

The tobacco industry is
**trolling for
big fish**

**10 LESSONS FROM CANADA
ON TOBACCO PRODUCT REGULATIONS**

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Lesson #1

Those who do not learn from history are condemned to repeat it

Canadian public health authorities have been trying to reduce the harms of tobacco for more than a century. There is no evidence that any of these attempts resulted in actual reduction of harm, and there is evidence that these attempts contributed to increased harm.

100 *years ago, many Canadians thought that the harms caused by tobacco use could be reduced if people moved from 'dirty' spit tobacco to cigarettes.*

In late nineteenth century and early twentieth century Canada, chewing tobacco was one of the more popular forms of tobacco use, certainly more popular than cigarettes. But by the 1920s, cigarette use was climbing and chewing tobacco use was declining. This change was partly driven by a belief that all the spitting associated with chewing tobacco was insalubrious and was contributing to the spread of tuberculosis.¹

Early in the twentieth century, cigarettes were popularly seen as a more favourable form of tobacco consumption than chewing tobacco. This sentiment was aided and abetted by advertising. The American Tobacco Company of Canada (later to become Imperial Tobacco) pioneered not only cigarettes, but also mass media advertising of same. A 1902 electric billboard at the corner of Sainte-Catherine and Saint-Laurent in Montreal, one of the very first uses of this medium in Canada, exhorted Montrealers to "Smoke Sweet Caporal Cigarettes."² The mistaken view that cigarettes were a less hazardous substitute for chewing tobacco helped to spawn the cigarette epidemic of the 20th century.

50 *years ago, many Canadians thought that the harms caused by smoking could be reduced by adding filters to cigarettes.*

The health scare about cigarettes that arose in the 1950s following the publication of scientific reports that linked smoking to lung cancer drew a quick reaction from the tobacco industry. They launched filter cigarettes, claiming implicitly (and sometimes explicitly) that they were safer. In fact, they were no safer. Moreover, they attracted far more women to become smokers. With filters, no longer would women have to endure ugly yellow stains on their teeth and fingers.³ Smoking rates among women increased dramatically from the 1950s to the 1970s, thus exacerbating the epidemic. After the addition of filters, there came cigarettes

specifically designed to appeal to women and advertising campaigns to accompany these new women's brands.⁴

The public (and governments) thought that filters made cigarettes less harmful, but the industry knew better.

Despite the implicit and explicit health claims for filters, no evidence of health benefit was ever proffered. At a 1962 internal British American Tobacco meeting, the minutes for the meeting recounted how Dr. R.M. Gibb from Imperial Tobacco in Canada acknowledged that filters were a marketing ruse:

"We really needed some means of knowing not what the facts were but what people thought the facts were. On the question of how to sell a gimmick, certainly on the Canadian market you stated what you thought people wanted to be told and you made money by doing so. ...

"Mr. R.M. Gibb pointed out that the industry had made one very obvious reaction to the health question in that filters had been put on all over the world at various levels of filtration, but nobody seemed to know whether this had the desired effect and it was not a very easy thing to find out."⁵

25 years ago, many Canadians thought that the harms caused by smoking could be reduced by reducing the amount of tar from cigarettes.

In the 1970s and 1980s, cigarette companies introduced cigarettes with lower tar yields, once again as a supposed public health measure. This time there was support from public health authorities in favour of these measures. However, tobacco companies' true motivations were revealed in documents made public during the ill-fated defence of the *Tobacco Products Control Act* in Montreal in 1990:

"The desire to quit smoking altogether and the rationalization offered by many consumers that their going down in tar and nicotine brings them closer to the inevitable step of giving up smoking may actually increase the market considerably."⁶

"We have evidence of virtually no quitting among smokers of these brands, and there are indications that the advent of ultra low tar cigarettes has actually retained some potential quitters in the cigarette market by offering them a viable alternative."⁷

During this period, the federal government was actively encouraging tobacco companies to reduce the 'tar' and 'nicotine' levels in their cigarettes. The regulatory approach taken at the time was to ask for a reduction in the "sales weighted average tar" of all cigarettes sold in Canada, and the companies were monitored by government on their progress to reducing the amount of tar that smoking machines smoked.

Since the 1980s, light cigarettes have been further refined. Now they are engineered to lull consumers believing that they are less hazardous because they are labelled as light and because the sensation of inhaling smoke diluted with air can be mistaken for the experience of inhaling less smoke. In fact they are deliberately engineered in ways that allow consumers to compensate for the lower tar deliveries without realizing that they are doing so. As an engineering feat, these cigarettes are work well – they fool the customers completely – they are “brighter lights.” But “brighter lights” are a public health disaster. Within British American Tobacco, it has been a matter of policy to make and market such cigarettes.

“From a research and product development viewpoint, the proposition of designing a cigarette of high taste to tar ratio, which responds positively to human smoking behaviour has been agreed to be acceptable. This is necessary if we are to explore and understand what consumers are seeking from the cigarettes they buy.

“The marketing policy concerning this type of product is not clear but it is believed it will depend largely on the degree of elasticity in the design and how overtly this elasticity is achieved. The consensus is that small improvements in elasticity which are less obvious, visually or otherwise is likely to be an acceptable route”⁸

The public health community was slow to understand that the hoped-for public health benefit of light cigarettes was not being realized. Worse, it was being perverted. This public health failure is now recognized as such by public health experts, a quarter-century after the fact. In Canada, an expert panel reported in 2002:

“Cigarette descriptors such as ‘light’ and ‘mild’ are a major public health problem that have already contributed to the deaths of thousands of Canadians.”⁹

At the very least, the public health community has acknowledged that mistakes were made. Regrettably, it took thirty years for the mistakes to be recognized and acknowledged.¹⁰

Every one of the historical milestones cited above raised the hopes public health agents that one technical change to tobacco products or another would lead to reduced hazards from tobacco use. However, every one of them resulted in no health improvement whatsoever from the technical change and, worse, expansion of the tobacco market over what it otherwise would have been.

5 *years ago, many Canadians thought that the harms caused by smoking could be reduced by changing the way that tobacco was cured.*

Prior to the 1970s, Canadian tobacco was cured by gentle heat passing through a flue and exhausted to the outside. In the 1970s, as an energy conservation measure the exhaust gases from the natural gas curing fires was redirected directly onto the tobacco to provide greater efficiency of heat use. Unfortunately, this exhaust gas was laden with oxides of nitrogen, which promoted the formation of

TSNAs. Then in 2001, tobacco farmers demanded and got a \$20 million subsidy from the Ontario government which allowed them to carry out kiln conversions demanded by the tobacco manufacturers. In effect they got paid \$20 million in taxpayers' money to stop blowing furnace exhaust on their curing tobacco, something they had never done prior to the 1970s.

Never did anyone claim that this would result in less hazardous cigarettes. RJ Reynolds testing of both low and normal-nitrosamine cigarettes and found "there is no difference in the toxicity of 'tar' of cigarettes made with direct-fire cured tobacco."¹¹ The President of the Canadian Tobacco Manufacturers' Council told a Simcoe Reformer reporter, "There's no evidence that low [TSNA] levels in tobacco produces less of a health risk."¹²

5 months ago, despite the absence of any known health benefit, setting upper limits in tobacco products for tobacco-specific nitrosamines was seriously discussed at a meeting of the WHO Study Group on Tobacco Product Regulation (TobReg).

It was reported that at a July 1 meeting of the Study Group, "TobReg is planning to submit NNK/NNN 'upper limits' proposal to the WHO Executive Board (EB) in January 2007, in the hopes that the proposal becomes part of the EB recommendations."¹³

There is no doubt that tobacco-specific nitrosamines (TSNAs) are potent carcinogens, among the most potent carcinogens known. Moreover, they are organ-specific carcinogens, known to cause lung cancer. However, it does not follow that establishing 'upper limits' would make the product safer. There is no known "safe" or "safer" level of exposure to these carcinogens. Lowering levels of TSNAs may cause other unpredictable changes in tobacco smoke that overall, makes it more hazardous rather than less hazardous. Even if reducing TSNA levels in smoke provokes no other changes in the toxic mix, hazard is still unlikely to be reduced. There are 172 known toxic substances in tobacco smoke.¹⁴ Reducing the levels of a few of them, even potent carcinogens such as TSNAs, is unlikely to have any discernable effect. Since the 1950s, Canadian cigarettes have had lower levels of TSNAs and higher levels of polycyclic aromatic hydrocarbons (another class of potent carcinogens) than American cigarettes. However, the risks of tobacco-caused death and disease are very similar in both countries.

