THE FATALITY INQUIRIES ACT PUBLIC INQUIRY

REPORT TO THE ATTORNEY GENERAL

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CANADA
PROVINCE OF ALBERTA

WHEREAS a Public Inquiry was held at the Court House in the Town of Fox Creek in the Province of Alberta on the 7th and 8th days of January, 1998 before DONALD E. PATTERSON, an Assistant Chief Judge for the Provincial Court of Alberta.

A jury WAS NOT summonsed and an Inquiry was held into the deaths of:

Ivan Leon LaForceage24yearsClaes Dahlquistage49yearsJulia Matteage40years

Date and Times of Death:

Each died approximately 3:15 in the morning of the 19th day of April, 1997.

Place:

32 kilometers southeast of Fox Creek on Highway 43 in the Province of Alberta.

Medical Cause of Death ("cause of death" means the medical cause of death according to the International Statistical Classification of Diseases, Injuries and Causes of Death as last revised by the International Conference assembled for that purpose and published by the World Heath Organization — The Fatality Inquiries Act, Section 1(d))

Ivan Leon LaForce - Multiple blunt injuries

Claes Dahlquist - Anoxia/Inhalation of super heated gases

Julia Matte - Anoxia/Inhalation of super heated gases

Manner of Death ("manner of death" means the mode or method of death whether natural, homicidal, suicidal, accidental or undeterminable -- The Fatalities Inquiries Act, Section 1(g))

The manner of death was accidental.

CIRCUMSTANCES UNDER WHICH DEATH OCCURRED:

The three deaths occurred as a result of a collision between a pickup truck operated by Ivan LaForce and a Greyhound bus driven by Claes Dahlquist. Mr. LaForce died instantly from blunt force injuries arising from the impact. Mr. Dahlquist and Ms. Julia Matte, a passenger on the bus, both perished from the ensuing fire.

I. The Collision

The Greyhound bus was proceeding westbound from Whitecourt toward Fox Creek on Highway 43. The weather was clear and the road was dry. The bus had just crossed the bridge by the Two Creeks campground site and was proceeding up a hill. The eastbound LaForce truck emerged over the crest of the hill fully in the westbound lane.

Initially, Mr. Dalquist drove over to the shoulder and began to slow down. At the last moment, he swung the bus sharply to the left. The collision nevertheless occurred in the westbound lane. Post impact uncontrolled travel of the bus-truck combination crossed the east bound lane and shoulder to the south ditch.

II. The Fatalities

1) Mr. LaForce.

As indicated, Mr. LaForce died instantly from the force of the collision. At the Inquiry, both his mother and brother participated. I am grateful for their assistance in providing a different focus on the evidence. In addition, Mr. Edward LaForce provided a suggestion which I have incorporated in the recommendations.

Ivan LaForce had been engaged in a construction project near Valleyview. The crew held a party in a Valleyview motel to celebrate the conclusion of the project. The participants, including Mr. LaForce, consumed alcohol. None of them recalls observing that he displayed any particular signs of intoxication. Everyone believed he had retired to his bed for the night. However, Mr. LaForce left the motel in his truck. It is believed he was heading to his fiancee's residence in Stony Plain.

As part of the postmortem examination, blood and liver samples were forwarded to Dr. Graham Jones, the Chief Provincial Toxicologist. Due to the nature of the injuries and the fire, vitreous fluid and urine were not available for analysis. These are useful in corroborating blood concentration. Analyses of the substances were conducted April 22nd, May 1st, June 17 and September 4th. In addition, Dr. Jones prepared a very detailed supplementary report dealing with the various concerns that were raised regarding the results. I am satisfied that Dr. Jones was very sympathetic to those raising the concerns and his conclusions were the result of thorough, careful considerations. I adopt his conclusion that ethanol had been consumed close enough to the accident and in sufficient amount that it [may] be considered a contributing factor.

2) Mr. Claes Dahlquist and Ms. Julia Matte.

As indicated, each of the above persons perished in the ensuing fire. No alcohol was found in Mr. Dahlquist's blood. It was suggested that he might have taken other steps to avoid or minimize the accident. Assuming that both vehicles were travelling at the posted maximum speed of 90 km/h, there was less than five seconds between the first observation of the LaForce truck to the collision. Various alternative actions were suggested. However, under *The Fatality Inquiries Act*, I am precluded from assigning blame, let alone apportioning it. I therefore decline to engage in speculating what the driver might have done in the agony of collision.

Mr. Dahlquist was pinned in his position and was unable to leave the burning bus.

