## Noteworthy Decision Summary

Decision: WCAT-2003-03143-RB Panel: James Sheppard Decision Date: October 23 2003

***Occupational disease – Worker's multiple symptoms were not due to his exposure to various chemicals / toxins, like dioxin, from burnt vehicles in the course of his employment as a forensic locksmith / analyst – WCAT has jurisdiction to consider an issue raised by a respondent employer***

The worker filed an application for compensation, claiming that his multiple symptoms including chronic fatigue, nausea, headaches, speech and concentration difficulties, were related to his exposure to various chemicals / toxins, like dioxin, from burnt vehicles in the course of his employment as a forensic locksmith / analyst between 1992 and 1999. The Workers' Compensation Board denied his claim and the worker appealed.

The panel found that the evidence did not establish that the worker suffered from an occupational disease due to the nature of his employment. A second issue raised concerned the jurisdiction to address an issue raised by the employer. The panel held that the Workers' Compensation Review Board (Review Board) was incorrect when it found it did not have jurisdiction to consider the employer's issue. This is consistent with the *Manual of Rules, Practices and Procedures* at item #14.30, which says a WCAT panel has discretion to address an issue raised by the respondent, as well as Appeal Division Decision No. 2002-0207; in the latter, the chief appeal commissioner concluded that section 96(3) meant it was within the Appeal Division's jurisdiction to consider an issue raised by a party to an appeal, even in the absence of that party's appeal of a Review Board finding.


150, 4600 Jacombs Road, Richmond, B.C. V6V 3B1
Telephone: (604) 664-7800; 1-800-663-2782; Fax (604) 664-7898

**WCAT Decision Number:** WCAT-2003-03143-AD
**WCAT Decision Date:** **October 23, 2003**
**Panel:** James A Sheppard, Vice Chair

## Introduction

Mr. X and an employer appealed to the Appeal Division, under the former section 91 of the *Workers Compensation Act* (Act), the Workers' Compensation Review Board (Review Board) findings dated September 30, 2002. The Review Board panel heard Mr. X's appeal of the Workers' Compensation Board (Board) decision, dated March 16, 2000, which denied his claim for multiple complaints such as chronic fatigue, nausea, headaches, loss of concentration, speech difficulties, and medical problems which Mr. X related to his work as a locksmith/analyst.

In the course of the worker's Review Board appeal of the March 16, 2000 Board decision, a corporation (this employer), raised the issue as to whether Mr. X was its worker. The majority of the Review Board found that this employer's issue was not before them, but only the merits of Mr. X's claim. Both the majority and the minority found that evidence did not support a conclusion that Mr. X's constellation of symptoms was due to exposure to toxic substances while working as a forensic locksmith. Mr. X appealed the denial of his claim and this employer appealed the decision not to address the issue of whether Mr. X was its worker.

## Issue(s)

This employer's appeal raises the following issues:

(1) Do I have jurisdiction to consider this employer's issue as to whether Mr. X was its worker?

(2) If I have that jurisdiction, should I exercise it to consider this employer's issue?

(3) If I have this jurisdiction and I exercise it, was Mr. X a worker of this employer?

The worker's appeal raises the following issues:

(1) Did the worker suffer an occupational disease due to the nature of his employment?

(2) Did the worker suffer a personal injury arising out of and in the course of his employment?



Workers' Compensation Appeal Tribunal 150, 4600 Jacombs Road, Richmond, B.C. V6V 3B1
Telephone: (604) 664-7800; 1-800-663-2782; Fax (604) 664-7898

**Jurisdiction**

This appeal was filed with the Appeal Division. On March 3, 2003, the Appeal Division and the Review Board were replaced by the Workers' Compensation Appeal Tribunal (WCAT). As this appeal had not been considered by me before that date, it has been decided as a WCAT appeal. (See the *Workers Compensation Amendment Act (No. 2), 2002,* section 39.)

WCAT may inquire into, hear and determine all those matters and questions of fact and law arising or required to be determined in an appeal, but is not bound by legal precedent (see sections 250(1) and 254 of the Act). WCAT must make its decision on the merits and justice of the case, but, in so doing, must apply a policy of the Board's board of directors that is applicable in the case. Policy relevant to this appeal is primarily set out in the *Rehabilitation Services and Claims Manual, Volume 1* (RSCM) which is pre-Bill 49, *Workers Compensation Amendment Act, 2002.*

**Procedural Matters**

Mr. X initially did not request an oral hearing. I acknowledge that in his written submission, faxed December 19, 2002, he did request the opportunity to appear in person before the panel. This employer's legal counsel (this employer) did not request an oral hearing. Mr. X and this employer were provided with an update of disclosure of the worker's electronic claim file, including a copy of a videocassette titled *CBC National News/The Magazine – "The Legacy of Agent Orange."* The Review Board did not hold an oral hearing.

