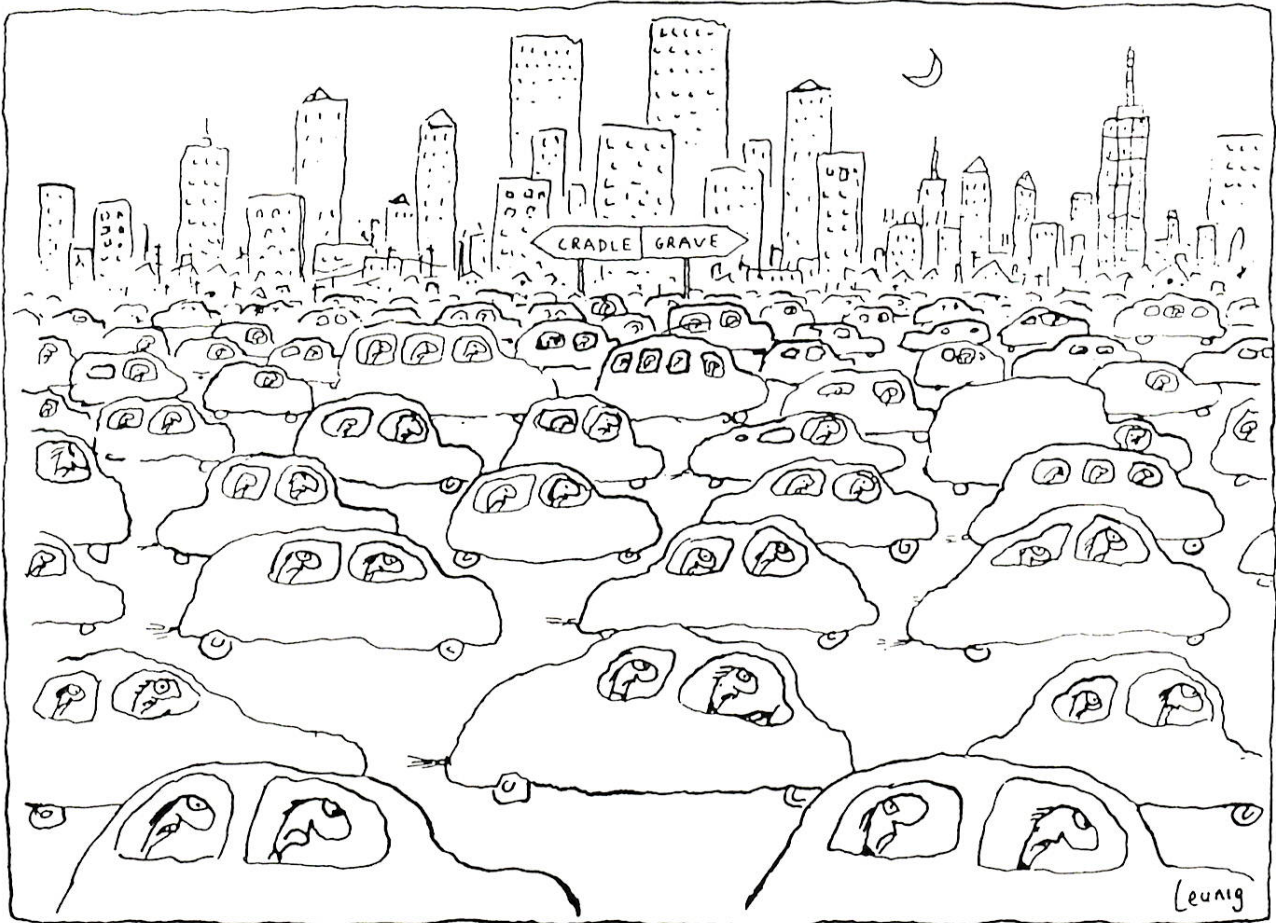


LEAD Action NEWS

The journal of The LEAD (Lead Education and Abatement Design) Group Inc. Address correspondence to the Editor, LEAD Action News (LEADAN), c/o The LEAD Group Inc, PO Box 161, Summer Hill NSW 2130 Australia Ph: (02) 9716 0014
Fax: (02) 9716 9005 LEAD Action News vol 5 no 1 1997 ISSN 1324-6011

Cradle to GRAVE Impacts of LEAD in cars



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The Cradle to Grave Impacts of Lead in Cars

by Elizabeth O'Brien and Adrian Hill

This LEAD Action News has been designed as something of a scenic tour through the area of Cradle to Grave Management for lead in cars. We start our journey looking at the lead mining and smelting communities, follow the lead into petrol, shoot out through the exhaust pipe and into the environment.

