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Workers' Compensation for asbestos related disease in five Canadian provinces

Final Report

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The views expressed herein represent the views of the research and writing team and as such, do not necessarily represent the views of the Partnership.

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Table of Contents

Executive Summary	5
Entitlement to compensation for asbestos related diseases	5
Cross-cutting issues	6
Concerns	7
Issues requiring further study	7
Introduction, methods and procedural considerations	8
General principles governing compensation for occupational disease	11
General rules with regard to adjudication of claims by the appeal tribunals	11
Degree of certainty required for the decision: the burden of proof	11
Benefit of the doubt	13
General rules with regard to legislative presumptions	13
Does the worker need to be working in the industry at the time of disablement for the condition to be presumed to be an occupational disease?	15
Does asbestos exposure need to be within the province?	17
Is the legislative presumption irrefutable?	19
If conditions for the application of the legislative presumption are not met, is it possible to accept the claim, and if so, what is the burden of proof of the worker?	20
Protective removal of workers exposed to asbestos in the workplace	21
Recognition of specific diseases	21
Recognition of asbestosis as an occupational disease related to asbestos exposure	21
Alberta	22
British Columbia	22
Newfoundland	26
Ontario	27
Québec	28
Recognition of lung cancer as an occupational disease related to asbestos exposure	29
Is there a minimum exposure requirement?	30
British Columbia	30
Newfoundland	31
Ontario	31
Québec	32
Do you need to prove pleural plaques or asbestosis for recognition of lung cancer as an occupational disease?	34
British Columbia	34
Newfoundland	38
Ontario	38
Québec	39
Exposure to asbestos and tobacco	40
Mesothelioma as a compensable disease	41
Alberta	41
British Columbia	42
Newfoundland	42
Ontario	43
Québec	44
Are pleural plaques a compensable disease?	46
Alberta	46
British Columbia	46

Newfoundland	47
Ontario.....	47
Québec.....	47
Recognition of gastro-intestinal cancer as an occupational disease related to asbestos exposure	49
British Columbia	49
Newfoundland	50
Ontario.....	51
Recognition of Cancer of the Larynx as an occupational disease related to asbestos exposure	52
Chrysotile asbestos: are causation issues different?	53
Specific rules with regards to claims by survivors	55
Request for cost transfers to secondary injury funds	56
Conclusion.....	56
Appendix 1 Legislative and policy instruments.....	60
Appendix 2 Disease Compensation by Workers Compensation Board	77

Executive Summary

This study addresses the legal and policy frameworks for compensation of occupational diseases attributable to asbestos exposure in five Canadian provinces: Alberta, British Columbia, Newfoundland, Ontario and Québec. It aims to describe and compare criteria applied by compensation boards and appeal tribunals in each jurisdiction, for the purpose of determining entitlement to workers' compensation for asbestos related disease.

The report relies essentially on classical legal methodology including a legal analysis of legislation, publicly available policy documents of the respective workers' compensation boards, and publicly available case law and administrative decisions rendered between 2000 and 2009.

A comparative table describing legislative and policy instruments can be found in Appendix 1. Comparative tables of compensation statistics regarding injuries and fatalities for the period 1998 - 2008, based on data provided by the Association of Workers' Compensation Boards of Canada, can be found in Appendix 2.

The report examines principles of adjudication applicable to compensation for occupational disease claims, and then focuses more specifically on occupational diseases recognized in law or policy to be attributable to asbestos exposure.

Entitlement to compensation for asbestos related diseases

Legislative presumptions govern compensation for occupational disease in all the provinces studied, but there is significant variation between provinces with regard to many issues. An overview of similarities and differences in legislation and policy with regard to specific illnesses may be found in Appendix 1.

Asbestosis is the only disease presumed to be related to work involving exposure to asbestos in Alberta, while mesothelioma is also included in the legislation of the other four provinces. Lung cancer, cancer of the larynx and gastro-intestinal cancers are targeted by legislation and policy of some provinces but not others. Ontario and Newfoundland provide for irrebuttable presumptions in the case of asbestosis and, this is also so in Ontario with regard to mesothelioma, if very specific conditions of exposure and latency are met. Other provinces

allow for the possibility that the presumptions may be overturned, and the presumptions are often overturned in the case law, notably in Québec, where the presumptions are framed in more general terms. In those provinces with policies determining specific exposure and latency requirements there is variation between provinces. Some provinces are not explicit with regard to the exposure and latency requirements, evaluating the individual situation in each case. Specialized medical evaluators (six) are systematically consulted in all claims for respiratory diseases in Québec, and Ontario provides for evaluation of individuals in the context of the appeal process, while, in other provinces, like Newfoundland, level of evidence in the case law leads us to believe that it is more difficult for workers to obtain diagnostic analyses in that province.

Cross-cutting issues

Boards and adjudicators are faced with the challenge of determining in individual cases whether workplace exposure to asbestos contributed to the worker's disease. Legally, all provinces require that it be more likely than not that the workplace exposure contributed to the worker's illness, and usually they require evidence that work was a significant contributing factor in the development of the disease. Generally, either by legislation, policy or case law, there is a consensus that the worker should be given the benefit of the doubt in cases where the evidence for and against legal causation is of equal weight.

Asbestosis claims are clearly acknowledged to be related to asbestos exposure, and this is also true of mesothelioma, although this is not explicitly acknowledged in law and policy of all provinces. With those diseases, the challenge is to determine where that exposure took place, and, in the absence of asbestos exposure registries, the worker or his estate will be refused benefits if the evidence is insufficient. Lung cancer claims are even more challenging because tobacco can also have played a significant role in the development of the disease. Case law allows for compensation for lung cancer even when the worker smoked, if asbestosis or pleural plaques are present. Ontario and Québec allow for compensation even in the absence of asbestosis or pleural plaques, when evidence of significant exposure is clear, while Newfoundland policy has no explicit criteria in this regard. Policy in B.C., and most case law in that province, will not compensate for lung cancer if asbestosis is not present, unless there is evidence of "bilateral diffuse pleural thickening or fibrosis, over 5 mm thick and extending over more than a quarter of the chest wall", a requirement not seen in any other province.

Concerns

The report expresses concerns with regard to fairness and equity. Given the long latency requirements for all asbestos related diseases, it is unclear why policies in some situations only apply if the worker is still active in the industry shortly before or at the time of onset of disablement, as is the case in Alberta, B.C. and Newfoundland. Requirement of significant in-province exposure, as is the case in British Columbia, is also a preoccupation, and will become even more preoccupying as workers are increasingly mobile, notably in the construction industry.

A broader concern is that some policies, particularly those that provide for explicit exposure requirements or latency periods, have been developed in a way that imports thresholds based on levels of scientific certainty, even though the appropriate legal test aims to determine whether, in a given case, it is more likely than not that workplace exposure contributed to the onset of disease. Yet the purpose of legislative presumptions is to govern behaviour in the context of scientific uncertainty; they are policy instruments that determine who should bear the cost of that uncertainty. As such, they should not be predicated on scientific certainty.

Issues requiring further study

All members of the research team are jurists, and the study does not include an evaluation by medical specialists as to the relevance of the criteria applied and the policy orientations. Such an analysis would no doubt be useful. Furthermore, some cases have applied the “Helsinki criteria” in adjudication of individual claims. The present report does not review these criteria as such, but provides information as to the discourse of the adjudicators in this regard. Further study of these criteria and their potential relevance in adjudication could perhaps provide useful direction for the development of policy. This study, because of its methodology, does not provide information either on reporting levels or acceptance rates for compensation claims. It also cannot address inequitable access to health care professionals specialized in occupational disease related to asbestos, yet there is some concern that workers in some provinces are not receiving specialized evaluations that would improve their chances of accessing compensation. Studies on all of these issues could contribute to defining more equitable policy and practice.

Introduction, methods and procedural considerations

This study addresses the legal and policy frameworks for compensation of occupational diseases attributable to asbestos exposure in five Canadian provinces: Alberta, British Columbia, Newfoundland, Ontario and Québec. It aims to identify criteria applied in each jurisdiction for the purpose of determining entitlement to workers' compensation for asbestos related disease, but does not discuss the nature or level of benefits payable under the various compensation schemes, nor does it discuss procedural issues such as time delays for filing of claims. We have also excluded discussion of specific policies applicable to fire fighters¹ and to workers exposed to nickel aerosol², as well as case law that discusses issues regarding the synergy resulting from exposures to multiple carcinogens, one of which may be asbestos³. We have also set aside discussion of case law's interpretation of arguments based on cancer cell type, as to do justice to this issue would require a significant review of medical evidence put forward by a variety of experts in a variety of contexts⁴, a task that goes beyond the scope of the present report.

Workers' compensation in Canada falls under provincial jurisdiction and each province is sovereign with regard to its policy choices. The provinces chosen in this study include the three largest provinces (Ontario, Québec and British Columbia), the four provinces that actively mined, or continue to mine, asbestos (Québec, British Columbia, Ontario and Newfoundland) and a historically smaller province that is currently importing a significant number of migrant workers from other provinces (Alberta).

¹ Several provinces, including Alberta, British Columbia, and Ontario have specific regulatory frameworks governing occupational diseases and fire fighters. See, for instance *Workers Compensation Act*, R.S.B.C. 1996, c.492 s. 6.1 and *B.C. Regulation 362/2005 (Fire Fighters' Occupational Disease Regulation)*. In Alberta, see s. 24.1 of the Act; in Ontario, see 2007 amendments to s. 15 of the W.S.I.A.

² Ontario has a specific policy in regard to combined exposure to nickel aerosol and asbestos; we have not dealt with this policy.

³ For example, the factual situation in Ontario case 2009 ONWSIAT 1129 (May 6 2009) involved exposure to a variety of carcinogens (including radon), and this weighed in the balance, although evidence of significant exposure to asbestos (for less than the required exposure time of ten years) was present. See also WSIAT Decision No. 802/01 (2001), 2001 ONWSIAT 2646 and WSIAT Decision No. 1405/04 (2007), 2007 ONWSIAT 3326. This situation is described in a great many cases, in Ontario in particular, but elsewhere as well, and we have not explored the issues of synergy raised in the case law, issues that go beyond the scope of this report.

⁴ For an illustration of this debate see, for instance an Ontario decision 2009 ONWSIAT 1129 (May 6 2009), where it was held that cancer cell type is not judged to be an accurate indicator of causation.

The report relies essentially on classical legal methodology including a legal analysis of legislation (laws and regulations), published policy documents of the respective workers' compensation boards, and publicly available case law and administrative decisions rendered between 2000 and 2009. Occasionally significant decisions rendered prior to 2000 were included in this report if they contributed information not otherwise available in the subsequent decisions. Decisions were identified through electronic databases reporting on appeal tribunal decisions in the five provinces, using "asbestos" and "amiante" as key words appearing in the full text (or the index, when available) of the database. Hundreds of decisions were identified, not all of which were relevant. In each province, decisions (when available, the synopsis of the decisions) were analysed to insure the decision addressed entitlement to compensation for an asbestos related disease. Many other issues were identified, including issues of experience rating, benefits available, and access to health care, but only those decisions addressing entitlement to compensation for the worker or the estate were retained for the purpose of this analysis. Normally procedural questions were also set aside and those issues will not be discussed in this report. Although this report relies essentially on publicly available data of a legal nature, some issues have been discussed with key informants. We also make occasional reference to scientific publications that are not part of the legal literature, although a review of the scientific literature goes beyond the scope of this report. Finally, we received statistics, for the period 1998-2008, on compensation by the Boards in the five provinces studied, from the Association of Workers' Compensation Boards of Canada (AWCBC), and we have collated some of that data with regard to compensation for injuries (Table 1) and fatalities (Table 2) in Appendix 2.

Although no firm policies circumscribe the decision making process in Québec with regard to occupational diseases, there is a specific process, unique to Québec, which insures a relative uniformity in the adjudication of these claims. Since 1985, Québec legislation provides that all claims for respiratory diseases are to be referred to two specialized medical panels (the Committee on Occupational Lung Disease, of which there are at least three in the province, and the Special Committee, comprised of three presidents of the Committees on Occupational Lung Disease that were not involved in the initial evaluation), whose opinion is binding on the Commission de la santé et de la sécurité du travail or CSST, notably with regard to diagnosis, functional limitations, level of permanent impairment, and tolerance for exposure to a

contaminant⁵. Thus six pneumologists, specialized in pneumoconioses in particular, examine the worker's X-Rays and the worker, if he is alive at the time of the claim, and provide an opinion on these four issues, and, indirectly, on compensability of the claim. The specialists receive specific accredited training. Québec also exacts, and seemingly provides resources for, systematic analysis of lung tissue to determine whether asbestos fibres are present (either through biopsy or autopsy).

The role of the appeal tribunal is different in Québec, firstly because the appeal tribunal (the Commission des lésions professionnelles or CLP) is not bound either by board policy (policy of the CSST) or by the opinion of the medical committees just described, and secondly because the appeal tribunal in Québec hears a significantly larger number of cases per year, as compared to the other appeal tribunals (over 28,000 appeals filed at the CLP in 2008-2009 as compared to slightly under 4000 filed with the WSIAT in Ontario according to the most recent annual reports⁶). Policy documents, at least those that are publicly available, are of little relevance in Québec, while they play a key role in the other four provinces. Case law in other provinces is of varying importance. Ontario and British Columbia have many cases that discuss eligibility for compensation with regard to asbestos related diseases, while, in Alberta, there are very few legal decisions of relevance. We have not, for the most part, studied lower level review board decisions, although we have integrated some information regarding first level adjudications in Appendix 2. It is important to note that it is possible and highly likely, that many claims are resolved without appeals, either because claims are refused and the claimants do not exercise their right to appeal, or because claims are accepted, and the employer does not appeal the decision as to entitlement. Information as to the number of claims filed with workers' compensation boards is not, generally, publicly available, so it is difficult to determine the acceptance rate for these claims at the level of primary adjudication. Thus, while providing informative data with regard to the number of cases compensated by the compensation boards in the five provinces studied in this report, for the

⁵ *Act respecting Industrial Accidents and Occupational Diseases*, R.S.Q. c. A-3.001, ss226-233. For an analysis of the important role played by these committees in the adjudication process, see Friha Bdioui, «La reconnaissance, à des fins de réparation, des maladies professionnelles pulmonaires liées à l'amiante au Québec», In Barreau du Québec, *Développements récents en droit de la santé et de la sécurité du travail*, 2010, Cowansville, Éditions Yvon Blais (in Press). It is of note that similar committees may be set up on an ad hoc basis in Newfoundland, although they do not examine all claims systematically, as is done in Québec. See Newfoundland WHSCRD decision 01186, August 2001.

⁶ Compare COMMISSION DES LÉSIONS PROFESSIONNELLES (CLP) (2008), *Rapport annuel 2007-2008*, www.clp.gouv.qc.ca to Workers' Safety and Insurance Appeal Tribunal (WSIAT) *Annual Report*, 2007, p. 42.

period between 1998 and 2008, the information in Appendix 2 does not allow us to report on acceptance rates for disease claims related to asbestos exposure.

Information as to practices in provinces other than Québec may be gleaned from the policy manuals, yet some of those manuals provide little detail as to practices with regard to specific diseases (Alberta seemingly has no legislation or policy on either mesothelioma or lung cancer, for instance). Thus this report is preliminary in nature, and provides, it is hoped, a basis to begin discussions with regard to interprovincial comparisons with regard to practice.

General principles governing compensation for occupational disease

General rules with regard to adjudication of claims by the appeal tribunals

Board policy is binding on several of the tribunals studied and thus it is rare, but not unheard of⁷, to find decisions that over-ride board policy. Circumstances in specific cases, such as evidence of a genetic predisposition to gastro-intestinal cancer, have served as justification for acceptance of a claim where the number of years of latency required by policy had not been met⁸. Most decisions, outside of Québec, either apply board policy or address issues that are not governed by a specific policy. In Québec, the Appeal tribunal (CLP) is not bound by policy of the CSST, and the CSST has no formal policy stipulating criteria for recognition of specific diseases as occupational diseases. All decisions are adjudicated on the basis of the legislative framework.

Degree of certainty required for the decision: the burden of proof

In all jurisdictions studied, the issue of causation is evaluated on the basis of the balance of probabilities. The evidence must be weighed as to the probability of causation and not in light of a requirement of certainty. This approach is influenced by the position of the Supreme Court of Canada with regard to causation in the context of tort cases. In adjudicating a claim for colon cancer, the WSIAT circumscribed the rules applicable with regard to causation⁹:

“The basic issue in this appeal is causation. *Decision No. 1386/03* (2004), 71 W.S.I.A.T.R. 95, contains a succinct overview of the Tribunal’s approach to causation: In cases where it is impossible to know with certainty whether an exposure is actually the cause of a worker’s illness, the Panel must weigh the different possible causes of

⁷ See, for instance, 2003 ONWSIAT 156, where the appeal tribunal granted benefits to a worker suffering from colorectal cancer despite board policy criteria not having been met.

⁸ WSIAT *Decision No. 1121/06* (19 years rather than 20).

⁹ WSIAT *Decision No. 1121/06*.

the worker's condition and decide what is more probable than not. Some conditions may result from non-work related factors. Some conditions occur themselves. Some conditions are work-related. The issue of causation may be complicated, as it is in this case, by a lack of clear evidence as to what, exactly, the worker was exposed to, or when, or how often. Following the Supreme Court in *Lawson v. Laferriere*, [1991] 1 S.C.R.541, *Snell v. Farrell* [1990] 2 S.C.R. 311, and *McGhee v. National Coal Board*, [1972] 2ALL ER 1008 (HC) as adopted by tribunal jurisprudence (see Decision No. 549/9512, for example) we note that an extremely high standard of virtual scientific certainty is not required before resolving these issues. It is not essential that the medical or scientific experts opine firmly in favour of the work-related cause(s). Rather, a Panel must be satisfied, on the balance of probabilities, that the work exposure is a significant contributing factor in the worker's condition. An inference may, in certain cases, support such a conclusion. That said, a causation theory must have some evidence to support it: it cannot be speculative. See Decision Nos. 795/95; 1558/98; and 549/9512.

The Tribunal must decide the case on a balance of probabilities. The Panel is required to weigh the possible theories of entitlement to determine if it is more probable than not that the disease resulted from the workplace exposure. If the evidence for and against the issue is approximately equal in weight, section 4(4) of the pre-1997 Act provides that entitlement is to be allowed. This reflects the policy goals of the Act."

Similar reasoning was relied upon to accept a claim for lung cancer although the worker did not have asbestosis¹⁰:

"The Panel finds it is inappropriate to deny the claim based upon preferring the restrictive view in an unresolved medical debate."

With regard to epidemiological evidence, the WSIAT underlines the importance of such evidence but also the fact that it is not always available, and that the absence of such evidence does not demonstrate the absence of causation in a given case:

"The present Panel acknowledges that, where epidemiological evidence exists, it is an important piece of evidence. However, entitlement, in our opinion, cannot depend exclusively on such evidence. Conversely, its absence cannot be treated as determining that no causal relationship exists, particularly given how long it takes to develop epidemiological evidence. As we understand epidemiological evidence, it may often be the best evidence of the existence of a causal link between a disease and a substance. However, there will be many circumstances in which the absence of epidemiological evidence cannot conversely be seen as evidence of the absence of a causal link."¹¹

The same approach applies in Québec¹². Recently, an important decision was rendered that

¹⁰ Ontario: 2009 ONWSIAT 1129 (May 6 2009): p. 16; see also Decision No. 375/92 (1993) 28 WCATR 32.

