# Cancer and Industrial Pollution

The Findings of the Workers Inquiry into the Wollongong Leukaemia and Cancer Crisis

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## Summary

The Workers Inquiry into the Wollongong leukaemia and cancer crisis was held at Port Kembla on the weekend of July 19-20, 1997.

The six inquiry commissioners have found that:

- The staggering number of leukaemia and lymphoma deaths among former Warrawong High School students since 1989 is not a mysterious coincidence but part of a wider pattern of cancers and ill-health, particularly among young people, throughout the Wollongong area.
- BHP, the owners of the Port Kembla copper smelter and other major companies are responsible for the rising leukaemia and cancer toll. There is a direct link between cancer and the industrial contamination of the air, soil and water of the region.
- The report prepared by the Illawarra Public HealthUnit was a whitewash, organised by the Labor government to protect the interests of the companies involved.
- Political responsibility for years of official cover-up lies with the Labor and trade union leaders.

### Introduction

In 1989, young people in the working class suburbs surrounding BHP's steelworks began dying of leukaemia or lymphoma, beginning with Bill Neskovski, 25, in 1989 and Samah Maarbani, 19, in 1990. Both were former students of Warrawong High School.

They were followed by several members of the Warrawong High class of 1991. Jimmy Veljanoski, 19, died in June 1995, Goce Ilioski, 21, in August 1996 and Melissa Cristiano, 20, in February 1997, just a day after one of her former teachers, Bob Churton, died aged 41.

Samah, Jimmy and Goce came from the suburb of Cringila, which directly borders the steelworks, the largest industrial plant in Australia. Melissa lived in neighbouring Lake Heights and Bill Neskovski in Port Kembla itself. All but one were the sons or daughters of steelworkers.

As well, two young people in nearby Berkeley died from leukaemia: Darren O'Dea, 21, in 1992, and Karina Peppoloni, 5, in June 1995. More were diagnosed, including David Hawthorne, 19, Anthony Palma, 7, and Quang Hoang, 19, all from Berkeley, and Suzana Silva, 33, from Warrawong.

These suburbs lie just a few kilometres from the Port Kembla industrial complex. In Cringila, rows of streets end abruptly at the BHP steelworks fence line. Directly to the north is BHP's huge toxic waste site known as Dump 21. Dusts from the mountains of slag constantly blow across the area, infiltrating every nook and cranny of the houses, schools, shops and day care centres.

In Port Kembla, the copper smelter chimney towers right over the local primary school, whose grounds are contaminated by lead. Until its closure in 1995, the smelter subjected local residents to a constant rain of particles containing dangerous heavy metals.

Moreover, many schools — including Warrawong High, Warrawong Public and Cringila Public — are built on highly toxic steelworks slag and coalwash, as are housing estates, parks and recreation areas.

Leukaemia and lymphoma, both blood-related cancers, are extremely rare among teenagers and young adults. Leukaemia, in particular, is normally confined to infants and those aged over 50. The extraordinary leukaemia rate among young people in the Warrawong-Port Kembla area — at least 14 times higher than the state average — has to be accounted for.

If such rare cancers began killing off large numbers of young victims in a wealthy suburb in Sydney or Melbourne, considerable resources would be devoted to identifying the causes.

But no action was taken by the state Labor government, the NSW Cancer Council or the Illawarra Area Health Service over the Warrawong outbreak, even though every case had been notified to the NSW Cancer Registry.

### Melissa Cristiano's campaign

Melissa Cristiano, the daughter of a BHP coke ovens worker, first made the crisis public. Her leukaemia was diagnosed in September 1995, just one month after her wedding. Upon discovering that several school friends had already contracted the disease, she rang the Health Unit to request a soil test at Warrawong High. Her phone calls — three in all — were not returned.

Melissa also contacted the Fairfax-owned local daily paper, the Illawarra Mercury, but for months it published nothing. Only in late July 1996 did a story appear on her family's efforts to raise tens of thousands of dollars to find a compatible bone marrow donor.

Public reaction was strong. Goce Ilioski's death on August 23, 1996 added to the growing anger, with more than 2,000 people lining the streets of Cringila for his funeral.

Immediately, the media and the government went into damage control. The Mercury and local TV outlets portrayed the crisis as a bizarre Warrawong High "curse" — an insoluble mystery. Men could be sent to the moon and automated probes landed on Mars, but it was impossible to establish the facts about a major breakdown in public health.

On September 5 1996, the Carr Labor government announced that an investigation would be conducted by the Illawarra Public Health Unit. Its purpose was not to uncover the truth but to placate the public outrage and protect BHP, the immediate suspect in the eyes of most workers.

Health Minister Andrew Refshauge emphasised from the outset that the investigation was unlikely to produce any answers. At the same time, BHP's spokesman, Jerry Platt, brushed aside decades of incontrovertible scientific evidence that benzene, a by-product of steelworks coke-making, causes leukaemia. There was no evidence linking steel plant pollution to leukaemia, he declared.

To ensure the outcome, the Labor government appointed BHP to the steering committee to supervise the Health Unit project, together with representatives of various official agencies — the Environment Protection Agency (EPA), Wollongong Council, WorkSafe and WorkCover.

### The Workers Inquiry

The Socialist Equality Party initiated the campaign for an independent Workers Inquiry in order to provide a vehicle through which ordinary working people could establish the truth.

The SEP rejected the claim that the leukaemia cases were a mystery. It insisted that the causes could be established through the combined and organised efforts of workers, residents and victims and their families, with the help of concerned scientists and health workers.

On July 19-20, 1997, after two public meetings and a 10-month investigation, the SEP and the Committee for a Workers Inquiry convened a two-day hearing at the Port Kembla Leagues Club. Twenty-nine witnesses testified for a total of 11 hours. Numerous other submissions were received.

### The six commissioners

**Peter Stavropoulos**, a BHP steelworker for eight years and Hot Strip Mill delegate, was the Workers Inquiry convenor and chaired the panel. A member of the SEP, he has also been a long-time resident of Cringila and a former Warrawong High student.