Cradle to Grave Management, or as it is more recently termed, **Life Cycle Analysis**, is the process of evaluating the effects that a product has on the environment over the entire period of its life cycle. We would really like to have written an article on the cradle to grave impacts of lead, but since there is enough material there for a whole book, we decided to concentrate on lead in cars, since around two thirds of all the lead produced on the planet goes into the cars most of us view as "a necessity of modern living".

Lead is "born" in many different mines around Australia (see LEAD Action News vol. 3 no. 3), but we look at one of the biggest -Broken Hill. And things are getting tense in the community out there as the deposits are running out. Theresa Gordon then writes about the impacts of car batteries from the point of view of an Australian lead smelter town community and Robin Mosman writes about the rather worrying lead emissions at the copper smelter in Port Kembla.

Into the "adolescent" phase of the life cycle, Elizabeth O'Brien has written an article on the impacts of lead in petrol from the cradle to the grave, we have a fascinating article on changes in transport policy in the U.K. and we have an expose on Associ-

ated Octel (who manufacture lead additive in petrol), who have been telling "nonsense" to governments in developing countries.

Talking of developing countries, Greenpeace have given us fantastic help in updating an article first published in their magazine, on exporting waste batteries to the Philipines. We have an article on lead and tooth decay for you to chew on, an update on the gold mine laboratory worker trying to sue for damages (see LEAD Action News vol. 4 no. 3) and an inspirational story from the U.S. on government grants for removing lead in homes.

As things get older they get warm and cuddly (well we like to think so) and so as we move into the later stages of the newsletter we have the letters page, which is warm and cuddly in parts and lastly we have news in brief and some warm and cuddly subscription opportunities.

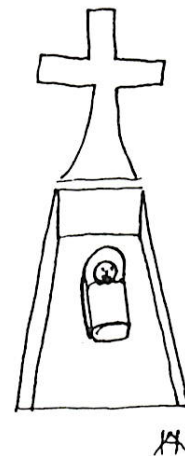
Talking of solutions, a summary of one of the best studies we know of, about the cradle to grave impacts of cars has already been published in LEAD Action News (vol 3 no 2 1995 "The Environmental Cost of the Car" by John Whitelegg). This German study concluded that it would cost the same amount as the government currently pays in the external costs of all pollution, accidents and noise from each car, for the State to give "each car user a free pass for the whole year for all public transport, a new bike every five years and 15,000 kilometres of first-class rail travel." And that was for a new car which ran on unleaded petrol!

Contents

Leunig Cartoon: Cradle / Grave	1
Editorial: the Cradle to Grave Impacts of Lead in Cars	2
Life Cycle Assessment	3
Going for Broke in Broken Hill	4
Lead - From the Boolaroo Smelter to Your Car Battery	4
Case Study: The Port Kembla Community's Dilemma with Toxic Dust	5
The Cradle to Grave Impacts of Lead in Petrol	8
Quotable Quotes: World Bank Banishing Leaded Petrol	12
A Heavy Responsibility	13
Britain Changes Direction on Transport Policy	14

The Devil's Fart	15
Man Wins Lead-Poison Costs Fight	16
Tooth Decay Linked to Persistent Lead Pollution	16
US-HUD Grant	16
Letters	17
News Briefs	18
New Scientist Subscription Form	19
LEAD Action News Subscription Form	20

CRADLE TO GRAVE



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Life-Cycle Assessment

By Adrian Hill, NSW Community Lead Advisory Service.

This article is based on an article called "Life Cycle Assessment - What it is and How to do it" by the United Nations Environment Programme, with thanks to Shenu Chanmagan.