Mr. X, in support of his appeal, in his undated written submission faxed on December 19, 2002 enclosed a report from Dr. Saad, psychiatrist, dated December 10, 2002. I noticed when I reviewed Dr. Saad's report that several lines on page two had been blacked out. I asked the appeal coordinator to request from the worker a clear copy of this report. The worker faxed another copy of Dr. Saad's report to WCAT. Again, the same portion was blacked out. I find that I can assess the weight of Dr. Saad's report, along with the other evidence based upon that part of Dr. Saad's report that is not blacked out, without the need to seek a clean copy of the portion that has been blacked out. This employer provided a January 23, 2003 written submission in response to the worker's evidence and submission. Mr. X provided a reply dated January 27, 2003, which included references to research literature and sources for more research literature, and several emails.

After reviewing the electronic claim file, I was not able to find a copy of Dr. Dwernychuk's September 22, 2000 letter which the worker indicated the Review Board panel should have had and which he refers to in his submissions to them (September 30, 2000 faxed submission refers to and quotes this letter). A copy of this

letter was obtained from the worker by the appeal coordinator. Because I have found that the Review Board panel should have had a copy of Dr. Dwernychuk's September 22, 2000 letter I dismiss this employer's submission that this letter should not be admitted into evidence or that the worker should not be given an opportunity to respond to this employer's reply to this letter. A copy of the letter was sent to this employer who provided a reply dated June 23, 2003. The worker provided a final response, received by fax on July 11, 2003. After reviewing these further submissions, I noticed that Dr. Dwernychuk's curriculum vitae (CV) had not been provided by the worker. The appeal coordinator obtained a copy of this CV and provided this employer with an opportunity to respond to it. No response from this employer was received by the appeal coordinator within the time limits set out. When I reviewed this employer's June 23, 2003 written submission, I noticed that the referenced "Schedule A" had not been provided to WCAT. The appeal coordinator obtained a copy of Schedule A and provided a copy to the worker for comments. No response from the worker was received by the appeal coordinator within the time limits set out.

This employer, in support of its appeal, provided a written submission dated December 6, 2002 with tabbed exhibits A to M. Mr. X provided an undated written submission faxed December 20, 2002. This employer provided a final reply dated January 17, 2003.

I find that I can render a decision based upon a review of the evidence and the Review Board findings of September 30, 2002 without the need for an oral hearing.

**Employer's Appeal**

**Jurisdictional Issue on Worker Status**

The majority of the Review Board panel found that the only issue before them was the merits of Mr. X's claim. I take this to mean they found they did not have jurisdiction to address this employer's issue as to whether Mr. X was this employer's worker. The dissenting member of the Review Board panel found that there was an implied decision that Mr. X was the worker of this employer contained in the March 16, 2000 Board decision because of the requirements of section 5(1) of the Act. He stated: "Even though there is no statement to this effect in the decision letter, it is implied and I consider the employer has the right to argue it along with the other issues outlined by the decision letter."

I find that the majority of the Review Board panel was incorrect when they found they did not have the jurisdiction to consider this employer's issue. I find that they had, as I do, the discretion to address this issue, even though the employer did not appeal the August 11, 1999 Board decision of the employer service representative of the Assessment Department (who found that Mr. X was a worker of this employer) or the

March 16, 2000 Board decision. The Board had the jurisdiction under the Act to determine if Mr. X was a worker of this employer or an independent operator.

I agree with the dissenting member of the Review Board panel that implied in the March 16, 2000 Board decision as to whether or not Mr. X suffered a personal injury or an occupational disease related to his employment with this employer was the issue of whether Mr. X was a worker of this employer. I make the distinction between my discretion to consider this employer's issue and this employer's right to have this issue addressed in the course of this appeal. If this employer had wanted to ensure its right to have this issue addressed, it should have appealed the March 16, 2000 or the August 11, 1999 Board decisions. I also point out that this employer's appeal to the Appeal Division of the Review Board findings of September 30, 2002 did not cure its failure to appeal the issue of worker status in the first instance.

I have considered the comments (which are not binding on me) of the former chief appeal commissioner of the Appeal Division in *Appeal Division Decision No. 2002-0207* dated January 25, 2002 (also accessible at www.worksafebc.com ). The chief appeal commissioner concluded that the authority provided to the Appeal Division in section 96(3) of the Act meant that it was within an Appeal Division panel's jurisdiction to consider an issue raised by a party to an appeal, even in the absence of that party's appeal of a Review Board finding. The chief appeal commissioner stated, in part:

> …the Appeal Division panel was not *required* to decide that issue simply because it was argued by a party who did not appeal the issue. Section 96(3) states the Appeal Division "may" reopen etc. any matter that has been dealt with by the Review Board. This is a discretion rather than a duty and the discretion is stated expressly in *Decision No. 75*; a panel may consider the matter and make a reasoned determination as to whether the issue requires resolution. The issue is how the discretion to consider all issues that were dealt with by the Review Board is to be exercised in the circumstances of the specific appeal.
>
> …I appreciate there may be a perception of unfairness when a party is entitled to argue issues that were not appealed. However, again, whether a panel will decide the issue raised is a matter of discretion to be decided by the panel in an individual appeal. Moreover, I conclude that any perception of unfairness is more than offset by the clear intent to give appeal commissioners the authority to make broad inquiries as a means to facilitate the participation of un-represented parties and inexperienced representatives. An example that makes the point is a situation where a panel identifies an issue that has not been raised by any party to an appeal. It does not matter whether this issue assists or prejudices the appellant or the respondent. What matters is the ability of a panel to consider the issue in the context of its broad discretion and despite the fact it was not specifically raised by the parties.

> …The specific approach which will govern the exercise of the discretion discussed above in individual cases is complex and it will have to be developed in those cases. The point is not to create a "maze of technical complexities" (*Decision #92-0634*, supra, 156) but to facilitate an appeal system that is accessible and effective.

In as far as the practices and procedures of WCAT apply to this appeal, I note that the WCAT *Manual of Rules, Practices and Procedures* (MRPP) (published at www.wcat.bc.ca) in item #14.30 (scope of decision) states, in part:

> A WCAT panel has a discretion to address an issue raised by the respondent, in relation to the decision under appeal. If a respondent wishes to ensure that any issue raised by the respondent will be addressed as a matter of right, rather than on a discretionary basis, the respondent should file a cross-appeal. This may require an extension of time to appeal.

**Reasons and Decision**

I have considered the factors that, as outlined above in *Appeal Division Decision #2002-0207*, might be considered in deciding whether to exercise my discretion to hear this employer's issue about Mr. X's status as a worker. I have decided not to exercise my discretion to address this employer's issue because:

1. I acknowledge that the August 11, 1999 Board decision letter was addressed to Mr. X. However, it was copied to this employer's representative. It clearly indicated that Mr. X was a worker of this employer. It did indicate that there was an internal avenue for reviewing this decision and a right to appeal the decision within 30 days to the Appeal Division. I find that this employer's representative should have understood from this letter that there was an opportunity to have this issue addressed through the internal avenues of review and the right to appeal it if this employer did not agree with this decision. This employer has not indicated that it took steps subsequent to the date of this decision letter to have the Assessment Department review this decision that Mr. X was this employer's worker. I acknowledge that the employer's representative raised the issue of worker status in a July 21, 1999 letter to the Compensation Service Division but this was before the August 11, 1999 Board decision.

2. This is not an inexperienced or unsophisticated employer. It took issue with the worker status of Mr. X, yet did not appeal the March 16, 2000 Board decision. The March 16, 2000 Board decision refers to Mr. X's employment with this employer and indicates the claims adjudicator had considered information provided by this employer who is referred to as "your employer". In as much as I recognize that this employer might have held the view that there was no need to initially appeal the

March 16, 2000 Board decision because Mr. X's claim was denied this employer did not seek an extension of time to appeal this decision when it learned of Mr. X's appeal of it to the Review Board. Further, as I have mentioned above it did not seek to have the Assessment Department re-examine the August 11, 1999 Board decision which indicated Mr. X was considered by the Board to be a worker of this employer. This employer could have requested a review of this decision (without time limits) up to the level of the director of Assessments prior to appealing that decision (within 30 days under the prior section 96(6)(6.1) of the Act) to the Appeal Division.

3. I acknowledge that this employer provided a reasoned argument to the Review Board, as was done in this appeal to me, on why it found that Mr. X was not a worker of this employer. It did not expect the panel to perform all of the appropriate inquiries without any assistance. However, I have placed more weight on items 1 and 2 in making my decision not to exercise my discretion to address this employer's issue.

I will now proceed to address the issues raised by the worker's appeal. I will address this employer as "the employer" and Mr. X as "the worker" for the rest of this decision.

**Worker's Appeal**

**Law and Policy**

At the time the March 16, 2000 Board decision was made, section 5(1) of the Act provided compensation where a worker suffered a personal injury which arose out of and in the course of employment. Item #13.10 of the RSCM made a distinction between an injury and a disease. Injuries were listed, among other things, as being wounds, fractures, any other disorder caused by trauma, sprains or strains caused by a specific incident or by activity over time, damaged cartilage or ligament resulting from one major incident or a series of incidents or activity. The standard of proof of a compensable personal injury was on the balance of probabilities. However, section 99 of the Act provided coverage where there were disputed possibilities, which were roughly equal. A compensable personal injury might be caused by the worker's employment, or the employment might aggravate or accelerate/advance a pre-existing condition to the point of disability and/or the need to seek medical attention.

