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My Portfolio, published and unpublished articles.

Posts Tagged 'Westcliff Colliery'

Fiery essence

with 4 comments

I was 13, young and naive. My daddy was my hero and I thought he would live forever.

The symptoms began in August 1995; no one explained what was wrong.

The pain was so severe, my daddy couldn't sleep.

Finally he was diagnosed with a rare form of cancer, a Burkitt 's lymphoma^[1].

They treated him with chemotherapy.

The cancer and chemo were poisoning him.

His obsidian hair had vanished, gone without a trace.

My daddy was once fighting fit, muscular and strong.

The cancer took him away, away from me forever.

He was just 41.

I believed my father's cancer was like any other, an unlucky situation. It wasn't until one day that I was cleaning out the study that I came across yellowing frail documents. Cobwebs strung to these like a buried treasure. I dusted them down and began to read. To my horror, I read about my father's cancer and the possible link to a mining incident in 1986. Tears streamed down my face. Clutching these documents I ran to my mother. She claimed, "Yes they began an investigation into this. It was all too painful....."

On 13 December, 1986 a fire ignited in Longwall 7 at Westcliff Colliery. No miners were harmed. 10 years later, 11 miners who were at this fire developed rare medical conditions. Seven contracted cancer. Four including my father, Robert John Hill, have died. Was this just an unlucky coincidence, or is there a connection between the fire at Westcliff Colliery and the cancers? An investigation began in 1996, at this time it was understood that fires and cancers were unrelated. Since this investigation, there has been evidence of fire-fighters diagnosed with cancers.

Polyurethane[2] material (commonly known as PUR) had been used for strata binding by in-seam injection. The material is light, however when it sets it turns into a hard substance. PUR was pumped as a liquid form in Longwall 7 to make an artificial roof.

Prior to the polyurethane pumping, Chemfix conducted a number of trials on the pumping process of such large amounts. Evidential was a brownish coloured vapour but there was no ignition of the polyurethane. A meeting was held with Mine Manager, Undermanager in charge, and Project Engineers and a joint decision was made to go ahead with the PUR pumping.

The procedure ran smoothly. After the second application was pumped, there were reports of yellowish brownish vapours. At 12.45am on 13 December a fire was reported. It took 45 minutes to control. No one was injured.

PUR should only be used as a strata binder. In the incident at Westcliff Colliery, PUR was used as cavity filler. A report suggests that the spontaneous ignition can develop from inadequate mixing of the chemicals which causes thick masses of PUR.[3] According to Germany's experience with PUR 'health hazards are almost totally excluded provided the resin is properly handled and applied.' [4] The more PUR there is the more potential it has on catching on fire.

The PUR in this instance was not controlled. The current District Check Inspector at United Mine Workers, Gary Horne said, "We usually learn the hard way when these problems happen. As they often say the legislation is written in blood." [5] This was not an isolated incident. [6]

The investigation into the possible connection of miners' health conditions and the fire began with face to face interviews with miners at Westcliff Colliery. These interviews were conducted by the medical staff of the Joint Coal Board. This investigation needed to conclude:

1. The possibility that the polyurethane fire in 1986 was responsible for the medical ailments at the mine.
2. The possibility that the ailments were work related regardless of the polyurethane fire in 1986. [7]

The results of these interviews were assessed by Dr Bill Kirby from Coal Services. He reported that "7 of the 11 men identified as having medical problems, were suffering cancers. These cancers, in his opinion, could not be linked together and most were in numbers that were consistent with the national averages. He did *however* report that there appeared a slight over representation of men suffering from non-Hodgkin's lymphoma[8]." [9]

Due to this over representation of non Hodgkin's lymphoma, Kirby thought it was worthwhile to continue the investigation. "The next stage was to look at extensive data search of polyurethane industries, accidental exposures, medical studies adverse effects of polyurethane and the bi-products of burning polyurethane." [10] Unfortunately the research could not draw a connection between the miners' cancers and the fire at Westcliff Colliery. The next stage was a study on the men working at the time of this incident; this too was unsuccessful due to insufficient reliable data regarding names and placement of the men at the time of the fire.

It has been twelve years since the beginning of this investigation, and I am ready to face my grief, to try and find a sense of closure. An interview was conducted with Gary Horne, the District Check Inspector at United Mine Workers. Horne presented me with a number of other documents with evidence of the Westcliff Colliery Fire Investigation. He confirmed that the information isn't confidential but there needs to be respect for the people involved who may be deceased or terminally ill. I am able to speak about my father and there is mention of Watson and Campbell. Both men were interviewed by The Illawarra Mercury in 1998.

Russell Watson was the Day Shift Deputy for Longwall 7. He has had ongoing skin problems for the last five years. He spoke to the *Illawarra Mercury* in 1998 and said "I'm as red as a fire engine and scratch myself like a dog with mange." [11] Horne said, "He looked like a lobster, he was red. He was like this for years. He looked like he had been in the sun all day. He was certainly involved (in the fire)."

Horne believes the fumes were toxic and that there is a link between the miners' medical conditions and the fire, "There seems to me too much of a coincidence. You can do anything with this substance, just don't burn it. If this product burns it's lethal," [12] he continued, "Even if you have protected apparatus for breathing this substance can be ingested through your skin."