Current Research Pipeline

Our current research pipeline includes:

The continuing development of very low tar cigarettes that are acceptable to consumers

Lower tar cigarettes that have certain smoke constituents reduced further

Novel designs that significantly change the composition of smoke

Even though we might believe that one of our products is potentially "less risky", we will seek endorsement from an independent regulatory or scientific body before making any claims about it to consumers

While the scientific merit of proposals to reduce TSNAs is highly questionable, there can be no doubt that any proposal from a health authority, especially WHO, for 'upper limits' on TSNAs would be a public health communication disaster. It would fulfil tobacco company dreams

for product endorsement by scientific authorities. Endorsement by health authorities is a key objective of BAT, as shown in the slide above from a strategy session in 2002¹⁵. They would then use WHO 'upper limits' as a seal of approval and aggressively market reduced TSNA products with marketing strategies that stated or implied that these products were 'safer' because WHO said so. Such plans have been spelled out repeatedly in recent tobacco industry planning documents.

In theory, it is perhaps possible that public health interests and commercial interests of tobacco companies will one day coincide. However, it has not happened yet and history should teach public health agents to be very, very cautious of any proposed product modification that purports to make cigarettes less hazardous. In more than one hundred years of cigarette production, several such product modifications have been introduced. Not one of them has succeeded in mitigating the tobacco epidemic. Worse, every one of them has exacerbated, widened or prolonged the scope of the tobacco epidemic, compared to what it otherwise would have been.

Lesson #2

The tobacco industry knows more about cigarettes than regulators ever will.



An 1988 ITL conceptualization of how they might target smokers' receptiveness to new products that they could promote as being less harmful.¹⁶

Tobacco companies know everything that is knowable about their products; by comparison public health workers know almost nothing

Tobacco product regulators are no match for tobacco company scientists. With decades of internal industry knowledge available to them, tobacco industry scientists have had a clear information advantage over regulatory scientists. This knowledge gap defines the relationship between regulators and the regulated – especially as tobacco companies are well aware of how to use the information imbalance to their advantage.

In 1977 Health Canada (then called National Health and Welfare) launched its first research efforts to develop a 'less hazardous' cigarette. Internal tobacco industry discussions of this attempt demonstrate how transparent the knowledge gap was to industry scientists. As one scientist scathingly wrote:

"Their whole philosophy is riddled with holes, their knowledge is extremely limited, their findings to date are minimal and do not throw any light on the subject. They are looking for guidance from the industry which we would give if they were prepared to embark on a realistic programme. They cannot define what they term a less hazardous cigarette. They are conversant with all the published literature; they have heard of CO, acrolein, HCN, NOx, etc.; they know there should be bio testing of some form, shorter butt lengths must be a good thing (!), lower tars, etc., etc., but putting this together in a logical meaningful, scientific and prioritized manner is seemingly beyond them."¹⁷

While the information imbalance has been redressed somewhat since 1977, the scales remain clearly tipped in favour of the tobacco industry. While TobReg and other scientific and regulatory bodies debate the merits of reduction of one or another class of toxic substances in tobacco, internal tobacco industry research has moved on to new areas of endeavour with a promise of future profitability. By 1991, BAT had already shifted its scientific research priorities away from “regulatory-driven projects” that “sought tobacco treatments that reduce the subsequent formation of minor compounds of interest to regulators.” Henceforth, BAT scientific research would focus on “increased competitiveness through smoke quality improvement” and “increased competitiveness through innovative products.” Henceforth 35% of their research effort would be on smoke quality improvement including chemosensory research, the influence of cigarette design on smoke quality, and tobacco modification. Projects would seek to “overcome the existing barriers to sensory acceptability” and “maximize the formation of compounds which improve the subjective quality of smoke.”¹⁸

Fifteen years ago, BAT began a bold program of groundbreaking research to increase the sensory acceptability of smoking. Yet outside the tobacco industry, to this day, there is little or no scientific study of this kind and even less examination of the public health implications of concerted efforts by the tobacco industry to make smoking more enjoyable.

Lesson #3

Tobacco companies are interested in profits, not public health improvement

A "Safer" Cigarette?

Although there is no such thing as a "safe" cigarette, a real world view suggests that a large number of people will still choose to smoke even though it is risky

That's why we think it's important to continue working towards products which might offer lower risks, and so might be regarded as "safer", and which consumers would also find acceptable

We see the development of such products as a priority

We are concerned that some marketing restrictions, including bans on descriptors, may hinder our future ability to let smokers know that this kind of product might become available, and to describe it to them

Key R&D Objectives

To enhance our understanding of the product, its use by consumers, its risks and provide the scientific basis for open debate and informed consumer choice

To develop technologies and prototypes to achieve reductions in product risk consistent with product acceptability

To engage the external scientific and regulatory community on key product issues and seek endorsement for lower risk products, communicate as appropriate to consumers, and set appropriate product standards

To achieve competitive advantage through product innovations

Where public health workers consistently see potential public health improvements, tobacco companies are under an obligation to their shareholders¹⁹ to always see marketing opportunities and potential profits. This obligation leads them to adapt to regulations in ways which increase sales and profits.

The slides (left) from a 2001 presentation to all BAT's global senior executives²⁰ describes the intention to use consumers and regulators desire for a 'safer' cigarettes to create a path for product innovations that will result in increased sales.

The dynamics between regulators and tobacco companies have not changed for decades.

In 1988, Alan Heard of BAT pointed out that:

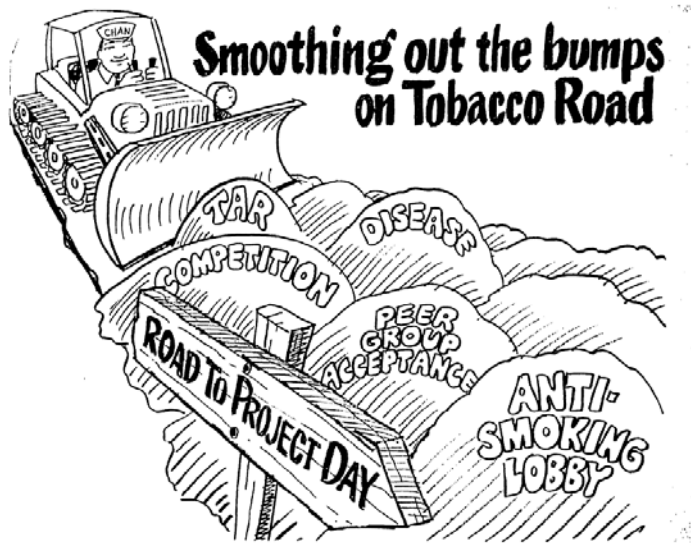
"Skillfully managed, product developments based on consumer demand, itself based on statements from the Regulators, can present a positive step by the company and a commercially competitive position.... The question for us today is how aggressively should we respond to or anticipate Regulatory directives?"²¹

"It should be remembered that governments can produce markets by endorsing a particular aspect of the cigarette, e.g., charcoal filters."²²

"[T]he recent IOM report validates the prospect of emerging markets in PREPs (Potentially Reduced Exposure Products)."²³

There are many other reference in tobacco industry documents to the need to encourage regulators to request things of tobacco companies that will apparently be good for public health but that in reality will do little to improve public health while

doing quite a lot to boost tobacco sales, forestall their decline, or lessen tobacco company liability.



Imperial Tobacco's Project Day provides a useful example of how a project aimed at making cigarettes safer is driven by a desire to sell cigarettes and by the knowledge that only if smokers think cigarettes are safer will they remain longer in the cigarette market. This ITL cartoon shows ITL

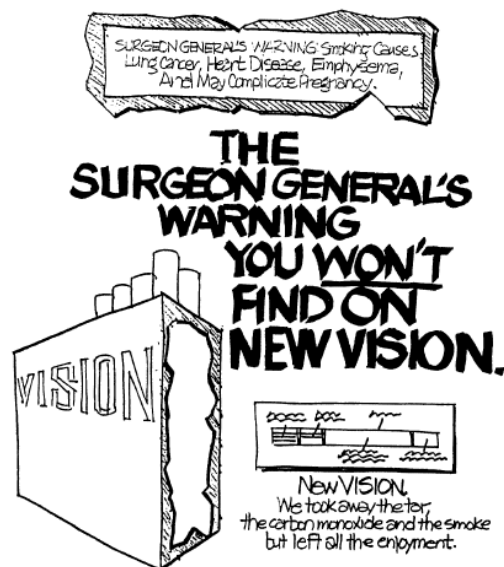
scientist Andrew Chan "smoothing out the bumps" to continue tobacco sales. In the same document ITL marketers are concerned that the term 'light' no longer conveys safety to smokers and that they needed a new category of cigarettes that can be sold as 'less harmful' to stall smokers from quitting.:

"It is now very evident that the adoption of a milder/lighter cigarette is no longer viewed to be a potentially safer product The decline in industry volume and our tracking information corroborates this activity while short-term quitting (less than one year) has remained stable at 3%, the incidence of long-term quitting has increased from 13% in 1980 to 18% today.

