which I hereinafter depose with the exception of where my information has been obtained from another source and in those circumstances I have provided the basis for my information and belief.

INTRODUCTION

2. I am a self-employed consultant and I have worked with a wide variety of industries providing strategic advice concerning regulatory and policy issues and liaising between industry and the government, in particular, Health Canada.

3. Between 1964 and 1992 I was employed by the Health Productions branch (the "HPB") of the Department of National Health and Welfare. When I joined the HPB, I was a research scientist and over the years I held various administrative and managerial positions. In 1981, I was appointed the Executive Director General of the HPB. I held that position for three years and in 1984 I was appointed the Assistant Deputy Minster, Health Protection Branch, which is the most senior administrative position within that branch. In that capacity, I reported directly to the Deputy Minister of Health and Welfare. Attached hereto as **Exhibit "A"**, is a copy of my current CV.

and Garfinkel, using the massive American Cancer Society database of one million males, found that risk was lower for smokers of low-tar cigarettes compared with higher-tar products. A recent Institute of Medicine report on harm reduction, which reviewed all of the scientific literature on lower tar cigarettes, concluded that "most of the ... studies suggest that the use of filtered or low-tar cigarettes was associated with lower lung cancer risk." The National Cancer Institute observed that "the clear impression from these studies taken as a whole is that there is a lower risk of lung cancer among populations of smokers who use lower-yield products."

In 2003, Kabat, in a major review of 50 years of studies on low-tar products, concluded that reduced-tar cigarettes -- light and mild -- carried a reduction in lung cancer risk of 20% to 30%. He also noted that the better studies indicated a reduced risk of about 10% for heart disease for smokers of low-tar cigarettes. Of the seven studies that examined overall mortality, "five show a statistically significant reduction on the order of 10% to 20% among smokers of lower-tar cigarettes."

The scientific evidence is quite clear. This makes it hard to see how light and mild cigarettes constitute a "deceptive trade practice," particularly since a study done for the government showed that an overwhelming majority of smokers believed that low-tar cigarettes were both as harmful and as addictive as other cigarettes.

In reality, the anti-smoking lobby opposes light and mild cigarettes because they threaten the goal of eliminating smoking. These fundamentalists believe that there is no such thing as a safer cigarette -- the choice is between stopping smoking and dying. To compromise on this article of faith is to risk the entire religion. Canada's five million smokers might prefer their light cigarettes to such a faith.

John Luik is a health policy analyst who has had tobacco industry clients.

4. The HPB was, during my tenure, the departmental body responsible for regulatory programs relating to the sale and promotion of food, food additives, drugs, medical devices, certain environmental chemicals and tobacco.

5. The departmental anti smoking program had in the early seventies two major components, one located in the Health Services and Promotion Branch for promotional activities and the second in the Health Protection Branch for scientific and regulatory initiatives related to tobacco products. During the late 70's and early 80's the scientific regulatory program became more pronounced and during this period I was the major policy contact point with the tobacco industry through the Canadian Tobacco Manufacturers Council (CTMC) which represented the cigarette manufacturing companies in Canada. During this period the Tobacco Product Section was an integral part of the HPB.

6. It was during my tenure at the HPB that "Light" and "Mild" cigarette products were developed and introduced into the Canadian market.

BACKGROUND

7. The development of "Light" and "Mild" cigarette products in Canada was, in part, a response to federal government pressure brought to bear on the tobacco industry to reduce tar and nicotine deliveries as one component of an overall smoking and health strategy.

8. While it was the well publicized policy of the HPB (on behalf of the federal government) that the best way to minimize the health risks associated with smoking was to quit, an alternative harm reduction strategy was to smoke a lower delivery product. This policy was developed by the HPB on the basis of the theory that less toxins (i.e. lower tar) would be less harmful for smokers .

9. Based on this policy, the HPB in the late 1960's and early 1970's requested information from the major Canadian cigarette manufacturers regarding the tar and nicotine deliveries of their products. This information was then published by the federal government in order to communicate information to consumers which would assist them in making an informed choice regarding smoking, including encouraging them to smoke a lower delivery product if they would not quit. Attached hereto, and marked as **Exhibit "B"**, are some examples of the various press releases and league tables published by the federal government during this time period.

10. Consistent with this policy, the HPB also requested that beginning in 1974, when the first health warnings went on cigarette packages, that tar and nicotine deliveries also be printed on the packages. The publication of this information via the packages was viewed by the federal government as another way of communicating information to consumers which might be used in making decisions regarding their choice of product and to encourage people to reduce their exposure to tar and nicotine by selecting lower delivery products. Although the cigarette manufacturers agreed to publish the tar and nicotine deliveries on product packages, had such a concession not been forthcoming from the industry, the federal government was prepared to introduce legislation to this effect.