Life cycle assessment (LCA) is a decision support tool supplying information on the environmental effects of products. It furnishes information on the environmental effects of all the stages of a product's life cycle. This information can be used by governments and by companies as well as by NGOs and individual consumers when making decisions related to products. Ecolabelling, product and process improvements, and purchasing decisions, for example, can be supported by life cycle assessment.

Today, knowledge of how to carry out an LCA is improving rapidly. The value of the technique is being increasingly recognised and it is now being used for strategic decision making and for designing environmental policies.

Because LCA integrates all the environmental problems produced during the entire life cycle of a product or function, LCA can be used to prevent three common forms of problem shifting:

- ◆ problem shifting from one stage of the life cycle to another;
- ◆ problem shifting from one sort of problem to another; and
- ◆ problem shifting from one location to another.

An LCA is an iterative process, in that the assessment is repeated several times, each time in more detail. First, a superficial analysis is made using approximate data; this results in a 'quick-and-dirty' assessment. Although such an analysis is sometimes all that is required, more often this first assessment is used to highlight the points on which to focus to obtain an improved assessment.

It is therefore important to know what level of sophistication should be associated with a certain type of application. In product design, for instance, results must be correct on average, that is most of the time; in ecolabelling, they must almost always be correct.

Another application of LCA is to compare product

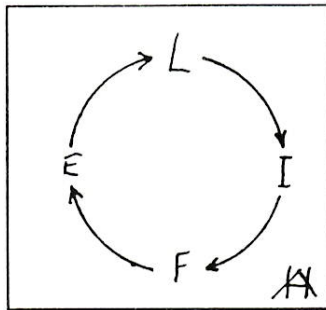
alternatives. In order to do this a suitable comparison criterion is needed and the most basic criterion is the **function** that the product is to fulfil.

It would be nonsensical to compare a disposable paper cup with a china cup, given that the life span of the two differs by a factor of at least 100. Instead, the function of the two alternatives, such as drinking one cup of coffee, could be compared. The function to be compared is referred to as the *functional unit*.

Problems caused by LCA

Three of the major problems in using LCA have to do with time:

- ◆ LCAs can take so long to perform that they delay action;
- ◆ an LCA made one year may contradict the results of an LCA made another year; and
- ◆ an LCA may hinder technological improvements which later turn out to be environmental improvements as well.



The current complexity of LCA means that a long and careful study must be made before a public LCA can be produced, especially since stakeholders with opposed views will, if they can, justify their views by criticising the way an LCA is made. This is not a characteristic of LCA in particular but applies to all techniques of environmental analysis.

Although LCA often stimulates the development of cleaner products, companies can also claim that, since an LCA shows that 'product A is best' or an ecolabel has been awarded for a product, further innovation is not needed. One solution to this problem is to restrict the validity of an ecolabel, say to a three-year period. Consideration can also be given to extending the principle of an expiry date to other LCA applications.

Framework

In response to the need for a unified framework for LCA, the following framework has been developed by the United Nations Environment Programme, based on one developed by SETAC (Society of Environmental Toxicology and Chemistry) -

1. Goal definition and scope

The product(s) to be assessed are defined, a functional basis for comparison is chosen and the required level of detail is defined.

2. Inventory analysis

The energy and raw materials used, and emissions to the atmosphere, water and land are quantified for each process and then combined in the process flow chart.

3. Impact assessment

The effects of the resource use and emissions generated are grouped and quantified into a limited number of impact categories which may then be weighted for importance.

4. Improvement assessment

The results are reported in the most informative way possible and the need and opportunities to reduce the impact of the product(s) on the environment are systematically evaluated.

Going for Broke in Broken Hill

Extract from "A Mining Town's Hopes to Regain Lost Glory", TIME magazine, 22nd January, 1996

Headquarters for Broken Hill's Pasminco South Mine is a 60-year-old, bronze-trimmed Art Deco building, built in the days when enormous yields of silver, lead and zinc from the town's 10 mines permitted such extravagance. But the future for Pasminco, owners of the mine, lies just up the road in a mundane prefab shack. Here regional manager Terry Barclay searches large-scale geology maps for new deposits to keep his company's interests in Broken Hill - and the 108-year-old town itself - alive. "I think it's out there somewhere", he says. "Of course, in this game you have to be an optimist."