"The promotion of lower tar and/or nicotine products will no longer confer meaningful saleable benefits to the majority of smokers in relation to their perceived health concerns . . ."²⁴

Lesson #4

Tobacco companies want third-party endorsement for “less hazardous” products



1988 ITL conceptual ads for reduced-harm cigarettes.²⁵

Tobacco company scientists most often refer to “less hazardous” cigarettes and “reduced risk” cigarettes in quotation marks. The reason for this is that the tobacco company scientists themselves do not have evidence that these products are actually “less hazardous,” and are unwilling to endorse these products as actually less hazardous. Gaining third-party credibility of these initiatives is key to their strategy.

“Less hazardous” product development: [meaning] The development of products that would be regarded as “less hazardous” by external experts.²⁶

The companies will happily make “less hazardous” products if they can sell them. And they can sell them if other people (especially regulators) believe or can be suckered into believing that such products should be made because they are “less hazardous.” For this reason, a key strategy for BAT and other tobacco companies is to:

“Gain third party endorsement for the approach to assessing products in terms of reduced health risks for consumers.”²⁷

In a global market, BAT realizes that it does not need to convince **all** governments to accept a less hazardous cigarette strategy, and that it would be sufficient to convince **some** governments and then sell these cigarettes in many markets.

Any product development accepted by a public health authority as producing a reduced risk would be provided for consumer choice in as many markets as feasible.”

In other words, if just one public health authority would say or do something in support of our so-called “less hazardous” products, the companies are positioned to

capitalize on such a “good-housekeeping seal of approval” and flog products modified in line with that external validation in as many markets as possible. It is little wonder then, that the tobacco industry would pay particular attention to getting the third-party validation it so desperately seeks from WHO, the biggest fish in the public health sea.

In a review of “Product and Risk Reduction and Significance for the Group”²⁸ presented at an internal meeting in 2002, BAT they laid out three steps to marketing risk reduced products:

- **Step one:** get regulators to agree on measurements of toxic ingredients, and ceilings on constituents
- **Step two:** get regulators and health agencies to agree that these products altered/reduced risk and
- **Step three:** get regulators and governments to establish standards on which they could make claims on the package.

Basis for Product Positioning and Endorsement

	Regulatory Framework	Risk Forum, Regulators. Stakeholder engagement	'International' protocol/ Govt/regulatory support
Communication Platform	'Informational' (control) Fact Based <ul style="list-style-type: none"> • Deliveries/regimes • Constituent conc. • Ingredients • Ceilings • Chemical list/rankings 		
	'Actionable' (by consumer)	Estimation of Risk <ul style="list-style-type: none"> • Smoke dose (Low Tar) • Constituent exposure • Relative significance • 'Risk' rankings • Judgement call and continuum of risk 	
	'Claimable' (on pack)		Reduced Risk Step change Demonstrable Toxicology & clinical based Founded in scientific argument

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Lesson #5

Tobacco company scientists have long known that all their products are hazardous and have never been made otherwise.

The fact that tobacco companies only recently made public admission that their products caused disease may have obscured the depth of their knowledge over decades, and the superiority of their knowledge compared with that of the medical and health communities.

When BAT scientist Dr. G. Smith reviewed that company's secret biological research on carcinogenesis and mutagenicity in 1984 and 1990, he had decades of laboratory work to consider. The results of thousands of laboratory tests and experiments were reviewed. Not a single one of their products ever received a clean bill of health through these tests and experiments; not a single one ever failed to test as carcinogenic and/or mutagenic.^{29 30}

In 1986, BAT tobacco industry scientist Dr. F.J.C. Roe expressed his frustration at Imperial Tobacco Canada's research program to eliminate harmful substances from tobacco smoke:

"In the case of carcinogens, smoke contains not just one carcinogen but a galaxy of them, Furthermore it is, at present, inconceivable that carcinogens would not be produced during the pyrolysis of any organic material.

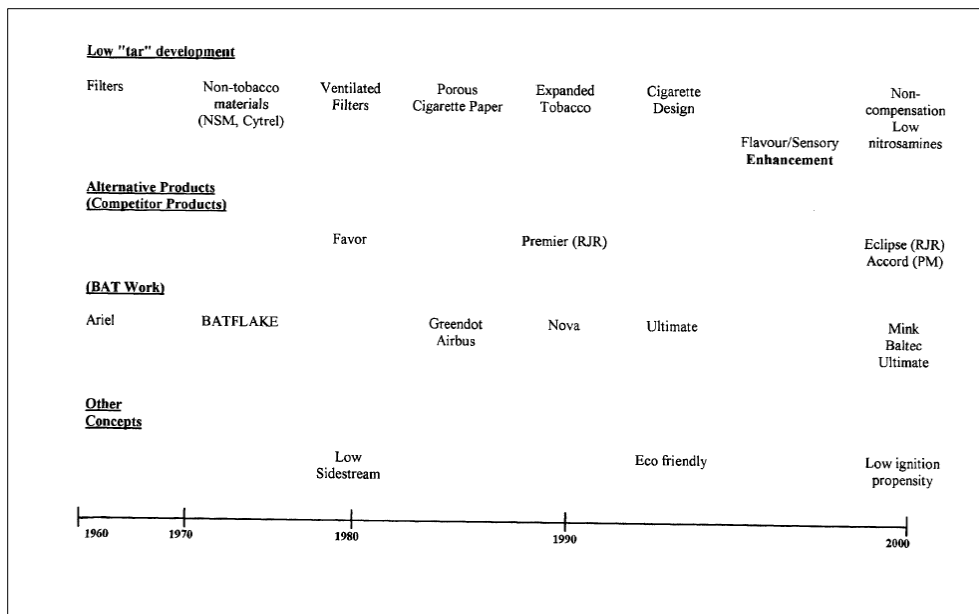
"Elimination of carcinogens does not therefore appear to be feasible. The same is seemingly true for the irritants (especially oxides of nitrogen) responsible for non-neoplastic lung disease (emphysema and chronic bronchitis). In the case of heart disease, carbon monoxide and nicotine have received most attention but in neither case has a causal relationship been unequivocally demonstrated. In any event, it is difficult to see how either of these smoke constituents could be eliminated were it found to be the culprit. At present, therefore, it must be concluded that the "E" of "EMN" [Eliminate, modify, neutralize] is no more than a pious hope."³¹

In 2000, RJ Reynolds scientists expressed the same sentiment more bluntly and succinctly:

"Known cigarette technology cannot produce a commercially viable "safe" cigarette."³²

In the same document, the scientists nevertheless proposed a number of strategies by which tobacco products would appear "less hazardous," but might or might not be so in reality. They also recognized that no experimental test could be devised to determine if they actually were less hazardous. In fact they determined that one

“can’t rely on surveys – must monitor actual behaviour.”³³ They showed themselves quite ready to launch new products that they knew to be unsafe on an unsuspecting public and then monitor what would happen. Much of the research being conducted on “less hazardous” cigarettes was likely for public relations benefit. RJ Reynolds research had revealed that “The current market for reduced risk cigarettes is smaller than perceived.”³⁴



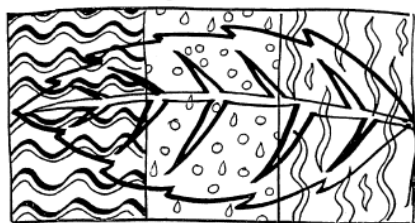
*in 2000, Richard Baker gave his BAT colleagues a snapshot of the 40 year history of research into product modification*³⁵

Lesson #6

**In the pursuit of profits,
tobacco companies play on the hubris,
the zeal, and the lack of knowledge
of public health do-gooders.**

T17

**At last, a cigarette you can
feel good about!**



**Introducing Triple "S" Process™
GENESIS.**

Leaves the Best
Eliminates the Rest.