11. Another strategy adopted by the federal government during this time period to further their policy of reducing tar and nicotine deliveries, was to require a voluntary reduction by the cigarette manufactures in sales weighted average tar deliveries. The sales weighted average tar ("SWAT") was calculated by averaging the machine derived tar deliveries of the product (as described below) based on sales volumes. The federal government set a SWAT target of 12 mg. of tar by 1984.

12. With this mandate from the government, and under the threat of regulation, the tobacco manufacturers worked toward developing and marketing lower delivery products in part to comply with the government strategy. It was at this time, in 1976, that ITL put their first "Light" product on the market.

13. It is important to note that there are significant differences between "Light" and "Mild" products. The descriptors "Light" and "Mild" are intended to relate the standard machine derived tar and nicotine deliveries of those products to the regular or parent brand. For example, Players Light, would be expected to have a lower standard delivery than Players Regular. A review of the B.C. government's website discloses that standard machine deliveries (which are described in detail below) for "Light" and "Mild" cigarette products sold in British Columbia, and reported to the B.C. government, range from a high of 14.2 mg. tar and 1.38 mg. nicotine per cigarette to a low of .1 mg. tar and .07 mg. nicotine per cigarette. Attached hereto as **Exhibit "C"** is a copy of the information obtained from the B.C. government website.

14. There are a variety of ways that a cigarette manufacturer can lower the standard delivery of its products. Each particular "Light" or "Mild" cigarette product will incorporate

some or all of these approaches in combination and to varying degrees. They are, the blend and type of tobacco used, the porosity of the cigarette paper, the type of filter and filter ventilation. The B.C. government website discloses that at least 90 "Light" and "Mild" cigarette products have been sold in B.C. since the reporting regulation came into effect. Attached hereto and marked as **Exhibit "D"** is a copy of the lists from the B.C. government website identifying these products.

THE TESTING METHODOLOGY AND STANDARD MACHINE DERIVED DELIVERIES

15. Standard machine derived tar and nicotine deliveries were published on cigarette packages and in advertisements at the request of the federal government until 1989 when the federal government introduced legislation (the *Tobacco Products Control Act*, the "TPCA") which mandated that this information be printed on the package and in advertisements.

16. The standard test methodology used when tar and nicotine deliveries were first published in the late 1960's and early 1970's and eventually went on the packages in 1974, was derived from a method developed by the United States' Federal Trade Commission, working in conjunction with the tobacco industry and government scientists.

17. This standardized testing system, which produced the numbers which appeared on the packages from 1974 to 1989, used the following parameters:

(a) a 35 mm puff volume;
(b) a puff of 2 seconds duration;
(c) one puff per minute; and
(d) residual of a minimum butt length of 30 mm.

18. The HPB accepted this methodology as recognized and reliable as a measure of comparative deliveries throughout the period from 1974 to 1989.

19. The standard testing methodology was changed, however slightly, in 1989 when the TPCA was introduced, which legislation required the ISO testing method be utilized for determining standard tar, nicotine and carbon monoxide deliveries. Attached hereto and marked as **Exhibit "E"**, is a copy of the TPCA Regulations mandating the ISO testing regime and

requirements. The only change between the FTC method previously used and the ISO method adopted in 1989 was a change in the minimum butt length of 23 mm.

20. Currently, the Federal *Tobacco Act* requires pack disclosure under two different sets of testing regimes, the ISO method and a new "intense" method. Attached hereto and marked as **Exhibit "F"** is a copy of the current federal testing regulations.

21. As appears from the information disclosed on the B.C. government website, the tar delivery for "light" or "mild" products currently on the market and reported to the B.C. government, as measured by the intense method, range from a high of 33.9 mg. per cigarette to a low of 21.2 mg. per cigarette.

22. It is important to understand that none of these testing methods which were regulated, mandate or required by the federal government, was ever intended to convey to any particular smoker, the amount of tar, nicotine or other constituents that they would derive from each cigarette. As discussed further below, due to the uniquely individual nature of smoking behaviour, it would be impossible to convey this type of information to any particular smoker.

23. As is apparent from numerous releases from the HPB, the federal government made it clear that the standard machine derived tar and nicotine deliveries disclosed in advertisements and printed on packages were intended to convey deliveries under standard testing conditions for comparative purposes only. In other words, these numbers were to be used as a tool to compare the relative deliveries between brands as opposed to being an absolute representation of the delivery to any individual from the product. One example of this disclosure is contained in a government release dated January, 24, 1983, where the HPB compares standard machine derived tar and nicotine deliveries to fuel consumption ratings for cars, which will necessarily vary with driving patterns. In the same way, deliveries from cigarettes will necessarily vary with smoking behaviours. Attached hereto and marked as **Exhibit "G"**, is a copy of the January 24, 1983 government releases. Similar information is contained in the releases at Exhibit "B".