**Will Juarez** has been a steelworks metalworker for 28 years, including 14 years in the coke ovens, and is the father of Melissa Cristiano;

**Sonya Colless**, a Port Kembla mother of three children is president of the Illawarra Montessori pre-school at Berkeley;

**Tony Barea**, a 24-year-old steelworks electrician has been a lifelong resident of Kemblawarra and Primbee, and was a friend of two of the leukaemia victims — Goce Ilioski and Jimmy Veljanoski;

**Perla Astudillo** is a biological sciences graduate and SEP member from Melbourne who conducted research and interviewed witnesses for the inquiry;

**Linda Tenenbaum** is the assistant national secretary of the SEP. She was a commissioner on the 1994 Workers Inquiry into the police killing of Aboriginal youth Daniel Yock.

The commissioners sought to answer a number of critical questions:

- What is the true extent of the leukaemia, cancer and other ill-health plaguing workers and their families throughout the Wollongong region?
- Is industrial pollution to blame?
- If so, which toxic emissions and wastes are likely to be responsible?
- How have BHP and other companies, the government and official agencies such as the Health Unit, the EPA, the Cancer Council and the universities responded to the cancer crisis?
- What has been the response of the ALP and the trade unions?
- How were the victims and their families treated by the government, the authorities and the public health system?
- What must be done to halt the destruction of the lives and health of working class families?

This report answers these questions, based on the evidence presented at the hearings and other information provided to the commissioners.

### An Epidemic Linked to Industry

Statistics obtained from the Cancer Council show that for at least two decades, workers and their families living near Port Kembla have been many times more likely to suffer leukaemia and other cancers than those living further away.

Taking six postcode areas for which stable population data are available, the average rate of leukaemia was some 10 times higher at Berkeley, 4 km from Port Kembla, than at Minnamurra, 18 km away. **The rate at Berkeley was 4 per 1,000 people over 22 years; at Minnamurra it was 0.47.** 

When the results were plotted on a graph, the curve showed a striking inverse square relationship between the leukaemia rate and distance from the industrial complex. **Such a curve indicates a specific point source, namely the Port Kembla smokestacks.** There was less than a 5 in 100 possibility of that curve being produced by chance.

Over the same period, 1972-94, there was also a close correlation between leukaemia and distance of residence from the two cokeworks north of Wollongong, at Corrimal and Coalcliff.

The Cancer Council's postcode figures for all cancers apart from leukaemia demonstrated a parallel link to Port Kembla's toxic emissions, with only a 1 percent chance of error. On average, the rate of cancer was 6.5 times higher at Berkeley and Wollongong than at Minnamurra.

These analyses, conducted by environmental scientist Chris Illert and mathematician Daniela Reverberi, confirmed the pattern detected earlier when a leading Wollongong oncologist, Dr Paul Clingan, supplied postcode details of the 1,325 cancer cases he treated from 1986 to 1996. Those results showed that the average rate of cancer was three times higher near the steelworks and the copper smelter than it was 20 km away.

Similar conclusions were reached by one of the largest studies of childhood cancer and leukaemia conducted anywhere in the world. Professor George Knox of Birmingham University examined the 22,000 cases of those who died before the age of 15 across Britain from 1953 to 1980. **He found that children born within 5 km of an industrial source or 3 km of a motorway or railway had a 20 percent greater likelihood of contracting cancer or leukaemia before reaching adulthood.** The pattern persisted over three decades, regardless of population movements.

In Wollongong, further statistics obtained from the Cancer Council revealed an unusually high rate of leukaemia among children and teenagers since at least 1974. Moreover, they indicated two distinct peaks of this rare disease among young people — from 1981 to 1983 and from 1989 to 1992.

Both these peaks followed incidents involving high benzene-related emissions. Elevated levels of benzene exposure were measured among workers at the BHP coke by-products plant in 1982 and 1988; and a huge 24-hour spike in atmospheric benzo(a)pyrene levels was recorded in August 1988 at an EPA monitoring station in Warrawong.

In its quarterly reports, the EPA published graphs which cut off the top half of that spike. Its true height, subsequently admitted to the Workers Inquiry by the EPA, indicated that the

total level of highly carcinogenic PAHs (polycyclic aromatic hydrocarbons), all of them benzene-related compounds, exceeded World Health Organisation safety levels by many thousands of times.

Furthermore, that spike was followed, in the winter of 1989, by a six month period in which the EPA apparently ceased monitoring. When challenged to explain this suspicious gap in its records, the EPA director-general replied that monitoring was suspended to reduce costs and because the winds blew out to sea that season. It seems that the EPA has covered up a period of high readings that may be directly related to the Warrawong cases. Yet another six-month gap occurred in late 1994 and early 1995 — just before several Warrawong High students were diagnosed.

### Statistics suppressed

For at least two decades, the NSW Cancer Council, the health authorities and the government have been deliberately suppressing these figures and the industry-related pattern that they reveal.

Victims, parents, residents, health professionals and workers provided compelling anecdotal evidence further pointing to abnormal levels of child and teenage cancer, including rare brain tumours, as well as severe concentrations of adult cancers, around the Port Kembla smokestacks.

- Dr Evan Whittaker, a local GP, testified that he discovered that 4 students in one class and 10 in one peer group at Warrawong High had been diagnosed with lymphoma. When he reported this information to the Health Unit, he was told it was irrelevant.
- Out of one class of about 16 girls who went through Port Kembla High School together, seven gave birth to children with severe birth defects. Two babies were born without skull caps or brains, two had Downs Syndrome, one had spina bifida, one cystic fibrosis and one suffered mini-strokes. One of the students died of bone cancer aged 15. Another died of a brain tumour in her 30s. Yet another survived a brain tumour at the age of 11.
- Eight residents have died since 1989 or are dying of cancer within a 100-metre radius in and near First Avenue Warrawong, including four cases of rare oesophageal cancer. These cases indicate that the incidence of oesophageal cancer in Warrawong is at least 10 times the state average. This neighbourhood is within 1 km of the steelworks, adjoins the Brambles freight yard and lies in the prevailing wind pattern from the copper smelter.