In the 1970s and 1980s, tobacco companies let it be known to the Canadian government that they could reduce cigarette tar and would accept a government suggestion to do so. There was never any persuasive scientific evidence that this would make these products less hazardous. Rather, the appeal of lowering tar to both government and the tobacco industry was an intuitive one. If there was bad stuff in cigarette smoke, then less of it would be less bad.

*1988 ITL conceptual ads for reduced-harm
cigarettes.³⁶*

However, there was not and still is not any persuasive scientific evidence that reducing tar, any other component, group of components or even all components would lessen the public health damage caused by cigarettes.

Arguably the Canadian government (and others) were suckered by the tobacco industry into setting rules about tar that allowed the companies to regenerate its marketing.

We now know that the intuitive appeal of lowering tar resulted in no discernable public health benefit. Given our knowledge that, with more than 4500 chemical components, tobacco smoke is exceedingly complex, and that in the hands of five million smokers, predicting the outcome of modifying the product becomes a virtually impossible task. We know for sure that cigarettes cannot be made safe, and we also

know that we cannot reliably predict in advance that they would be less hazardous. Despite this, much ink continues to be spilled on the presumed merits of potentially reduced exposure products. This is what Imperial Tobacco Canada had to say on the subject in 1996:

“Cigarette modifications reflected in reduced tar and nicotine deliveries have been equated to “less hazardous products.”³⁷

The same company was at pains to point out in a press release issued on November 11, 1999 that if someone was claiming these cigarettes were less hazardous, it certainly was not them:

“Imperial never made any health claims about these ‘lighter’ products. Imperial never developed any product for the purpose of encouraging smokers to smoke more than they would otherwise, or to keep smoking rather than quit.”³⁸

Perhaps Imperial never made any explicit health claims about low tar products. But they most certainly made implicit claims to this effect and had a profound understanding that their consumers received this implicit message that these products were “less hazardous.” Entire marketing strategies were built around catering to the consumers’ desire for cigarettes that they could believe were less hazardous, even if they weren’t. This is how Bob Bexon, then a marketing manager and later Imperial’s CEO expressed it in 1984:

“Clearly Lights have offered one solution to the smokers dilemma. But it is a far more partial and imperfect solution than sales would lead us to suspect.

“Smokers remain prepossessed by exactly the same concerns that brought about the proliferation of successful lighter brands. They, presumably, remain open to and need new ways of delivering LESS. The underlying premise for the last convulsion is unchanged and incompletely satisfied by LIGHTS. It is useful to consider lights more as a third alternative to quitting and cutting down – a branded hybrid of smokers’ unsuccessful attempts to modify their habit on their own.”³⁹

Tobacco companies are, of course, masters of salesmanship. They have sold cigarettes to smokers for one hundred years and continue to do so despite the widespread knowledge that cigarettes are addictive and poisonous and kill half their life-long users. An industry capable of doing that is also capable of selling a bill of goods to public health scientists and regulators. And they have succeeded in that enterprise too. For at least fifty years they have traded on the fond wish of smokers, scientists and politicians that the tobacco problem could be mitigated by making cigarettes less hazardous. As long as that wish could appear to be fulfilled, tobacco companies would maintain legitimacy and continue to extract more profit from selling cigarettes. In fact, just as tobacco companies compete with each other on cigarettes sales, so also do they compete on making their cigarettes appear less hazardous. In doing so, they accomplish an astonishing feat. They have caused and continue to

cause the willing suspension of disbelief among normally sceptical and savvy scientists and regulators, generation after generation.

The minutes of a 1973 meeting between Marc Lalonde, then Canadian Minister of Health, and the captains of the Canadian tobacco industry resulted in the Health Department being drawn into a long-term program of cooperation with the industry. The tobacco industry made a successful sale by artfully transferring responsibility for deciding if cigarettes actually were less hazardous from the tobacco industry to the “medical authorities,” and Minister Lalonde willingly accepted it.

“Faced with this fact, it is the view of the members of the Council that the possible development of modified products of less biological activity acceptable to the consumer is not only the responsibility of the industry but also of the government and medical authorities. Based on this view, Mr. Paré suggested that a research program should be developed with the involvement of the above three groups to add to the scientific knowledge necessary to achieve this objective. Obviously any modification or change which results in developing a product considered to be less harmful (safer) to health is a matter of medical opinion and can therefore only be endorsed or recommended by health authorities. In a nutshell, and as Mr. Paré stated, the industry is prepared to contribute their full share of the costs of such a program but they also need help in other areas, that is, other capabilities, disciplines, etc.

“The Minister was rather favourably impressed with this idea and sees no problem in the Department of Health supporting such an approach and posture.”⁴⁰

Just 10 days after April Fool’s Day in 1973, Paul Paré, Chairman of the Canadian Tobacco Manufacturers’ Council, had gone fishing and landed a very big fish (*un poisson d’avril*), Marc Lalonde, the Minister of Health. Fortunately, Marc Lalonde later managed to wriggle off the hook by later writing a letter to Mr. Paré indicating that the Department of National Health and Welfare would not be cooperating in this proposed research program.

In 2001, nearly thirty years later the tobacco industry was still fishing for big ones. And none is bigger than the World Health Organization:

“To engage the external scientific and regulatory community on key product issues and seek endorsement for lower risk products, communicate as appropriate to consumers, and set appropriate product standards. .

“Have engaged and seek to continually engage with regulators and public health committee including the WHO’s SAC [special advisory committee on tobacco].”⁴¹

Lesson #7

Tobacco companies will circumvent regulations and overcome their effect

Opportunities for Low Tar Product Development

- ⌘ Utilize the differences between 'ISO' & 'Intense' numbers to differentiate our products
Across all components
Selectively
- ⌘ ITCAN have the fastest growing low tar brand family (including slims)
- ⌘ Opportunity to significantly reduce tobacco rod weight
- ⌘ Whole area of low tar products currently under review.

It is in the nature of business corporations to adapt to changes in the business or regulatory environment in ways which maximize potential profits.⁴²

There are numerous examples of tobacco companies responding to regulatory changes not by adapting their

behaviour to support the regulatory goal, but by overcoming the regulatory barrier in ways which undermined the regulatory goal. Canadian examples include:

- Shifting from traditional advertising to sponsorship advertising after ad bans were put in place, and shifting from sponsorship advertising to retail and bar promotions after event sponsorship was banned, but never reducing levels of advertising expenditures.
- Re-designing cigarettes so that they continued to deliver high levels of smoke to smokers, but low levels to cigarette machines (i.e. compensatable cigarettes).
- Re-designing packages to maintain artificial distinctions within brands between 'low' 'middle' and 'high' taste designs by using colours, after descriptors like 'light' and 'mild' are banned.

In recent times, Health Canada has required companies to change the machine methods for smoke constituents. Imperial Tobacco in 2002 (see slide above) responded to this not by helping smokers understand the potential deception in these measurements, but as a marketing opportunity to "differentiate" their products.⁴³

Lesson #8

Tobacco companies imply much about TNSA reduction with little to deliver.

At one time, tobacco companies generated public discussion about the benefits of reducing tar. Now, some buzz has been created about the possibility of reducing or eliminating tobacco-specific nitrosamines. To Imperial Tobacco, all of this has been seen before and is labelled the “flavour of the month approach.”

*“At different times attention has been focused to a greater or lesser degree on various smoke components in a “flavour of the month approach”:
Arsenic, Polonium-210, Heavy metals, Benzo(a)pyrene, Aromatic amines
Benzene, Nitrosamines, Carbon monoxide, Nitrogen oxides”⁴⁴*

Canadian tobacco companies have been paying attention to tobacco-specific nitrosamines (TSNAs) for some time.