Section 6 of the Act dealt with compensation for occupational diseases that were due to the nature of the worker's employment. Compensation was payable under section 6(1) where the worker was disabled from earning his full wages by an occupational disease and the disease was due to the nature of his work. Section 1 of the Act defined occupational disease to mean any disease mentioned in Schedule B, and any other disease which the Board, by regulation of general application or by order dealing with a specific case, might designate or recognize as an occupational disease. The definition of "disease" included disablement resulting from exposure to contamination.

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

**Reasons and Decision**

The background has been summarized by the Review Board panel in its findings of September 30, 2002 and will not be entirely repeated here. The worker filed an application for compensation in June of 1999, submitting that his multiple symptoms, including chronic fatigue, nausea, headaches, speech and concentration difficulties, and a variety of other medical problems (joint pain, acute shortness of breath, memory loss, spatial disorientation with mental confusion, some speech impairment) were related to his exposure to various chemicals/toxins from burnt vehicles in the course of his employment as a forensic locksmith/analyst between February of 1992 and April of 1999. I acknowledge that the worker had indicated that he discontinued (in most instances) the use of respiratory protection while examining burnt vehicles after the Board workplace hazard assessment of September 10, 1999 suggested that respiratory protection was not necessary (albeit unless one was inspecting a very recent fire-damaged car where there might be some off-gassing). He had indicated in his application for compensation the exposure to burnt vehicles continued from 1993 until April of 1999.

I have reviewed and considered the worker's electronic claim file and the evidence and submissions supplied by both the worker and the employer. I will highlight certain portions of the evidence and the submissions below in explaining my decision.

I find that the evidence does not establish, on the balance of probabilities, that the worker suffered an occupational disease (caused / aggravated / accelerated / advanced / activated by) due to the nature of his employment with the employer. I also find that there is insufficient evidence that the worker suffered a personal injury (caused or aggravated; physical and/or psychological) arising out of and in the course of his employment. I do not find that there are disputed possibilities which are equally balanced and thus find that section 99 of the Act does not apply in this case.

I highlight the following evidence and provide the following reasons in reaching my decision:

1. I acknowledge that the worker reported inhalation exposure without the benefit of respiratory protection to various compounds/chemicals and metals as a forensic locksmith/analyst. The worker has indicated that from 1992 to 1995, his work involved approximately two-thirds non-burnt vehicles and one-third burnt vehicles. He indicated that from 1995 to December 1998, his work involved almost exclusively burnt vehicles. He reports that his examination would involve contact with a burnt

vehicle, located outside, for one-quarter to two plus hours on each file. He reported that, between February 1992 and September 1993, he used full body protective coveralls with hood and boots, eye protection, half-face respirator with cartridge and hepa pre-filters. After September 1993 (after the occupational hyigene officer's September 10, 1993 report), he reported that he discontinued the use of coveralls and the respirator, except when noxious odours were present. He used latex gloves and eye protection always. The employer's manager, in his July 21, 1999 letter, indicated that the worker was observed in and about burnt vehicles without wearing personal protective equipment (i.e., gloves, respirator, coveralls and safety eyewear). The employer provided a computer printout of the vehicle investigations involving this worker, including the ones with respect to burnt vehicles. The extent of the fire in any of those cases was not specified. The computer printout does appear to support the worker's information, as noted above, that he had examined more burnt vehicles between 1995 and early 1999 than before. I acknowledge the computer printout shows the worker also examined a fair number of non-burnt vehicles after 1995 as well.

2. The evidence does not establish a quantifiable exposure to an airborne agent. The Board inspection report, dated September 10, 1993, indicates that laboratory analysis of debris from two fire-damaged cars indicated the majority of the material was aluminum, zinc, magnesium and cadmium and other metals. No organic contaminants were detected from off-gassing. It was recommended that hand protection be continued, with respiratory protection only being necessary if inspecting a very recent fire-damaged car where there might be some off-gassing.

3. The Board occupational hygiene officer (OHO), in his February 23, 2000 report, acknowledged the possibility of exposure through inhalation (i.e., no respiratory protection), ingestion (i.e., poor hygiene practices) and injection (i.e., blood absorption). The OHO acknowledged that with respect to exposure through inhalation, ingestion or injection, the time lag between successive field investigations and shop examinations conducted by the locksmith would serve to control single exposures and to minimize the cumulative effects of repeated exposures. On September 1, 1999, the OHO observed a different investigator who acknowledged that he seldom wore his respirator. The OHO states, in part: "It is suggested that there is potential for worker exposure through inhalation, ingestion and injection. This may implicate a single chemical, or chemicals as an agent of exposure. These agents may take the form of an aerosol, gas and or vapor. It is possible that a cumulative health effect could occur depending on the nature of the exposure and agent." He further states, in part:

> A locksmith would be exposed to an airborne contaminant if they conducted their forensic investigation as soon as possible after a fire, or while the vehicle was visibly smoldering or off gassing without benefit of respiratory protection… Personal exposure monitoring to an airborne substance was not conducted because the locksmith's

> breathing zone was potentially exposed to airborne contaminants for less than 3.25-11.5 hours per month, which would not justify comparison to an 8-hour occupational exposure limit. Also the cumulative effects of an exposure through any route of entry by a single chemical or mix of chemicals could be minimized by the time lag between successive forensic investigations and the field and shop work that is also interspersed throughout a month. Although an exposure profile for the locksmith could not be established [this] should not suggest that an exposure did not occur. Apart from inhalation exposure, this report has noted the potential for exposure through ingestion and injection. The toxicological implication of a cumulative exposure to multiple compounds through different routes of entry to the body should not be ignored even though the work is intermittent. **Unfortunately, the effect of a combined chemical exposure is often unknown since non-inhalation routes of entry are next to impossible to investigate as established methods for their quantification and assessment are not available. It is beyond the scope of this report to consider the implication of a multiple chemical exposure through different routes of entry to the body. However, considering the potential for exposure through ingestion and injection a hyper-susceptible [sic] or unusually responsive worker could be adversely affected by an exposure to an airborne chemical at or below an occupational exposure limit. At this time a quantifiable exposure by a locksmith conducting forensic investigations cannot be shown.**

[Reproduced as written, emphasis added]

Although the investigator questioned by the OHO indicated during drier conditions dust can be generated and when he blew his nose a black discharge was produced he did indicate he was not suffering from any ill effect (albeit his wife suggested he had suffered some memory loss).

4. The evidence does not establish that a particular agent or combination of agents, in particular dioxin or dioxin like compounds, phthalates, or other organochlorines, were the cause of the worker's physical and psychological symptoms. The overall evidence in this case does not establish that the worker's exposure in his employment likely led to his elevated lipids (used as a measurement of the body burden of dioxins). Further, there is insufficient evidence that his elevated lipids account for this multiple of symptoms. The medical evidence does not establish that the worker suffered an occupational disease or a personal injury arising out of and in the course of his employment:

- The December 17, 1998 CT scan report of the head reported a recent history of severe migraine-type headaches followed by confusion and disorientation. There were no neurological signs. No neurological abnormalities were noted in the report.

- Dr. Constantino, neurologist, in his May 13, 1999 report found no evidence of any significant focal neurological abnormality. He did not identify any nervous system disorders which might be related to exposure to a toxin like dioxin. Dr. Constantino states, in part: "I believe all of his symptoms could be explained on the basis of anxiety and stress however I would recommend further investigations to rule out a primary neurological abnormality. He ordered some blood work performed. Dr. Constantino recorded a long history of chronic anxiety and depression (at least six to seven years) with which he reports the worker had been coping.

- The worker provided a hair analysis report for June 3, 1999. In his August 17, 1999 letter he states, in part: "At more than 300% the level of the top of the reference range, I believe that while not particularly toxic, the Zirconium level found in hair grown more than four months after the last time I was exposed to significant amounts of ash from burned vehicles at levels and conditions that resulted in an elevated tissue level of these materials." I do acknowledge the worker's statement in his January 27, 2003 submission: "At the suggestion of a naturopathic physician, the hair analysis was undertaken early on in my admittedly uninformed attempts to shed light on what was happening to me."

- The June 23, 1999 CT scan of the head reported no intracranial abnormalities noted.

- Dr. Muthayan's, an attending physician, first report for June 24, 1999 noted no relevant pre-existing or associated conditions. There were no neurological abnormalities noted. The diagnosis was confusion/headaches. The date of first disablement was February/March of 1999. Dr. Muthayan provided the Board with medical chart notes and reports dating from October 1992 to February 1999. The claims adjudicator summarized these findings in a claim log entry dated August 5, 1999. The worker had a history of stress/anxiety and diagnosed depression with medication used to treat these conditions. Dr. Bankier, a psychiatrist, diagnosed a stress disorder in October of 1992 and prescribed Clonazepam and amitriptyline. Dr. Bankier saw the worker again in November of 1993 for what he describes as a recurrence of symptoms, which appeared to be related to difficulties at work and his marital situation. Dr. Duffy, a psychiatrist, in May of 1995 diagnosed the worker with a "generalized anxiety disorder in a personality with dependent and compulsive traits." In January of 1996, she reported that the worker would continue to have difficulties. She states, in part: "On that occasion it appeared there were very significant marital difficulties…"

The claims adjudicator summarizes: "Entries in the chart for 1997 note continued stress and anxiety problems, and his depression was worsening at the end of 1997. He continued to take medication in 1998, and reported severe headaches followed by numbness of the left arm and confusion in December 1998. In January 1999 he saw his doctor for depression and reported suicidal ideas."