¹¹ 2007 ONWSIAT 2785, paragraph 19.

¹² *Chiasson c. Reitmans*, [2002] CLP 875 (CAQ); *JTI-MacDonald Corp. et Côté (Succession de)*, 2009 QCCLP 1676 (administrative review pending, January 31st 2010).

attempts to conjugate legal reasoning requiring causation be shown on the basis of the preponderance of evidence, a requirement that the allegation is more likely to be true than false, with epidemiological studies relevant to the determination of causation of lung cancer in workers from an aluminum smelter who had been exposed to polycyclic aromatic hydrocarbons and who were also smokers¹³. This decision reaffirmed that, in Québec, workers or their estates must show that work made a significant contribution to the development of the disease in order for their claims to be accepted; it is not necessary to show that work was the primary or dominant cause of the disease. It is not necessary that the probability of causation be greater than 50% for causation to be found. Although legislative presumptions did not apply to the lung cancer cases studied in that decision, the philosophy applied in the decision has since been evoked in cases regarding lung cancer in smokers who worked with asbestos¹⁴.

Benefit of the doubt

Whether or not legislative presumptions apply, some jurisdictions prescribe that the benefit of the doubt in a given case should favour the worker or his estate. Thus, when evidence for and against causation is of equal weight, explicit provisions exist in some jurisdictions providing that the benefit of doubt goes to the worker. These are found in the statutes of Newfoundland (s. 60 (1), Ontario¹⁵, (s. 119(2)) and B.C. (s. 250(4)). Similarly, when legislation is ambiguous, it should be construed in favour of the claimant, a point made explicitly in cases from British Columbia¹⁶ and Québec¹⁷.

General rules with regard to legislative presumptions

In every province studied at least some diseases related to asbestos were mentioned in the legislation as diseases presumed to be occupational diseases linked with asbestos exposure, as

¹³ Bouchard, M.J. et F. Côté, «Le cancer pulmonaire vu par un banc de trois commissaires», *Développements récents en droit de la santé et de la sécurité du travail* (2009), vol. 303, Les Éditions Yvon Blais Inc., Cowansville, 2009, pp. 3-66. This article discusses *Lucien Tremblay (Succession) et al. et Alcan inc. et C.S.S.T.*, [2007] C.L.P. 577.

¹⁴ *Succession German Boutin et Mine Jeffrey inc.*, 2009 QCCLP 1256.

¹⁵ For illustrations of the application of this principle see WSIAT Decision 2990/01, 2009 ONWSIAT 1129; WSIAT Decision No. 597/99 (2000), 2000 ONWSIAT 1498. See also Benefit of Doubt: BOARD DIRECTIVES AND GUIDELINES: Operational Policy Manual, Document No.11-01-13. <http://www.wsib.on.ca/wsib/wopm.nsf/Public/110113>.

¹⁶ *B.C. WCB Appeal Division Decision #2002-1120* (2002).

¹⁷ See for instance *Succession Guillemette et J.M. Asbestos inc.*, [1998] CALP 585 (SCC) overturning [1996] CALP 1342 (C.A.Q.) and affirming the CALP decision at [1991] CALP 309.

can be seen in Appendix I. Legislative presumptions with regard to occupational diseases are common in most countries' legislation governing workers' compensation, and are often modelled on the International Labour Organisation's convention 121, the employment injury benefits convention, which includes periodically revised lists of occupational diseases. The ILO is currently revising their list of occupational diseases and a new list is scheduled to be approved in March 2010¹⁸.

Normally a legislative presumption with regard to a given occupational disease includes a diagnosis and the associated exposure. Some laws, like that of Ontario, provide detailed descriptions of industries where the exposure shall have taken place, for the presumption to apply, and many complete that description by further conditions described in policy, including degree of exposure and latency periods. Others, like the Québec legislation, are far more general, simply presuming a causal relationship between the diseases identified in the schedule and exposure to asbestos. The actual determination of causation is specific to each case, and determination of causation in that province is facilitated by the specialized committees responsible for identifying occupational pulmonary disease.

As we shall see, some jurisdictions, like Ontario and Newfoundland, have enacted irrebuttable presumptions applicable to specific diseases, like asbestosis or mesothelioma, while in other jurisdictions, like Québec, Alberta and B.C., all of the legislative presumptions governing disease claims are rebuttable.

The purpose of legislative presumptions with regard to occupational illness is to relieve the worker (and the Tribunal) from the obligation of canvassing the scientific literature, because to do so defeats the purpose of the policy decision to recognize disease claims when the conditions of the presumptions apply¹⁹. In case of doubt, these presumptions should be interpreted in favour of the claimant, according to the Supreme Court of Canada, who approved the dissenting judgement in the Québec Court of Appeal in the case of *Succession Guillemette v. J.M. Asbestos inc.*²⁰. Both the Superior Court of Québec, and the Court of Appeal had held that legislative presumptions with regard to occupational diseases were to be restrictively construed, because they ascribed causation to the employer's industry without

¹⁸ [http://www.ilo.org/global/About the ILO/Media and public information/Press releases/lang--en/WCMS_116459/index.htm](http://www.ilo.org/global/About%20the%20ILO/Media%20and%20public%20information/Press%20releases/lang-en/WCMS_116459/index.htm), consulted January 31st 2010.

¹⁹ See, for instance *B.C. Decision 2008-00216*.

²⁰ *Succession Guillemette v. J.M. Asbestos inc.*, [1998] CALP 585 (SCC) overturning [1996] CALP 1342 (C.A.Q.).

direct evidence, and were thus exceptions to the general rules of civil law. In the dissenting judgement, written in French, justice Forget of the Court of Appeal made the following statement, subsequently approved by the Supreme Court of Canada:

“Is it more aberrant to imagine that, in certain cases, the employer will be called upon to compensate a worker when he normally should not have had to do so, than that the worker should be deprived of benefits to which he would normally have been entitled were it not for a complex scientific controversy? In the context of social legislation, I don’t think so. [Our translation]”

This case reminds us that legislative presumptions are designed to govern behaviour in the context of scientific uncertainty: they are policy instruments that determine who should bear the cost of that uncertainty. As such, they are not predicated on scientific certainty.

Does the worker need to be working in the industry at the time of disablement for the condition to be presumed to be an occupational disease?

In order for the legislative presumption to apply, some provinces require the worker to be actively employed in the industry or process at the time or shortly before the onset of disablement, a surprising requirement, given the long latency periods for these diseases.

Alberta’s legislation, at s. 24 (6) stipulates that, for the legislative presumption to apply, the worker who suffers disablement from or because of any occupational disease, must show employment in the industry or process deemed by the regulations to have caused that disease, within the 12 months preceding the disablement.

In British Columbia, a similar requirement found in s. 6(3) WCA applies. A worker must be working in a specified industry at time of disablement to benefit from the legislative presumption.

Section 6(3) provides that, if the worker at or immediately before the date of the disablement was employed in a process or industry mentioned in the second column of Schedule B, and the disease contracted is the disease in the first column of the schedule set opposite to the description of the process, the disease is deemed to have been due to the nature of that employment unless the contrary is proved.

A major change of significance to asbestos-related illnesses occurred in 2003. Since then, the presumption in section 6(3) of the WCA no longer recognizes latency periods after asbestos exposure as a relevant exception to the rule that a worker must be employed “at or

immediately before the date of the disablement ... in a process or industry mentioned in the second column of Schedule B". Board resolution 2004/05/18-02 removes the exception that formerly existed where

the medical and scientific evidence has established that there is a long latency period between exposure to the process, agent or condition of employment and the time the disease first becomes manifest. ... In the circumstances of such a claim, the presumption would normally be considered only where the condition became manifest within a short period of time following the exposure. However, in a claim filed by a worker who suffers from a recent onset of a cancer listed in Schedule B but who has not worked in the process or industry described opposite such cancer for a number of years, it may be appropriate to conclude that such worker was employed in such process or industry "immediately before the date of disablement" by virtue of the long latency period which is known to exist with respect to such a cancer.

In B. C. *Decision #2008-03303* a worker's widow claimed that a review officer erred by not considering this exception when determining whether the worker's asbestos-related disease (later found in fact not to be asbestosis) appeared some years after the ending of his employment. The WCAT stated that this exception no longer existed. In British Columbia if an individual is not employed "at or immediately before the date of the disablement" they are not entitled to the presumption available in section 6(3). This does not mean that the claim will be denied or that such latency periods will not be accepted as evidence of the disease but the worker will have to provide medical evidence in each case. However, few cases have raised the issue in B.C.

If the conditions permitting the application of the presumption are not met, the claim will be decided on the merits and justice of the individual claim (B.C. Policy item #26.22, Non-Scheduled Recognition and Onus of Proof).

In Newfoundland, s. 90(3.1) of the Act provides that if the worker "at or immediately before the date of the disablement was employed in a process involving asbestos, [and] is suffering from the industrial disease known as asbestosis, the disease shall be conclusively considered to have been due to the nature of that employment". The Newfoundland regulation (23 (1b)) provides that, were the conditions of s. 90 not met, a claim for compensation is conclusively considered to be compensable if, in the case of asbestosis: "the worker was employed in any mining, manufacturing, assembling, construction, repair, alteration, maintenance, tailing, or demolition processes involving exposure to asbestos."

Claims for other types of diseases associated with asbestos will be “favourably considered” if the required past exposure is proven (see list of conditions associated with each disease in Appendix 1). Thus, in Newfoundland, a presumption applies even after the worker has ceased working at the time of onset, although the strength of that presumption is reduced.

S. 90.1 of the Newfoundland Act, explicitly provides that compensation for industrial disease is possible regardless of the worker’s state of employment at the time of onset.

In Ontario we found no requirement of active employment immediately prior to onset of the disease. As we shall see, the policy requires evidence of exposure in a profession or process where asbestos fibres are produced on or before the date of diagnosis (at least 2 years of work in Ontario for asbestosis to be presumed to be work-related). No minimum requirements of this type are specified in policy with regard to mesothelioma.

In Québec, for the presumption to apply, there is no requirement with regard to being active in the industry, or for that matter, in the workforce, at the time of onset of illness or disablement.

Does asbestos exposure need to be within the province?

All provinces require some exposure within the province, although these requirements are articulated in different ways.

In Alberta the legislation is ambiguous. Disability attributable to an occupational disease is included in the definition of “accident”. Sections 1(1)) and s. 28 (1) of the Act allow for compensation for out of province “accidents” in a variety of circumstances, some of which could apply to claims for occupational disease. Yet we found no clear provision in policy in this regard.

B. C. stipulates the most stringent requirements with regard to evidence of exposure within the province. The worker’s exposure to asbestos in B.C. must have played a significant role in causing the worker’s lung cancer²¹, or asbestosis²². More specifically, s. 6(10) of the WCA states that the worker must have been free from pneumoconiosis before being first exposed to

²¹ WorkSafe B.C. Bronchogenic Carcinoma (Lung Cancer) in Asbestos Exposed Workers, Discussion Paper, July 27, 2009. See however *B.C. WCB Appeal Division Decision #2002-1120* (2002) that refuses to apply this exclusion to lung cancer and pleural thickening as they are not included in the category “pneumoconiosis”.

²² *B.C. WCB Appeal Division Decision #2002-1120* (2002).

those dust conditions in the province. Additionally, they must have been a resident of BC for at least 3 years last preceding the disablement or at least 2/3 of the worker's exposure had to be in the province. Lastly they must have been exposed for a period or periods aggregating 3 years preceding his or her disablement, but this could be for a lesser period if the worker was not exposed to dust anywhere except in B.C.

S. 15(6) of the Ontario Act requires two years exposure in Ontario for the presumption to apply. Policy concludes that asbestosis is conclusively deemed to be due to the nature of employment if, at the time of diagnosis, the worker had been employed in Ontario, in a designated industry, for at least two years²³. Case law also concludes that exposure in Ontario must be a significant contributing factor to the worker's lung cancer²⁴. The fact that exposure also occurred elsewhere was not an obstacle to compensation for a claim for mesothelioma²⁵.

Newfoundland policy notes that "With respect to exposure intensity and duration, those workers with significant exposures in Newfoundland and Labrador before 1980 will be considered to have had higher exposure intensities than those exposed in 1980 or later." No other provisions seem to circumscribe the territorial requirements of exposure

S. 7 of the Québec legislation applies to workers who "contract an occupational disease in Québec", and whose employer when the disease is contracted has an establishment in Québec. S. 8 allows for compensation for an occupational disease contracted outside of Québec if, when the disease was contracted, the worker was domiciled in Québec and the employer had an establishment in Québec. Even if the worker was domiciled elsewhere when he contracted the disease, compensation will be provided if the employer had an establishment in Québec at the time, and the worker's absence from Québec does not exceed five years. Case law in Québec rarely mentions interjurisdictional issues with regard to asbestos-related compensation claims. In one case, a worker who had been exposed in Québec and who was found to be suffering from asbestosis in Washington State, where he was working at the time of his claim, was denied benefits both in Washington, because exposure was found

²³ "Asbestosis in workers exposed to asbestos dust in Ontario employment is an occupational disease as peculiar to and characteristic of a process, trade or occupation involving exposure to asbestos. If the worker was employed in Ontario in any mining, milling, manufacturing, assembling, construction, repair, alteration, maintenance or demolition process involving the generation of airborne asbestos fibres for at least 2 years before the date of diagnosis of asbestosis, the asbestosis is conclusively deemed to have been due to the nature of the employment."

²⁴ WSIAT Decision No. 600/04 (2005), 2005 ONWSIAT 840.

²⁵ WSIAT Decision No. 722/00 (2002), 2002 ONWSIAT 149.

not to have taken place in that State, and in Québec, because his claim for compensation was filed in that province more than six months after he had learned that his health problem was an occupational disease. Seemingly the fact that he had delayed his claim under Québec law because he thought he was eligible for benefits in Washington was not seen as a justification for filing after the six-month deadline²⁶.

Is the legislative presumption irrefutable?

In Alberta²⁷, British Columbia²⁸ and Québec²⁹, the legislative presumptions with regard to occupational disease are refutable. Some presumptions in Newfoundland and Ontario are not. In Newfoundland, the presumption with regard to asbestosis is irrefutable if the conditions prescribed in S. 90 (3.1) of the Act are proven; thus it is necessary to show the worker worked with asbestos at or immediately before the time of disablement or was employed in a specific industry described in s. 23(1) b. It is stipulated that “the disease shall be conclusively considered to have been due to the nature of that employment.” The same is true in Ontario, with regard to asbestosis and mesothelioma (schedule 4)³⁰. The employer in Québec will successfully refute the presumption if it is shown that the asbestos exposure is not the probable cause of the worker’s illness³¹. Some cases involving lung cancer in asbestos workers who were also smokers illustrate this principle³².

²⁶ *Lessick et Industries mondiales Armstrong Canada ltée*, [1989] C.A.L.P. 782.

²⁷ Alberta s. 24(6).

²⁸ B.C. s. 6(3).

²⁹ Although the Act is not explicit, case law is constant in this regard. See, for instance *Succession Guillemette v. J.M. Asbestos inc.*, [1998] CALP 585 (SCC) overturning [1996] CALP 1342 (C.A.Q.), and more generally K. Lippel, *La notion de lésion professionnelle, 4ième édition*, Les Éditions Yvon Blais Inc., Cowansville, 2002.

³⁰ However s. 94(7) WSIA appears to allow schedule 2 employers to refute the presumption even with regard to schedule 4 diseases. The section could only apply in quite exceptional circumstances, and we found no case law on this issue.

³¹ The presumption was refuted because asbestos fibres were not found in the biopsy of the worker’s lungs in *Lepage et Autolook Chicoutimi et al.*, (August 21, 2007), C.L.P. 313233-02-0703, en ligne: SOQUIJ (C.L.P. N° AZ-50448049). It was refuted in *Chartier et Mine Jeffrey inc.*, C.L.P.E. 2002LP-22 because the lung cancer was found to be secondary to a colon cancer; there was no discussion in the decision with regard to the possible occupational nature of the colon cancer.

³² *Raymond (Succession) et Messervier (Succession) et Mine Jeffrey* (22 août 2005), C.L.P. 177841-05-0202-2, 179345-05-0202-2 en ligne SOQUIJ (C.L.P. N° AZ-50330277) confirmed at SOQUIJ (C.L.P. N° AZ-5039587).

If conditions for the application of the legislative presumption are not met, is it possible to accept the claim, and if so, what is the burden of proof of the worker?

In Alberta, the situation is ambiguous, as the Board has the power to define, in regulations, the concept of occupational disease for the purpose of the Act, and the formulation used in the regulation suggests that the Board may entertain and accept claims for occupational disease that fall outside the legislative presumptions, but that the Appeal tribunal may not intervene if the Board fails to accept a claim. Section 20(10) b of the regulation³³ includes in the concept of occupational disease “any other disease or condition that the Board is satisfied in a particular case is caused by employment in an industry to which the Act applies”. This formulation may imply that the review and appeal tribunals in Alberta may not decide in favour of a claimant if the Board has determined that it is not satisfied that the claimant’s disease is caused by employment in an industry to which the Act applies. We did not come across case law on this issue. It is also worthy of note that Alberta has a specific provision in its policy regarding causation of respiratory diseases. S. 5 of Alberta’s injury policy specifies that “when a worker has a respiratory disease due in part to occupational factors and in part to non-occupational factors, the overall disability is presumed to be related to employment”.

In British Columbia, if conditions of the presumption in section 6(3) of the Act are not met, the evidence is reviewed to determine whether the case is compensable “on its merits” under section 6(1). It is at this stage the WCAT will review whether or not the disease can be determined to be an occupational disease³⁴ and whether or not it can be sufficiently linked to the worker’s employment, either as a cause or an aggravating factor of a pre-existing condition. Finally the tribunal will determine whether or not the worker was disabled as a result of the disease or whether the condition exists but has not brought about the requisite consequences for the worker’s health.

Newfoundland policy explicitly states that cases to which the presumption policy is inapplicable will be judged on the individual merits and justice of the case. It also states that such a case will not be precedent setting.

Ontario defines occupational disease at S. 2 and the definition is not restricted to diseases identified in Schedules 3 and 4, so claims for other diseases, or for the same diseases that do

³³ *Workers’ Compensation Regulation*, Alta Reg. 325/2002.

³⁴ Either by designation under section 6(4), by regulation, or on the evidence provided (RSCM #26.04). See also Policy item #26.22, Non-Scheduled Recognition and Onus of Proof.

not meet the policy exposure requirements, may be successfully brought forward. Ontario allows for cases to be accepted on the basis of the merit and justice of each case, a principle that supports the eligibility of claims that do not fall within the ambit of the legislative presumptions. Judging from the number of cases that accept claims that do not meet policy requirements, it appears that the Tribunal is often reticent to accept claims that fall below the thresholds identified in policy.