A known difference between blended cigarettes, the kind popular in the USA, and flue-cured tobacco cigarettes, the cigarette of choice in Canada is that the former are higher in TSNAs than the latter. On the other hand, Canadian cigarettes are higher in polycyclic aromatic hydrocarbons (PAHs) that also cause cancer. This inverse relationship between TSNAs and PAHs is well-known to tobacco companies.⁴⁵ There is no discernible difference in health risk from cigarettes between the United States and Canada.⁴⁶

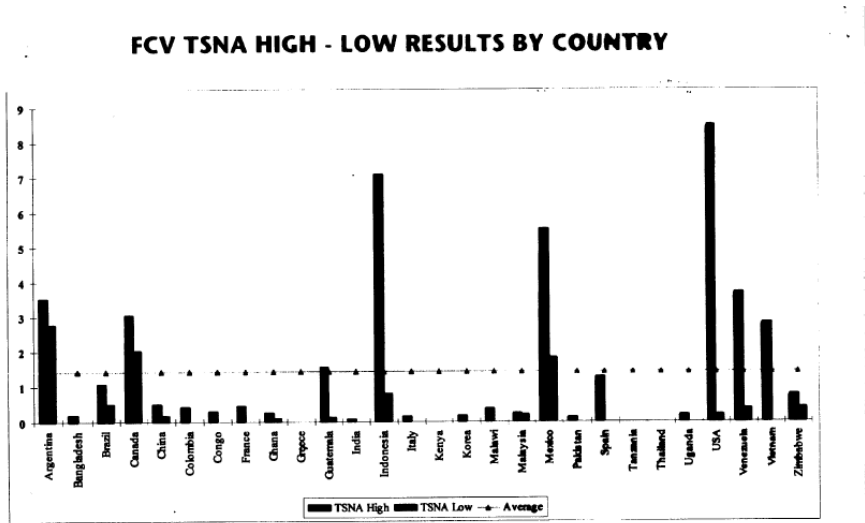
As discussed earlier, in 2001, Canadian tobacco farmers got paid \$20 million in taxpayers’ money to stop blowing furnace exhaust on their curing tobacco, something they had never done prior to the 1970s. The effect of this change back to an earlier curing practice was to lower TSNA levels to approximately what they had been in the 1960s and early 1970s.

Never did anyone claim that this would result in less hazardous cigarettes, not even tobacco companies. The President of the Canadian Tobacco Manufacturers’ Council told a Simcoe Reformer reporter, “There’s no evidence that low [TSNA] levels in tobacco produces less of a health risk.”⁴⁷

There are 4 main chemicals in the TSNA family and all of them are potent carcinogens. But there are 69 carcinogens in tobacco smoke and a total of over one hundred substances that are known to be toxic to humans, and a total of over 4500 chemicals in the smoke. Simple reduction of TSNAs will not make this toxic stew less hazardous. In fact, it may change in unpredictable ways and become more hazardous.

Tobacco company research reveals no more sound scientific knowledge about the supposed health benefits of reduced TSNAs than any other source. The rationale for reducing TSNAs rests on nothing more than intuition:

“Recently, tobacco-specific nitrosamines (TSNAs) have attracted a lot of interest. While there are no guarantees, if compounds such as these could be significantly reduced or even eliminated from tobacco smoke, intuitively this approach would be sensible and might reduce the risks of smoking.”⁴⁸



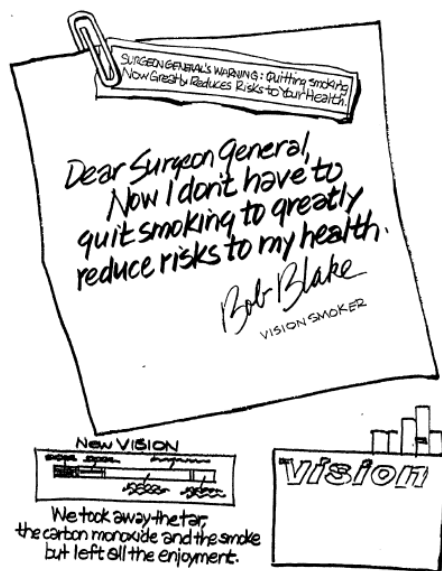
A ca. 2000 review by BAT showed TNSA values in flue-cured Virginia tobacco (FCV) vary considerably across the globe⁴⁹

British American Tobacco is preparing for the eventuality that regulators will ask tobacco companies to reduce TSNAs, and are already seeking marketing advantage from such a request. They have already embarked on plans to lower TSNAs in their products around the world and are seeking to engage regulators on this issue. The regulators' role will be add legitimacy to an enterprise whose supposed public health benefit rests on nothing more than the intuitive appeal that it “might reduce risks.”

Responsible scientists and regulators should demand much, much more proof of effectiveness and risk reduction before giving even the slightest hint of approval for TSNA reduction or any other cigarette modification proposed by tobacco companies. They must resist the bait of “intuitive appeal” and “might reduce risks.”

Lesson #9

There is more public benefit to controlling the industry than to controlling the product.



1988 ITL conceptual ads for reduced-harm cigarettes.⁵⁰

The very real challenges of controlling tobacco companies and frustrations over the persistence of the tobacco problem has led many to call for government controls over tobacco products.

Canada was one of the first countries to give governments statutory authority over the manufacture of cigarettes. Under Canadian law, it is illegal for any tobacco product to be sold that does not comply with regulations sets by government.⁵¹ In the decade that has passed since this provision was first proposed to parliament, only one such regulation has been developed, a requirement that cigarettes meet ignition propensity standards.

Canada has made significant investments in regulatory science, has engaged significant expertise, and has explored several options. In Canada at least, the path to cigarette regulations is far from clear.

At the same time, other Canadian efforts to implement comprehensive tobacco control have been rewarded with very large decreases in smoking behaviour. These measures included enhanced budgets for tobacco control, new curbs on promotions, improved warning labels, mass media and community engagement. (We estimate there are over 400 Canadians working directly for various levels of government on tobacco reduction programs.) As a result, there are a million fewer smokers now than at the beginning of the decade, the number of Canadians who live in communities where they are not exposed to smoke at work or in public places has increased thirteen-fold, and the number of young Canadians who start smoking has fallen to the lowest levels ever.

One positive example provided by Canada in the past decade was its willingness and ability to set its own regulatory agenda and set its own regulatory policies

unburdened by international standards. The discrediting of the ISO standard allowed Canada to explore the benefits of an “intense” method. Canadian NGOs welcomed this as an advance in 1998 and are now suggesting that while the tests should be continued, the results should not be given any public credibility in terms of individual health outcomes.

The Canadian experience suggests that even in countries which have the wherewithal to develop good product regulations, the results will be uncertain and the goal will often be hard to define. Regulating tobacco products is difficult and costly. There are many comprehensive tobacco control programs that are relatively easy to implement and much more cost effective.

Lesson #10

What have we learned from cigarette testing and reporting and where do we go from here?

Canada's health department has required tobacco companies to test and report on the constituents of tobacco products for forty years. It now has one of the most sophisticated regulatory regimes for the testing and reporting of tobacco product constituents and emissions in the world. Along the way, many valuable lessons have been learned. We have learned what works and what does not work to benefit of public health.

What works

- **Extensive reporting requirements:** Canada requires a great deal of reporting to Health Canada by tobacco companies.

Reports are required of 44 chemicals and physical characteristics of cigarettes for both mainstream and sidestream smoke under standard and intense conditions. Reports are also required on ignition propensity and the results of a battery of three mutagenicity tests on each brand. There are many more reporting requirements too.

Tobacco companies pay for these tests.

All of these requirements allow Health Canada and, to a lesser extent, the general public, to have a greater understanding of what is in tobacco, to monitor changes over time and to provide an information base to inform future regulatory proposals. They also put tobacco companies liability for these products into sharp relief. No longer can they obfuscate about what tobacco smoke might or might not contain or whether or not their products cause mutagenesis. The results will be available for all to see.

The public has a right to know just how hazardous tobacco products are and the tobacco companies have an obligation to tell them. **Such reporting obligations should be continued and even expanded.**

- **Bold picture-based health warnings:** Research by the International Tobacco Control Policy Evaluation Project and other review have clearly shown that Canada's 16 pictorial health warnings on cigarette packages have been a valuable source of public health improvement.⁵²

What does not work so well

- **Government secrecy:** Tobacco companies are required to report a great deal of information to Health Canada. But only a small fraction of that information is ever made public. Tobacco companies hide behind trade secret protection and other legal devices to prevent their information from being made public. Even for the information that Health Canada could release to the public, Health Canada is not as pro-active as it could be, neither in releasing the raw data, nor in releasing analyzed and summarized reports on the information they receive. There would be substantial public health benefit if the general public had access to all of the information provided by tobacco companies to Health Canada.
- **Small print inside tobacco packages:** The required health information on cigarette packages also includes detailed information on tobacco printed in small letters inside the package. As a public health communication device this strategy has not worked so well, but could be improved by redesigning the information inside the package to work more effectively as a communication medium and to become integrated into a more thematic and systematic approach to communicating the hazards of smoking to Canadians.
- **Small print on the outside of the package giving detailed information about toxic substance yields:** Overly detailed information is printed in characters that are too small. Smokers have little understanding of concepts like standard and intense smoking, nor much understanding of what the phrase “Toxic emissions / unit: ...Benzene 0.025 – 0.071 mg” might mean or whether they should be worried about it. An expert panel recommended in 2001 that such detailed quantitative information be removed from packages.⁵³

Where should we go from here?