- Dr. Saad, psychiatrist, in his June 24, 1999 report states, in part: "…the patient has been complaining of what he perceives as symptoms of toxic exposure and it seems that the symptoms have been smoldering at least since 1991, with varying degrees of severity and has shown symptoms of stress, anxiety, depression and has been maintained on antidepressants for a while…" Dr. Saad indicates a sequence of events starting in 1990 with the murder of the worker's brother, an attempt in 1991 by partners to take over a company he started, a child born with severe brain damage in 1996, his wife's diagnosed thyroid cancer, and the loss of his house and business. The worker reported recurrent symptoms of depression, suicidal ideation, and "confusion." From 1991 onward, he suffered from unexplained symptoms of chronic fatigue. Dr. Saad also states: "A friend of his…noted a change in his personality. He was becoming difficult to deal with, oppositional, intrusive. Shortly after he started to develop fatigue, muscle tremors, respiratory distress and repeated headaches, which forced him finally to quit work altogether since January, 1999… The patient was suspected of having metal poisoning for a long time and he has done his own investigation… he has what he believes to be above acceptable level of copper, zirconium, aluminum, antimony and other substances… He believes that he was exposed to a lot of pesticides on his farm." Dr. Saad deferred his diagnosis but stated the worker's symptoms were suggestive of some chronic organic brain disorder of a mild nature.

- Dr. Pankratz, a physician, in his June 27, 1999 report indicated that multiple tests, including clinical neurological testing, CT of the brain and serum copper levels were all within normal limits. He states:

> From his history and medical record it would appear that symptoms of anxiety, panic and depression date back several years… The exacerbation of anxiety-like symptoms with the emergence of new symptoms (headaches, confusion and numbness right arm) resulting in his inability to work began in the fall of 1998. Symptoms included a severe episode of confusion, slurred speech, loss of short-term memory, inability to concentrate, spatial disorientation, respiratory distress and agitation… Due to exposure to burnt metals in his work (topical and inhaled) it is plausible to consider the possibility of toxicity due to copper… The normal serum copper and cerulosplasmin level mitigates against copper

> toxicity but does not entirely rule it out. The value of hair testing has yet to be established, but this was undertaken by [the worker] privately, and results were felt to reveal high copper loads… Although his symptoms are compatible with anxiety and/or depressive illness, this is a diagnosis of exclusion…

[Reproduced as written]

- Dr. Constantino's July 26, 1999 evoked potential report recorded there was a suggestion of abnormal conduction anywhere from the right brachial plexus to the lower medulla but the etiology could not be determined.

- Dr. Sehmer's, a general practice-industrial medicine physician, August 3, 1999 report states, in part:

> We discussed the urinalysis findings and the significance of copper being found in his 24-hour urine. Copper is a common material with little known toxicity except in rare cases of Wilson's Disease. [The worker's] symptoms do not fit this pattern… Solvents are the most common cause of neuro-toxicity. Lead and mercury can also be neuro-toxic. Given the materials that have been identified in the Worker's Compensation Board Assessment of 1993, I cannot identify any chemical or material he was occupationally exposed to that could explain his current symptoms… His job is unusual and it is possible we are overlooking some kind of chemical in the burned out vehicles that could be hazardous. I am unaware of any substances that could account for his symptoms. Obviously, this does not mean it is not possible. Given his unique activities, perhaps further investigation should be done by the Compensation Board to identify all the materials this man is exposed to in his occupation.

[Reproduced as written]

- Dr. Saad, in his January 24, 2000 report states:

> Clinically I could not detect any of these symptoms as it appears to me all the symptoms are subjective, and his cut-off dates and dates of onset seem to be rather arbitrary to me, since with a chronic condition it is very difficult to determine the date of onset. However, he seems to feel that 1996 was a crucial year in his life that was starting of events that kept escalating until the present time, with a fluctuating improvement and still the fear of escalating symptoms… as far as I can see there is nothing to treat and there is an element that might cloud the picture with the fact he is taking

> Clonazepam 2 mg bid, and loss of short-term recall can be a side effect of that drug, particularly that he has been taking that drug for a considerable time… So far I do not find psychiatric disorder except his resentment to the fact his claim is not accepted…"
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> [Reproduced as written]

- In light of what Dr. Saad has said about the side effects of using anti-depressants for a considerable amount of time I note that Dr. Sehmer in his August 3, 1999 report and Dr. McIntyre in his November 12, 1997 report both indicated the worker had been treated with anti-depressants, including Clonazepam, since 1992. I note that the worker indicated that in 1991 he was diagnosed with a stress disorder and put on various medications, including Clonazepam.

- Dr. McIntyre also indicated that the swelling and tenderness of the left breast that the worker saw him for in November of 1997 could be gynecomastia related to the used of anti-depressants. The November 25, 1997 left mammogram report indicated the results were consistent with simple gynecomastia. There was no mammographic evidence suggestive of a malignancy.