The Health Unit report states that among those aged 15 to 24 living in Cringila, Lake Heights, Warrawong and Berkeley, the rate of leukaemia since 1989 is 14 times higher than average and the lymphoma rate among under-50s is nearly double that expected.

### Port Kembla's Toxic Cocktail

BHP, Rio Tinto, the former copper smelter owners, and other large companies have been

able to pollute the Wollongong region with impunity for decades.

At night, Port Kembla and its surrounds resemble a scene from Dante's Inferno. Flames erupt from the steelworks stacks, clouds of emissions billow into the air and the sky is frequently lit up in an orange haze.

The combined fumes, dust, waste stockpiles and liquid discharges of the major industries have contaminated and continue to contaminate not only the entire region's air, but also its soil and water supplies.

Port Kembla is a highly concentrated industrial complex. Besides an integrated steel-works and a copper smelter, it contains a non-ferrous metal foundry (Metal Manufactures), a superphosphate and fertiliser factory (Incitec), a metal fabrication and construction plant (Transfield), petroleum storage depots, road freight yards, a coal loader, a port and a rail terminal.

These industries, and a host of smaller ones, produce a vast array of carcinogenic materials, which interact in a manner that has never been independently tested.

### Benzene

Benzene is a proven cause of leukaemia. It is produced in large quantities as a by-product of BHP's coke ovens, just 1 km from the nearest homes in Cringila. Apart from the benzene that leaks from coke ovens gasses, BHP currently produces about one million litres of liquid Benzol-Toluene-Xylene (BTX) for commercial sale per year. In the past the level of output has been far higher. Between 1979 and 1981 and between 1987 and 1990, BHP produced more than 2 million litres annually.

BHP and the EPA understate the company's benzene pollution by referring to **monthly** averages, that disguise bursts of high emissions. Overseas studies have indicated it is these high emissions that are likely to be the most dangerous.

There is no safe level of exposure to benzene. Studies have found that the smallest doses can trigger the formation of leukaemias, with the highest risk among children, the aged and the ill.

Yet no Australian standards have ever been set for atmospheric benzene levels in neighbourhoods near industrial sources, and prior to September 1996 no monitoring took place to measure them.

Even inside the Port Kembla steelworks no monitoring has been required, except in the coke ovens' gas processing plant. That monitoring is carried out by BHP itself. No benzene records exist at all for the rest of the coke ovens, including for No. 3 battery, the oldest and dirtiest.

In addition, polycyclic aromatic hydrocarbons (PAHs) are released from the coke ovens and various other parts of the steelworks, and dioxins are produced in massive quantities from the steelworks sinter plant, as well as from the copper smelter and hospital incinerators. Both are likely causes of leukaemia and other cancers.

Dioxins have been linked to leukaemia and lymphoma, heart disease, damage to child-hood brain and immune system development and birth defects. BHP's sinter plants at Port

Kembla and Newcastle are by far the greatest industrial sources of atmospheric dioxin pollution in NSW.

### Other carcinogens

Other known carcinogens pumped out in Port Kembla include toluene, xylene, styrene, asbestos, vanadium, arsenic, chromium and cadmium. Cadmium has been found in the soil of a Port Kembla front yard at 340 times the average concentration. Yet another cancercausing agent is vinyl chloride, emitted in heavy doses from both the steelworks and copper smelter.

Added to this mixture is lead, 46.5 tonnes of which poured out of the former copper smelter every year. Lead is a suspected carcinogen, a proven cause of mental and behavioural problems, particularly in children, and a likely cause of still births and birth defects, including spina bifida.

This deadly cocktail further interacts with the dusts blown all over Wollongong's western and southern suburbs from Dump 21. Bounded by the F6 freeway and Masters, Springhill and Five Islands Roads, BHP's uncovered toxic waste site occupies approximately four square kilometres in the middle of major residential areas. Cringila lies immediately to the south, Unanderra to the west and Mt St Thomas and Coniston to the north. Despite shrub planting and other camouflages, its twin slag heaps have grown visibly throughout the 1990s.

Dr Evan Whittaker testified that after years of BHP cover-up, its scientists had admitted that Basic Oxygen Steelmaking (BOS) slags, piled up in Dump 21, contain up to 19,200 parts per million of vanadium, present as Vanadium Pentoxide. He warned that vanadium is known to increase the carcinogenic properties of benzene and other hydrocarbons.

No complete records have been kept of the poisonous materials deposited in Dump 21. A former contractor gave evidence of hazardous practices, including the pouring of acids into vast unlined pits, to which tonnes of lime were added, giving off caustic clouds. On many occasions untreated acids and other toxic wastes were released into Port Kembla harbour. The witness reported that many of his former workmates have died or are dying from cancers and other related diseases.

The potentially lethal combination of vanadium and benzene is part of a wider danger. A series of animal and human studies have indicated that, in general, interaction (or synergism) between different carcinogens leads not merely to an additive but a multiplicative increase in the risk of cancer.

### Heightened risk in Wollongong

In Wollongong the risk is heightened because the city consists of a narrow coastal strip hemmed in by a mountainous barrier, with an escarpment of up to 1,500 feet trapping airborne pollution. Below the mountains, steep ridges and valleys funnel the fumes and dusts into working class neighbourhoods, including Cringila and Berkeley.

In the early 1980s, when some of the leukaemia victims would have initially contracted

the disease, dust fallout in the Warrawong area exceeded 190 tonnes per square mile each month, while the lead fallout reached 16 micrograms per cubic metre, more than 10 times the level defined as acceptable by the National Health and Medical Research Council.

The Carr government's decision to allow the Port Kembla copper smelter to reopen, despite overwhelming local opposition, will intensify the health crisis. The revamped smelter will churn out up to 200,000 tonnes of copper annually — an increase of 250 percent — with about two-thirds the previous workforce.