For more than a century Broken Hill, in far western New South Wales, has lived off a single boomerang-shaped ore body, 8 km long. Australia's biggest mining houses - BHP, CRA, North Broken Hill - were built on profits from its dense galena - sphalerite ore.

Three generations of miners made their town rich and rowdy - in 1915, Broken Hill had a population of almost 35,000, with three newspapers and 61 hotels. But the ore is running out, the population has dwindled to 20,000 and all mines but Pasminco South and the tiny Potosi Mine have closed. Barclay's maps might be the last shot in Broken Hill's locker.

So far the hunt has been fruitless. That's hardly surprising: Broken Hill's miners and geologists have been hoping for a second bonanza almost from the moment the first strike was made in 1883. Even though modern searching methods involve aeromagnetic surveys and high resolution maps, what might be needed is old-fashioned luck; the original ore find was made by one Charles Rasp, who located the 280 million tonne metal mass that built Broken Hill equipped with no more than a prospector's guide he's bought while on holidays in Adelaide.

Lead - From the Boolaroo Smelter to Your Car Battery

By Theresa Gordon. NO-LEAD.

Ed. - Much of the lead produced in Pasminco's Boolaroo smelter ends up in up in car batteries - and local activist Theresa Gordon has some fascinating insights on cradle to grave impacts on a point source community.

If you set your mind on "cradle to grave" realities, your thoughts may become uneasy indeed when viewing your car's lead acid battery. The lead acid battery accounts for 64% of worldwide lead usage. As a society we have come to rely on the properties of lead and it would seem we are willing to bend many of society's

health and moral standards to accommodate this reliance.

Let me share some of the realities of using the lead acid battery in your car.

On a National level we make exceptions to the rule in two important areas, these being Occupational Health principles and the Sex Discrimination Act.

The NHMRC (National Health and Medical Research Council) of Australia set a level of below 10 ug/dL (micrograms of lead per decilitre of blood) as the health

goal for all Australians. All Australians, that is, except those working with lead. The standard for lead workers is 50 ug/dL. Quite a difference! But let's be grateful for small mercies, this level was revised in 1994 from a level of 65 ug/dL.

Only women who can prove they are sterile can seek work in the lead industry processing areas. The reason being that foetal damage can occur at maternal blood lead levels of 25 ug/dL and foetal growth retardation begins at maternal blood lead levels of 8 ug/dL. This issue has been fought in the courts for many years. The important finding is that male infertility due to decreased sperm count, sperm size and sperm motility as well as increased rates of sperm mutation can occur even at 40 ug/dL.

What's wrong with banning fertile women from lead industry jobs?

1. Equal opportunity means employment should be available to individuals who can do the job. Women have the right and ability to make decisions about childbearing and must not be discriminated against because of a possible future foetus (which may never exist).

2. Responsible employers should minimise risks for all men and women, especially those planning to have children. "Only by providing a workplace which is safe for both men and women will any potential foetus be protected." (HREOC)

3. Denying women employment in relatively well-paid "dangerous" industries can mean the loss of many hundreds of thousands of dollars over a working life.

-TESSA ARATAI, THE LEAD GROUP

The people and the environment around lead smelters and mines suffer greatly for our insatiable and annually increasing use of lead. The smelting process emits lead, arsenic, cadmium, mercury, selenium, zinc and sulphur dioxide to air and water, with the greatest effects suffered by the local children. In Boolaroo in Newcastle in 1991, 84% of children tested had a blood lead level over 10 ug/dL, some as high as 40 ug/dL. To this day, even with remediation efforts, it is not known if it will ever be possible for a community of children to live close to a lead smelter and maintain a blood lead level below 10 ug/dL.

To "live with lead" at Boolaroo it is recommended that you adhere to the "Behavioural Guidelines". This amounts to a regime of what I see as unsustainable levels of housework. It also leads to the burden of guilt and responsibility for protecting against lead contamination being placed on the shoulders of the

victims.

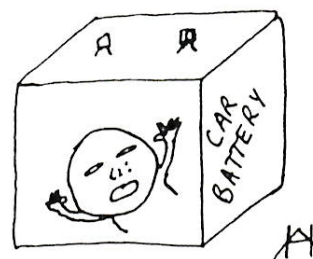
A school curriculum module was developed to help teachers in the area help the local children. This document had many positive supportive recommendations. However, I believe, once again usual standards were eroded with the addition of sentiments stating that children need to realise that they are ultimately responsible for their own health and also that a supportive family unit was the best combatant to the threat of lead. All this, rather than focus on the source of the contamination as the real threat.