Québec explicitly allows for claims for compensation for occupational disease that do not meet the presumptive criteria, under s. 30 of the AIAOD, and many cases are declared compensable by the appeal tribunal under this provision, either because the diagnoses are not included in the legislative presumptions, or because the presumptions do not apply given the specific circumstances of the worker's exposure³⁵.

Protective removal of workers exposed to asbestos in the workplace

Ontario³⁶ and Québec³⁷ provide for the possibility of removing and compensating workers whose health may be compromised because of exposure to a "substance", or a "contaminant", even though the health condition would not yet be considered to be a "disease" from a medical perspective.

Recognition of specific diseases

Recognition of asbestosis as an occupational disease related to asbestos exposure

Asbestosis is presumed to be an occupational disease in all jurisdictions studied. The presumption is irrefutable in Ontario (if diagnosed on or after May 28th, 1992) and Newfoundland, with regard to specific types of employment. It is refutable in the other three jurisdictions.

³⁵ See Friha Bdioui, «La reconnaissance, à des fins de réparation, des maladies professionnelles pulmonaires liées à l'amiante au Québec», In Barreau du Québec, *Développements récents en droit de la santé et de la sécurité du travail, 2010*, Cowansville, Éditions Yvon Blais (in Press).

³⁶ In Ontario, see s. 2 of the WSIA. The definition of occupational disease includes "(c) a medical condition that in the opinion of the Board requires a worker to be removed either temporarily or permanently from exposure to a substance because the condition may be a precursor to an occupational disease", and, for discussion of this section, see WSIAT Decision No. 597/99 (2000), 2000 ONWSIAT 1498.

³⁷ In Québec, see s. 32ss of the *Occupational Health and Safety Act*, R.S.Q. c. S-2.1. Other provinces may provide for similar support, but we did not find references to the legal framework governing these types of preventive removals from work.

Alberta

In Alberta, for the presumption to apply, the worker must show occupational exposure to airborne asbestos dust within the 12 months preceding disablement from an occupational disease, in this case asbestosis. Few cases were identified. In one, possible pleural plaques did not suffice to convince the tribunal of a diagnosis of asbestosis in a worker suffering from chronic obstructive lung disease who was also a smoker³⁸.

British Columbia

Asbestosis is deemed by Schedule B to be a work-related pneumoconiosis where there is exposure to airborne asbestos dust. "Other pneumoconiosis" is also listed in Schedule B as being work related where there is "exposure to the airborne dusts of coal, beryllium, tungsten carbide, aluminum or other dusts known to produce fibrosis of the lungs" of which asbestos may be one. As we saw in the previous section, B.C. has some very restrictive requirements with regard to in province exposure, and these have been used to decline a claim for asbestosis in a worker who was shown to have had five years of exposure to asbestos in B.C., although the estate's claim for other diseases (lung cancer and pleural thickening) were held to be exempt from the more stringent requirements applicable to pneumoconiosis³⁹.

As we have seen, by virtue of s. 6(3) of the WCA, for the presumption to apply the worker must be engaged in work that exposes him to asbestos at or immediately before the date of disablement⁴⁰.

In B.C., the most common reason for appealing a refusal for compensation based on asbestos-related claims seems to be the diagnoses themselves. The presumption engaged by section 6(3) has quite specific criteria, and it is often the lack of the specific diagnosis relating to those criteria that is the subject of the appeal. The WCAT has been clear that the existence of asbestos in the workplace will not immediately lead to a finding that an individual suffers from an asbestos-related disease, particularly those outlined in Schedule B. In some cases workers have argued that there is a necessary link between certain ailments and the exposure to asbestos, and thus where diagnoses have been inconclusive or conflicting, they have argued that the presence of asbestos in the workplace should provide a basis for finding that the

³⁸ *AB WC Appeals Commission Decision #2003-428* (2003).

³⁹ *B.C. WCB Appeal Division Decision #2002-1120* (2002).

⁴⁰ *B.C. Decision #2008-03303*.

disease was one listed in Schedule B such as asbestosis or pleural thickening. The WCAT has firmly refused to follow this reasoning, holding that:

“Schedule B does not assist in making a diagnosis. By that, I mean the fact that a worker was exposed to asbestos dust does not mean that lung difficulties experienced by that worker must have been a result of the worker’s having asbestosis. The diagnosis of the disease is made separately.”⁴¹

In *B.C. Decision 2004-01682* a miner applied for compensation for respiratory illness, and his physician had indicated that he suffered from “chronic pneumoconiosis related to the inhalation of dust and carbonaceous material in the mines, and chronic obstructive pulmonary disease”. His claim was denied, and on appeal the WCAT found that CT scans performed by internal medicine specialists found that: “there were no abnormalities on CT scan or an echocardiogram to suspect pulmonary hypertension, lung lesions due to asbestos exposure or lung cancer. A small lesion in the endobronchial area was the most likely cause of his intermittent bleeding (hemoptysis).” The lack of these specific lesions was found by the tribunal to be persuasive that the worker did not suffer from a pneumoconiosis (asbestosis). His claim was denied on this basis.

In *B.C. Decision 2008-03303* the tribunal outlines the differences between a finding of asbestosis and other (restrictive) lung impairments. For a finding of asbestosis, the tribunal noted that there must be “diffuse interstitial fibrosis of the lower lobes of the lungs leading to a restrictive lung disorder.” This will be revealed through a showing of a decrease in forced vital capacity during pulmonary function testing. Where forced vital capacity is normal, the tribunal has found that the tests are more compatible with obstructive, as opposed to restrictive (asbestosis-related) lung impairment. Where there is no decrease in forced vital capacity the presumption is that there is insufficient interstitial fibrosis to be indicative of asbestosis. The worker’s appeal in *2008-03303* was denied on this basis.

In *B.C. Decision 2003-03864* an appeal based on a claim for compensation for asbestosis-related lung disease was allowed where a respirologist found that there was no other locatable cause for the interstitial lung disease, including medications, connective tissue disorder or anything noticeable through serology testing. The worker did not show the “usual hallmarks” of asbestos lung disease such as pleural thickening and calcification. The

⁴¹ B.C. Decision #2008-03303.

respirologist provided a differential diagnosis of idiopathic fibrosing alveolitis or asbestos-related interstitial lung disease. Because of section 250(4) W.C.A. the tribunal found in favour of the worker, resolving in favour of the diagnosis of asbestos related lung disease.

Due to the disability requirements for compensation based on other asbestos-related diseases such as pleural thickening, a worker sought a finding of asbestosis in *B.C. Decision 2006-00232* in order to receive full disability benefits for his condition⁴². The worker had been diagnosed with asbestos-related pleural disease, consistent with Schedule B, but not with asbestosis, and thus he received health care benefits only. Initially the worker's doctor noted that "chest x-ray showed pleural changes ... suggestive of asbestosis" but the board medical consultant stated that these x-rays showed pleural thickening and calcification "consistent with asbestos-related pleural disease" but no evidence of interstitial disease and thus asbestosis wasn't present. Similarly in *B.C. Decision 2004-06474* a worker's appeal on a ruling finding no asbestosis was denied where he was diagnosed with pleural thickening but not asbestosis and was thus awarded only health care benefits. The tribunal member found that the only diagnosis of asbestosis on the worker's file was inconsistent with the evidence and the opinions of two other doctors. Particularly the lack of pleural calcification or fibrosis was noted as evidence against finding asbestosis, ultimately failing to establish the presence of "interstitial pulmonary abnormality". No asbestosis was found because of the lack of interstitial disease.

In *B.C. Decision 2007-03595* the WCAT was required to determine whether or not a worker's ailment was idiopathic Usual Interstitial Pneumonia (UIP) (also referred to as Idiopathic Pulmonary Fibrosis - IPF) or pulmonary fibrosis due to asbestos (asbestosis). Medical reports were inconsistent, and the panel member noted several diagnoses and reports indicating that IPF is often indistinguishable from asbestosis except that the presence of pleural plaques "increases the likelihood" that asbestos is responsible for the fibrosis, and, naturally, the "patients with asbestosis always have a history of heavy occupational asbestos exposure". There were some factors that the physicians focused on in finding against a diagnosis of asbestosis, particularly that the "mid-lung" location of the disease, the presence of smooth

⁴² The worker must be "disabled from earning full wages at the work" at which he or she was employed as a result of the disease. In the case of a deceased worker, his or her death must have been caused by such disease. Policy #26.30 discusses this requirement and specifies that it does not apply to claims for silicosis, asbestosis, or pneumoconiosis (see #29.40). Further, a worker need not be disabled by the disease in order to be entitled to health care benefits. The issue of disability, that is the moment when other benefits may be payable, is also the subject of appeals. See for instance *BC WCAT Decision 2007-01370*.

muscle hyperplasia and fibroblast foci, and the “ground glass opacity found on the HRCT [high-resolution computed tomography] are seen more frequently in IPF than in asbestosis, however, and rapidly progressive fibrosis is more likely in IPF than in asbestosis. However, in this case, the presence of pleural plaques and the worker’s history of exposure weighed in favour of a finding of asbestosis. In contrast, in *B.C. Decision 2006-03442*, despite the worker’s known exposure to asbestos and despite the fact that there were at least some pleural plaques, he was diagnosed with IPF, based on the “ground glass changes seen on the CT scan” which are “most characteristic of the inflammatory changes seen with end-stage IPF ... not seen in asbestos.” The panel member noted emphatically that the causes of IPF are unknown and can therefore not be conclusively linked to asbestos exposure without other hallmarks of asbestosis.

In *B.C. Decision 2003-03864* the panel member accepted a finding of “asbestos-related interstitial lung disease” even where there were no pleural plaques or thickening, but the doctor “had failed to come up with any etiological agent for his interstitial lung disease, ...there was no history of any medication that might cause fibrosis, no clinical history to suggest any connective tissue disorder and the serology testing was negative. Dr. Nakielna did find a definite history of exposure to asbestos.” However, in *B.C. Decision 2007-03360* the fact that there were only “two asbestos bodies” found in the worker at the time of autopsy led the panel member to rule out the possibility of asbestosis as a cause for the worker’s IPF. Additionally, in *B.C. Decision 2008-02047* the panel member found that, in the absence of any evidence of pleural asbestos change (pleural thickening or pleural fibrosis), and no overt proof of asbestos exposure from the CT scan, the findings were most in keeping with a UIP type of fibrosis and not asbestosis. In this case the worker was found to have problems in the interstitial tissue but not in the pleura, and this was found to be determinative of a diagnosis of UIP as opposed to asbestosis, and the claim was denied.

In *B.C. Decision 2002-1830* the WCAT did not accept a worker’s appeal because the diagnoses spoke only to “bilateral pleural thickening,” “calcified pleural plaques,” and “scarring,” and the member noted that “only the objectively supported diagnosis of “bilateral pleural thickening” brings the worker within the ambit of schedule B considerations.” The panel member further found that the diagnosing physician

used the term ‘bilateral pleural disease’ and ... even used the term ‘extensive pleural disease secondary to asbestosis.’ In context, however, ... I find Dr. McC’s comments

must be understood as including non-technical expressions and not as records of the diagnoses necessary to trigger schedule B.

Aside from decisions relating to the actual diagnosis of asbestosis, there are numerous decisions in appeal regarding the moment of onset of permanent disability⁴³. A few decisions address exposure issues. One such decision refused the worker's claim as exposure to asbestos was from outside the province⁴⁴. Another accepted the claim by the worker's estate, finding that five months of exposure to asbestos in British Columbia, as well as evidence that the worker had been present during a fire in his workplace where asbestos was present sufficed to conclude that his asbestosis was attributable to his work. There was no evidence of other exposure to asbestos from outside the province⁴⁵. Several appeals relate to work-relatedness of the worker's death, given that legislation in B.C. facilitates recognition of death from occupational lung disease. If no lung disease is found, the presumption does not apply, even though a worker may be suffering from other occupational diseases at the time of his death⁴⁶.

Newfoundland

Despite the fact that the presumption is irrefutable, there are very few compensated claims for asbestosis in Newfoundland (see Appendix 2) and very few review and appeal decisions. Diagnosis of asbestosis is occasionally a litigious issue in Newfoundland. Cases in this province sometimes appear to be less technical than cases in other provinces, analysing the compensability of the worker's "Lung disease" in fairly broad terms. A worker's estate was compensated for such a claim, where there was evidence that the worker, who, for more than twenty years, worked as a cook in the galley of a ship containing asbestos was found to have sufficient asbestos exposure to justify the conclusion he had died of an occupational lung disease (seemingly asbestosis, although this is stated indirectly)⁴⁷. Cases in which evidence of exposure to asbestos is clear have been denied if the diagnosis retained is chronic obstructive lung disease attributed to smoking⁴⁸, even when there is evidence of "asbestos lung disease"⁴⁹.

⁴³ See for instance *BC WCAT Decision* 2007-01370.

⁴⁴ *B.C. WCB Appeal Division Decision* #2002-1120 (2002).

⁴⁵ *B.C. WCB Appeal Division Decision* #2001-0681 (2001).

⁴⁶ See section on survivor benefits and *B.C. WCB Appeal Division Decision* 2002-1130.

⁴⁷ Workers' Compensation Review division, Newfoundland, Decision 98360, December, 1998.

⁴⁸ NL WHSCRD Decision #02203 (2002).

⁴⁹ See for instance NL WHSCRD Decision #04249 (2004).

Ontario

Schedule 4 of the Ontario WSIA presumes asbestosis to be an occupational disease where the worker worked in “mining, milling, manufacturing, assembling, construction, repair, alteration, maintenance or demolition process involving the generation of airborne asbestos fibres”, and policy adds, in conformity with s. 15 of the Act, that if the worker has been employed in these conditions in Ontario for at least two years before the diagnosis of asbestosis, then the presumption is conclusive. Policy also refers to the evidentiary criteria of the American Thoracic Society, and recognizes histopathological evidence of lung fibrosis due to asbestos.

Ontario cases on asbestosis mostly address either diagnostic⁵⁰ or exposure issues⁵¹, the latter particularly with regard to claims where the worker does not meet the two-year exposure requirement⁵². Sometimes, the worker is diagnosed with several chronic pulmonary conditions (other than lung cancer, which we examine in the next section) some related to asbestos exposure and others related to tobacco use. In some cases, the interaction between asbestosis, including pleural plaques, on the one hand and other non-work related conditions, leads to a disabling respiratory condition that will be found to be compensable⁵³, even though the asbestosis in itself would perhaps not have been disabling⁵⁴. In other cases where asbestos is a factor along with several others, the claim will be refused in the absence of evidence that asbestos exposure played a significant role in the respiratory condition⁵⁵.

⁵⁰ WSIAT Decision No. 1236 02 (2003), 2003 ONWSIAT 2227 (claim denied, not asbestosis but fibrosing alveolitis); WSIAT Decision No. 2692/01 (2002), 2002 ONWSIAT 2370 (claim denied, not asbestosis because no fibres found in the areas of the lung showing alveolar damage); WSIAT Decision No. 2127/06 (2008), 2008 ONWSIAT 588 (claim denied, pleural plaques but not impairment); WSIAT Decision No. 2740/01 (2002), 2002 ONWSIAT 1720 (claim allowed for pleural thickening and asbestos-related pleural fibrosis leading to a restrictive lung impairment that was compensable).

⁵¹ WSIAT Decision No. 1770/99 (2000), 2000 ONWSIAT 110, claim allowed because the worker was exposed to significant levels of asbestos and suffered from pleural thickening.

⁵² The following claims were denied: WSIAT Decision No. 1271/01 (2002), 2002 ONWSIAT 741; WSIAT Decision No. 1655 02 (2003), 2003 ONWSIAT 1314.

⁵³ WSIAT Decision No. 1744/01 (2002), 2002 ONWSIAT 1220.

⁵⁴ WSIAT Decision No. 597/99 (2000), 2000 ONWSIAT 1498.

⁵⁵ WSIAT Decision No. 496/08 (2008), 2008 ONWSIAT 1829; WSIAT Decision No. 2009/05 (2006), 2006 ONWSIAT 2351.

The irrefutable presumption of Schedule 4 applies to conditions diagnosed after May 4th 1992, and some cases discuss the applicability of schedule 4 when the diagnostic process was undertaken before May 1992 but finalized after that date⁵⁶.

Cases do not often discuss latency periods. In a 2000 WSIAT decision a latency period of 15 years between likely first exposure and onset of symptoms was found to be appropriate⁵⁷.

Aside from cases addressing diagnosis or causation, there are a few cases that address issues we will not explore here, including the date of commencement of disability⁵⁸.

Québec

As in B.C., most Québec appeal cases on asbestosis claims seek to determine whether the worker was actually suffering from asbestosis, a diagnosis of pleural plaques being insufficient to constitute asbestosis, precluding the application of the legislative presumption⁵⁹.

A few question the diagnosis of asbestosis if evidence of significant exposure is not convincing. One case concluded that evidence that exposure was below the exposure limits applicable in 1999 meant that evidence of exposure in the previous decades was insufficient to justify the application of the legislative presumption⁶⁰. Another found that the latency period of eight years fell far below the 15-30 years expected, and, although the same worker had also been exposed to asbestos during the relevant period that complied with latency requirements, that exposure had been mild, and insufficient to justify a diagnosis of asbestosis⁶¹. In *Succession Germain Boutin et Mine Jeffrey inc*⁶², the diagnosis of asbestosis was only ascertained at the time of the worker's death from lung cancer. It became significant, in that a diagnosis of lung

⁵⁶ WSIAT Decision No. 288/97R2 (2000), 2000 ONWSIAT 2922, claim accepted as final diagnosis made in November 1992.

⁵⁷ WSIAT Decision No. 288/97R2 (2000), 2000 ONWSIAT 2922.

⁵⁸ WSIAT Decision No. 399/05 (2005), 2005 ONWSIAT 561.

⁵⁹ See for instance *Riopel et Dominion Acoustic Tile ltd et al*, 2009 QCCLP 5928; *Pronovost et 2172-2095 Québec inc. et al.*, (C.L.P., 2005-10-31), SOQUIJ AZ-50341568. *Labarre et Ventimétal* (25 août 2005), C.L.P. 264793-61-0506 en ligne SOQUIJ (C.L.P. N° AZ-503308800).

⁶⁰ *Hôpital du St-Sacrement et Succession Dubreuil* (28 septembre 2001), C.L.P. 134483-32-0003 en ligne SOQUIJ (C.L.P. N° AZ-01303731).

⁶¹ *Commission scolaire des Affluents et Riopelle* (22 février 2006), C.L.P. 221027-63-0311, 221028-63-0311 en ligne SOQUIJ (C.L.P. N° AZ-50357645). This decision is particularly troubling given that the six pneumonologists (CMPP and CSP) were unanimous in concluding the worker suffered from compensable asbestosis. Even Dr. Renzi, the employer's expert witness, suggested asbestosis may have been contracted at the previous employer, but the tribunal concludes that evidence of asbestos exposure was insufficient to justify the diagnosis.

⁶² 2009 QCCLP 1256.

cancer, without evidence of asbestosis, required evidence of a more intense exposure to asbestos than was required in cases where asbestosis was confirmed.