Its impact in human terms was summed up in a submission presented by Port Kembla resident Philip Colless:

"If we allow the copper smelter to reopen, lead, cadmium, arsenic and sulphur dioxide will fill the air again. There will always be a fine layer of toxic dust over every surface in our homes. It will cover the floors, tables, benches, beds, pots and pans, cups and plates, clothes and toys — everything. The concentrations of toxic metals in the soil and roof dust will increase year after year."

### Suburbs built on slag

For decades, housing estates, playing fields and schools such as Warrawong High have been built on toxic wastes, which can be ingested by breathing dust, eating fruit and vegetables grown in the soil and consuming fish caught in poisoned waters.

Until 1995 when the smelter closed, at least 250,000 tonnes of granulated copper smelter slag, containing high levels of lead, arsenic and cadmium, was used as landfill throughout the region every year. From the 1940s it was dumped at Windang, which was subdivided for housing estates in recent years. After 1983 slag was deposited in Primbee's Korrongulla Swamp, only to be dug up again in 1997 for industrial grit-blasting material.

A 1992 Health Unit report on the Windang Gardens Estate admitted that fruit and vegetables grown in the landfill often exceeded the safe levels of lead, cadmium and copper. **But it held no-one accountable and recommended no remedial action or compensation**. Instead it suggested that working class families buy new topsoil and make their children wash their hands after playing outside. A year later a Wollongong City Council environmental scientist Iradj Yassini reported that the groundwater was also contaminated.

Steelworks slags have been commonly sold for landfill and construction, including road building. Evan Perkins, a West Dapto farmer, gave evidence that for two decades BHP, backed by government authorities, lied about testing procedures and denied that the materials used to upgrade Bong Bong Road, Dapto for coal haulage in 1972 were toxic. In the short-term, at least three of the road's residents contracted cancers. Since then the proportion of deaths caused by cancer has been three times higher than average. Perkins' cattle also died and his previously successful dairy farm was ruined.

In addition, coalwash fill from BHP-owned and other mines has been used extensively in the hills and valleys of Cringila, Warrawong, Lake Heights and Berkeley. Coalwash — un-

wanted residues from coal mines — contains petroleum hydrocarbons, PAHs and heavy metals, including copper, lead and zinc. This material can catch alight, giving off benzene and other fumes, as was the case with three grass fires near Cringila Public School, lasting three weeks each in 1980, 1993 and 1995.

Other wastes, including highly toxic acids, have been disposed of in many locations. For example, up to 200 kilolitres per month of acid waste (pickle liquor) from BHP and an unknown amount of Australian Fertiliser acid by-product were dumped in northern Windang during the 1960s and 1970s.

Investigations in 1995 found that slag, rubble and building waste used at Port Kembla Outer Harbour was heavily contaminated with copper, lead, zinc, petroleum hydrocarbons and PAHs. The lead levels on the site, used for the annual Harbourfest, were 10 times higher than the official safety level.

The region's water supply may be affected by both airborne pollution and seepage from toxic landfill and groundwater. Manhole covers on the two reservoirs near Cringila are commonly left open, seepage can occur through cast iron mains and toxic materials can be sucked into the system when the water pressure is lowered to repair leaks.

### Corporate Power and Influence

BHP was closely involved in the investigation initiated by the Carr government and carried out by the Illawarra Public Health Unit. Not only did it sit on the Steering Committee; it funded portions of the research and supplied all the so-called benzene estimates.

BHP manipulated the results of the atmosphere benzene monitoring conducted by the EPA in the four months from September 1996 to January 1997. **During that period, the company shut down at least 25 percent of the coke ovens' No. 3 battery, the most polluting, and stopped burning off wastes in the coke ovens.** 

Not only were the test results rigged, but the Health Unit's estimation of past benzene levels was based on BHP's own calculations. **Since the past levels were never monitored, this amounted to nothing but pure speculation**. The "independent auditor" which supposedly checked BHP's figures, Holmes Air Sciences, admitted it undertook no testing and had no independent knowledge of BHP's operations in previous decades, when No 1 and 2 coke ovens batteries were operating, emitting even worse fumes than No 3. Holmes also stated in its report that it works for BHP in Queensland, previously worked for BHP Port Kembla and "intends to make its services available in the future".

Deception by BHP is nothing new. At least since 1979, reports have appeared of secret company payouts to steelworkers or their widows on condition they remain silent about work-related cancers and other serious diseases.

### Decades of official cover-up

The Health Unit inquiry was the latest in a long line of official cover-ups clearing BHP of

responsibility for deaths caused by industrial pollution and unsafe working conditions.

In 1975, for example, three coke ovens workers were killed in a gas explosion. A Labour and Industry Department investigation found BHP guilty and fined the company a total of \$200 — or \$67 per death! When a coke ovens worker was killed in similar circumstances 15 years later, a coroners court found that BHP was not responsible, despite overwhelming evidence of dangerous work practices and inadequate safety procedures.

Together with other major corporations, BHP treats Wollongong like a virtual company town. Every organisation and institution is in same way beholden to it, including the media, Wollongong University and hundreds of small businesses and sub-contractors. Even the former Wollongong Lord Mayor Frank Arkell, who headed the body responsible for issuing planning and other permits for years, held a contract to operate heavy machinery on BHP's Area 21 dump.

At the university, BHP has funded the chair of Environmental Sciences, the Centre for Welding and the Centre for Innovative Technology. It sits on the governing body, the University Council. Like other tertiary institutions, Wollongong University increasingly depends on corporate sponsorship.

The more that BHP slashes jobs and conditions, the more it postures as a concerned member of the community. In 1982, for instance, just as it began to axe thousands of jobs, it sponsored a rugby league team — the Illawarra Steelers. In basketball, the Illawarra Hawks, and in soccer, the Wollongong Wolves, also depend on BHP's subsidies.