24. Furthermore, it was well documented and publicized by the federal government that individuals could control, and in fact did control their smoking behaviour and in doing so, would affect the deliveries of tar, nicotine and other constituents from any particular product.

See, for example, the tables and releases contained in Exhibit "B" which clearly warn of some of the ways in which individuals can affect deliveries.

INDIVIDUAL SMOKING BEHAVIOUR

25. Individuals choose to smoke particular brands for a wide variety of reasons particular to that individual. These reasons can relate to issues of taste, health, brand image, peer or family influences or others.

26. It is not possible to convey, through machine derived deliveries or otherwise to individual smokers, the amount of tar, nicotine and other smoke constituents they will be exposed to from any particular cigarette because smoking behaviour is inherently individual. Each smoker smokes differently and each smoker may in fact smoke each cigarette differently.

27. To calculate the exact delivery received by any smoker from any particular cigarette, that particular smoker's unique smoking pattern must be duplicated precisely and the delivery resulting from that behaviour must be measured.

28. The deliveries of tar, nicotine and other constituents that any smoker obtains will depend on a whole variety of factors including:

Number of cigarettes smoked;

Number of puffs taken;

Length of puff;

Size of puff (puff volume);

The interval between puffs; and

Whether the product is ventilated and, if so, whether the smoker takes steps to intentionally, or otherwise, block the ventilation holes.

29. Each of these behaviours affects delivery and is not necessarily even consistent for each individual smoker from one cigarette to the next.

30. The federal government realized that smoking behaviour was inherently individual and was susceptible to modification by the smoker and, as a result, specifically notified smokers of this fact when it published the standard machine derived tar and nicotine

numbers going back to the late 1960's and early 1970's. These warnings provided by the government included statements such as:

> The potential benefit of switching to low tar and low nicotine cigarettes may be nullified if more cigarettes are smoked, or more of each cigarette is smoked, or if the depth of inhalation is increased.
>
> ... [it is] suggested that those who switch should observe their smoking patterns and behaviour to ensure this doesn't happen.

Attached hereto and marked as **Exhibit "H"** is a news release from Health and Welfare Canada dated December 20, 1973 containing this information.

31. In the tar and nicotine tables published by the federal government, the following note was traditionally included:

> Some cigarettes are ventilated on or near the filter. Tar and nicotine deliveries may be increased if these "openings" are blocked by finger or cigarette holder.

See, for example, the table attached as Exhibit "H".

COMPENSATION

32. The concept expressed above in Exhibit "H", regarding individuals changing their smoking behaviour when switching between products of different standard deliveries is known as compensation. The theory is that as a smoker switches down to a lower delivery product, he or she may change their smoking behaviour to attempt to obtain higher deliveries from the lower delivery product.

33. The ways an individual can compensate when switching to a lower delivery product are the same as the parameters that determine the delivery they obtain as a result of their individual smoking behaviour as identified in paragraph 25 above. In other words, a smoker can increase puff size, number of puffs, puff volume, puff frequency, inhalation or cover ventilation holes intentionally or unintentionally via tape, finger or lips to compensate when smoking a lower delivery product.

34. What is clear, however, is compensation as a component of smoking behaviour, is uniquely individual and to the extent that it occurs at all for any individual, it will vary from no

compensation to full compensation and will impact the deliveries received, but it is only relevant to individuals who switch from a higher to a lower delivery product.

CONCLUSION

35. The federal government played an active and encouraging role in the tobacco industry's development of lower delivery "Light" and "Mild" products in order to further the government policy objectives of reducing the overall exposure to tar and nicotine.

36. Published tar and nicotine deliveries were never intended to convey information about the actual amount of tar or nicotine or other constituents received by any smoker. These standard measurements are incapable of conveying this information because smoking behaviour is uniquely individual.

37. Whether an individual obtains a lower delivery from a "Light" product when compared to what they would obtain from a "regular" product, depends on all of the factors identified that affect individual smoking behaviour, including whether an individual who switches to "Light" or "Mild" products compensates and to what extent.

38. The federal government advised consumers that individual smoker behaviour could counteract any reduction and delivery achieved by switching to a "Light" or "Mild" product.

39. I know of no facts material to the certification motion as constituted by the Plaintiff which has not been disclosed in this affidavit.

SWORN BEFORE ME at the City of Ottawa, on April 29, 2004.

Commissioner for Taking Affidavits
David R. Elliott

A.J. Liston