In another case involving intense exposure of a worker who had worked for 38 years in an asbestos mine, controversy over the cause of her condition was raised because she also suffered from “polyarthrite rhumatoïde” (rheumatoid arthritis), which could also have caused her lung condition (severe pulmonary fibrosis). The tribunal concludes that on a balance of probabilities the worker’s illness is attributable to her intense and prolonged exposure to asbestos, and that the absence of pleural plaques is not in itself significant, given that the worker comes from the asbestos mine region where this is often the case. Nor is the long latency period an obstacle to the application of the presumption (the worker’s symptoms appeared six years after her retirement)⁶³.

The same asbestos mine also contested a claim for asbestosis by a worker who had worked in the mine for slightly over four years in the nineteen fifties, after which he had become a farmer. He also smoked. The CLP concluded that the presumption applies, given the diagnosis and the evidence of four years exposure, and that neither the worker’s smoking history, nor the hypothesis that the worker’s condition was attributable to dust to which he had been exposed as a farmer sufficed to rebut the presumption⁶⁴.

A few decisions, reiterating the importance of relying on preponderant evidence rather than scientific certainty, accept claims for asbestosis despite the fact that diagnostic certainty would require further tests that could harm the workers’ health⁶⁵.

Recognition of lung cancer as an occupational disease related to asbestos exposure

Lung cancer is presumed to be an occupational disease associated with asbestos exposure in legislation in British Columbia, Newfoundland and Québec, while policy in Ontario allows for compensation for lung cancer when exposure and latency requirements are met, or on the merits of the individual case. The specific criteria in legislation and policy are available in Appendix 1. Alberta legislation does not presume lung cancer to be an occupational disease associated with asbestos exposure, although a very small number of claims for asbestos-

⁶³ *Croteau et Mine Jeffrey Inc.*, 2008 QCCLP 3535.

⁶⁴ *Mine Jeffrey inc. et Roulx* (22 juin 2004), C.L.P. 224462-05-0401 en ligne SOQUIJ (C.L.P. N° AZ-50259785).

⁶⁵ *Desrochers et Mine Jeffrey*, [2002] C.L.P. 838; *Croteau et Mine Jeffrey Inc.*, 2008 QCCLP 3535.

related cancer other than mesothelioma have been accepted⁶⁶. No case law was identified on this issue in Alberta, so we will not examine the situation in that province in this section.

Many crosscutting issues emerge, and an overview of these issues follows. Of all the occupational diseases commonly associated with asbestos exposure, lung cancer gives rise to the most complex cases because causation is multi-factorial. We will examine particular criteria applied with regard to exposure requirements, the necessity of proving asbestosis or pleural plaques and will also summarily address specific questions that arise when tobacco exposure is also present.

Is there a minimum exposure requirement?

British Columbia

B.C. legislation does not require a minimum exposure period, nor does it specify a latency period. For the legislative presumption to apply to pneumoconiosis, however, it must be shown that the exposure took place in B.C., as we saw in an earlier section of this report. It was held that the particular exposure requirements in s. 6 of the Act, with regard to pneumoconiosis do not apply to claims for lung cancer, even when the same worker's claim for asbestosis was denied because exposure was not exclusively or primarily in British Columbia⁶⁷.

As we shall see in the next section, for the B.C. presumption to apply, there must be evidence of either asbestosis or bilateral diffuse pleural thickening or fibrosis, over 5 mm thick and extending over more than a quarter of the chest wall. A review of criteria is currently underway in B.C., and the discussion paper underpinning that review has suggested that the latter requirement is not scientifically grounded⁶⁸.

That discussion paper also mentions the possibility of introducing a cumulative exposure approach, citing policy in Newfoundland (5 years), Nova Scotia, Ontario and Saskatchewan (10

⁶⁶ AWCBC data (see Tables 1 and 2 in Appendix 2) suggests that in the period 1998 – 2008, 9 claims for cancer, other than mesothelioma, related to asbestos were accepted in Alberta with regard to claims by workers, and a further 14 were accepted for survivor benefits. It is unclear whether these include the same case, and it is unclear how many, if any involved lung cancer.

⁶⁷ *B.C. WCB Appeal Division Decision #2002-1120* (2002).

⁶⁸ The report discusses the option of eliminating this criteria, but suggests this to be problematic. Reduction to 2 mm of bilateral pleural thickening (rather than 5mm) as an alternative requirement to asbestosis is suggested as a possible approach. See WorkSafe B.C. Bronchogenic Carcinoma (Lung Cancer) in Asbestos Exposed Workers, Discussion Paper, July 27, 2009, p. 13.

years). It will be important to follow the evolution of these discussions. It is seemingly the intent of the discussion to add an additional option to the presumptions (a third possibility to relieve claimants or their estate of the burden of proving causation) and not to require an additional obligation of proving a to-be-specified number of years of exposure to benefit from the existing legislative presumption. The report notes that at least one study has found increased cases of lung cancers in workers who have been exposed to as little as one year of heavy exposure⁶⁹.

Newfoundland

Newfoundland policy presumes compensability for lung cancer either if the worker was employed in an industry exposing him to asbestos immediately before disablement or the worker is exposed in a process that involves a repeated or constant risk of exposure to asbestos, and that this employment is of a duration of five years, and there is a latency of 10 years from the time of first exposure to the diagnosis of lung cancer. Policy also permits acceptance of claims on the merits of the case if these criteria are not met.

Ontario

Although exceptions are possible, Ontario policy regarding lung cancer requires 10 years of occupational exposure to asbestos and a latency period of 10 years. It is unclear whether the same requirements apply when there is evidence of asbestosis. Expert testimony in Ontario affirms that if asbestosis is proven, “no one disputes that lung cancer in a person with asbestosis is due to asbestos exposure”⁷⁰. Workers who are considered to be “asbestos workers”, presumably those involved in the listed industries in the Schedule, are more likely to meet the policy requirements. An illustration of a case where the worker was not an “asbestos worker” involved a claim by a graphic artist with indirect exposure, whose place of work exposed him to asbestos wrapped around pipes. Exposure was found to be insufficient, and his case was found to not fall within the policy, even though he had pleural plaques⁷¹.

⁶⁹ See WorkSafe B.C. Bronchogenic Carcinoma (Lung Cancer) in Asbestos Exposed Workers, Discussion Paper, July 27, 2009, at note 42: even one year of heavy exposure or 5-10 years of moderate exposure can increase risk of developing lung cancer, citing: *The “Helsinki Criteria” for Attribution of Lung Cancer to Asbestos Exposure, How Robust Are the Criteria?*, Allen Gibbs, MD; Richard Luther Attanoos, MD; Andrew Churg, MD; Hans Weill, MD, February 2007.

⁷⁰ Dr. Ahmad’s testimony cited at p. 14: 2009 ONWSIAT 1129 (May 6 2009).

⁷¹ WSIAT Decision No. 1978/04 (2008), 2008 ONWSIAT 1192.

Policy does not prescribe the intensity of the exposure, and uncontrolled exposure of a school custodian for six years, followed by several years of controlled exposure was held to meet the policy requirements⁷². However, in another case, light exposure was held to support the conclusion that the worker's lung cancer was not work related. The tribunal found the worker's exposure levels ranged from 0.07 to 0.25 f/cc and added that the exposure regarded as the minimal dose for increased risk of lung cancer is 25 f/cc⁷³. Similar reasoning was applied in a case where the worker worked at least 100 feet away from the source of asbestos⁷⁴.

In line with policy, which allows for cases that do not meet those criteria to be evaluated on their own merit, with regard to intensity of exposure and the individual merit of each case, some decisions have accepted claims where exposure was less than 10 years. Thus, in a case where the worker is a non-smoker who had no family history of lung cancer, the claim was accepted after 7 years of occupational exposure, the alternative hypothesis as to causation being even less likely than the hypothesis that the asbestos exposure was the probable cause⁷⁵. Another claim by the estate of a non-smoker was accepted with evidence of significant exposure for 2 years and 3 months, as well as evidence of other occupational exposures⁷⁶.

With regard to latency, a shorter latency period did not defeat the claim of the estate of a worker who died of lung cancer at the age of 44. He had been exposed to asbestos and a variety of other carcinogens at work, but he also smoked. The panel gave the claimant estate the benefit of the doubt⁷⁷. Latency of 20-30 years is average and therefore a longer latency period has been held to support the conclusion of work-relatedness⁷⁸.

Québec

Aside from the broadly framed legislative presumption, Québec has no explicit policy on this issue, but the medical specialists from the committees on occupational lung disease developed criteria they used to evaluate these cases. Although the criteria were developed in

⁷² WSIAT Decision No. 1917/06 (2007), 2007 ONWSIAT 490.

⁷³ WSIAT Decision No. 600/04 (2005), 2005 ONWSIAT 840.

⁷⁴ WSIAT Decision No. 871/02 (2003), 2003 ONWSIAT 1903.

⁷⁵ Decision no. 1443/04 (2005) 75 WSIATR online, 2005 ONWSIAT 2127.

⁷⁶ 2009 ONWSIAT 1129 (May 6 2009).

⁷⁷ WSIAT Decision No. 968/97 (2000), 2000 ONWSIAT 334.

⁷⁸ Decision no. 134/89 1993, 26 WCATR 32 and 138/94, June 9th 1997.

1986, and are not binding either on the doctors themselves, the CSST or the appeal tribunals, it appears from some appeal cases that some of these criteria are still in use⁷⁹.

In that case it was found that when workers have asbestosis, the committees will recognize that their lung cancer was caused by exposure to asbestos without minimum exposure requirements. When the workers, in the case in point two electricians working for an asbestos mine, do not have asbestosis, under the 1986 criteria, which are still seemingly applied by the committees of specialists, lung cancer will be compensable if there is evidence of intense exposure to asbestos of more than twenty years, or over a shorter period if the exposure was exceptionally intense. Intense exposure is described as 2f/cc and over. The case involved a worker who smoked cigarettes (42 package years) and who had what was qualified as “very light” exposure to asbestos (0.34 f/cc during 29 years). It was found that the worker had a relative risk of developing lung cancer attributable to asbestos exposure of 1.1, while the risk associated with his tobacco consumption was 25-30 times higher than that of a non-smoker. The estate’s claim was denied. In the same decision, the same result was reached with regard to a claim by the estate of a worker who was found to have pleural plaques, but the number of asbestos fibres in his lung specimens was fewer than in the reference population. Because he was a heavy smoker, and given the evidence with regard to asbestos exposure (6-26 f/cc for the first 3.5 years of his working history, a level judged to be “intense” but not “exceptionally intense”; subsequent exposure was qualified as “light”) the committees concluded that the relative risk of asbestos-related cancer was 1.2 or 1.5, while with regard to tobacco exposure, the risk was 25 to 30 times higher. In the case of this second worker, the tribunal subscribed to the opinion of a witness that the presence of pleural plaques was not necessarily associated with an increased risk of lung cancer.

There is some evidence that the relatively conservative approach of the tribunal in the *Raymond* case, based on the opinion of the specialists, is not followed in subsequent decisions. In *Veillette (Succession) et John F. Wickenden & cie Itée*⁸⁰, the Tribunal accepted the occupational disease claim for lung cancer despite the opinion of the CMPP that asbestos exposure was not significant. This opinion was based on the small number of fibres found in the worker’s lungs (10-20 times more than the general population, but fewer than usually

⁷⁹ See for instance *Raymond (Succession) et Messervier (Succession) et Mine Jeffrey* (22 août 2005), C.L.P. 177841-05-0202-2, 179345-05-0202-2 en ligne SOQUIJ (C.L.P. N° AZ-50330277) confirmed at SOQUIJ (C.L.P. N° AZ-5039587).

⁸⁰ 2009 QCCLP 7219, decision under review.

found in those with asbestosis). Setting aside this opinion, and relying on evidence of density of “substance ferrugineux par gramme de tissu” of 1100-2400 corps/gramme, the Tribunal concluding that exposure was significant. The worker was deemed to have been exposed to asbestos for the equivalent of a total cumulative exposure of 6 years at 40 hours per week, which meets the requirement of the Helsinki criteria of 5-10 years of moderate exposure to Chrysotile asbestos with a 10-year latency period⁸¹. The fact he was a smoker was not found to rebut the legislative presumption.

In *Duchesneau*, exposure was deduced from the worker’s employment history: 43 years of employment as a welder in the shipbuilding industry in Québec⁸². However, when evidence of exposure is plausible but unclear and no pleural plaques or asbestosis are present, the legal presumption will not be applied⁸³.

Do you need to prove pleural plaques or asbestosis for recognition of lung cancer as an occupational disease?

British Columbia

Currently evidence of asbestosis is one of two alternatives required by Schedule B of the Act for the legislative presumption to apply. Schedule B of the Act under item 4A lists carcinoma of the lung with (i) Asbestosis or (ii) Bilateral diffuse pleural thickening or fibrosis, over 5 mm thick and extending over more than a quarter of the chest wall. The 2009 WorkSafe BC discussion paper on Lung Cancer concludes that presence of Asbestosis is a defensible requirement, but questions the requirement of bilateral pleural thickening or fibrosis over 5 mm, suggesting that 2 mm may be sufficient as an alternative to evidence of asbestosis⁸⁴.

Contrary to case law in other provinces⁸⁵, most B.C. case law seems to concur. There are numerous decisions in the past 10 years from the WCAT on the relationship between lung

⁸¹ Citing “*Asbestos, Asbestosis, and Cancer: the Helsinki Criteria for Diagnosis and Attribution*”, (1997) 23 Scandinavian Journal of Work, Environment and Health p. 311-316; D. W. HENDERSON, K. RÖDELSPERGER, H. J. WOITOWITZ & J. LEIGH, “*After Helsinki: a Multidisciplinary Review of the Relationship between Asbestos Exposure and Lung Cancer, with Emphasis on Studies Published During 1997-2004*”, (2004) 36 Pathology p. 517-550.

⁸² *Duchesneau (Succession) et Industries Davies inc.*, 2009 QCCLP 4692.

⁸³ *Succession Couture et Industries Davies inc.*, 2009 QCCLP 4677 (decision under review).

⁸⁴ WorkSafe B.C. Bronchogenic Carcinoma (Lung Cancer) in Asbestos Exposed Workers, Discussion Paper, July 27, 2009. At p. 12 the report notes that none of the Canadian jurisdictions canvassed use this criteria.

⁸⁵ See for instance, in Québec: *J.M. Asbestos et Hamel et al*, AZ-4999038505, CALP, February 16th, 1998, and many subsequent cases; in Ontario, see, for instance, 2009 ONWSIAT 1129 (May 6 2009).

cancer and asbestos exposure. Most discuss whether there is a requirement for a finding of asbestosis in order to conclusively link lung cancer with asbestos and review the extensive literature available on the relationship, with particular reference to the “Helsinki criteria”. The case law generally discusses whether asbestosis is a necessary link to any or all four types of lung cancer identified in the Helsinki Report, and whether or not other reports conclusively require a finding of asbestosis in order to make the link. In general members of the WCAT have preferred the “asbestosis is necessary” stance when assessing cases of lung cancer, although not without reservation, and it is worth noting that the same individual rendered most of the decisions of the WCAT on this issue. More recently, as noted by the *Lung Cancer Discussion Paper*, several Review Division decisions have allowed claims for lung cancer in workers exposed to asbestos even in the absence of asbestosis or pleural thickening that meets the requirements of Schedule B. One case examined the claim of a worker with pleural plaques who had some, unquantified, exposure to asbestos, and accepted the claim under s. 6(1) of the act, despite the evidence that the worker’s smoking history had probably played a more significant role in the development of the cancer than had the asbestos exposure. The adjudicator noted that it sufficed that “although both occupational and non-occupational factors existed...the worker’s asbestos exposure had causative significance for the development of his primary lung cancer”. Of note in this decision is the reliance on the opinion of the Review Division Medical Advisor to the effect that the “newer model” of carcinogenesis, (referring notably to the Helsinki criteria) does not require evidence of asbestosis⁸⁶. Thus, it is possible that the case law of the WCAT that we will now examine may evolve in light of the more recent decisions at the review level with regard to the Helsinki criteria.

In B. C. 2004-04988 a worker was denied compensation for lung cancer because he showed no signs of asbestosis. Though the panel member (Randy Lane, Vice Chair) noted that even in smokers, asbestos exposure significantly increases the worker’s risk of lung cancer, this fact alone was not persuasive in the particular case, because there were no specific indicators that sufficiently established the link between the worker’s exposure and the cancer. Asbestosis or pleural thickening are diseases that must be present in a worker who has contracted lung cancer in order for that worker to benefit from the presumption in section 6(3). However, in

⁸⁶ B.C. Review division decision # 0097154, April 1st, 2009. See also B.C. Review division decision #0093129; B.C. Review division decision # 0093172.

this case, it appears that the WCAT also considers it necessary for asbestosis to be present for a finding under 6(1) on the “merits” of the individual case:

“I consider that, aside from whether “most experts” support the hypothesis that asbestosis must be present before lung cancer in an asbestos-exposed worker can be attributed to asbestos exposure, the reviews and comments of such authors as Weiss and Cagle support a conclusion that asbestosis is the only consistently reliable marker for asbestos-related lung cancer, especially in asbestos workers who are also tobacco smokers. I am aware of the contrary views of other authors noted above, but I am persuaded by the comments of Weiss and Cagle. ... I do not doubt that smokers who are exposed to asbestos have a higher incidence of lung cancer than patients who smoke or who were not exposed to asbestos. However, that state of affairs does not address the issue of asbestosis. I find that while the worker was exposed to asbestos and he developed lung cancer, the evidence is insufficient to find that the worker’s lung cancer is due to his exposure to asbestos as part of his employment. I consider that the absence of asbestosis means that it is more likely that the worker’s lung cancer is due to his history of cigarette smoking.”

The same panel member, in *2005-06208*, reviewed the literature as well as reports that were produced after *2004-04988* - one of which was authored by an individual who participated in the Helsinki Report - in re-deciding the issue of whether “asbestosis is necessary”. Ultimately he decided similarly to the previous decision and denied compensation to a worker who showed no signs of asbestosis.

Decision *2006-00551* is a recent review of the available literature and analysis of the “asbestosis is necessary” argument against the criteria for determining the link as set out in the Helsinki Report. The same panel member (Randy Lane, Vice Chair) was the decision maker on this case, as well as in *2005-06227*, and *2005-06374*. Given the detail of the analysis and comparison we have included large sections of the panel member’s discussion:

“The Helsinki Consensus Report listed relative risks associated with fibre-years, fibre burdens in lungs, and occupational exposure durations, and noted that the relative risk was roughly doubled at an exposure of 25 fibre-years, at which level asbestosis may or may not be present. Only De Vuyst’s paper presented at the Helsinki expert meeting asserted that, according to epidemiological studies, there was an increased relative risk when there were no radiological signs of asbestosis and that the relative risk was lower than 2.0. His paper does not list the epidemiological studies. The Helsinki Consensus Report also did not list studies in support of the view that asbestosis is not necessary.

...

Henderson *et al.* considered that cumulative exposure assessed pathologically or by estimates of exposure should be the main criterion. They did accept that the presence of asbestosis could be a criterion, and that high relative risks are associated with the presence of asbestosis. In that sense, the presence of asbestosis is a reliable factor for

determining that a particular lung cancer is due to asbestos exposure. A decision-maker would rarely go astray in accepting a claim for lung cancer from an asbestos-exposed worker who was also a smoker and who suffered from asbestosis. Indeed, Schedule B and subsection 6(3) of the Act establish acceptance of such a claim as the starting point for any adjudication.