### Corporate giant

BHP has made billions from the working class — \$1.5 billion from steel alone over the past 10 years. Today it is a global conglomerate with operations and offices in 70 countries. Its assets total more than \$36 billion and its annual sales exceed \$20 billion — more than the yearly income of the NSW government and many small countries. Its top executives each receive over \$1 million a year in salary, bonuses and share offerings.

Likewise, both the British-Australian conglomerate Rio Tinto, the former owner of Southern Copper, and Brambles, which operates a large freight yard in Warrawong, are among the 1,000 largest companies in the world. Rio Tinto holds assets worth at least \$23 billion and takes in over a billion dollars a year in profits. Metal Manufactures is another major corporation with subsidiaries elsewhere in Australia and overseas.

These companies engage in constant economic blackmail. They threaten to relocate to other countries if there is not total government support for their interests and operations. If workers object to unsafe conditions, they threaten to axe jobs. But in fact BHP and other companies are destroying both safety and jobs in the relentless pursuit of profit.

Since 1982 BHP has slashed the number of jobs at the Port Kembla steelworks from over 22,000 to 7,000 and now has a target of 5,000. Regional unemployment has skyrocketted, particularly among youth. The official jobless rate is 11.3 percent; the actual figure is much higher.

Recently BHP announced the closure of the Newcastle steelworks and its chief executive

John Prescott demanded that every company operation lift return on capital to 10 percent by early 1998 or face extinction.

Port Kembla is already being rundown. The company has cut maintenance by 30 percent while driving up the rate of output through longer shifts, lower manning levels and further multi-skilling. Having more than trebled the output of steel per worker from 180 tonnes in 1982 to 670 in 1997, management is now demanding 1,000 tonnes a year. These measures will further undermine the health and safety of both workers and local residents.

### The Official Cover-up

The Illawarra Public Health Unit's leukaemia investigation was a whitewash. It started and finished with two predetermined conclusions: that the causes of the leukaemia outbreak would never be known, and that BHP's emissions were not responsible.

Health Department officials constructed the so-called investigation to arrive at the required results. No budget was allocated and the Illawarra Area Health Service has refused to divulge the pittance actually spent. This lack of resources reflected the task assigned to the Health Unit: to sweep the leukaemia cases under the carpet as quickly as possible.

The Health Unit:

- Ignored and suppressed cancer and leukaemia statistics showing a definite link to industry
- Conducted no independent studies of the toxic emissions at BHP, the copper smelter or any other industrial source over the past three decades
- Accepted as fact falsified data from the EPA, with incriminating gaps at crucial points
- Exonerated BHP on the basis of rigged benzene estimates supplied by the company, ignoring other known carcinogens and possible contributing agents.

The Health Unit did not even implement Melissa Cristiano's original request — to analyse the landfill on which Warrawong High was built. A Health Unit official made a superficial visual check of the school, claimed nothing was present but coalwash and immediately gave the all clear for students to return. He ignored metres of steelworks slag — a source of fine dust particles containing traces of heavy metals — on which the school's oval and playing areas are constructed.

Witness after witness testified at the Workers Inquiry that they had phoned the Health Unit about rare cancers, birth defects and other diseases. Each was dismissed with the same standard reply — "it is just a coincidence".

In an inadvertent admission that its own conclusions were a sham, the Health Unit advised the state government to maintain "adequate buffer distances" between industrial premises and schools and residences. The obvious question arises: why should buffer zones be necessary if there is no link between industrial pollution and cancers?

As a sop to victims' families, the report recommended a molecular genetics study and a 12-month feasibility study into a more detailed epidemiological project. These studies cannot definitely identify the cause of the leukaemias, nor are they intended to. The government simply hopes that in a year's time the outrage felt by many workers and their families will have subsided sufficiently for the project to be quietly dropped.

The Illawarra Public Health Unit was one of 15 such bodies set up across NSW by the Greiner government in 1990-91, purportedly monitoring everything from food and environmental hazards to contagious diseases. They were established at a time of sweeping cuts to the public health system, including the closure of several major hospitals — Marrickville, West Wallsend, Lidcombe, Western Suburbs and Balmain. Their job has been to hose down public alarm over health disasters. Since 1992, the Illawarra unit has produced several reports — on soil contamination at Windang Gardens, severe health problems near the Corrimal Cokeworks and unsafe lead levels in Port Kembla — all exonerating the companies responsible.

Neither the Health Unit nor any other government body has conducted a study of cancer among the estimated 150,000 steelworkers employed at Port Kembla since World War II, despite international studies showing cancer rates up to 20 times higher than average among coke ovens workers.

While their names suggest that agencies like the Health Unit, the EPA and WorkSafe exist to protect the public, in fact they defend the interests of corporate Australia.

The EPA does not regulate industrial pollution; it issues companies with licences to pollute. In 1990, for example, the EPA permitted BHP Port Kembla to release 83 tonnes **each day** of suspended solids, 16.5 tonnes of oil and grease, 4.8 tonnes of zinc, 3.9 tonnes of ammonia, 180 kg of phenol, 62 kg of cyanide and 45 kg of chromium.

These licences are negotiated with management, based on what they say they can afford, not the requirements of public health. Thus between 1981 and 1986, the EPA suspended all Pollution Reduction Programs at BHP Port Kembla, on the grounds of a downturn in the world steel industry. **Even the monitoring of pollution licences is conducted by the companies themselves.** The EPA never challenges the results.

The NSW Cancer Council also functions to shield the companies. It does not record the birthplace, schools attended or occupation of cancer patients — vital information in establishing the rate of industry-caused cancers. For years, the council refused to provide researchers with any postcode breakdowns of its statistics. It only supplied the Workers Inquiry with such data following a public demand, backed by growing public support.

Wollongong University is implicated in the Health Unit cover-up. Its pro-vice chancellor Christine Ewan chaired the investigation's Steering Committee. Not one of the hundreds of academics employed at the institution came forward to testify at the Workers Inquiry, despite the skills, knowledge and technical facilities at their disposal.