Ms. Matte was able to get out of the bus but succumbed to the effects of the fire.

ill. The Fire

Mr. Majeau was one of the passengers on the bus. He was awake and seated in the right front seat of the bus. He was able to recount the events from the time the LaForce vehicle came into view. Immediately after the impact he felt what seemed like a cold wave of water hitting him. He quickly realized that it was not water but diesel fuel oil. He immediately exited through the broken front window. He observed a small fire starting in the vicinity of the truck.

The conflagration which followed was horrendous. All combustible materials were consumed. The roof of the bus was incinerated. The fuel tank on the bus melted into a puddle of aluminum slag.

So little was left that the investigating members of the R.C.M.P. spent a great deal of time interviewing surviving passengers to eliminate the possibility that there was a fourth fatality. It was impossible to make that determination from examination of what remained of the bus.

Mr. LaForce had two fuel tanks in the box of his pickup truck. They were used for fuelling equipment on site. In the front of the box was a square gasoline tank bolted to the truck. There were two small holes in the front of this tank, no doubt caused by the impact. In the centre of the truck was what is usually called a "slip tank". These are very common in industry and agriculture. This one would hold 100 gallons and contained fuel oil.

Mr. LaForce's slip tank was held in by a 2 x 4 frame around the tank at the bottom and nylon straps secured with tighteners to the handles. This tank was the source of the fuel oil which sprayed over the bus and its passengers.

Upon impact, the slip tank ruptured. A gaping tear opened on the left rear seam of the tank allowing the contents to fly forward.

In my opinion, the nylon straps did what they were expected to. The fact that the tank remained in the box approximately where it was before impact confirms this.

It is also my opinion that the tank rupture was due to a tearing stress rather than from a blunt force caused by colliding with the front tank. There is no doubt that the slip tank moved forward at impact which, coupled with the rearward movement of the cab of the truck, crushed the front tank opening the two small holes. The straps would have a certain amount of elasticity, and one of the handles to which one strap was attached was broken. It is clear from examining the photographs, particularly No. 5 in the series taken by Mr. Oman, that the seam in the tank opened.

Mr. Oman was one of the two Dangerous Goods Inspectors who reported to the Inquiry. He provided an interesting and important sidelight. Prior to this accident, in his experience, most pickup truck drivers did not secure slip tanks with straps or otherwise. Following the accident, the rumor in the industry was that the unsecured tank left the truck causing the fire. Thereafter, the practise of properly securing slip tanks became much more common. The anomaly is that the tank on Ivan LaForce's truck was strapped, and we are told that he was conscientious in that regard. A false rumor improved general safety practises.

Fuel oil has a high flash point, and is unlikely to have ignited on its own. The initial source of the ignition was the small fire from gasoline leaking from the truck tank described by Mr. Majeau.

RECOMMENDATIONS FOR THE PREVENTION OF SIMILAR DEATHS:

Mr. LaForce's tragic death was due to circumstances which, unfortunately, occur with distressing frequency. I can add nothing to the existing rules and programs designed to minimize these occurrences.

The focus of this inquiry must be the slip tank on the LaForce vehicle which disgorged its contents onto (and into) the bus.

Slip tanks mounted on pickup trucks provide a very convenient method of refuelling equipment and machinery in the field. They are in widespread use throughout this province. It is inevitable that there will be collisions involving such vehicles from time to time. Highway safety demands that, to the extent possible, these tanks be secured in such

a fashion that they remain on the carrying vehicle in the event of collision. The integrity of the tanks themselves must be such as to ensure that the contents remain inside the tank.

We are advised that the slip tank in this case complied with existing regulations. In view of the catastrophic failure of this tank, in my view, the design and construction

regulations need to be revisited.

I therefore recommend:

1. Current design and construction standards for slip tanks be evaluated for

structural integrity in the event of highway collisions and new standards established

if research and practicality indicate that these are feasible.

2. Tie down straps, mounting methods and anchors be tested and evaluated

to determine strength and elasticity, particularly when subject to the forces of a

collision and new standards established if research and practicality indicate that

these are feasible.

3. Regulations made pursuant to the Transportation of Dangerous Goods Act

dealing with vehicles carrying slip tanks be amended to incorporate standards for

new tanks, anchors and straps; and to set out tie down requirements with sufficient

precision such as to eliminate any confusion and assist in enforcement procedures.

DATED this 17th day of February, A.D. 1998.

Donald E. Patterson

Assistant Chief Judge

The Provincial Court of Alberta

LEGAL COUNSEL AND PERSONAL REPRESENTATIVES

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Diane LaForce Edward LaForce Personal Representatives of Ivan LaForce, pursuant to s. 43(2)(a) of *The Fatality Inquiries Act*

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