Much of the scientific work that has gone on over the last forty years on measurement of tobacco smoke constituent has drawn its inspiration from scientific development by the tobacco industry that dates back to the 1930's. As it was developing tobacco measurement techniques, never did the tobacco industry have public health protection in mind. Rather, its goal has always been to understand their cigarettes better so they could sell more of them.

Now, with the FCTC in force, the global public health community has an opportunity to understand tobacco products better so that we could cause reductions, not increases, in sales. This implies that we need to ask questions about tobacco products that have not even been asked yet, and start developing and implementing tobacco testing and reporting regimes that will lead to real public health improvement, not just more measurement for measurement's sake.

In creating new public health based directions for tobacco product testing and reporting, here are just a few of the questions that need to be asked and answered:

- **Palatability:** What is it that makes cigarettes palatable? How have tobacco companies made cigarettes more palatable over the last 50 years? How can we measure palatability? How can we oblige tobacco companies to report on palatability and subsequently oblige them to make cigarettes less palatable and therefore less smoked?
- **Health damage:** Tobacco related health damage can be measured by biomarkers such as serum cotinine, lung function, carbon monoxide in blood and many others. Are there some specific biomarkers of hazard that can be effectively communicated to consumers? If so, can tobacco companies be obliged to report such information on a brand-specific basis?
- **Health hazards:** We know generally that one in two lifelong smokers will be killed by their addiction, that tobacco smoke contains 172 known toxic substances, that only about one-third of confirmed smokers will be able to quit and that the annual quit rate among smokers is in the range of 2% to 4% per year. Can tobacco companies not be obliged to provide detailed information of this kind to the consumers of their products on a brand-specific basis?
- **Tobacco packaging:** Why should we continue to allow tobacco companies free rein to make their packages attractive? If our new testing and reporting requirements reveal tobacco products to be very hazardous, should tobacco companies not then be obliged to stop using their packages for counter-messaging? Could this not be done by requiring plain packaging for tobacco products?

These are just a few examples of the public health questions that have not yet even been asked in discussions of cigarette testing and reporting. We do not need more testing and reporting of toxic substances in tobacco products just to have more numbers quantifying what is in tobacco smoke, to uncertain purpose.

What we need is more local and national efforts to start asking questions about how cigarette testing and reporting can lead to real public health improvement. Once we have the questions, then we can seek the answers. Once we can see demonstrable public health improvement, then we can seek more widespread implementation of tobacco product testing and reporting requirements that we know will result in national and international public health improvement.

Appendix

A brief history of BAT/ITL research into safer cigarettes.

1962: The crisis hits:

BAT and its global affiliates (including Imperial Tobacco Canada) meet to agree on a strategy to respond to new evidence on smoking and health. They agree on a two-pronged research strategy: to fund research into curing lung cancer and into making cigarettes safer.

*"The board recognizes that this problem must be tackled from two sides, the first being medical research on the origin of lung cancer and bio-assay on the biological effects of smoke, and the second being the composition of smoke and the possibilities of modifying it."*⁵⁴

1968: A new definition of "healthier."

BAT's research into making cigarettes safer is going very badly (no matter what they try, lab rats keep dying like, well, lab rats). They decide to shift focus and agree to an additional strategy. Instead of just trying to make cigarettes that were less harmful, the companies would also sell cigarettes which made smokers **think** the cigarettes were less harmful.

two types of product should be clearly distinguished, viz :
a) A Health-image (health reassurance) cigarette .
*b) A Health-orientated (minimal biological activity) cigarette, to be kept on the market for those consumers choosing it .*⁵⁵

1969: Research on alternative nicotine delivery systems is abandoned.

BAT laboratories had researched ways of delivering nicotine without smoke (Project Ariel), but it failed to impress. This research thread was abandoned.

"The ARIEL project was reviewed... It was agreed that this had been well worth pursuing, but it was felt that this

*should not be taken further at this stage."*⁵⁶

There was still, however, some optimism about making conventional cigarettes a little safer. Using reconstituted tobacco, or tobacco substitutes, new filters and greater dilution was seen as the way forward.

1970: It can be done!

BAT scientists gathered at a resort north of Montreal, and admitted freely to one another that people smoked for nicotine. They were optimistic that smoking might be replaced by other forms of nicotine use (although they drew the line at food!).

They agreed to the following assumptions to guide a research program aimed at developing new products.

*"It was accepted that, without inhalation, no association between smoking and respiratory disease could reasonably be alleged."*⁵⁷

1973: BAT/ITL reach out to Health and Welfare Canada

In April 10, 1973, the Canadian Tobacco Manufacturers Council met with the Minister of Health, Marc Lalonde, to propose joint research into the development of less hazardous cigarettes. In August that year, follow-up meetings were held with the ADM of Health and Welfare Canada, Dr. Morrison, and senior scientists from Imperial Tobacco Canada Limited and BAT.

Imperial Tobacco sought BAT's permission before making an overture to the Canadian government, and provided head office with the materials prepared for the meetings. These documents are unexpectedly frank. Smokers seek nicotine, ITL scientists admit. Compensation can diminish the benefits of low-tar cigarettes, they warn. Ultra-low tar cigarettes are of minimal benefit, they admit.

ITL and the other Canadian companies propose a detailed research plan, examining smokers behaviour, respiratory physiology and pathology, and the potential of six different types of cigarettes.

In late November, Marc Lalonde writes CTMC head Paul Pare to decline the offer. "The department's independence ... [would be] compromised if we were to engage in such a program."⁵⁸

1970s: BAT and ITL develop secret methodology to measure harm

To assist safer cigarette research, ITL struggles to develop an measurement of harmfulness and proposes a Nitromethane Fraction Index (NMFI). Several types of Canadian tobacco were tested with this methodology, but the results were never shared with government (or smokers).

1977: Canadian government comes back with its own collaboration strategy.

In January 1977, Agriculture Canada and Health Canada met with researchers at the University of Waterloo and Guelph to discuss the development of less hazardous cigarettes, and share the approach with the Canadian tobacco industry. Industry scientists scoff at the government's hubris:

"The NCI programme (also towards a less hazardous cigarette) has been in existence for approximately 6-10 years with not only tens but hundreds of millions of dollars in support. They have made progress but are far from the total truth – as they would admit. However, here in Canada, the D. of H&W has grandiose ideas of emulating this programme (plus a bit more) with a shoe-string budget. It is just not possible."

"In a nutshell, I cannot think that anything was achieved other than a clear cut case being presented to department of H& W that it was an enormous programme to undertake, it will take a long time and will be extremely expensive. Their whole philosophy is riddled with holes, their knowledge is extremely limited, their

findings to-date are minimal and do not throw any new light on the subject.

"The Department of Health and Welfare, Canada, whilst having illusions of grandeur in trying to emulate the NCI programme in the USA, do not have a hope of realizing this dream."⁵⁹

1980s: Project Rio and AMES tests

The CEOs of all BAT companies agreed on a safer cigarette strategy and worked to develop their own standards of measuring harmfulness. BAT became particularly fond of the then-new AMES test which examined genetic mutations of bacteria in Petri dishes, but BAT felt that it was a meaningful test for comparing mutagenicity potential of cigarettes.

BAT launched a global comparison of existing commercial cigarettes, and Canadian cigarettes tested relatively well. The smoke from Canadian cigarettes always scored lower on Ames tests.⁶⁰ The smoke from Virginia-style cigarettes always scored lower than the smoke from US-styled cigarettes. The results were not shared with government (they were still telling government and the public that cigarettes were not proven to cause disease).

ITL conducted thorough sets of Ames tests and found that: ITL persevered with Ames tests. They found that all forms of tobacco and tobacco smoke cause genetic mutations to a greater or lesser degree. They made several disturbing findings that they also failed to share with their customers or government, including their conclusions that:

- sidestream smoke is mutagenic (1985) (they continued to fight against smoke-free measures)⁶¹
- cigarettes with more nicotine are more mutagenic (they continued to try to increase nicotine relative to tar)⁶²
- ventilated cigarettes are more mutagenic (they continued to increase ventilation in their cigarettes)⁶³
- that the way smokers compensated when smoking their extra-mild product (Matinee

Extra Mild) made the smoke more mutagenetic than with regular du Maurier cigarettes (they continued to market Matinee Extra Mild as a cigarette for women concerned with health)⁶⁴

Lots of activity, no progress.