### The Labor Party and the Trade Unions

Every Labor and trade union leader in the Illawarra has supported the Health Unit's cover-up. Local state Labor MP Gerry Sullivan has acted as an apologist for the major companies by publicly attributing the leukaemia epidemic to pesticide spraying at Warrawong High — a claim that flies in the face of the wider geographical pattern of leukaemia and cancer.

Sullivan, along with his parliamentary Labor colleagues, backed the Carr government's decision to reopen the Port Kembla copper smelter, a prime suspect in the cancer crisis, **even before the Health Unit had completed its report**. They all voted in favour of legislation blocking a court challenge to the smelter's reopening and extinguishing all rights of appeal against major projects statewide.

### Carr's reply

The subservience of the Labor leaders to the major companies was underscored by Premier Bob Carr's reply to an Open Letter from Workers Inquiry convenor Peter Stavropoulos. The Open Letter challenged Carr to elaborate on remarks he had made in Newcastle referring to the "dirty and dangerous work" done by workers "who carried cancer in their bodies because of exposure to dangerous chemicals in this place".

Carr's statement amounted to an admission that the Laborites were fully aware that BHP's toxic emissions were causing cancer. BHP immediately condemned Carr for making an "irresponsible" statement. In his reply to Stavropoulos, Carr did an abrupt about-face. He denied that any problem existed.

### SCLC collaborates with BHP

The unions have also played a crucial role in covering up the cancer crisis. They spear-headed the decision to restart the smelter, signing a site agreement to enable the new consortium to slash the pre-1995 workforce from 430 to 270.

South Coast Labor Council secretary Paul Matters has admitted involvement in at least one case in which a steelworker died of cancer and his family was hushed up through a secret cash settlement.

A number of workers testified on the complete indifference of union officials toward unsafe and dirty working conditions.

Workers and local residents have fought industry's pollution for decades, only to be betrayed by the union leaders.

In 1979 the Wran government's Health Minister Kevin Stewart was forced to commission a report which admitted that the government, the unions and BHP were well aware of the likelihood of cancer deaths in the coke ovens. "The risk to health by induction of cancer was accepted as a reality without question," it stated.

Workers' demands for measures to protect their health led to a four-day coke ovens strike in 1980 which was steered into the arbitration courts by the unions. The concerns of workers were buried.

In 1982, a federal government report into hazardous chemicals urged the closure of battery No 3. In their submission, the unions described the battery as a "fume-leaking monster". But they were prepared to do a deal with BHP that enabled No 3 to remain in operation with only minor modifications.

In the same year, the unions joined hands with BHP management in the face of a global steel industry crisis. They headed off an explosive movement among steelworkers and coal miners against massive job destruction — a movement culminating in the storming of parliament house in Canberra. The unions insisted that workers had to bow to an Accord with the incoming Hawke Labor government and the imposition of a Steel Plan to cut jobs and drive up productivity.

Over the last 15 years, the unions have increasingly collaborated with BHP to implement global restructuring. Not only have thousands of jobs been eliminated, but the concerns of workers over safety and working conditions have been sacrificed.

From Paul Matters down, the unions reacted to the Workers Inquiry with hostility. In at least one case, Matters actively prevailed on a witness not to testify. In the week before the Workers Inquiry, Matters rang the Socialist Equality Party and threatened a libel suit against the SEP and anyone else connected with a leaflet published to advertise the inquiry.

# How the Victims and Their Families Were Treated

The lack of any support for the leukaemia patients and their families from BHP, the Labor government, the unions or any government body compounded what was already a deep personal tragedy.

Working class families were thrown entirely on their own resources to cope with the costs and emotional trauma associated with difficult, painful and expensive treatment. **In most cases, they were offered no financial assistance, counselling or even time off work**.

Young leukaemia patients were often led to believe that their rare disease was simply an individual misfortune. Their families were left with the tormenting thought that something they had done or not done, or an inherited genetic defect could have caused the cancer. Had it not been for the tenacity of Melissa Cristiano, the broad extent of the cancer crisis and its social and political implications would have remained buried in the hospital records.

The only financial support came from the working class itself. Hundreds of ordinary people donated generously to the public appeal launched to search for a compatible bone marrow donor for Melissa Cristiano. **In one month, some 4,000 people gave blood samples to join the bone marrow register.** Many expressed their sympathy and support for the families by attending the funerals of the young victims. By contrast, BHP offered only a \$2,000 loan toward Melissa's appeal.

### Community Reference Group

None of the health authorities ever brought together the victims and their families to express their common concerns and demands. Instead the Health Unit established a Community Reference Group with the aim of using family members and community groups to give credibility to its cover-up. Once it was formed, the suggestions of victims and their relatives who participated were ignored or opposed, and individuals were personally attacked if they persisted.

Terry O'Dea attended Reference Group meetings over a 10-month period. His demands that the Health Unit set up a mobile air monitoring unit paid for by BHP, build a physical model of the area to test the flow of toxic emissions, and consider genetic testing of the victims, were all dismissed out of hand. When he explained that the EPA had ignored his many calls concerning industrial emissions, he was branded a liar by EPA officials.

Asked at the Workers Inquiry to sum up his experiences, O'Dea concluded:

"I have learnt that when there is a name like Community Reference Group, it sounds like it is people from the community making the decisions. People have trust in community groups but they have no trust in governments anymore. So carrying the shroud of the Community Reference Group gives people the idea it is for them. It is like the name Environment Protection Authority — it fools people into thinking it is there to protect the environment."

As soon as the Health Unit's report was handed to a meeting of the families and it became clear they overwhelmingly rejected its findings, the veil of "community participation" was torn off. Health Department officials attacked O'Dea, accusing him of "hijacking" the meeting for stating his objections.

O'Dea was told to stop dwelling in the past and to "get on with his life". This remark epitomised the callous attitude of health administrators and government authorities to those concerned not only with their own personal loss but also the broader implications for other working class families.

The Health Unit's proposal to transform the Community Reference Group into an ongoing government-funded body is aimed at setting up a permanent tool of government and big business.