Should the absence of asbestosis be a bar to acceptance of a claim for lung cancer? Certainly, in the case of a worker who was not a smoker, one might argue that the absence of the predominant non-occupational cause of lung cancer is a compelling circumstance, given that the life-time risk for lung cancer in a non-smoker is small. However, as noted by many authors, most workers exposed to asbestos are smokers. In the case of workers with asbestosis, smoking is not considered to be a significant concern when matters of causation are assessed.

Whether the Helsinki criteria should be formally adopted by the Board is not before me for decision. Adoption of criteria concerning the presence of cancer, a lag time of ten years, the presence of asbestosis or the presence of asbestos fibres or asbestos bodies would not be that difficult. At this stage I do not consider that I can be satisfied that the Helsinki criteria should be the basis of the adjudication of the appeal before me.

...

An assessment of the presence of asbestosis, pleural plaques, bilateral diffuse pleural thickening or asbestos fibres and asbestos bodies involves, for the most part, an assessment of objective data. Their presence confirms that a worker was indeed exposed to asbestos. (I appreciate that the formulation of a diagnosis of asbestosis may involve some subjective element.) The Helsinki criteria regarding fibre-years and years of employment are more subjective. Further, the applicability of such criteria to British Columbia has not been established. As well, I am not aware of any evaluations of employment in British Columbia that would permit the assessment of the worker's employment with a view to establishing reliable figures as to his fibre-years and employment exposure intensity."

In the worker's case in this decision his appeal was denied on both criteria, since the calculation of "fibre-years" did not meet the designated criteria, and there were no other signs of asbestosis, pleural thickening or other identified asbestos-related diseases.

In one of the reported cases on asbestos and lung cancer over which Mr. Lane did not preside, *2006-03774*, there was also an absence of asbestosis, pleural thickening and mesothelioma, and the worker suffered from Chronic Obstructive Pulmonary Disease primarily based on his smoking history. The panel noted that the absence of those diseases required a conclusion that the presumption in 6(3) did not apply, but they did not officially decide on the "asbestosis is necessary" question, finding instead that given the lack of any other conclusive evidence linking the cancer to asbestos exposure they attributed the disease to the worker's smoking history. The panel stated that speculatively, even if the asbestos exposure played some role, the contribution was minimal:

“[W]e are required to apply law and policy, which requires that occupational exposures play a significant causative role. The medical opinions on file are not supportive of a conclusion that occupational exposures played a significant role in the worker developing lung cancer. The Board internal medicine consultant said that while it was possible they may have played some role, cigarette smoking was by far the most important carcinogen.”

Given that the case law precedes the decisions by the review Division of the WCB with regard to the Helsinki criteria, it is possible that WCAT’s position may change on this issue.

Newfoundland

Nothing explicit exists in Newfoundland policy with regard to lung cancer and asbestosis, and lung cancer will be compensable if there is evidence of five years exposure and ten years latency. One case, in which the worker’s employment history did not meet the five years exposure requirement of policy, found that in the absence of asbestosis and in the presence of a significant smoking history, the worker’s lung cancer was not attributable to his work. It is interesting in that case, that mention is made of environmental exposure in the region of Baie Verte, although this is not commented upon by the decision maker⁸⁷.

Ontario

There is no official policy on this issue in Ontario, and some cases have been accepted despite the absence of pleural plaques or asbestosis⁸⁸. When there is no evidence of asbestosis, panels have specified that a case may be nonetheless compensable if there is evidence of asbestos fibres in the worker’s lungs⁸⁹. A recent decision questioned the appropriateness of denying a claim for lung cancer on the basis of the absence of asbestosis: “the Panel finds it is inappropriate to deny the claim based upon preferring the restrictive view in an unresolved medical debate.”⁹⁰ When there is no asbestosis and the worker is a heavy smoker, it is less likely the panel will accept the claim, particularly if asbestos exposure was low⁹¹. Presence of pleural plaques, rather than asbestosis, has been considered as evidence supporting a claim⁹².

⁸⁷ NL WHSCRD Decision #01260 (2001).

⁸⁸ WSIAT Decision No. 1387/98 (2004), 2004 ONWSIAT 220.

⁸⁹ WSIAT Decision No. 948/96 (2005), 2005 ONWSIAT 225.

⁹⁰ 2009 ONWSIAT 1129 (May 6 2009), p. 16. See also Decision No. 375/92 (1993) 28 WCATR 32 and Decision no. 1443/04 and Decision no. 1815/05, November 16, 2005.

⁹¹ WSIAT Decision No. 600/04 (2005), 2005 ONWSIAT 840.

⁹² WSIAT Decision No. 1917/06 (2007), 2007 ONWSIAT 490.

Québec

In Québec the appeal tribunal has, in several cases, accepted claims for lung cancer without evidence of asbestosis or pleural plaques⁹³. In perhaps the most significant, *Succession Guillemette et J.M. Asbestos inc.*, the appeal tribunal (at that time the CALP) held that, the worker, a miner with significant and prolonged exposure to asbestos, did not need to prove causation to benefit from the legislative presumption, despite the awkwardly worded presumption⁹⁴. The tribunal also acknowledged that the scientific community was divided with regard to the issue as to whether lung cancer could be attributed to asbestos exposure without evidence of asbestosis, and held that the worker's claim should be accepted, the worker, a smoker, receiving the benefit of the doubt as to causation. This decision of the administrative tribunal (CALP) led to a series of decisions in judicial review, culminating in a decision of the Supreme Court of Canada, favourable to the worker's estate, that overturned a Quebec court of appeal decision that had preferred a restrictive interpretation of the legislative presumption⁹⁵.

However, when exposure is unclear and the worker is a smoker, the absence of asbestosis or pleural plaques has been invoked to justify the decision not to apply the legislative presumption⁹⁶, while other decision makers conclude that evidence of the absence of pleural plaques may be used to rebut the legislative presumption if the worker was a heavy smoker and asbestos exposure was not shown to be significant and prolonged⁹⁷.

The intensity of exposure required to conclude that the legislative presumption regarding lung cancer and asbestos exposure is not refuted is lower when asbestosis is present⁹⁸. In this case, assuming the absence of asbestosis, an expert witnesses for the employer, an asbestos

⁹³ This principle was clearly set out in a decision involving several claims of workers who had worked in asbestos mines: See *J.M. Asbestos et Hamel et al.*, AZ-4999038505, CALP, February 16th, 1998. See also *Terminus Racine Montréal ltée et Lucien Paquette Succession*, [2000] C.L.P. 1181, where the Tribunal confirms the relevance of the Helsinki Criteria, despite the employer's argument that they are biased because no asbestos-producing country was represented in the multi-disciplinary group that established them. See, for a recent example, *Duchesneau (Succession) et Industries Davies inc.*, 2009 QCCLP 4692.

⁹⁴ Schedule 1 of the AIAOD refers to "asbestosis, lung cancer, or mesothelioma caused by asbestos".

⁹⁵ *Succession Guillemette et J.M. Asbestos inc.*, [1998] CALP 585 (SCC) overturning [1996] CALP 1342 (C.A.Q.) and affirming the CALP decision at [1991] CALP 309.

⁹⁶ *Succession Couture et Industries Davies inc.*, 2009 QCCLP 4677 (decision under review). The worker was a painter in shipyards where exposure to asbestos was known to be significant, but the worker did not work in the areas where the heaviest exposure had been documented.

⁹⁷ *Ross (Succession de) et Commission de la santé et de la sécurité du travail*, 2008 QCCLP 3763.

⁹⁸ *Succession German Boutin et Mine Jeffrey inc.*, 2009 QCCLP 1256.

mine, suggested that an intense and prolonged exposure was required for the worker's lung cancer to be considered to be caused by asbestos exposure. This expert suggested that 11 years of exposure at 3 times the admissible levels at the time (exposure was found to be 14.90 f/cc in 1970, when admissible level was 5f/cc, for an average exposure over 11 years of 9,50f/cc), in addition to twenty subsequent years of less intense exposure, was insufficient to explain the worker's lung cancer, even though the legislative presumption was clearly applicable. The CLP accepted the claim by the estate, and refused to rebut the legislative presumption, concluding that the expert witness' premise was unsound, given there was evidence of asbestosis.

Exposure to asbestos and tobacco

Although tobacco use is of little relevance in compensability of asbestosis and mesothelioma⁹⁹, it is obviously of significance when the worker is diagnosed with lung cancer. In jurisdictions studied, tobacco use did not usually refute the legislative presumption of causation. Thus, in Ontario, when the worker had a history of smoking but exposure to asbestos was greater than the policy criteria of 10 years, the smoking history of the worker, although it may be a significant contributing factor, will not defeat the claim¹⁰⁰. The reasoning is the same in Québec¹⁰¹.

In cases where the policy requirements are not met, if the worker was not a smoker, this weighs in the balance and supports acceptance of a claim¹⁰². When the worker is a smoker and asbestosis or pleural plaques are not present¹⁰³, it is more difficult to obtain compensation, although several cases have been accepted when exposure to asbestos is shown to be

⁹⁹ Some cases show employers trying to impute mesothelioma to smoking history, but these arguments are not successful. See, in B.C. *B.C. WCAT Decision #2009-01445* (2009); in Québec see, for instance, *Mittal Canada inc.*, 2008 QCCLP 1475, where the CLP transfers the costs of some of the disability related to the worker's asbestosis to the general fund, because it is seen to be exacerbated by his smoking history, but refuses to transfer costs related to the mesothelioma that caused his death.

¹⁰⁰ WSIAT Decision No. 2308 03 (2005), 2005 ONWSIAT 1080.

¹⁰¹ *Veillette (Succession) et John F. Wickenden & cie ltée*, 2009 QCCLP 7219, decision under review.

¹⁰² In Ontario see 2009 ONWSIAT 1129 (May 6 2009).

¹⁰³ *Succession Couture et Industries Davies inc.*, 2009 QCCLP 4677 (decision under review).

significant¹⁰⁴. In an Ontario case where exposure did not meet the ten years required by policy, evidence of the worker's very important smoking history was relied on to justify the refusal of the claim¹⁰⁵, although in another case where the exposure requirement was not met, the worker's claim was accepted as it was found that asbestos and tobacco were equally likely to have caused his cancer¹⁰⁶. If the worker stopped smoking many years prior to diagnosis of cancer, this strengthens the conclusion that his cancer was attributable to asbestos exposure¹⁰⁷. If the worker was young at the time he developed cancer¹⁰⁸, and depending on the type of lung cancer diagnosed, Ontario decision makers have concluded that the cancer is more likely to be attributable to asbestos exposure, even if the worker smoked¹⁰⁹.

Mesothelioma as a compensable disease

Alberta

Neither legislation nor policy mention mesothelioma and no cases were identified, although the board has accepted a number of such claims¹¹⁰. Significant underreporting has been documented¹¹¹. It is interesting to note that Alberta's WCB compensates more cases of asbestosis than cases of mesothelioma, a pattern that differs from that in other jurisdictions (see Tables 1 and 2 in Appendix 2). Perhaps this could be explained by the absence of a presumption regarding mesothelioma in Alberta.

¹⁰⁴ In Québec, see for instance *Succession Guillemette et J.M. Asbestos inc.*, [1998] CALP 585 (SCC) overturning [1996] CALP 1342 (C.A.Q.) and affirming the CALP decision at [1991] CALP 309. *Terminus Racine Montréal ltée et Lucien Paquette Succession*, [2000] C.L.P. 1181.

¹⁰⁵ WSIAT Decision No. 648/03 (2009), 2009 ONWSIAT 493.

¹⁰⁶ WSIAT Decision No. 968/97 (2000), 2000 ONWSIAT 334.

¹⁰⁷ In Ontario, see WSIAT Decision No. 2778 01 (2001), 2001 ONWSIAT 3621. In Québec, see *Duchesneau (Succession) et Industries Davies inc.*, 2009 QCCLP 4692.

¹⁰⁸ Workers were in their early forties in the following decisions: WSIAT Decision No. 968/97 (2000), 2000 ONWSIAT 334; WSIAT Decision No. 1365/04 (2008), 2008 ONWSIAT 3251. Note however that several cases involving workers of this age who develop lung cancer were also denied, so age in itself is not a determining factor. See for instance WSIAT Decision No. 871/02 (2003), 2003 ONWSIAT 1903.

¹⁰⁹ WSIAT Decision No. 1365/04 (2008), 2008 ONWSIAT 3251.

¹¹⁰ AWCBC statistics for the period 1998-2008 register 29 compensated claims by workers and a further 68 accepted claims for survivor benefits. It is unclear how many refer to the same worker, all are classified as mesothelioma cases (See Appendix 2).

¹¹¹ M.W. Cree, M. Lalji, B. Jiang and K. Carrière, "Under-Reporting of Compensable Mesothelioma in Alberta", (2009) 52 American Journal of Industrial Medicine p, 526-533.

British Columbia

In British Columbia, few cases have considered appeals with regard to mesothelioma, most probably because these claims are accepted by the Board¹¹². In all but one case¹¹³, the appeal tribunal accepted the claim¹¹⁴. Most appeals with regard to mesothelioma are brought by employers who try to invoke smoking history to rebut the legislative presumption¹¹⁵. The claim that was denied in appeal concerned a diagnosis of “Benign mesothelioma”. The WCAT discusses whether or not benign mesothelioma is a compensable disease attributed to asbestos or whether the definition of mesothelioma should be confined to malignant forms of the disease. The presumption in section 6(3) was discussed, and ultimately the panel member decided that given that mesothelioma as identified in Schedule B comes under the heading “cancer”, only malignant forms of the disease would engage the presumption. Additionally, the panel member noted that the causes of non-malignant mesothelioma have not been formally established and cannot be conclusively linked to asbestos exposure. The worker’s diagnosing physician initially indicated that such mesothelioma could not be attributed to asbestos but then changed her opinion given the amount of exposure the worker claimed to have had. Ultimately the panel member found that the worker was not exposed to as much asbestos as she had initially claimed, and that a diagnosis based on such exposure was inherently faulty. The member preferred the initial opinion that was based solely on the disease itself. Thus at the moment benign mesothelioma does not appear to be a compensable disease related to asbestos exposure in British Columbia¹¹⁶.

Newfoundland

Both pleural and peritoneal mesothelioma are presumed to be caused by exposure to asbestos in Newfoundland, and policy specifies that, “With respect to exposure intensity and duration, those workers with significant exposures in Newfoundland and Labrador before 1980 will be considered to have had higher exposure intensities than those exposed in 1980 or later.” It further specifies that a claim will be “favourably considered” if it is shown, as per s. 90(3.1)

¹¹² AWCBC statistics for the period 1998-2008 show that 316 claims for fatalities attributable to mesothelioma were compensated between 1998 and 2008, in British Columbia, and 121 claims by workers were also accepted, although it is unclear if these claims relate to the same individuals (See Appendix 2).

¹¹³ *B.C. Decision 2006-01674*. There are also decisions at the Review Division level that rebut the presumption. See for instance Review Reference # R0086766, http://www.worksafebc.com/review_search/decisions/compensation_decisions/r0086766_decision_letter.pdf, where the presumption was rebutted by evidence that the latency period of eight years was too short.

¹¹⁴ See for instance *B.C. WCAT Decision #2003-01897* (2003); *B. C. Decision 2008-02542*.

¹¹⁵ *B.C. Decision 2009-01445*.

¹¹⁶ *B.C. Decision 2006-01674*.

that the worker, at or immediately before the date of the disablement was employed in a process involving asbestos, is suffering from the industrial disease known as asbestosis. In other circumstances, evidence of a clear and adequate history of occupational exposure to asbestos is required. A minimal interval of 15 years between first exposure to asbestos and the appearance of mesothelioma is also required. No cases were identified with regard to claims for mesothelioma.

According to data gathered by the AWCBC, found in Tables 1 and 2 in Appendix 2, six cases brought by workers suffering from mesothelioma were accepted by the Board between 1998 and 2008; in the same period thirteen fatalities were also accepted, although it is unclear whether these represented some of the same workers.

Ontario

Schedule B of the Ontario WSI, presumes that “Primary malignant neoplasm of the mesothelium of the pleura or peritoneum” is an occupational disease related to “Any mining, milling, manufacturing, assembling, construction, repair, alteration, maintenance or demolition process involving the generation of airborne asbestos fibres”. “Mesothelioma was entered into Schedule 4 on May 28, 1992. An irrefutable presumption that the mesothelioma is due to the nature of the employment applies to all claims with diagnosis dates on or after May 28, 1992.”

Several WSIAT decisions examined claims regarding mesothelioma, mostly in order to determine whether the worker had been exposed to airborne asbestos. The claim of a cook who had worked in a variety of restaurants where asbestos boards had been used was found to be compensable, even though his work did not necessarily fall within the legislatively stipulated employment categories¹¹⁷. A claim from a custodian in a school where asbestos was used in a stucco ceiling was accepted, exposure being judged to be probable¹¹⁸. Evidence of exposure during a film production at the unfinished Ontario Science Centre in 1967 was held to be sufficient to uphold the claim by the worker’s estate¹¹⁹. A baker exposed to deteriorating asbestos insulation was found to have shown sufficient evidence of asbestos exposure to uphold his claim. The panel confirmed that evidence of significant asbestos

¹¹⁷ WSIAT Decision No. 2077/08 (2009), 2009 ONWSIAT 56.

¹¹⁸ WSIAT Decision No. 2244/01 (2004), 2004 ONWSIAT 1054 (latency period of 38 years).

¹¹⁹ WSIAT Decision No. 320/02 (2002), 2002 ONWSIAT 2513 (latency period of 29 years).

exposure is not required to cause mesothelioma¹²⁰. Even though some exposure was outside Canada, if exposure at the employer was proven, the presumption applies¹²¹. In a case where the worker was employed in three occupations where he could have been exposed to asbestos at times that corresponded to the expected latency period, the WSIAT held his claim to be compensable¹²². WSIAT has also held that there was no need to show violation of regulatory threshold limit values for the presumption to apply¹²³.

According to the AWCBC, between 1998 and 2008, data that can be found in Tables 1 and 2 in Appendix 2, the WSIB accepted 689 claims for fatalities related to mesothelioma, and a further 330 claims by workers suffering from the disease, although it is unclear how many claims involve the same workers.

Québec

Since 2000, the appeal tribunal in Québec, the CLP, has rendered eleven decisions regarding admissibility of claims for mesothelioma, eight of which have accepted the claims. The employer was the appellant in seven of the appeals, and succeeded in overturning the acceptance of the claim in two cases. Since 2005, all seven decisions were favourable to the worker or the estate, an indication that the appeal tribunal is more open to the application of the legislative presumption (s. 29 AIAOD). Earlier decisions had refused to apply the presumption because evidence of exposure had been held to be insufficient¹²⁴, or because peritoneal mesothelioma was held to require significant exposure to asbestos, with exposure to long fibres¹²⁵. A disturbing decision from 2003 rejects the worker's claim because there was no evidence of asbestosis or pleural plaques and a medical expert witness, Dr. Renzi, is quoted as stating that the Helsinki criteria are unfounded opinions, that no Canadian scientist was found among the authors, and that they were not developed in consideration of exposure to Chrysotile asbestos¹²⁶. The witness also is quoted as stating that 50% of cases of

¹²⁰ WSIAT Decision No. 817/01 (2001), 2002 ONWSIAT 915.