From the mid-1970s to the mid-1980s, BAT scientists spun their wheels, trying to come to terms whether they were most interested in cleaning up the smoke in regular cigarettes, or in developing a whole new style of cigarette.

The vision of safer nicotine was still in their minds, and just as elusive was the way of getting there. Their main preoccupation was providing smokers with an alternative to quitting.

"We have to satisfy the 'individual' who is either about to give up or has just done so, i.e., in other words, customers in danger of extinction."

"We are searching explicitly for a socially acceptable addictive product involving:

- *a pattern of repeated consumption*
- *a product which is likely to involve repeated handling*
- *the essential constituent is most likely to be nicotine or a 'direct' substitute for it."*⁶⁵

1985: ITL tries to become a BAT front-runner on safer cigarette research.

ITL was highly confident in the mid 1980s that it could reduce the harm of cigarettes. Despite the scepticism of BAT Researchers, Imperial Tobacco Canada Ltd. remained bullish on the prospects of a reduced-harm cigarette. It proposed a new research program, EMN⁶⁶ to:

Eliminate the carcinogens.

Modify the smoke

Neutralize other adverse effects of smoke (i.e. those that caused emphysema).

With merged research strategies, however, ITL was limited in how it could move forward without the support of BAT head office. And head office was hard to convince.

BAT's senior scientific advisor criticized this approach.

"In the case of carcinogens, smoke contains not just one carcinogen, but a galaxy of them. Furthermore it is, at present, inconceivable that carcinogens would not be produced during the pyrolysis of any organic material."

*"Project EMN... has the features of a light-weight patchwork quilt of 1960 design," he wrote. "I am sorry to have spilt tea on it!"*⁶⁷

Late 1980s: Opposing strategies – safer cigarettes or maintain denial?

Both within BAT and within the tobacco industry, very different strategies developed in the 1990s with respect to 'safer' cigarettes. Not long after BAT's initial rejection of Project EMN, RJR-Reynolds introduced the Premier cigarette into the U.S. Market. An earlier version of the current Eclipse cigarette, the Premier was designed to heat, not burn tobacco. The level of toxic compounds was significantly reduced – but neither the public, nor public health officials responded favourably to Eclipse.

BAT's objections to the ITL's desire to pursue safer cigarettes was based on reasons other than acceptance by smokers or governments. They also felt it was heading in the wrong direction.⁶⁸

"The BAT objective is and should be to make the whole subject of smoking acceptable to the authorities and to the public at large since this is the real challenge facing the Industry... in attempting to develop a 'safe' cigarette you are, by implication in danger of being interpreted as accepting that the current product is 'unsafe' and this is not a position that I think we should take."

"Since there is such a wide discrepancy between your approach and the rest of the Group, I thought that I should write to explain why it is that I cannot support your contention that we should give a higher priority to projects aimed at developing a 'safe' cigarette."

1990s: Another DAY

Imperial Tobacco Canada stands up to head office.

Imperial Tobacco persevered in promoting a research agenda for less harmful cigarettes. Perhaps it was the introduction of RJR's Premier that strengthened ITL's resolve to resist head-office.

By the later 1980s, ITL's efforts had focused around "Project Day" which was to:

*Explore potential alternatives to conventional cigarettes that credibly offer the elements of traditional tobacco pleasures with a greater level of 'safety.'*⁶⁹

The Day concept was:

"A tobacco combustion project [i.e. it looked like a regular cigarette] with:

- *Substantial reduction in biological activity of condensate*
- *reduced carbon monoxide and other gas phase components*
- *significantly reduced sidestream smoke*
- *Adequate nicotine*
- *Acceptable taste and flavour."*

BAT remained as unenthusiastic about Project Day as it had been about Project EMN.

1992: power struggles continue

The disagreements over Projects EMN and DAY were not the only points of friction between Imperial Tobacco and BAT regarding research strategy. ITL also wanted to be able to "opt out" of projects which were not of concern to Canadian smokers. BAT gives ITL an ultimatum:

*"The chairman advised Mr. Crawford that BAT does not mind one way or the other whether Imasco is in Group R&D or not, but emphasized that, if Imasco is in, then it must be on BAT's terms. If the terms are not acceptable to Imasco, then they must not participate."*⁷⁰

BAT hung firm. ITL, appears, blinked. (They remained part of BAT group research).

1996 and 1998: Health Canada tries again to develop regulatory science for reduced harm.

Twenty three years after BAT scientists first approached Health and Welfare Canada to conduct joint research into reduced harm cigarettes, Health Canada reciprocated the invitation.

In 1996 and again in 1998, Canada's leading cigarette analyst, Dr. Bill Rickert, was asked to chair a panel to review ways of modifying cigarettes to improve public health. Both times, Dr. Patrick Dunn of ITL was on the panel.

A transcript of the Panel's proceedings was issued as reports. Patrick Dunn from ITL Canada did not share the results of over 30 year's of Canadian research into reducing the harm from burning tobacco.⁷¹



1997: A "premiere" marketing ruse.

Player's Premier was launched in Canada with advertising suggesting reduced irritation. Canadian courts later ruled this was nothing more than a "massive marketing ploy."⁷² Imperial Tobacco again resorted to the illusion of harm reduction in its sales strategy.

1999: ITL approaches Canadian scientists for validation on reduced harm products.

ITL identifies the Institut National de la Recherche Scientifique as its preferred

agency to collaborate on establishing tests for Project Day, noting that two of the scientists in this network work for Health Canada.⁷³

2000: Power struggle between BAT and ITL ends when BAT takes over the company completely.

Project Day goes full stream ahead as a BAT PREP projects. Whatever its previous misgivings, BAT now embraces the Montreal research on Project Day.

2001: TSNAs drop.... to the level they had been 30 years before.

ITL demands that tobacco growers convert their kilns and ventilate the tobacco during curing. The Ontario government provides \$20 million to help farmers change their system. In 2004,⁷⁴ the TSNA level in Canadian cigarettes to about the levels it had been in 1970.⁷⁵

2006: BAT/ITL says “Let’s Talk.”

Following the script adopted at BAT to attempt to get support of Health Agencies,

BAT contacts Canadian academics and health experts and promotes a “Let’s Talk” campaign.⁷⁶

The key issues that we must all address are: a) The product changes that could be supported by public health groups. b) The methods and standards against which new products should be tested and measured. c) The regulatory environment within which these products are distributed. d) The way information regarding these products is best disseminated amongst adult smokers.

This responsibility can only be fulfilled through full engagement between the manufacturer and regulators, health authorities, government, the scientific community and other interested parties in open discussion.

2006: ITL continues a strategy of recruiting the scientific community to endorse cigarette engineering features that can later to sold as marketing innovations to smokers vulnerable to the allure of harm reduction.



References

- 1 Smokeless Tobacco or Health: An International Perspective. National Institutes of Health. National Cancer Institute. Monograph 2. US Department of Health and Human Services. Public Health Service. NIH Publication No. 93-3461. 1992.
http://cancercontrol.cancer.gov/tcrb/monographs/2/m2_foreword.pdf#search=%22chewing%20tobacco%20tuberculosis%2019th%20century%22.
- 2 Jarrett Rudy. *The Freedom to Smoke: Tobacco Consumption and Identity*. McGill-Queen's University Press. Montreal. 2005.
- 3 Taj Hirji. High Taste to Tar Ratio Project Summary. British American Tobacco. 1984. Bates page nos, 102393928-946.
- 4 Carpenter CM, Wayne GF, Connolly GN. Designing cigarettes for women: new findings from the tobacco industry documents, *Addiction* 2005; 100; 837-851.
http://www.hsph.harvard.edu/php/pri/tcrtp/designing_cigarettes.pdf#search=%22women%20filter%20cigarettes%22
- 5 Research Conference, Southampton, 1962. Smoking and Health – Policy on Research. British American Tobacco. 1962. Bates No. 650344434-621033529.
- 6 Montreal Court of Appeal, Case Numbers 500-09-001296-912 and 500-090001297-910. 1991. Joint Record, Exhibit Number AG-40. Volume 76.
- 7 Response of the market and of Imperial Tobacco to the smoking and health environment. Imperial Tobacco Ltd., p. 2 (15102). Montreal Court of Appeal, Case Numbers 500-09-001296-912 and 500-090001297-910. 1991. Joint Record, Exhibit Number AG-41. Volume 76, pp. 15101-15110.
- 8 <http://bat.library.ucsf.edu/tid/fkg00a99>
- 9 Putting an end to deception: Proceedings of the international expert panel on cigarette descriptors – A report to the Canadian Minister of Health. Ottawa. 2002.
- 10 Risks Associated with Smoking Cigarettes with Low Machine-measured Yields of Tar and Nicotine. National Institutes of Health. National Cancer Institute. Monograph 13. US Department of Health and Human Services. Public Health Service. NIH Publication No. 02-5047. 2001. http://cancercontrol.cancer.gov/tcrb/monographs/13/m13_complete.pdf
- 11 Low nitrosamine cigarettes not shown to safer in tests conducted by RJ Reynolds Tobacco Company. RJ Reynolds Press Release 2000-36. September 22, 2000.
- 12 Kiln change won't make smoking healthier: manufacturers. Daniel Pearce. Simcoe Reformer. February 21, 2001.
- 13 Arnott D, Hammond D. FCA note of Kobe meeting on Guidelines for Article 9 Phase 1. 1 July 2006.
- 14 Repace JL. Exposure to Secondhand smoke in Exposure Analysis. Ott W, Steinemann AC, Wallace LA. (eds.). Taylor and Francis. Boca Raton, Florida. 2007.
- 15 <http://bat.library.ucsf.edu/data/k/x/k/kxk55a99/kxk55a99.pdf>
- 16 <http://bat.library.ucsf.edu/tid/gqu42a99>
- 17 Mr. R.C. Shropshire memo, 1977. <http://legacy.library.ucsf.edu/tid/joi18c00>
- 18 1991 FRC Programme. British American Tobacco. Bates pages nos. 526030006-526030017.