The local industry responded to the situation in 1991 by cutting emissions and also buying up some of the closest homes. They re-rented the properties to childless people (using the criterion that children under 12 years of age were the most likely to be adversely affected by lead). Therefore, creating Australia's first "Child Free" streets.

As recently as 1985-86, 91.6 tonnes per annum of lead were emitted to air from the smelter. (Ref: Technical Report No. 3 of Environmental Impact Statement: Pasmaico Metals Sulphide Pty Ltd Asset Modernisation Program, June 1994). Also in 1990-91, 2.2 tonnes of lead, 2.2 tonnes of zinc, 2.2 tonnes of selenium, 1.8 tonnes of cadmium, 22 kgs of arsenic and 2.2 kgs of mercury were legally permitted (licensed by the NSW EPA) to be discharged into the local Cockle Creek. Great improvements have occurred since with closer to 20 tonnes of lead per annum emitted to air and a directive for the company to reach zero toxic discharge to the creek by the year 2000. Still, when viewed alongside the efforts to remove lead completely from petrol, those living near smelters have a long way to go.

It appears the use of lead inherently brings with it an erosion of what we see as acceptable standards on health in general, occupational health, sex discrimination, planning, child health and protection, and environmental health and protection.

So next time you get into your car think of the costs of the use of the lead acid battery. Think how, if "cradle to grave" strategies were adopted as mandatory practice for all toxins, what benefits it would bring to supporting the rights we all should have to bring our families up in a healthy environment.



Case study: The Port Kembla Community's Dilemma with Toxic Dust

By Robin Mosman, NSW Community Lead Advisory Service.

Recent inquiry from a resident of Port Kembla highlighted starkly the need for a "cradle-to-grave" focus on the management of lead. Ceiling dust in his home has been found to be heavily contaminated by arsenic, lead, cadmium and other heavy metals.

The Southern Copper Limited smelter has been operating in Port Kembla for decades. The 200 metre stack overshadows the public school which is on the boundary of the smelter; the Catholic primary school is 100m away.

There have been community and public health concerns regarding lead and other pollutants from the smelter's emissions for decades. A study of blood lead levels in children in the area is known to have been done as long ago as the 1950's. Community knowledge of that study is that it showed high blood lead levels in the children, but the results were not released. A further series of blood lead surveys on children were conducted in the early 1970's, late 1970's, early 1980's and late 1980's.

The late 1980's study revealed blood lead levels that are unofficially considered "shockingly high" by the Illawarra Public Health Unit (IPHU), although it is thought that "methodological problems in the testing might have been responsible".

In 1992, increasing awareness of the lead problem and pollution generally, coupled with community pressure, eventually led IPHU to instigate a Roof Dust Survey. It was decided that testing the accumulation of heavy metals in the roof dust of houses within 5 km of the southern end of Port Kembla industrial area (i.e. the smelter) in concentric circles would give a good representation of the loading of lead and other heavy metals in the area emanating from the smelter.

The survey showed a clear pattern of diminishing loads of heavy metals the further one went from the smelter. It found that houses within 1 km of the smelter had "substantial concentrations" of lead, cadmium and arsenic in their ceiling dust. One householder was advised that dust samples from her house showed levels of 2471 parts per million (ppm) of lead, 30 ppm of cadmium and 308 ppm of arsenic. The number of houses affected by the dangerous metals decreased the further they were away from the smelter. Houses with building-paper lining under roof tiles had lower levels of the heavy metals. The average lead levels in the ceiling dust measured 3500

ppm at 200-300 metres from the smelter; 1800 ppm at .5 km; 1000 at 1 km; and 500 ppm at 5 km.

The 1994 NSW Lead Management Action Plan (LMAP) states:

"Lead in house dust is recognised as one of the best predictors of childhood lead poisoning, but is the least understood and has the greatest divergence of opinion on sampling protocols..."