- Dr. Davison, a Board occupational physician, in her March 8, 2000 opinion notes that blood and urinary copper tests were normal and were far more accurate indicators of absorption than hair analysis. I note that the client service manager in a claim log entry for August 17, 1999 records his conversation with Dr. Whitehead, a Board occupational physician, who indicated that symptoms of copper poisoning were not in keeping with the worker's symptoms. He also indicated that the description of selective memory loss was not in keeping with the features of any chemical or other exposures. Dr. Davison also noted the worker had a history of psychiatric problems from at least 1990/92 which was prior to his exposure in 1993 to burnt vehicles and that the side effects of the drugs used to treat these problems can be similar to those experienced by the worker. She also indicated that she would not have expected symptoms of this type of exposure to commence immediately, but only after many years. She states: "None of [the worker's] symptoms are consistent with the occupational exposure history and I am therefore in agreement with Dr. Sehmer when he says that he 'cannot identify any chemical or material he was occupationally exposed to that could explain his current symptoms.'"

- The April 13, 2000 dioxin bioassays report for the car ash sample provided by the worker states under summary of results: "Cell viability: Microscopic examination of the cells following exposure to the sample extract did not reveal any indication of toxicity to the cells." The employer has submitted that the sample extract may have shown detectable toxins (dioxin) but it did not reveal

any indication of toxicity to the test cells. The employer also cited the America's Choice Children's Health or Corporate Profit, the American People's Dioxin Report Technical Support Document dated November 1999 (Dioxin report) which indicated that soil or sediment analysis was not a very useful method for estimating toxicity to wildlife or humans because the various dioxin-like chemicals are absorbed, metabolized, and excreted differently by different animals. I acknowledge that the worker does not believe one ash sample is nearly sufficient to establish a reference range.

- The worker provided a blood analysis report dated August 1, 2000 which he indicated in his August 6, 2000 letter Dr. Dwernychuk informally reviewed and concluded that exposure to the toxins in the vehicle ash had resulted in a tissue load of 16 pg/g 2,3,7,8 –tetrachlorodibenzo-p-dioxin (TCDD, dioxin), toxic equivalents (TEQs). The worker states: "The normal range is 3-7 pg/g. He also indicated that PCB is probably present, and that the synergistic effects of exposure to multiple compounds of this type has serious medical consequences."

- The Dioxin Report outlines scientific information and research on the effects of dioxin on human health, suggests protective policies, and engages society in a discussion about the nature of government enforcement. The Dioxin Report's overall conclusion is that people are at serious risk from their daily intake of dioxin in common foods, especially meat and dairy products. Dioxins enter the air from thousands of sources including incinerators, chemical processing facilities that use chlorine to make products such as pesticides and PVC plastic and metal refining and smelting operations. The Dioxin Report (Page 90) states: "The average daily exposure of dioxin and dioxin-like chemicals in the U.S. is approximately 3-6 pg TEQ/kg body weight per day… Dioxin accumulates in biological tissue. The average tissue or "body burden" level of Americans range from 36 to 58 ng TEQ/kg lipid (36-58 ppt). Approximately 10% of the population may have tissue levels as much as three times higher than this level." The Dioxin Report indicates that the information on dioxin's immunotoxicity to humans is limited and sometimes contradictory or inconsistent. It is difficult to demonstrate the association between dioxin and cancer in humans. However, four large studies have produced very good data and have established a strong connection between exposure to dioxin and cancer in humans. Dioxin exposure may lower fertility, increase prenatal mortality, cause birth defects, and increase the risk of endometriosis. The Dioxin Report explores these and various other health effects. On page 70, it lists a number of neurological symptoms reported after Dioxin exposure which includes depression and anxiety.

- The worker submits that his elevated lipid adjusted body load (in excess of double the upper limit of the reference range for the general population) was caused by his exposure from 1993 onward and that this accounts for his multiple

of symptoms. He states there is no evidence that the contamination came from any other source other than occupational exposure in the course of his work. However, the Dioxin Report outlines the common sources (common food, especially meat, fish and dairy products) which appear to expose us to dioxins on a daily basis. Dr. Saad recorded in his June 24, 1999 report the worker believed he had been exposed to a lot of pesticides on the farm (albeit how much, when and to what is unknown). The employer cited the Dioxin Report where a study showed the average lipid-adjusted dioxin concentration was 41 ng/kg with a range between 28 to 41 ng TEQ/kg lipids. It is submitted that translated this would mean a range of 28 to 41 pg/g making the worker's 16 pg/g dioxin lipid level within the normal range of the general population. The Dioxin Report (pages 78 to 79) states that the average American's adult's body burden of dioxin is roughly 10 ng TEQ/kg. However, it states the range of concentrations for body burdens found in the U.S. population is not well known. It may be that about 5% of the population would be expected to have a body burden of dioxin of about 20 ng TEQ/Kg and about 1% would be expected to have a body burden of about 30 ng TEQ/kg.