¹²¹ WSIAT Decision No. 722/00 (2002), 2002 ONWSIAT 149.

¹²² WSIAT Decision No. 1906/99 (2001).

¹²³ WSIAT Decision No. 1290/02 (2008), 2008 ONWSIAT 935. Québec applies the same principle, see *JTI-MacDonald Corp. et Côté (Succession de)*, 2009 QCCLP 1676 (administrative review pending).

¹²⁴ The CLP overturned the decision of the CMPP and the CSP with regard to a teacher who had worked in schools where asbestos was present, the tribunal concluding that exposure was insufficient to justify compensation: *Commission Scolaire de la Jonquière et Ghislain Vachon (Succession)* (19 mars 2003), C.L.P. 154116-02-0012 et 154525-02-0101 en ligne: SOQUIJ (C.L.P. N° AZ- AZ-02307133).

¹²⁵ *Succession David C. Paterson et Shell Canada Ltée* (7 novembre 2000), C.L.P. 112604-73-9903 en ligne: SOQUIJ (C.L.P. N° AZ- AZ-00303955).

¹²⁶ «Quant aux Critères de Helsinki, le docteur Renzi souligne que cet article de doctrine médicale n'est qu'une

mesothelioma are not attributable to asbestos exposure and that in the case of Chrysotile, exposure required is between twenty and twenty five years.

More recently, and despite the testimony of the same medical expert, the CLP found that even moderate or light exposure to Chrysotile asbestos justifies compensation for mesothelioma in a worker judged to have had a genetic predisposition to the disease. Evidence of pleural plaques was relied upon to confirm exposure to asbestos¹²⁷. The Tribunal, in that case, held that the worker was not required to demonstrate that his exposure had exceeded the legal exposure limits, nor did he need to prove that exposure was “important and continuous, for a prolonged period” given that no such conditions were made explicit in the legislative presumption. Other cases have also confirmed that there is no minimum exposure requirement for claims for mesothelioma, as long as there is some evidence of exposure to asbestos¹²⁸. In one case, the CLP refuted the legislative presumption because latency periods were judged to be insufficient (less than 20 years)¹²⁹, while, in others, the worker’s claim was accepted, but the Tribunal absolved the employer because exposure was presumed to have occurred over 20 years ago, prior to employment with the appellant employer¹³⁰. Similar reasoning led the Tribunal to relieve an employer of responsibility for costs because the level of exposure was much more significant in the worker’s previous employment¹³¹. Latency periods in cases accepted in recent years have varied between 27 and

opinion sans aucune référence à l’appui; qu’on ne retrouve aucun scientifique canadien parmi les coauteurs, lesquels ont travaillé surtout avec des expositions à l’amosite, un carcinogène beaucoup plus puissant que la chrysotile, principale fibre d’amiante retrouvée au Québec.» *Cargill ltée et Succession Caron*, CLP, January 23rd, 2003, AZ-02305723, par. 44.

¹²⁷ *JTI-MacDonald Corp. et Côté (Succession de)*, 2009 QCCLP 1676 (administrative review pending). The employer’s expert witness, Dr. Renzi submitted that an important exposure to Chrysotile asbestos was required both in terms of dose and duration for mesothelioma to develop. He suggested a required latency of between 30-50 years, although he acknowledged that, in 10 % of cases, the delay could be between 20-30 years. His opinion was not followed by the Tribunal, who preferred the opinions of the 6 members of the CMP and CSP who recommended compensation. The quote is drawn from paragraph 60 of the decision.

¹²⁸ *Pierre Wazir et Les Quatre Saisons* (12 juillet 2001), C.L.P. 144960-62A-0008 en ligne: SOQUIJ (C.L.P. N° AZ-AZ-01302193); *Canadian Technical Tape ltée et Murphy*, 2008 QCCLP 2919; *Massicotte et Aliments Dare ltée*, 2008 QCCLP 3612 (nurse exposed to asbestos during a three month period of hospital renovations 38 years prior to manifestation of symptoms); *Morin (succession) et CSSS de Sept-Îles*, 2008 QCCLP 1622.

¹²⁹ *Bouchard et Galeries de Modes Jonquière 1984 et C.S.S.T.* (January, 18th, 2000), C.L.P. 102093-02-9806 en ligne: SOQUIJ (C.L.P. N° AZ-99304216), confirming decision AZ-98303464.

¹³⁰ *Mécanique Kingston inc.* (16 janvier 2006), en ligne: SOQUIJ (C.L.P. N° AZ-50351980); *Commission Scolaire Région de Sherbrooke et C.H.U.S. Hôpital Fleurimont* (June 29th, 2005), C.L.P. 242625-05-0409 et 244413-05-0409 en ligne: SOQUIJ (C.L.P. N° AZ- AZ-50321609); *Harcon Inc.* (16 juin 2003), C.L.P. 185412-05-0206 en ligne: SOQUIJ (C.L.P. N° AZ-50179749).

¹³¹ *Commission scolaire du Lac-St-Jean et Bourget (Succession) et Mil Davie inc.*, 2008 QCCLP 3472.

38 years, but aside from the *Bouchard* case in 2000, no claim was denied in appeal because of an insufficient latency period.

It is important to note that the AWCBC reports that 297 fatality claims were accepted by the CSST between 1998-2008 with regard to a diagnosis of mesothelioma, and 104 claims by workers were also accepted (see Tables 1 and 2 in Appendix 2). There is good evidence that there is still significant underreporting¹³².

Are pleural plaques a compensable disease?

We have seen the importance of pleural plaques in the recognition of asbestosis and occasionally with regard to claims for lung cancer. Here the question is raised differently. When the worker has pleural plaques, but has neither asbestosis nor other recognized lung diseases, is the pleural plaque condition in itself an occupational disease? In some provinces, like Alberta, British Columbia and Newfoundland, claims will be allowed, but for health care benefits only. Others, like Québec, seem to deny the claims.

Alberta

In one case, pleural plaques were acknowledged as an occupational disease, but the worker was not entitled to benefits other than health care benefits, given the evidence with regard to impairment¹³³.

British Columbia

B.C. does accept claims for pleural plaques under occupational disease provisions¹³⁴. In *B.C. Decision 2004-00516* a worker's appeal was denied because though there were some pleural plaques, they were not sufficiently "diffuse" as required by Schedule B and thus did not engage the section 6(3) presumption. In *B.C. Decision 2002-0954* the panel member allowed a worker's appeal, when initially he had been denied compensation because the claims adjudicator stated that pleural plaques by themselves are not considered to be a compensable disease. The member noted several decisions in which the pleural plaque condition had been

¹³² G. Lebel, S. Gingras, L. De Guire, *Jumelage des cas de mésothéliome et d'amiantose reconnus comme maladies professionnelles pulmonaires aux nouveaux cas de cancer et aux hospitalisations avec amiantose*, Institut national de santé publique du Québec, 2009; L. De Guire et S. Provencher, *Étude des nouveaux cas de maladies professionnelles pulmonaires reliées à l'exposition à l'amiante au Québec de 1988 à 1997*, Direction de la santé publique de Montréal-Centre, 2001.

¹³³ AB WC Appeals Commission Decision #2003-784 (2003). New evaluations may be requested as the worker's condition deteriorates: AB WC Appeals Commission Decision #2003-155 (2003).

¹³⁴ See, for instance *B.C. WCAT Decision #2006-04225* (2006).

designated a disease, though not by regulation or by Schedule B. In the worker's case, the Tribunal found that he did have pleural plaques, understood to be "small areas of thickening or scarring of the pleura" and "discrete, raised, grey-white lesions distributed on the inner surface of the rib cage and the diaphragm" and was thus entitled to health care benefits.

It is not quite clear how the WCAT interprets the relationship between pleural plaques and pleural thickening. In some cases the two appear to be used synonymously and in others the plaques themselves are noted as a different disease worthy of compensation on its own. However, it is clear that in order for a worker's disease to be found to fall within the ambit of the presumption in 6(3) the diagnosis must almost identically mirror the specific terms outlined in Schedule B. When the claim is accepted with regard to pleural plaques, as we have seen, this gives rise to health care benefits but not to wage replacement.

Newfoundland

Claims by workers with pleural plaques will be accepted for health care benefits only, in Newfoundland¹³⁵, although further benefits will be payable if there is evidence of impairment¹³⁶.

Ontario

Claims for pleural plaques do not give access to compensation without proof of permanent impairment¹³⁷, although in some cases impairment may be caused by other factors that, in conjunction with the pleural plaques, compromise respiratory capacity¹³⁸.

Québec

The majority of the decisions refuse to recognize pleural plaques as a disease¹³⁹, and as such even health care benefits would seemingly not be provided. Nothing in the Act refers to pleural plaques as such. One decision¹⁴⁰, however, made the distinction between the recognition of the condition as an occupational disease, and the access to benefits. In accepting the worker's claim, the CLP concluded that evidence of disability was not an

¹³⁵ See, for instance NL WHSCRD Decision #08031 (2008).

¹³⁶ NL WHSCRD Decision #06199 (2006).

¹³⁷ WSIAT Decision No. 2127/06 (2008), 2008 ONWSIAT 588.

¹³⁸ WSIAT Decision No. 510/06 (2006), 2006 ONWSIAT 1950.

¹³⁹ See for instance *Pronovost et 2172-2095 et al*, AZ-50341568 (CLP), October 31st 2005; *Riopel et Dominion Acoustic Tile ltd et al*, 2009 QCCLP 5928.

¹⁴⁰ *Côté et CSST*, AZ-50186652 (CLP), 05/08/2003.

essential ingredient in the definition of occupational disease, thus overturning a fairly constant approach in the previous case law. The issue has not been discussed clearly since then, so it is difficult to determine whether health care is now being provided through the CSST for workers with pleural plaques, if their asbestos related condition is not otherwise disabling.

Recognition of gastro-intestinal cancer as an occupational disease related to asbestos exposure

British Columbia has a legislative presumption with regard to gastro-intestinal cancer, while Ontario and Newfoundland have explicit policy on this issue. Neither Alberta nor Québec has either legislation, policy, or case law. We found no claims for gastro-intestinal cancers in the appeal decisions in Québec. However, in one case, the worker's claim for lung cancer was denied because it was found that the lung cancer was secondary to a gastro-intestinal cancer and therefore, seemingly by definition, non-compensable. The issue as to compensability of the gastro-intestinal cancer, in that case a colon cancer, was not even raised, despite the fact that the worker had 35 years of exposure to asbestos in an asbestos mine¹⁴¹.

British Columbia

Schedule B in British Columbia's legislation applies to "Gastro-intestinal cancer (including all primary cancers associated with the oesophagus, stomach, small bowel, colon and rectum excluding the anus, and without regard to the site of the cancer in the gastro-intestinal tract or the histological structure of the cancer)". B.C. legislation provides that "Where there is exposure to asbestos dust if during the period between the first exposure to asbestos dust and the diagnosis of gastro-intestinal cancer there has been a period of, or periods adding up to, 20 years of continuous exposure to asbestos dust and such exposure represents or is a manifestation of the major component of the occupational activity in which it occurred." Only two successful cases were identified in appeal during the period studied, and both involved fire fighters¹⁴². A recent review division decision returned a file to the Board for further study, stating that the Board was required to actively investigate the worker's exposure to asbestos even if the worker had framed his claim for colorectal cancer on the basis of exposure to diesel fumes¹⁴³.

¹⁴¹ *Chartier et Mine Jeffrey inc.*, C.L.P.E. 2002LP-22.

¹⁴² A variety of cancers in fire fighters are now the subject of specific legislative presumptions that go beyond the scope of this study. See for instance, s. 6.1(2) of the Workers' Compensation Act of B.C. The following diseases are listed by *B.C. Regulation 362/2005 (Fire Fighters' Occupational Disease Regulation)* as being "prescribed" in accordance with s. 6.1 and the minimum cumulative period that a fire fighter has to be working in order for the presumption in s. 6.1(2) to be engaged: Primary leukemia (5 years); Primary non-Hodgkin's lymphoma (20 years); Primary site bladder cancer (15 years); Primary site brain cancer (10 years); Primary site colorectal cancer (20 years); Primary site kidney cancer (20 years); Primary site ureter cancer (15 years).

¹⁴³ B.C. Review Division decision R0108599.

Newfoundland

Newfoundland's policy targets the same diagnoses as those named in British Columbia: "Gastro-intestinal cancer (including all primary cancers associated with the oesophagus, stomach, small bowel, colon and rectum excluding the anus, and without regard to the site of the cancer in the gastro-intestinal tract or the histological structure of the cancer)" and requires 20 years exposure to asbestos. Case law is sparse, and suggestive of difficulties in establishing the necessary exposure requirements.

Newfoundland's policy on this issue changed in 2004 and now provides that the claim "will be judged on its individual merit". In particular, factors such as exposure intensity and duration, latency between first exposure and diagnosis of gastrointestinal cancer, familial history of gastrointestinal cancer, and lifestyle factors will be weighed in accordance with section 60 of the Act. Previously, policy required evidence of 20 years of exposure, and claims by the estates of two employees of asbestos mines that did not meet that threshold were denied on that basis¹⁴⁴.

The Review division also denied a claim, on the basis of that policy, because the worker had only worked for 18 years, with "a very significant heavy asbestos fibre exposure", two years short of the policy exposure requirement of 20 years. In rejecting the appeal, the Newfoundland Workplace Health Safety & Compensation Review Division, shows its reticence to go beyond board policy, and shows some confusion between exposure requirements and latency requirements:

"As the latency periods are established by a Board decision and policy directives, it is not within the jurisdiction of the Review Division to alter the stated period directed by the board for latency periods. Common sense would direct that it would be difficult to define a period precisely. However, such latency periods have to be established. In this case, outside of looking at the latency and policy guidelines at 20 years, there is no other medical evidence to suggest a causal relation in order to apply a benefit of the doubt to the worker. Unfortunately, given the Board's policy directive and lack of any further medical evidence with regard to these matters, the Commission's decision by the Internal Review Specialist is in keeping with the policy directives and is therefore binding on the Commission and the Review Division."¹⁴⁵

¹⁴⁴ See discussion in NL WHSCRD Decision #03210 (2003). It is of interest that expert testimony also emphasized that workers had been exposed to Chrysotile asbestos, as opposed to other more dangerous forms of asbestos.

¹⁴⁵ NL WHSCRD Decision #01275 (2001).

Even though the 20 year requirement was replaced in 2004, workers exposed prior to that date seem to have been required to meet that evidentiary burden even after the policy was replaced, as evidenced by a decision that was eventually set aside in appeal¹⁴⁶.

“Review of your file confirms that your employment history with [the employer] is confirmed for the period September 13, 1963 to October 13, 1981 and also for a one month period in 1986 as a Carpenter, Pumpman, Shovel Operator. This employment information would confirm a total employment record of 18 years, 2 months, 13 days. This is less than the 20 years required under the old Policy EN-14..., as a result, the May 14, 2004, and August 28, 2004 decisions have been rescinded. An overpayment will not be setup on your file.”

Ontario

Ontario’s policy covers “Gastro-intestinal cancer” and has explicitly included “all primary cancers associated with the oesophagus, stomach, small bowel, colon and rectum”¹⁴⁷.

Ontario policy specifies the evidentiary requirement with regard to exposure: “there is a clear and adequate history of occupational exposure to asbestos dust, and while such occupational exposure cannot be quantitatively described, it should be of a continuous and repetitive nature, and should represent or be a manifestation of the major component of the occupational activity”. Policy also requires a 20-year latency period. There are a few successful cases in appeal. One claim was accepted although the latency period was only 19 years, given that the worker was shown to have a genetic predisposition¹⁴⁸. At issue in many of these cases was the evidence of sufficient exposure¹⁴⁹. The broadly framed criteria seem to provide the Tribunal with considerable discretion.

Policy in Ontario is rooted in the recommendations of the Royal Commission Report on asbestos¹⁵⁰. The exposure criteria applied by the Tribunal are very demanding, requiring

¹⁴⁶ NL WHSCRD Decision #05339 (2005). The issue as to whether a favourable new policy with regard to workers’ compensation for industrial disease should apply to all workers has been clear for a very long time, from the legal perspective. Given the long latency periods involved in contracting occupational disease, to purport that new policy would only apply to those exposed after the policy was changed was held by the Privy Council to defeat the purpose of workers’ compensation legislation: *Sunshine Porcelain Potteries v. Nash*, [1961] A.C. 927.

¹⁴⁷ See, for example, WSIAT Decision No. 1121/06. The decision confirms that policy applicable to the case at hand included an exception: “The policy provides an exception to the above-noted criteria, stating that claims which do not meet these criteria will be individually judged on their own merit having regard to the nature of the occupation, the extent of the exposure and other factors peculiar to the individual case.”

¹⁴⁸ WSIAT Decision No. 1121/06.

¹⁴⁹ WSIAT Decision No. 2748/01 (2001), 2001 ONWSIAT 3883.

¹⁵⁰ Note discussion in WSIAT Decision No. 1054/02 (2003), 2003 ONWSIAT 1502.

greater exposure than is required in cases of lung cancer or mesothelioma¹⁵¹. When criteria in the policy are not met, the WSIAT may nonetheless accept the claim on the basis of the real merit and justice of the case. In this context, few cases acknowledge causation, and some comment on the uncertainty in the scientific community with regard to asbestos exposure and gastro-intestinal cancer¹⁵².

Recognition of Cancer of the Larynx as an occupational disease related to asbestos exposure

As can be seen in Appendix 1, British Columbia, Newfoundland¹⁵³ and Ontario have legislative or policy presumptions acknowledging laryngeal cancer to be an occupational disease related to asbestos exposure. Ontario and Newfoundland policy stipulates 10 years of exposure (although the level of exposure required by Newfoundland seems more intense than in Ontario) and both require at least a 15-year latency period. In Ontario, if the worker has been diagnosed with asbestosis, the claim may be accepted even if the other criteria are not met. No presumptions exist in Québec, but a few cases have been successful either at the level of the CSST¹⁵⁴ or in appeal¹⁵⁵, all involving workers with significant exposure to asbestos.

¹⁵¹ WSIAT Decision No. 2128/04 (2005), 2005 ONWSIAT 2523.

¹⁵² See for example WSIAT Decision No. 1915/06 (2007), 2007 ONWSIAT 2785, although the Tribunal found that the evidentiary requirements of the policy had not been met, it suggested that the link between gastro-intestinal cancer and asbestos exposure that did not meet the threshold of the policy was not well supported by the current state of the epidemiological literature. A similar conclusion was drawn in WSIAT Decision No. 550/55 (2005), 2005 ONWSIAT 1679 and WSIAT Decision No. 1788/05 (2006), 2006 ONWSIAT 493; WSIAT Decision No. 2128/04 (2005), 2005 ONWSIAT 2523.

¹⁵³ In Newfoundland, we found only one appeal case that addressed the issue of carcinoma of the larynx, and the worker's claim was denied on procedural grounds (no impairment at the time of the claim); *Newfoundland decision 98073*.