"Lead loading measurements (micrograms of lead / sq. metre) more directly measure lead available for a child to ingest and so better predict children's blood lead levels than do dust lead concentrations (parts per million)..."

"Dust control, in general, is needed in construction and demolition sites..."

LMAP states that in the absence of better data and on the strict understanding that further validation work must be done, soil with lead levels of between 300 and 1500 ppm should be covered with grass or some other appropriate barrier.

However, there is currently no guideline on action levels for lead in dust.

The "Health-Based Soil Investigation Levels" published by the National Environmental Health Forum in 1996, lists proposed health-based investigation soil levels for arsenic of 100 ppm, and for cadmium of 20 ppm. **There is no information given for action levels, and dust is not considered.**

Householders whose ceiling dust was sampled were notified individually of their results by the IPHU in 1993 and advised: "No attempt has been made to interpret the above results, but the presence of arsenic, cadmium and lead in the quantities shown would suggest that the dust shouldn't be permitted to enter the living areas of the house. As the dust is quite fine, anyone entering the roof space should protect their lungs by wearing a dust mask." There was no information given about possible health effects of exposure, or what kind of dust mask was required.

In a report of this survey given to the Port Kembla Pollution Committee, an open forum meeting monthly for industry, community, Council, Environment Protection Authority (EPA), and the Water Board, the following health information was all that was given by the IPHU:

"It is most unlikely that anyone would eat enough of the dust to get acutely ill. However, if the dust is eaten or

breathed in, some arsenic, cadmium and lead may get into the blood and if so, some of that would stay in parts of the body, such as the kidneys, liver and brain. This would simply add to the amount that the person has already.

"There would be no health risk to people in the living areas of houses, if the ceilings are sound and do not contain openings which let the dust into the rooms..."

"Some of the dust is fine and could be inhaled deep into the lungs where it may not come back out again."

"If a house is not going to be altered, the best thing to do is to leave the dust there and make sure that the ceilings are sound. If a house is to be renovated, the dust should be removed before the ceilings are demolished. This would best be done by one of the asbestos removal contractors at Kemblawarra."

"Children between 1 year and 4 years 11 months are most likely to get heavy metals into their systems from dust in their homes. Concerned parents may get their children tested for blood lead levels..."

The IPHU formed the Illawarra Lead Taskforce, to develop a lead management plan for the Port Kembla area. Another blood lead survey conducted in 1994 found 11% of the children surveyed had blood lead levels in excess of 10 ug/dL, the level beyond which the National Health and Medical Research Council recommend no Australian should be. Assistance has been given by IPHU to help manage the problems of children found to have high blood lead levels.

The Department of School Education funded an Environmental Lead Assessment Report of lead levels in soil at the local primary school. Half the 26 samples of soil tested contained greater than 300 ppm lead, ranging up to 1581 ppm, 5 times the NSW level requiring further investigation. \$40,000 has since been spent remediating the school grounds by topsoiling and paving, but parents concerned at the proximity of the smelter to the school have formed a School Relocation Committee. They are meeting with the Premier to put their case on 25 March 1997. The NSW government has already said that if the smelter breaches its emission levels during the first twelve months after it re-opens, the school will be moved. The Relocation Committee is not prepared to wait, past experience with the smelter having convinced them that breaches are inevitable.

A representative of Illawarra Residents Against Toxic Emissions (IRATE) said they are currently having talks with the IPHU about the possibility of a soil survey throughout the community. "We have a very multicultural population here and there are a lot of

people who grow their own vegies. It's a big part of their culture," he said. However, as at February 1997, no satisfactory way has yet been established of dealing with the ceiling dust problem in Port Kembla. The social demographics of the area are changing, with older residents dying or moving away. The younger families buying up the old houses are renovating them. The charges of the few Sydney-based companies specialising in removing ceiling dust put their services beyond the reach of many locals.

Unable to meet increased production levels, or to comply with pollution reduction levels required by the EPA, Southern Copper closed down the smelter in 1995 for "care and maintenance". Prior to this, IPHU had developed a "do-it-yourself" system in conjunction with Southern Copper, whereby people could borrow a HEPA vacuum cleaner, mask, disposable clothing and bags, and the smelter would take the dust back for disposal. Detailed instructions are provided, which IPHU's Environmental Health Officer goes through with the borrower to make sure everything is clearly understood. However, only two people used this system before the smelter closed.