-
- 19 Callard C, Thompson D and Collishaw N. *Curing the addiction to profits: A supply-side approach to phasing out tobacco*. Canadian Centre for Policy Alternatives. Ottawa. 2005.
- 20 <http://bat.library.ucsf.edu/data/k/x/k/kxk55a99/kxk55a99.pdf> (presentation made to all general managers of branch plants, April 2001)
- 21 <http://bat.library.ucsf.edu/data/h/j/a/hja80a99/hja80a99.pdf>
- 22 <http://bat.library.ucsf.edu/data/d/z/g/dzg50a99/dzg50a99.pdf>
- 23 <http://bat.library.ucsf.edu/data/d/d/l/ddl55a99/ddl55a99.pdf>
- 24 <http://bat.library.ucsf.edu/tid/gqu42a99>
- 25 <http://bat.library.ucsf.edu/tid/gqu42a99>
- 26 <http://bat.library.ucsf.edu/tid/ibl55a99>
- 27 <http://bat.library.ucsf.edu/data/i/b/l/ibl55a99/ibl55a99.pdf>
- 28: <http://bat.library.ucsf.edu/tid/zwk55a99>
- 29 <http://bat.library.ucsf.edu/data/s/g/x/sgx50a99/sgx50a99.pdf>
- 30 <http://bat.library.ucsf.edu/data/g/l/g/glg00a99/glg00a99.pdf>
- 31 <http://bat.library.ucsf.edu/data/x/x/b/xxb01a99/xxb01a99.pdf>
- 32 <http://bat.library.ucsf.edu/data/i/e/c/iec53a99/iec53a99.pdf>
- 33 <http://bat.library.ucsf.edu/data/i/e/c/iec53a99/iec53a99.pdf>
- 34 <http://bat.library.ucsf.edu/data/i/e/c/iec53a99/iec53a99.pdf>
- 35 <http://bat.library.ucsf.edu/tid/mvy92a99>
- 36 <http://bat.library.ucsf.edu/tid/gqu42a99>
- 37 <http://bat.library.ucsf.edu/data/w/f/l/wfl60a99/wfl60a99.pdf>
- 38 <http://bat.library.ucsf.edu/data/u/x/g/uxg61a99/uxg61a99.pdf>
- 39 <http://bat.library.ucsf.edu/tid/dns76a99>
- 40 PSC-DOCUMENTCOLLECTIONS\tobaccopapers-2006update\documents\CTMC\CTMCbefore76\ctmc10-4-73.pdf
- 41 <http://bat.library.ucsf.edu/data/i/b/l/ibl55a99/ibl55a99.pdf>
- 42 Callard C, Thompson D and Collishaw N. *Curing the addiction to profits: A supply-side approach to phasing out tobacco*. Canadian Centre for Policy Alternatives. Ottawa. 2005.
- 43 <http://bat.library.ucsf.edu/tid/ash45a99>
- 44 <http://bat.library.ucsf.edu/data/w/f/l/wfl60a99/wfl60a99.pdf>
- 45 <http://bat.library.ucsf.edu/data/a/x/k/axk55a99/axk55a99.pdf>
- 46 USSG 1989, p.39.
- 47 Kiln change won't make smoking healthier: manufacturers. Daniel Pearce. Simcoe Reformer. February 21, 2001.
- 48 <http://bat.library.ucsf.edu/data/c/s/h/csh45a99/csh45a99.pdf>
- 49 <http://bat.library.ucsf.edu/tid/ywk55a99>
- 50 <http://bat.library.ucsf.edu/tid/gqu42a99>
- 51 Tobacco Act, 1997, clause 5.
- 52 Building the evidence base for effective tobacco control policies: the International Tobacco Control Policy Evaluation Project (the ITC Project). G T Fong, K M Cummings, D R Shopland

for the ITC Collaboration. Tobacco Control 2006; 15 (Suppl 3): iii1-iii2.
doi:10.1136/tc.2006.017244

53 *Putting an end to deception: Proceedings of the international expert panel on cigarette descriptors – A report to the Canadian Minister of Health.* Ottawa. 2002.

54 <http://bat.library.ucsf.edu/data/d/i/x/dix14a99/dix14a99.pdf>

55 <http://bat.library.ucsf.edu/data/c/k/u/cku40a99/cku40a99.pdf>

56 <http://bat.library.ucsf.edu/data/e/j/u/eju40a99/eju40a99.pdf>

57 <http://bat.library.ucsf.edu/data/a/r/o/aro66a99/aro66a99.pdf>

58)PSC-DOCUMENTCOLLECTIONS\tobaccopapers-2006update\documents\CTMC\CTMCbefore76\73-lesssharmful-5362.pdf. BAT document beginning page 110316996

59 PSC - DOCUMENTCOLLECTIONS\tobaccopapers-2006update\documents\product development\LessHarmful\77-lesssharmful.pdf. RJR Document beginning page 500539510

60 <http://bat.library.ucsf.edu/data/h/d/k/hdk37a99/hdk37a99.pdf>

61 <http://bat.library.ucsf.edu/data/n/c/j/ncj37a99/ncj37a99.pdf>

62 PSC-DOCUMENTCOLLECTIONS\tobaccopapers-2006update\ITL Research - Science\80-itl-on-janus.PDF – Brown and Williamson document tbeginning page 682633402

63 <http://bat.library.ucsf.edu/data/g/q/m/gqm37a99/gqm37a99.pdf>

64 <http://bat.library.ucsf.edu/data/v/w/w/vww10a99/vww10a99.pdf>

65 <http://bat.library.ucsf.edu/data/d/y/z/dyz34a99/dyz34a99.pdf>

66 <http://bat.library.ucsf.edu/data/y/x/b/yxb01a99/yxb01a99.pdf>

67 <http://bat.library.ucsf.edu/data/x/x/b/xxb01a99/xxb01a99.pdf>

68 <http://bat.library.ucsf.edu/data/x/b/y/xby50a99/xby50a99.pdf>

69 <http://bat.library.ucsf.edu/tid/vdj11a99>

70 <http://bat.library.ucsf.edu/tid/xrd10a99>

71 Health Canada. Conference proceedings of Canada's Expert Committee on Cigarette Toxicity Reduction, September 20-22, 1998

72 A Premiere example of the illusion of harm reduction cigarettes in the 1990s . R W Pollay and T Dewhirst Tobacco Control 2003;12:322-332

73 <http://bat.library.ucsf.edu/tid/chl24a99>

74 Reduction of Levels of Tobacco-Specific Nitrosamines (TSNAs) in Canadian Cigarettes: Where are we? Bruno Marchand, Julie Fillion, Murray Kaiserman, Health Canada.

75 Changes in the TSNA content of Canadian cigarette filler, mainstream and sidestream smoke, 1970-1999. Health Canada.Contract Number: H4097-9-0003. Rickert et al.

76 Imperial Tobacco Canada Ltd. "Let's Talk" personal correspondence, October 2006.