- Dr. Dwernychuk in his September 22, 2000 letter states: "The scenario outlined to me was that [the worker] experienced occupational exposure to car ash for a period of approximately 6 years. It is my opinion that some of the body burden of dioxin determined in his blood sample probably originated from contact with ash materials. The proportion of the body burden due to this exposure cannot be determined." However, as outlined above the April 13, 2000 dioxin bioassay report did not show a toxic level of exposure to dioxin from the car ash sample. Dr. Dwernychuk's opinion did not address the issues raised by the employer about the reliability of soil and sediment analysis to estimate the level of toxicity in humans or the normal reference range for leveled lipids in the general population. Further, Dr. Dwernychuk did not provide a medical opinion that the worker's multiple of symptoms were related to a leveled body burden of dioxin. He does state that the scientific literature provides numerous references regarding the **suspicion** that dioxin toxicity adversely affects human health. Dr. Dwernychuk's resume shows that he is a biologist with expertise in aquatic ecology, benthic ecology and environmental monitoring. He works with a consulting group which provides a variety of specialized environmental and natural resource consulting services to clients in the pulp and paper industry. He is not a medical doctor, epidemiologist, or neurologist. I do note that his resume indicates he had served as a senior scientist for investigations in Vietnam regarding Agent Orange herbicide. This resume states that he has extensive experience in the assessment of chemical components in the environment and how they may impact biological systems. However, I would agree with the employer's submission that his general background would not appear to qualify him to provide an expert medical opinion on the effects of dioxins on human physiology.

- Dr. Saad provided a further report dated December 10, 2002 based upon a visit by the worker on December 3, 2002. Dr. Saad records that the worker reported that since late 1998 or early 1999 he suffered from mysterious symptoms which kept escalating. The worker related these symptoms to his exposure to dioxin. Dr. Saad states: "Although his symptoms are mostly attributed to anxiety depression, he feels that the anxiety depression component was minor compared to what he believes to be exposure to chemicals, particularly Dioxin." Dr. Saad indicated his present impressions were limited because they were based solely on a clinical interview. All he could say was that the worker, at present, was not suffering from a mental illness.

- Item #97.32 (statement of claimant about his own condition) of the RSCM stated that a worker's statement about his own condition was evidence insofar as it related to matters that would be within his knowledge. A conclusion against the statement of the worker about his own condition might be reached if the conclusion rested on a substantial foundation, such as clinical findings, or other medical or non-medical evidence. Item #97.33 (statement by lay witness on medical question) of the RSCM stated that a statement by a lay witness on a medical question might be considered as evidence if it related to matters recognizable by a layperson, but not if it related to matters that could only be determined by expertise in medical science.

- With respect to the worker, I do not find he has the expertise to provide an opinion on the effects of any exposure he has had in the course of his employment. In particular, I do not find he has the expertise to provide an opinion on the combined effect of any exposure to various chemicals and/or metals and his multiple symptoms. However, I have taken into consideration the worker's description of his symptoms, his observations about the nature of his exposure and that his physical health has progressively improved over time since he has no longer been exposed to burnt material from vehicles. I have weighed his evidence, along with the clinical findings, medical evidence/opinions, and other evidence as noted above in determining that the overall evidence does not establish, on the balance of probabilities, that the worker suffered an occupational disease or a personal injury arising out of and in the course of his employment. I do not find that further investigation or testing is warranted given the overall evidence which has been presented to date.

**Conclusion**

I confirm the Review Board findings of September 30, 2002 (for different reasons) as follows:

***Employer's Appeal***

1. I have, as did the Review Board panel, the discretion to consider the employer's issue of whether or not Mr. X was the employer's worker.

2. I have decided, for the reasons outlined above, not to exercise my discretion to consider the employer's issue of whether Mr. X was a worker of the employer or an independent operator.

***Worker's Appeal***

1. I find that there is insufficient evidence to establish, on the balance of probabilities, that the worker suffered from an occupational disease due to the nature of the worker's employment. There are no disputed possibilities which are equally balanced, thus section 99 of the Act does not apply.

2. I find that there is insufficient evidence to establish, on the balance of probabilities, that the worker suffered a personal injury arising out of and in the course of his employment. Section 99 of the Act does not apply as there are no disputed possibilities which are equally balanced.

James A Sheppard
Vice Chair

JAS/jtr/gwo



Workers' Compensation Appeal Tribunal 150, 4600 Jacombs Road, Richmond, B.C. V6V 3B1
Telephone: (604) 664-7800; 1-800-663-2782; Fax (604) 664-7898