### The Health System

The systematic rundown of hospitals and public health care over the last two decades by both Labor and Liberal governments has contributed directly to the suffering and premature death of cancer victims.

Most working class families have no means of paying for high quality private care. Yet the public system is starved of funds and organises medical treatment on the basis of cost, not patients' needs.

In the case of leukaemia victim Jimmy Veljanoski, the Port Kembla Hospital failed to diagnose his disease — on three occasions he was told he was merely suffering from flu.

### No health testing

Despite the presence of one of the most extensive industrial complexes in Australia, the Illawarra Area Health Service has no program for testing and screening industrial workers, residents or children for cancer and other life-threatening diseases. Parents who rang health authorities concerned that their children may have leukaemia were told no tests could be done until the disease was fully developed.

BHP itself provides no health checks for the vast majority of steelworkers. Peter Ilioski, the father of one of the leukaemia victims, commented in a submission to the Workers Inquiry: "I have worked for 26 years in BHP in the sinter plant, next to the coke ovens. They have never tested my health, nor anyone else in the sinter plant. They tested my health at the employment office before I started, but never since then."

In the coke ovens, where BHP is meant to conduct annual checkups, tests are frequently manipulated and have failed to detect advanced cancers. BHP further discourages comprehensive testing by requiring workers to pay the costs of specialist examinations.

Pressure is also brought to bear to prevent independent health checks. A local GP Evan Whittaker, who had examined the medical literature on the dangers of vanadium, offered to union delegates that he would pay for the testing of six workers at BHP's Dump 21. Despite initial indications of support, no workers availed themselves of the test.

### Lack of finance

Once diagnosed, the lives of cancer and leukaemia patients are further at risk as a result of cost ceilings placed on the use of drugs, expensive technologies and other medical treatment.

For young leukaemia victims, locating a compatible bone marrow donor is often a matter of life or death. But the lack of finance for bone marrow registries means that few people are made aware of the importance of offering themselves as donors, and compatibility testing is limited.

As a result, some patients are forced to carry out expensive inquiries outside Australia. Melissa Cristiano had to appeal publicly for funds, because a limit of \$5,000 is routinely imposed on public hospital patients looking for compatible overseas donors. The sum is grossly inadequate — it pays for only 18 tests in the US or even fewer in Germany where tests can cost up to \$3,000 each.

Even if a donor is located, bone marrow transplants cannot be performed in the Illawarra region. **Despite serving a regional population of more than 300,000, Wollongong Hospital has no sterile isolation unit to carry out bone marrow and stem cell transplants, or other procedures involving high dose chemotherapy and radiation treatment.** A Japanese nurse testified that in the city of 70,000 where she worked, her hospital had two such specialist units with trained staff for the treatment of cancer.

Lupco Ilioski gave evidence that the health authorities cut short his brother Goce's treatment for financial reasons. Other family members testified to inadequate staffing on the oncology ward at Wollongong Hospital. Nurses simply cannot cope with the large number of patients, who are forced to rely on friends and family to assist with personal care.

# Responsibility for these conditions rests not with the dedicated medical staff, but with governments that have slashed public hospital funding.

The proposed closure of Port Kembla Hospital will further exacerbate the health crisis. The government plans to close its high trauma accident unit and emergency service along with all other acute services — surgical wards, the X-ray and endoscopy departments and the high dependency nursing ward. Only 56 of its 116 beds will remain open to provide limited rehabilitation, aged care and psychiatric services.

In 1983, the Wran Labor government shut down the only burns unit in the area despite the risks posed by the highly flammable gases and molten metals handled in heavy industry. When a gas explosion ripped through the BHP coke ovens in 1990, two seriously injured workers had to be airlifted to Sydney. Migal Damcevski later died from third degree burns to large parts of his body.

In 1979-80 the Illawarra region had 10 hospitals with 1,004 beds. By 1992-93 it was left with seven hospitals and 738 general beds, despite a 4,000 population increase.

### Conclusions

The commissioners of the Workers Inquiry have come to the following conclusions based on the evidence and testimony presented:

The leukaemias and lymphomas among young people in Warrawong are not an isolated, one-off cluster but are part of a wider pattern of cancers and ill-health which has afflicted working class families in the Wollongong area for decades.

BHP, Rio Tinto and other industrial giants are responsible for the rising leukaemia and cancer toll. There is a direct link between their pollution and the high incidence of cancer. Workers and their families living near the Port Kembla industrial complex are up to 10 times more likely to contract leukaemia and other cancers than those in more distant suburbs. Those living near the coke works at Corrimal and Coalcliff also have an elevated risk of contracting leukaemia.

For many years the major companies have continuously dumped a wide variety of toxic and carcinogenic wastes into the air, water and land of the Illawarra region. Compelling scientific evidence identified atmospheric benzene and polycyclic aromatic hydrocarbons (PAHs), particularly in large, transient bursts, as a highly likely cause of leukaemia. Other known carcinogens and leukemogens found to be present as gases or as dust particles from

industrial chimneys, waste dumps, and slag landfill deposits included dioxins, toluene, xylene, vinyl chloride, styrene, asbestos, vanadium, arsenic, chromium and cadmium. These cancer-causing agents can interact with each other in a way that multiplies the likelihood of cancers.

The Illawarra Public Health Unit leukaemia report was a whitewash, organised by the Labor government to protect BHP and other corporate interests, and the government itself. It continued a more protracted cover-up. For at least two decades, the health authorities and other government agencies such as the EPA and the Cancer Council have suppressed definite evidence connecting the incidence of cancer and other serious disease to the high levels of industrial contamination. If the statistics in the possession of these bodies had been acted upon, many deaths could have been prevented.

BHP was centrally involved in the official cover-up of the leukaemia and cancer crisis. Along with other companies it wields virtually limitless economic and political influence over every level of government in defence of its own vested interests.