¹⁵⁴ *Succession Omer Lévesque et Mine Jeffrey inc.*, [2006] C.L.P. 848. The appeal, on issues regarding access to benefits, provides the history of the claims: five claims refused and a sixth, post mortem, accepted. The CLP held that benefits that should have accrued to the worker when he was alive should be paid by the CSST, even if the decision to accept the claim was made after his death. This is in line with the position of the Québec Court of Appeal in *McKenna v. C.L.P.*, [2001] C.L.P. 491.

¹⁵⁵ *Charbonneau et Alloytec mécanique ltée et CSST*, AZ-50362933 (CLP), March 16th 2006; *Houle et Construction L.M. Bouchard inc et CSST*, [1999] C.L.P. 288. Both cases involved workers who had a history of smoking. The first case to be accepted was *Cloutier (Succession Maurice Breton) et Société Asbestos ltée et CSST*, [1994] CALP 1460. In 1989 the tribunal had refused the claim for survivor benefits from the widow of a worker who had been compensated for asbestosis but who had died from cancer of larynx, a disease held by the tribunal in that case to be unrelated to asbestos exposure: *Couture-Poisson et J.M. Asbestos et CSST*, [1989] CALP 547.

Other issues of interest

Chrysotile asbestos: are causation issues different?

A number of expert witnesses and lawyers have raised arguments based on the type of asbestos to which workers were exposed, and we thought it useful to mention this development and report on some of the outcomes in those cases.

Several Québec cases raised arguments based on the type of asbestos to which the workers were exposed, and in each case we identified, the argument did not succeed in defeating the worker's claim. Sometimes, the fact that exposure was to Chrysotile has been found to facilitate access to compensation, explaining why fewer fibres were found in the worker's lung tissue. In *Veillette (Succession) et John F. Wickenden & cie Itée*¹⁵⁶, the estate's occupational disease claim for lung cancer was accepted despite the opinion of the CMPP that asbestos exposure was not significant. This opinion was based on the small number of fibres found in the worker's lungs (10-20 times more than the general population, but fewer than the number usually found in lungs of workers with asbestosis). One reason given by the Tribunal for accepting the claim and setting aside the opinion of the specialized committee, is that lower bio-persistence of Chrysotile could explain the reduced number of fibres in the worker's lungs. Exposure to asbestos was proven by other means (between 7 - 10 years of exposure, evaluated by the tribunal as a total cumulative exposure of 6 years at 40 hours per week). The tribunal concludes that it is improbable that the exposure of the worker to Chrysotile asbestos was less than that required to meet the Helsinki criteria applicable to Chrysotile asbestos. The tribunal retains the relevant Helsinki criteria to be 5-10 years of moderate exposure to Chrysotile asbestos with a 10-year latency period¹⁵⁷. The fact he was a smoker does not rebut the legislative presumption.

In *JTI-MacDonald Corp. et Côté (Succession de)*¹⁵⁸ the Tribunal concluded that the worker's mesothelioma could be attributed to a moderate, even light and indirect exposure to Chrysotile asbestos, despite medical arguments put forward by Dr. Renzi as to scientific

¹⁵⁶ *Veillette (Succession) et John F. Wickenden & cie Itée*, 2009 QCCLP 7219, decision under review.

¹⁵⁷ Citing "Asbestos, Asbestosis, and Cancer: the Helsinki Criteria for Diagnosis and Attribution", (1997) 23 Scandinavian Journal of Work, Environment and Health p. 311-316; D. W. HENDERSON, K. RÖDELSPERGER, H. J. WOITOWITZ & J. LEIGH, "After Helsinki: a Multidisciplinary Review of the Relationship between Asbestos Exposure and Lung Cancer, with Emphasis on Studies Published During 1997-2004", (2004) 36 Pathology p. 517-550.

¹⁵⁸ 2009 QCCLP 1676 (administrative review pending). See in particular (par. 145).

controversy regarding a possible causal relationship between mesothelioma and Chrysotile asbestos. The Tribunal accepted that it was plausible that the Chrysotile could have been contaminated by Trémolite, and that the medical controversy did not justify the conclusion that there was no risk of mesothelioma in the workplace because it was Chrysotile that had been detected in the workplace. The Tribunal also refused to conclude that the worker's genetic predisposition to mesothelioma (his brother had died of the disease but had not worked with the worker) constituted an obstacle to the acceptance of the claim for occupational disease, given that the Thin skull rule, which maintains the right to compensation of more vulnerable workers exposed to occupational hazards, was also applicable to occupational disease.

In Newfoundland, the fact that workers were exposed to Chrysotile asbestos was raised by an expert witness who testified in favour of denial of two claims for gastro-intestinal cancer, although the Tribunal did not rely on that argument when it denied the claim¹⁵⁹.

In a British Columbia case, an employer attempted to overturn acceptance of a claim for mesothelioma by relying on arguments to the effect the Chrysotile asbestos was not associated with development of that disease, but this argument failed to persuade the tribunal¹⁶⁰.

In Ontario, evidence associating Chrysotile asbestos to a variety of cancers, including mesothelioma, lung cancer and stomach cancer, was put forward, without contest¹⁶¹.

This short overview is far from exhaustive, but it shows that the arguments as to a theoretically less dangerous nature of Chrysotile asbestos are being raised, on the one hand, but are not being favourably considered by the Tribunals specialized in workers' compensation claims.

¹⁵⁹ See discussion in NL WHSCRD Decision #03210 (2003).

¹⁶⁰ *B.C. WCAT Decision* #2009-01445 (2009).

¹⁶¹ WSIAT Decision No. 234/06 (2006), 2006 ONWSIAT 95; although the claim was denied based on the overall evidence, no one contested that Chrysotile asbestos was associated with an increase in these cancers.

Specific rules with regards to claims by survivors

Several provinces presume causation when a worker who suffers from an occupational disease subsequently dies. In B.C. legislative presumption s. 6 (11) WCA provides:

Where a deceased worker was, at the date of his or her death, under the age of 70 years and suffering from an occupational disease of a type that impairs the capacity of function of the lungs, and where the death was caused by some ailment or impairment of the lungs or heart of non-traumatic origin, it must be conclusively presumed that the death resulted from the occupational disease.

If the worker does not suffer from lung disease, the B.C. presumption does not apply¹⁶².

Québec legislation (s. 95 A.I.A.O.D.) presumes the cause of death to be the compensable occupational disease if the worker who is suffering from an occupational disease that could be fatal is receiving income replacement benefits at the time of death, as long as there is an opportunity for an autopsy at the time of death. Although this provision was introduced to answer complaints brought by an association of widows whose husbands had all suffered from asbestos related diseases, the appeal tribunals, for a variety of reasons, rarely apply the presumption¹⁶³.

If there is no presumption, or if it doesn't apply, claims will be accepted according to the criteria established in each province. In Ontario, the compensable occupational disease must be a significant contributing factor in the worker's death, and benefits will be paid if that is the case, even though the direct cause of death was a heart condition¹⁶⁴. In a case where the primary cause of the worker's death was cirrhosis due to non-compensable hepatitis C, with renal failure, WSIAT was satisfied that the compensable mesothelioma was also a significant contributing factor. The worker would have died of renal failure at some point even if he did not have mesothelioma. However, the medical documentation on file indicated that the worker died when he did because his already poor condition was significantly weakened by the presence of the mesothelioma¹⁶⁵.

¹⁶² B.C. Appeal Decision 2002-1130.

¹⁶³ K. Lippel, «Les présomptions relatives au caractère professionnel des lésions: interprétation et application», *Développements récents en droit de la santé et sécurité du travail* (2001), Éditions Yvon Blais, Cowansville, 2001, pp. 1-72; Friha Bdioui, "La reconnaissance, à des fins de réparation, des maladies professionnelles pulmonaires liées à l'amiante au Québec", In Barreau du Québec, *Développements récents en droit de la santé et de la sécurité du travail, 2010*, Cowansville, Éditions Yvon Blais (in Press).

¹⁶⁴ WSIAT Decision No. 1411/99 (2000), 2000 ONWSIAT 2819.

¹⁶⁵ WSIAT Decision No. 577/04 (2005), 2005 ONWSIAT 666.

More recent case law in Québec applies the same criteria, determining whether the occupational disease was a significant contributing factor, although earlier decisions tended to require evidence that the occupational disease was the direct cause of death¹⁶⁶.

Request for cost transfers to secondary injury funds

Québec case law often favourably considers requests by employers whose workers were exposed to asbestos and who request that some or all of the costs of compensation be transferred to the general fund, to which all employers contribute, something like the Secondary injury fund in Ontario. The tribunal often considers that their smoking history constitutes a “handicap” under section 329 of the Act and as such the costs of compensation should not be totally imputed to the employer. Superior court in Québec has gone much farther than the appeal tribunal in this regard, rebuking the Tribunal for its hesitation in relieving the asbestos mine who had employed nineteen workers suffering from lung cancer, who were also smokers, of over half the costs of compensation¹⁶⁷.

In one case of mesothelioma, the Tribunal held that the worker’s genetic predisposition to the disease constituted a handicap that justified the cost transfer of 98% of the value of the claim to the general fund¹⁶⁸.

Although this practice may also exist in other provinces, we did not come across any evidence in this regard.

Conclusion

This report describes the legal and policy frameworks governing access to workers’ compensation for occupational diseases related to asbestos exposure and the application of these frameworks by the relevant appeal tribunals.

While some practices, such as giving the benefit of doubt to workers and other claimants, are consigned in law, policy or case law in all jurisdictions, others vary, sometimes quite

¹⁶⁶ Friha Bdioui, «La reconnaissance, à des fins de réparation, des maladies professionnelles pulmonaires liées à l’amiante au Québec», In Barreau du Québec, *Développements récents en droit de la santé et de la sécurité du travail, 2010*, Cowansville, Éditions Yvon Blais (in Press).

¹⁶⁷ *Mine Jeffrey inc. c. Commission des lésions professionnelles*, 2009 QCCS 981.

¹⁶⁸ *JTI-MacDonald Corp. et Côté (Succession de)*, 2009 QCCLP 1676 (administrative review pending).

significantly, from province to province. For example, legislative presumptions regarding asbestosis and mesothelioma are irrefutable in Newfoundland and Ontario, under certain circumstances, while this is not the case in British Columbia and Québec. Alberta seemingly does not presume mesothelioma to be an occupational disease, while Ontario legislation does not include a presumption with regard to lung cancer, although policy does address the issue. Gastro-intestinal cancers are targeted by policy in Ontario, Newfoundland and B.C. and are not even discussed in case law in Québec, leading one to believe that there are few if any claims for these diseases in Québec, perhaps because of beliefs of treating physicians in that province. Some presumptions only apply when the worker is still active in the industry, while in other provinces they will apply even if the worker retired many years before the onset of illness.

When legal presumptions exist either in law or policy, years of exposure and prescribed latency periods may vary between provinces, for the same disease. Appeal tribunals in some provinces appear hesitant to go beyond what is stipulated in policy, so that a conservative policy will have a very real impact on access to compensation, even when new scientific findings are available at the time of hearing. In Québec, where there is no official policy on these issues, albeit that the specialized committees on lung disease have a long and rich practice and experience, the appeal tribunal regularly goes beyond the legislative presumptions to accept unlisted diseases or to apply criteria that did not exist at the time the schedules were drawn up, including the Helsinki criteria for lung cancer. This appears to be so to a lesser extent in other provinces.

Other significant inter-provincial disparities relate to the obligation and the extent to which claimants are required to show in-province exposure, an issue that will become increasingly important with increased interprovincial migration, notably in the construction industry. British Columbia appears to be particularly exacting in this regard.

One issue of concern applies, to various degrees, in all provinces studied. Difficulties in proving exposure for workers who are not considered to be “asbestos workers” are quite prolific. Even in cases where all medical evaluators agree that the worker’s mesothelioma was caused by exposure to asbestos at work, tribunals have been known to refuse the claim when the claimant’s exposure is indirect. This report provides examples where claims are being denied when workers were exposed in buildings insulated with asbestos or worked near, but not at, work stations where asbestos exposure was significant. Sometimes the obstacles are

associated with prescribed exposure criteria, but at other times they seem to arise from scepticism on the part of decision makers when the worker is not a typical “asbestos worker”. The statistics in Appendix 2 show that very few claims by women are accepted in any jurisdiction. Although it is clear that most traditional “asbestos workers”, those who worked in mines, construction and manufacturing, for instance, were far more often men, a disease like mesothelioma does not require evidence of a very significant exposure. It is of note that women represent 7% of accepted claims for injury (Table 1) and 9% of fatalities (Table 2); this might be in part because of very conservative adjudication when the worker was not an “asbestos worker”, or it may be that medical interventions are less likely to focus on asbestos causation when the worker’s profession is not usually associated with asbestos exposure.

This study, because of its methodology, does not provide information either on reporting levels or acceptance rates for compensation claims. It also cannot address inequitable access to health care professionals specialized in occupational disease related to asbestos, yet there is some concern that workers in some provinces are not receiving specialized evaluations that would improve their chances of accessing compensation.

All members of the research team are jurists, and the study does not include an evaluation by medical specialists as to the relevance of the criteria applied and the policy orientations. Such an analysis would no doubt be useful. Furthermore, some cases have applied the “Helsinki criteria” in adjudication of individual claims. The present report does not review these criteria as such, but provides information as to the discourse of the adjudicators in this regard. Further study of these criteria and their potential relevance in adjudication could perhaps provide useful direction for the development of policy.

A final issue is worth noting: to what extent do policy makers and tribunals require scientific certainty before determining a disease to be an occupational disease for the purpose of the relevant compensation Act? Case law from the Supreme Court of Canada is quite clear that the burden of proof to be met by claimants in cases of civil liability is that of the preponderance of evidence¹⁶⁹, and this judgement is favourably referred to by appeal tribunals specialized in workers’ compensation in most of the jurisdictions studied (both common law and civil law). It is also clear that the benefit of the doubt should be given to claimants of workers’ compensation, when the resolution of the case depends on complex scientific issues that are

¹⁶⁹ *Snell v. Farrell*, [1990] 2 S.C.R. 311.

not yet the object of consensus in the scientific community¹⁷⁰. In many cases the appeal tribunals rely on these principles in determining the cases before them. It is less clear that they will consider these principles when a pre-existing policy prescribes exposure levels or latency periods. It is also less clear whether policy makers apply these principles when determining policy, as discussion papers on these issues are sometimes framed in terms of scientific consensus and, to a certain extent, scientific certainty. The choice of including a given disease in a list of occupational diseases, and the choice of exigencies associated with that disease are policy choices, not necessarily required to be irrefutably grounded in scientific certainty. The reason such policies exist is, after all, to manage uncertainty and to determine who will bear the cost of scientific uncertainty when decisions need to be taken today and science will have answers perhaps only decades from now¹⁷¹.

¹⁷⁰ *Succession Guillemette v. J.M. Asbestos inc.*, [1998] CALP 585 (SCC) overturning [1996] CALP 1342 (C.A.Q.) and affirming the CALP decision at [1991] CALP 309.

¹⁷¹ This was part of the reasoning of Québec court of appeal dissenting justice Forget in the Guillemette case, whose reasoning was upheld by the Supreme Court of Canada.

Appendix 1 Legislative and policy instruments

Portrait of legislation and policy on compensation for asbestos related disease in five Canadian provinces

Policy/Legislation Comparison

Table of Diseases

Disease	Schedule B (B.C.)	Policy (B.C.)	Schedule 4 (ON)*	Policy (ON)	Schedule B (AB)	Policy (AB)	Section 23, Regulation (NF)	Policy (NF)	Annex 1 (Qc)
Asbestosis	yes	#29.46	yes	16-02-05	yes		Yes (#1) (see also s. 90 (3.1) of the Act)	EN-14	yes
Mesothelioma	yes	#29.48	yes	16-02-12			Yes (#28)	EN-14	yes
Lung Cancer	yes			16-02-13			Yes (#28)	EN-14	yes
Pleural Thickening or Fibrosis and Benign Pleural Effusion	yes	#29.47						“non-malignant conditions caused by asbestos exposure, such as diffuse pleural fibrosis, rounded atelectasis, and benign pleural effusion” EN-14	
Pleural Plaques									
Gastro-intestinal Cancer	yes	#30.20		16-02-11				EN-14	
Laryngeal Cancer	yes (includes Pharyngeal)			23-02-02, 16-02-10 (asbestos and nickel)				EN-14	

*Note: “Cancer” is included in Schedule 3 however there is no description of specific cancers nor of work corresponding to the listing.