Southern Copper are now negotiating the sale of the smelter to previous partners Furukawa and Nissho Iwai Co Ltd. Although IPHU have spoken unofficially of "ideally industry and government paying for lead abatement" it is difficult to see how this could happen with Southern Copper now not existing.

The IRATE representative says that the issue of ceiling dust remediation is coming down to the issue of who accepts responsibility. "Southern Copper are saying they are not the only source of lead in the area, but they are the only source of cadmium, and there are large levels of that".

IPHU are reluctant to advertise the "do-it-yourself ceiling dust removal" scheme. They feel it is unethical to encourage people to remove the contaminated dust themselves, fearing that in doing so an even greater problem could be created in the living areas of people's homes. They consider that the scheme should be properly trialed to ensure that it can be done safely. Until then, they prefer the system to be a safety net only, and that householders leave the dust where it is, making sure that there are no ways for it to get into the living areas of houses.

However, they acknowledge that cases of high blood lead levels clearly caused by ceiling dust have occurred. And the home renovations which cause the disturbance of the leaded ceiling dust (skylights, insulation, demolition) continue.

The Cradle to Grave Impacts of Lead in Petrol

by Elizabeth O'Brien, Project Coordinator, NSW Community Lead Advisory Service

It's hard to separate the cradle to grave impacts of the lead additive for petrol from the cradle to grave impacts of both lead and the whole product, ie leaded petrol, but then again it's way too big a task to tell you about all the problems with petrol. Also, the community newspaper *Hell on Wheels*, published in Sydney, is already making a good fist of it, so at least this is a start.

The table on the following four pages is the start of a superficial analysis - a real Life Cycle Assessment (LCA) would include data. The table holds Stage 1 (environmental loads of lead additive) and Stage 2 a) (impacts of the loads). It is more of an example of a cradle to grave philosophy than an actual LCA, to encourage you to adopt cradle to grave thinking and make informed consumer and political choices which respond to the planet's needs.

Where there is no entry in the table below, it does not mean there is no impact, it simply means your guess is as good as mine.

Stage 2 b) (evaluation of impacts) and Stage 3 (opportunities for improvements) are presented below, ahead of the table, so that you get to read the conclusions first!

Conclusions

2 b) My evaluation of whether the production and use of lead additive in petrol is justified is of course that it isn't.

Some of the above impacts are more important than others but while people are unaware of all or most of them, the consumer can hardly make an informed decision about whether they can justify their own use of leaded petrol, nor whether they are happy with a government which does not act to remove the product from the market.

Stage 3 - Opportunities for Improvements

At the third and final stage of life cycle assessment, the opportunities available to bring about environmental (and hopefully health and social) improvements are assessed. That's easy - ban leaded petrol worldwide now! It's a cinch to justify the complete removal of lead from petrol on cost benefit grounds and if developed countries don't act quickly to phase out leaded petrol they'll be overtaken by World Bank programs in developing countries to do just that (see LEAD Action News v4n2 "Why Lead Should be Removed

from Gasoline" by Magda Lovei, World Bank).

While the Federal Government realised \$152m from the tax on leaded petrol in 1995, it could not apparently justify giving any money back to the community for lead poisoning prevention programs in urban areas. (See Letters from Paul Zammit and Federal Environment Minister Robert Hill on p17 of this newsletter). Giving (perhaps means-tested) government subsidies for clean-up of roof dusts contaminated by the lead from petrol in urban areas, is just one possibility. Funding the national LEADLINE advisory service is another. Giving confidence to the electorate by extending the new National Environmental Protection Measures legislation to encompass air toxics, could be given a brilliant head start by banning lead in petrol Australia-wide.

Besides, many governments have made recommendations to themselves to speed the phase out of leaded petrol and could gain credibility in their electorates by following them. For example the NSW Parliamentary Select Committee Upon Lead Pollution (1994, p46) gives as one of its *Recommendations* [regarding] *Lead Emissions from Motor Vehicles*:

3.6.5 "The Recommendation of the Select Committee upon Motor Vehicle Emissions:

...2. "that the NSW Government review the levels of lead currently allowed in petrol in NSW with a view to eliminating lead in petrol altogether by 1996."