Another miner said, "I worked in the return one or two days after the fire, building the chocks and setting props. The chemical smells were coming down the return. I have had eye infections for the last five years and have seen a number of specialists." [13] The specialist couldn't explain his eye infection.

Neil Campbell helped fight the fire on Longwall 7 in 1986 until sufficient rescue teams arrived. He developed a form of non-Hodgkin's lymphoma. He was heavily involved with the investigation. Campbell also conducts an evaluation of non-Hodgkin's lymphoma present in the miners compared to the general statistics. He writes, "Based on the number of persons who worked on injection of PUR including initial inspections and fire fighting say approximately twenty persons (generous) using average age of forty-five-years (age specific). Expected cases over 10 years equals: per 100,000 would be 20 cases x 10 years = 200 cases or 1 in 500. At Westcliff using base of 20 men, divided by the number of cases 4, the ratio is 1 in 5." He continues "In 1994 non-Hodgkin's lymphomas accounted for 3.6% of all cancer cases [14]. At Westcliff Colliery in a 10 year period it has been 4 out of 7 cases or 57% or approximately 16 times the normal." [15] Unfortunately Neil Campbell was unable to be contacted to discuss this further.

The final correspondence from Campbell is dated 2001. The information suggests that he needed \$7775 to allow for the continual testing of the polyurethane. I have been trying to contact Campbell, but unfortunately this has been unsuccessful. There is no evidence showing that this investigation went further.

Ray Cartwright, a scientist who studies cancer clusters writes, "Sadly, experience tells us that almost all cluster investigations will fail to produce insights into environmental disease interactions, and no amount of time, effort and money will change this." [16]

The initial Westcliff investigation was to determine whether the toxicological literature relating to PUR combustion had any connections to health problems. There was no evidence found. The second stage of the investigation, Kirby comments, "gave reason to the ubiquitous nature of PUR allowing the health effects of its combustion to be found in the epidemiology of fire-fighters. Several studies have been done but none report cancers as an outcome of being a fire-fighters" [17]

One of the studies of fire fighters and medical conditions sourced was from November 1967, men fighting a fire in a polyurethane foam factory. This study [18] looked at the connection between the fire and medical conditions. The smoke was described as "a distinctive metallic taste and smell". In this incident the medical conditions described by the fire-fighters were "gastrointestinal, respiratory and/or neurological symptoms," [19] there was also irritation of eyes nose and throat. There was no evidence of cancer related illness at this time.

Val Ansett, a Fire Investigator from the NSW Fire Brigade said, "Fire fighters use breathing apparatus, but once the fire is out they take these off. They are often breathing in carcinogenic products." [20] Fire-fighters breathing apparatus only last for 40 minutes. The toxic substances fire-fighters could be exposed to include benzene, lead, uranium and asbestos. These can be inhaled or absorbed through the skin.

Ansett stated that he couldn't comment personally on the connections of fires and cancers, however, "modern furnishing are made from polyurethanes and plastics, these when smouldering give off toxic chemicals such as cyanide, carbon monoxides." [21] He stated that there is still very little known about the connection between fire fighters and cancers. "I have no evidence of this physically." [22]

In December 2007, a cancer cluster investigation began into five cases of cancers among current and previous staff at Atherton Station in Queensland. They ruled out any connection to the cancer and the actual station. In April 2008, the investigation continued. An interview was conducted by the ABC with Officer Garry Marsh who was recovering from brain cancer. He wished further research to go ahead in the link between fire-fighters and cancers. Nevertheless he said "I hope that they don't find anything which is a risk because it would be detrimental against the fire service for a start." [23]

There are now recent studies that have concluded that fire-fighters are at greater risk of contracting cancers. "The analysis, of 32 previous studies, shows that fire-fighters are at greater risk of prostate and testicular cancers, as well as the immune system cancers non-Hodgkin's lymphoma and multiple myeloma." [24] Dr Grace LeMasters from the University Of Cincinnati College Of Medicine studied over 110,000 firefighters. These studies concluded that "fire fighters had doubled the risk of testicular cancer as men in other occupations, a 50% higher risk of both multiple myeloma and non-Hodgkin's lymphomas and a 28% higher risk of prostate cancer." [25]

The investigation into fires and cancers is still a work in progress. This further evidence about fire-fighters and cancers is another piece for the unsolved puzzle with the fire at 1986 at Westcliff Colliery. It would be ideal for this investigation to be reopened. There is greater evidence now than ever before with the acknowledgment of Dr LeMasters studies on fire-fighters and cancers. Hopefully we are able to have some sense of closure before it is lost underground forever.

My father has been absent from my life for 12 years, like with anything as time goes by the pain becomes less and less. It's like a wound, the blood and scar tissue begin to heal but the scar remains. With time, this scar begins to fade, but it's always there.

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[1] A medical cancer of the lymphatic system, caused by the Epstein–Barr virus, chiefly affecting children in central Africa. Type – non-Hodgkin’s lymphoma. <http://www.encyclopedia.com/doc/1O999-burkittslymphoma.html> viewed on 6 June 2008.

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