ASBESTOSIS

Requirement	Alberta	British Columbia	Ontario	Newfoundland & Labrador	Québec
Profession	Schedule B: under "Industry or process": "(b) where there is occupational exposure to airborne asbestos dust;"	Schedule B: under "Description of Process or Industry": "Where there is exposure to airborne asbestos dust." Policy: "The worker need not necessarily have worked with asbestos for the presumption to apply. The exposure may be secondary exposure, such as working in an area where asbestos was used as insulation which was for years in a friable or decayed condition."	Schedule 4: under Process: "Any mining, milling, manufacturing, assembling, construction, repair, alteration, maintenance or demolition process involving the generation of airborne asbestos fibres" Policy: "Asbestosis in workers exposed to asbestos dust in Ontario employment is an occupational disease as peculiar to and characteristic of a process, trade or occupation involving exposure to asbestos." If the worker was employed in Ontario in any mining, milling, manufacturing, assembling, construction, repair, alteration, maintenance or demolition process involving the generation of airborne asbestos fibres for at least 2 years before the date of diagnosis of asbestosis, the asbestosis is conclusively	Section 23, Regulation under "Description of Process*": "All work involving exposure to the risk concerned." Policy: "23. Pursuant to section 90(3.1) asbestosis is conclusively considered to have been contracted through employment where there is exposure to asbestos in that employment" and "1. A claim for asbestosis will be conclusively considered to be compensable when: a. the presumption clause in Section 90(3.1) is applicable; or b. where the worker was employed in any mining, manufacturing, assembling, construction, repair, alteration, maintenance, tailing, or demolition processes involving exposure to asbestos."	Annex 1, Division V (1) «any work involving exposure to asbestos fibre»

			deemed to have been due to the nature of the employment.”		
Exposure period			Policy: “The legislative requirements of sections 15(5) and 15(6) of the <i>Workplace Safety and Insurance Act</i> for 2 years of asbestos dust exposure in Ontario apply to this policy.”	Policy: “With respect to exposure intensity and duration, those workers with significant exposures in Newfoundland and Labrador before 1980 will be considered to have had higher exposure intensities than those exposed in 1980 or later.”	
Latency					
Other evidentiary			Policy: “has a diagnosis of asbestosis,” and “To diagnose asbestosis, the WSIB recognizes histopathological evidence of lung fibrosis due to asbestos and the current diagnostic criteria established by the American Thoracic Society (ATS)*.”	Policy: “In cases where the individual circumstances of a case are such that the provisions of this policy cannot be applied or to do so would result in an unfair or unintended result, the Commission will decide the case based on its individual merits and justice. Such a decision will be considered for that specific case only and will not be precedent setting.”	
Presumption	Policy: “2. What are the presumptions regarding occupational disease?” Under s.24(6) of the Act, if a worker suffers a disablement from an occupational disease and was employed in an industry or process listed in Schedule B of the Regulations within the preceding 12 months, the employment is	s.6: (3) If the worker at or immediately before the date of the disablement was employed in a process or industry mentioned in the second column of Schedule B, and the disease contracted is the disease in the first column of the schedule set opposite to the description of the process, the	s.15(3): “Causation of disease (4) If, before the date of the impairment, the worker was employed in a process set out in Schedule 4 and if he or she contracts the disease specified in the Schedule, the disease shall be deemed to have occurred due to the nature of the	s. 90: “(3.1) Where a worker referred to in subsection (1), who, at or immediately before the date of the disablement was employed in a process involving asbestos, is suffering from the industrial disease known as asbestosis, the disease shall be conclusively considered to have been due to the nature of that employment.”	s.29: The diseases listed in Schedule I are characteristic of the work appearing opposite each of such diseases on the schedule and are directly related to the risks peculiar to that work. A worker having contracted a disease contemplated in Schedule I is presumed to have contracted an occupational disease if he has

	<p>presumed to have caused the disease, unless the contrary is shown. Section 24.1 of the Act and the Fire Fighters' Primary Site Cancer Regulation include presumptions specific to fire fighters." And "5. How does the WCB adjudicate respiratory disease claims?</p> <p>Respiratory disease claims are adjudicated like any other occupational disease claim. However, when a worker has a respiratory disease due in part to occupational factors and in part to non-occupational factors, the overall disability is presumed to be related to employment. Special provisions are provided for cases when a worker with a pre-existing non-compensable cardiac condition suffers a compensable respiratory disease (see Policy 04-04, Permanent Disability, Part II, Application 6: Enhancement Factor)."</p>	<p>disease is deemed to have been due to the nature of that employment unless the contrary is proved."</p>	<p>worker's employment."</p> <p>Policy: "Asbestosis was entered into Schedule 4 on May 28, 1992. An irrebuttable presumption that the asbestosis was due to the nature of the employment applies to all claims with diagnosis dates on or after May 28, 1992.¹⁷²"</p>		<p>done work corresponding to that disease according to the Schedule.</p> <p>[note this is a rebuttable presumption]</p> <p>Schedule 1: «asbestosis, lung cancer or mesothelioma caused by asbestos» are each presumed to be an occupational disease if there is evidence of «any work involving exposure to asbestos fibre».</p> <p>Administrative tribunal case law has interpreted the meaning of each of the terms in the presumption.</p>
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MESOTHELIOMA

Requirement	Alberta	British Columbia	Ontario	Newfoundland & Labrador	Québec
Profession		Schedule B: “mesothelioma (pleural or peritoneal)”: Where there is exposure to airborne asbestos dust.”	Schedule B: “Primary alignant neoplasm of the mesothelium of the pleura of peritoneum” : “Any mining, milling, manufacturing, assembling, construction, repair, alteration, maintenance or demolition process involving the generation of airborne asbestos fibres” Policy: “has worked in any mining, milling, manufacturing, assembling, construction, repair, alteration, maintenance or demolition process involving the generation of airborne asbestos fibres.”	Section 23, Regulation: “28. Lung cancer or mesotheliomas caused by asbestos.” “All work involving exposure to the risk concerned.”	Schedule 1: «asbestosis, lung cancer or mesothelioma caused by asbestos» are each presumed to be an occupational disease if there is evidence of «any work involving exposure to asbestos fibre». Administrative tribunal case law has interpreted the meaning of each of the terms in the presumption.
Exposure period				Policy: “With respect to exposure intensity and duration, those workers with significant exposures in Newfoundland and Labrador before 1980 will be considered to have had higher exposure intensities than those exposed in 1980 or later.”	
Latency				Policy: “2. A claim for pleural and/or peritoneal mesothelioma will be favourably considered	

				when the following circumstances apply: a. the presumption clause in Section 90 is applicable; or b. where there is a clear and adequate history of occupational exposure to asbestos and there is a minimal interval of 15 years between first exposure to asbestos and the appearance of mesothelioma.”	
Other evidentiary		Policy: “[T]he exposure to airborne asbestos dust may be a secondary exposure.”	Policy: “has a histopathologically confirmed diagnosis of primary malignant neoplasm of the mesothelium of the pleura or peritoneum,”	Policy: “In cases where the individual circumstances of a case are such that the provisions of this policy cannot be applied or to do so would result in an unfair or unintended result, the Commission will decide the case based on its individual merits and justice. Such a decision will be considered for that specific case only and will not be precedent setting.”	
Presumption	Policy: “5. How does the WCB adjudicate respiratory disease claims?” Respiratory disease claims are adjudicated like any other occupational disease claim. However, when a worker has a respiratory disease due in part to occupational factors and in part to non-occupational factors, the overall disability is presumed to be related to employment. Special provisions are provided for cases	(3) If the worker at or immediately before the date of the disablement was employed in a process or industry mentioned in the second column of Schedule B, and the disease contracted is the disease in the first column of the schedule set opposite to the description of the process, the disease is deemed to have been due to the nature of that employment unless	s.15(3): “Causation of disease (4) If, before the date of the impairment, the worker was employed in a process set out in Schedule 4 and if he or she contracts the disease specified in the Schedule, the disease shall be deemed to have occurred due to the nature of the worker’s employment.”	s. 90(3)Where a worker referred to in subsection (1) at or immediately before the date of the disablement was employed in a prescribed process and the disease contracted is the prescribed disease associated with the description of the process, the disease shall be considered to have been due to the nature of that employment unless the contrary is proved. Policy: “Lung cancer and mesothelioma caused by asbestos are	s.29: The diseases listed in Schedule I are characteristic of the work appearing opposite each of such diseases on the schedule and are directly related to the risks peculiar to that work. A worker having contracted a disease contemplated in Schedule I is presumed to have contracted an occupational disease if he has done work corresponding to that disease

	<p>when a worker with a pre-existing non-compensable cardiac condition suffers a compensable respiratory disease (see Policy 04-04, Permanent Disability, Part II, Application 6: Enhancement Factor).”</p>	<p>the contrary is proved.”</p>	<p>Policy: “Mesothelioma was entered into Schedule 4 on May 28, 1992. An irrebuttable presumption that the mesothelioma is due to the nature of the employment applies to all claims with diagnosis dates on or after May 28, 1992.”</p>	<p>prescribed industrial diseases pursuant to Section 90.”</p>	<p>according to the Schedule.</p> <p>[note this is a rebuttable presumption]</p> <p>Schedule 1: «asbestosis, lung cancer or mesothelioma caused by asbestos» are each presumed to be an occupational disease if there is evidence of «any work involving exposure to asbestos fibre».</p> <p>Administrative tribunal case law has interpreted the meaning of each of the terms in the presumption.</p>
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LUNG CANCER

Requirement	Alberta	British Columbia	Ontario	Newfoundland & Labrador	Québec
Profession			Policy: “Lung cancer in asbestos workers is accepted as an occupational disease under sections 2(1) and 15 of the Workplace Safety and Insurance Act as peculiar to and characteristic of a process, trade or occupation involving exposure to asbestos.”	Section 23, Regulation: “Lung cancer or mesotheliomas caused by asbestos.” “All work involving exposure to the risk concerned.”	Schedule 1: «asbestosis, lung cancer or mesothelioma caused by asbestos» are each presumed to be an occupational disease if there is evidence of «any work involving exposure to asbestos fibre». Administrative tribunal case law has interpreted the meaning of each of the terms in the presumption.
Exposure period			Policy: “there is a clear and adequate history of at least 10 years occupational exposure to asbestos,”	Policy: “With respect to exposure intensity and duration, those workers with significant exposures in Newfoundland and Labrador before 1980 will be considered to have had higher exposure intensities than those exposed in 1980 or later.”	
Latency			Policy: “there is a minimum interval of 10 years between first exposure to asbestos and the appearance of lung cancer.”	Policy: “3. A claim for cancer of the lung will be favourably considered when: a. the presumption clause in Section 90 is applicable; or, b. the worker is exposed in a process that involves a repeated or constant risk of exposure to asbestos, and that this employment is of a duration of five years, and there is a latency	

				of 10 years from the time of first exposure to the diagnosis of lung cancer.”	
Other evidentiary		Schedule B: “Carcinoma of the lung when associated with:” “(i) asbestosis”: “Where there is exposure to airborne asbestos dust.” [or] “(ii) bilateral diffuse pleural thickening or fibrosis, over 5 mm thick and extending over more than a quarter of the chest wall”: “Where there is exposure to airborne asbestos dust and the claimant has not previously suffered collagen disease, chronic uremia, drug-induced fibrosis, tuberculosis or other infection or trauma capable of causing pleural thickening or fibrosis.”	Policy: “Claims which do not meet these guidelines will be individually judged on their own merit, having regard to the intensity of exposure and other factors peculiar to the individual case.”	Policy: “In cases where the individual circumstances of a case are such that the provisions of this policy cannot be applied or to do so would result in an unfair or unintended result, the Commission will decide the case based on its individual merits and justice. Such a decision will be considered for that specific case only and will not be precedent setting.”	
Presumption	Policy: 5. How does the WCB adjudicate respiratory disease claims? Respiratory disease claims are adjudicated like any other occupational disease claim. However, when a worker has a respiratory disease due in part to occupational factors and in part to non-occupational factors, the overall disability is presumed to be related to employment. Special provisions	s.6: “(3) If the worker at or immediately before the date of the disablement was employed in a process or industry mentioned in the second column of Schedule B, and the disease contracted is the disease in the first column of the schedule set opposite to the description of the process, the disease is deemed to have been due to the nature of that employment unless the contrary is proved.		Policy: “Lung cancer and mesothelioma caused by asbestos are prescribed industrial diseases pursuant to Section 90.” s.90: “(3) Where a worker referred to in subsection (1) at or immediately before the date of the disablement was employed in a prescribed process and the disease contracted is the prescribed disease associated with the description of the process, the disease shall be considered to have been due to the nature	s.29: The diseases listed in Schedule I are characteristic of the work appearing opposite each of such diseases on the schedule and are directly related to the risks peculiar to that work. A worker having contracted a disease contemplated in Schedule I is presumed to have contracted an occupational disease if he has done work corresponding to that disease according to the Schedule. [note this is a

	are provided for cases when a worker with a pre-existing non-compensable cardiac condition suffers a compensable respiratory disease (see Policy 04-04, Permanent Disability, Part II, Application 6 : Enhancement Factor).			of that employment unless the contrary is proved.”	<p>rebuttable presumption]</p> <p>Schedule 1: «asbestosis, lung cancer or mesothelioma caused by asbestos» are each presumed to be an occupational disease if there is evidence of «any work involving exposure to asbestos fibre».</p> <p>Administrative tribunal case law has interpreted the meaning of each of the terms in the presumption.</p>
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PLEURAL THICKENING OR FIBROSIS AND BENIGN PLEURAL EFFUSION

Requirement	Alberta	British Columbia	Ontario	Newfoundland & Labrador	Québec
Profession		<p>Schedule B: “Diffuse pleural thickening or fibrosis, whether unilateral or bilateral”: “Where there is exposure to airborne asbestos dust and the claimant has not previously suffered and is not currently suffering collagen disease, chronic uremia, drug-induced fibrosis, tuberculosis or other infection, trauma, or disease capable of causing pleural thickening or fibrosis.” And “Benign pleural effusion, whether unilateral or bilateral”: “Where there is exposure to airborne asbestos dust and the claimant has not previously suffered and is not currently suffering collagen disease, chronic uremia, tuberculosis or other infection, trauma, or disease capable of causing pleural effusion.”</p> <p>Policy: “These items in Schedule B recognize that diffuse pleural thickening or fibrosis whether unilateral or bilateral, and benign pleural effusion, whether unilateral or bilateral, are likely to be due to the nature of the employment of workers exposed to airborne asbestos</p>		<p>Policy: “Other non-malignant conditions caused by asbestos exposure, such as diffuse pleural fibrosis, rounded atelectasis, and benign pleural effusion, may be considered where they arise out of and in the course of employment.”</p>	

		dust where the other known causes of the disease can be excluded.”			
Exposure period				Policy: “With respect to exposure intensity and duration, those workers with significant exposures in Newfoundland and Labrador before 1980 will be considered to have had higher exposure intensities than those exposed in 1980 or later.”	
Latency					
Other evidentiary				Policy: “In cases where the individual circumstances of a case are such that the provisions of this policy cannot be applied or to do so would result in an unfair or unintended result, the Commission will decide the case based on its individual merits and justice. Such a decision will be considered for that specific case only and will not be precedent setting.”	
Presumption		s.6: (3) If the worker at or immediately before the date of the disablement was employed in a process or industry mentioned in the second column of Schedule B, and the disease contracted is the disease in the first column of the schedule set opposite to the description of the process, the disease is deemed to have been due to the nature of that			

		employment unless the contrary is proved.			
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GASTRO-INTESTINAL CANCERS

Requirement	Alberta	British Columbia	Ontario	Newfoundland & Labrador	Québec
Profession		Schedule B: “Gastro-intestinal cancer (including all primary cancers associated with the oesophagus, stomach, small bowel, colon and rectum excluding the anus, and without regard to the site of the cancer in the gastro-intestinal tract or the histological structure of the cancer)”: “Where there is exposure to asbestos dust if during the period between the first exposure to asbestos dust and the diagnosis of gastro-intestinal cancer there has been a period of, or periods adding up to, 20 years of continuous exposure to asbestos dust and such exposure represents or is a manifestation of the major component of the occupational activity in which it occurred.”	Policy: “Gastro-intestinal cancer in asbestos workers is accepted as an occupational disease under sections 2(1) and 15 of the <i>Workplace Safety and Insurance Act</i> as peculiar to and characteristic of a process, trade or occupation involving exposure to asbestos.” And “there is a clear and adequate history of occupational exposure to asbestos dust, and while such occupational exposure cannot be quantitatively described, it should be of a continuous and repetitive nature, and should represent or be a manifestation of the major component of the occupational activity,”		
Exposure period		Schedule B: 20 years (see above).	Policy: “continuous and repetitive nature”	Policy: “With respect to exposure intensity and duration, those workers with significant exposures	

Requirement	Alberta	British Columbia	Ontario	Newfoundland & Labrador	Québec
				in Newfoundland and Labrador before 1980 will be considered to have had higher exposure intensities than those exposed in 1980 or later."	
Latency			Policy: "there is a minimum interval of 20 years between the first exposure to asbestos and the diagnosis of gastro-intestinal cancer."		
Other evidentiary		Policy: "Where there has been less than 20 years of continuous exposure to asbestos fibres, such that the presumption in Section 6(3) does not apply, but there had been substantial compliance with the requirements in the second column of Schedule B, the Adjudicator will consider whether the evidence indicates that the gastro-intestinal cancer is due to the nature of the worker's employment. Whether or not the compliance is substantial is a matter of judgment for the adjudicator. The greater the gap between the worker's period of exposure and the 20-year period, the less likely the compliance to be substantial and the less likely the disease to be due to the		Policy: A claim for gastro-intestinal tract cancer (cancer of the oesophagus, stomach, small bowel, colon and rectum) will be judged on its individual merit. Policy: "In cases where the individual circumstances of a case are such that the provisions of this policy cannot be applied or to do so would result in an unfair or unintended result, the Commission will decide the case based on its individual merits and justice. Such a decision will be considered for that specific case only and will not be precedent setting."	

Requirement	Alberta	British Columbia	Ontario	Newfoundland & Labrador	Québec
		nature of the employment.” (References a decision: Decision No.232, 3 W.C.R. 91). ¹⁷³			
Presumption		s.6: (3) If the worker at or immediately before the date of the disablement was employed in a process or industry mentioned in the second column of Schedule B, and the disease contracted is the disease in the first column of the schedule set opposite to the description of the process, the disease is deemed to have been due to the nature of that employment unless the contrary is proved.			

¹⁷³ WorkSafe BC *Rehabilitation Services and Claims Manual*, Volume I, Policy item #30.20.

LARYNGEAL CANCER

Requirement	Alberta	British Columbia	Ontario*	Newfoundland & Labrador	Québec
Profession		Schedule B: "Carcinoma of the larynx or pharynx associated with asbestosis": "Where there is exposure to airborne asbestos dust."	Policy: "Laryngeal cancer in workers exposed to asbestos fibres in industrial processes which generate airborne asbestos is an occupational disease under the <i>Workplace Safety and Insurance Act</i> (the Act)."		
Exposure period			Policy: "the worker has worked for at least ten years in an environment which has been documented to have generated asbestos in respirable form," – if this requirement has not been met, see "other evidentiary"	Policy: "where there is a repeated or constant actual exposure to asbestos, or a repeated or constant risk of exposure to asbestos, for a duration of at least 10 years." Policy: "With respect to exposure intensity and duration, those workers with significant exposures in Newfoundland and Labrador before 1980 will be considered to have had higher exposure intensities than those exposed in 1980 or later."	
Latency			Policy: "the worker has been employed in an industrial process which generates airborne asbestos at least 15 years before the diagnosis of the disease,"	Policy: "a latency of 15 years or more between the time of first employment with asbestos exposure and the development of laryngeal cancer"	
Other evidentiary		Schedule B "Carcinoma of the	If the exposure period has not	Policy: "In cases where the	

		larynx or pharynx associated with asbestosis"	<p>been met: Policy: "the worker has been diagnosed with asbestosis in accordance with <u>16-02-05, Asbestosis.</u>"</p> <p>Policy: "In considering the individual merits of each case, a claimant's cigarette smoking and alcohol consumption habits before the diagnosis of laryngeal cancer should be considered."</p>	individual circumstances of a case are such that the provisions of this policy cannot be applied or to do so would result in an unfair or unintended result, the Commission will decide the case based on its individual merits and justice. Such a decision will be considered for that specific case only and will not be precedent setting."	
Presumption		s.6: (3) If the worker at or immediately before the date of the disablement was employed in a process or industry mentioned in the second column of Schedule B, and the disease contracted is the disease in the first column of the schedule set opposite to the description of the process, the disease is deemed to have been due to the nature of that employment unless the contrary is proved.			

Appendix 2

Compensation by the Workers' Compensation Boards for Mesothelioma, Asbestosis and Neoplasms/Tumors 1998-2008

TABLE 1
Injuries compensated between 1998-2008

1998-2008	Ab	B.C.	N.L.	ON	Qc
Mesothelioma					
Male	29	111	6	320	103
Female	0	10	0	10	1
Total	29	121	6	330	104
Asbestosis					
Male	50	41	0	23	262
Female	1	0	0	0	5
Total	51	41	0	23	267
Neoplasms/tumors					
Male	9	7	5	117	46
Female	0	0	0	1	0
Total	9	7	5	118	46

Source: AWCBC, January 2010.

TABLE 2
Fatalities compensated between 1998-2008

1998-2008	Ab	B.C.	N.L.	ON	Qc
Mesothelioma					
Male	66	298	13	675	287
Female	2	18	0	14	10
Total	68	316	13	689	297
Asbestosis					
Male	86	42	1	101	204
Female	0	0	0	0	5
Total	86	42	1	101	209
Neoplasms/tumors					
Male	14	34	37	490	116
Female	0	0	0	9	1
Total	14	34	37	499	117

Source: AWCBC, January 2010.