Political responsibility lies with the Labor and trade union leaders. For decades they have permitted BHP and other companies to continue using equipment, materials and work practices which endanger the lives and health of working people. Union officials have systematically suppressed workers' struggles against unsafe conditions and colluded with corporate management to hide cancer cases known to be caused by workplace emissions.

A lack of comprehensive health testing for workers and residents and severe inadequacies in the public health system contributed to the deaths of young cancer patients. Diagnoses were delayed, treatments cut short and medical care severely limited by cost restrictions on staffing, technology, bone marrow donor searches and the use of drugs and transfusions.

All official agencies, including the Public Health Unit, treated the victims and their families with contempt and callous disregard. No counselling, financial assistance or compensation was provided. Family members who demanded independent investigations or criticised the official response were personally maligned.

Every government regulatory body stands indicted. Their complicity in decades of cover up has not been the result of ignorance or incompetence. Despite their various titles — the Public Health Unit, Environment Protection Agency, WorkSafe, etc. — they were not established and do not function to protect public health, workers' lives or the environment, but to defend corporate profits.

10 The Workers Inquiry itself has powerfully demonstrated the great capacities of ordinary working people. Those who spoke out and presented vital evidence did so despite significant pressures, including direct threats to their livelihood. Workers and residents prepared thoroughly researched testimonies on the activities of BHP and other companies, the impact of industrial pollution, the role of the trade unions, the Labor government and government bodies.

The inquiry was a step toward the creation of a mass, well-informed and politically astute movement of the working class to clear the way for society to be rebuilt on genuinely democratic, socialist and egalitarian foundations. It pointed to the necessity for working people to take the control of society, including production, out of the hands of the multinationals and the governments which serve them.

### What Must Be Done

The following recommendations are based on the fundamental principle that the lives, health and needs of ordinary people must take precedence over the requirements of private profit.

The No 3 battery at the BHP coke ovens must be closed immediately, with the transfer of all No 3 battery workers to other areas with no loss of pay or entitlements. The Corrimal and Coalcliff coke works must be relocated and the copper smelter remain closed. BHP's Dump 21 toxic waste site must be removed, with its contents safely disposed of. Other potential problem areas such as the BHP sinter plant must be urgently investigated. Those which endanger the health of workers and residents must be shut down until they can operate safely, with all costs to be borne by the owners and with all workers' jobs protected.

- Exposure levels to benzene, hydrocarbons and other toxic emissions must be set according to daily, not annual averages. The maximum daily average PAH level in the workplace should be no more than 0.5 parts per million, unless further evidence suggests it should be revised downwards.
- Advanced electronic technology must be utilised to monitor all industrial emissions. The data must be available to workers and the public 24 hours a day on the internet. An independent committee of industrial workers and local residents should be elected to continually assess this data and recommend appropriate action.
- An emergency and evacuation plan must be prepared for workers and residents in areas threatened by gas explosions, fires, toxic emissions and other industrial dangers.

The families of young leukaemia and cancer patients must be given time off work without loss of pay to care for the victims. They must have the right to full information, consultation and participation in medical treatment and be provided with whatever assistance they require in terms of transport and accommodation. All medical costs must be met by the companies and the government, including unlimited international searches for bone marrow donors where required. The Australian bone marrow registry must be expanded, fully funded and publicised to encourage the widest participation.

The financial burden faced by these young victims and their families must be shifted to where it belongs. BHP and the other major companies must be required to make immediate and substantial compensation payments.

All industrial workers should have a compulsory medical examination at least every three months, carried out by their doctor of choice. All medical fees must be paid by the employer and the government, as well as paid leave to attend medical appointments. Other workers, residents and school children must be regularly screened for exposure to radioactivity and toxic emissions at government expense. A comprehensive multi-lingual education program on health and safety issues should be established for all workers, residents, students and young people.

To further safeguard workers' health, the working week must be cut to 30 hours with no loss of pay and to 20 hours for workers in the more hazardous areas, such as the coke ovens. Steelworkers should be able to retire early on a living wage, with the resultant extra jobs to be provided to the youth.

Millions of dollars must be allocated for independent research into safer production and waste disposal technolo-gies, as well as the possibility of introducing alternative materials whose production compromises neither workers' health nor the environment. New clean sources of energy not based on the burning of fossil fuels also need to be investigated.

A 5 km non-residential buffer zone must be established from the steelworks and other heavy industry. All land in these areas should be compulsorily acquired and residents provided with the choice of free, high quality alternative housing or full compensation. All schools and other facilities must be similarly relocated. Beyond the buffer zone, houses and schools and their yards, as well as community buildings must be tested for heavy metals and other toxins, and decontaminated free of cost to residents.

1 Schools, housing estates, recreation grounds and other community facilities must be surveyed and tested to determine where waste slag from the BHP steelworks and other industry has been used as landfill. Where possible, the landfill must be removed

and replaced with safe materials. Otherwise residents should be given the option of free relocation or compensation. Safe methods for treating and disposing of slag wastes must be scientifically investigated.

- 12 A comprehensive health survey must be carried out to determine the full extent of cancer, leukaemia and other serious diseases, particularly among young people and current and former steel, copper smelter workers and other industrial workers. The latest Cancer Registry data must be immediately accessible electronically and must record place of birth, schooling and occupation of victims. The latest techniques for early detection and treatment must be made freely available.
- All cuts inflicted on the public health system including the rundown and closure of Port Kembla Hospital and the axing of the specialist burns unit in the Illawarra must be reversed. The funding for Port Kembla and Wollongong Hospitals must be increased massively to provide advanced specialist units for chemotherapy, stem cell and bone marrow transplants, including isolation wards.
- 14 The connection between industrial pollution and disease must be thoroughly researched. Millions of dollars should also be poured into cancer treatment research, which must be freed from corporate sponsorship, control and profit-making.
- 15 These measures can only be achieved through an independent struggle, organised outside the structure of the government, the official agencies and the Labor and trade union apparatus. The Workers Inquiry committee should continue and develop its work, coordinating the widest possible circulation of these findings and an aggressive campaign for the implementation of these recommendations.

September 9, 1997