It's only when the flow of lead from petrol emissions is turned off that individuals and government agencies who are responsible for housing or childcare centres, can effectively take on the awesome task of cleaning up the scattered thousands of tonnes of lead that have been emitted from cars in urban areas. The lead abatement industry awaits eagerly to make safe or remove the leaded soil, and to take the leaded dust to have the lead extracted from it at the recyclers in Alexandria (ARA).

It is to the NSW government's credit that it has funded the Lead Reference Centre to drive policy to do all these things, has also funded Environmental Lead Centres (ELCs) in Broken Hill and Boolaroo, and is considering funding an ELC in inner Sydney. When governments work cooperatively with the community, eg the NSW EPA funding The LEAD Group to run the NSW Community Lead Advisory Service, opportunities for improvements are optimised.

Table - The Cradle to Grave Impacts of Lead in Petrol (Continued)

Stage 1 - Environmental Loads	Stage 2 - Environmental, social and health impacts of the loads
<p>At the first stage of a life cycle assessment, the environmental loads of the product (tetra ethyl lead - the anti-knock lead additive in petrol) are identified (and usually more thoroughly quantified) - ie 1a) the energy used, 1b) the raw materials used, and 1c) the emissions and wastes consequently released.</p>	<p>At the second stage of life cycle assessment the potential environmental impacts of the above loads are a) assessed and b) evaluated. In my view the potential health and social impacts must also be assessed and evaluated.</p>
<p>ENERGY USED</p>	<p>IMPACTS of ENERGY used</p>
<p>1a) To produce and use lead additive in petrol you need or you previously needed energy for:</p>	<p>2 a) The environmental, social and health impacts of the energy use include:</p>
<ul style="list-style-type: none"> • running a media and political campaign to ensure the early (1920's) ban on lead additive was lifted and to cover up the deaths and suicides due to insanity caused by exposure of workers to tetra ethyl lead 	<ul style="list-style-type: none"> • citizen cynicism when it is realised that health recommendations of pre-eminent occupational physicians can be ignored when political pressure is brought to bear
<ul style="list-style-type: none"> • manufacture of the lead additive (tetra-ethyl lead) 	<ul style="list-style-type: none"> • lost opportunities for making the MTBE (methyl tertiary butyl ether) or other non-lead additives which can replace the tetra-ethyl lead in petrol.
<ul style="list-style-type: none"> • safety precautions during shipping / storage including: making protective clothing and breathing apparatus, fire safety precautions and emergency responses 	<ul style="list-style-type: none"> • while contact with tetra-ethyl lead is fatal, by comparison, contact with MTBE causes headaches. All petroleum products need energy expended on fire safety precautions so, reducing petrol use, reduces this cost.
<ul style="list-style-type: none"> • safety precautions (incl space suits) to ensure no human contact with lead additive until it reaches the service station 	<ul style="list-style-type: none"> • space suits can be isolating! But petrol bowser operators don't get this luxury. One \$220,000 compensation claim in Australia says they might need them.
<ul style="list-style-type: none"> • repeated million dollar media campaigns to advise those people who can use unleaded petrol (ULP) in their cars to stop using leaded petrol. More taxpayers money has to be spent to counter the lead additive manufacturers media campaigns which try to persuade people that leaded petrol is safer than unleaded, when in Australia the opposite is true. 	<ul style="list-style-type: none"> • government taxes have paid for education campaigns when government legislation could be forcing petrol companies to use non-lead additives like MTBE. People become cynical about government's ability to make cost-effective decisions and to fight vested interests on behalf of the people.
<ul style="list-style-type: none"> • making and maintaining storage tanks and equipment to measure the additive out. 	<ul style="list-style-type: none"> • this contaminated storage equipment must be dumped when tetra-ethyl lead is phased out and new equipment with resulting energy expenditure, will be required to replace it.
<ul style="list-style-type: none"> • transport of lead additive throughout the globe - including shipping from the only 2 places in the world where it is made 	<ul style="list-style-type: none"> • lost opportunities to transport other more environmentally friendly products
<ul style="list-style-type: none"> • building and maintaining service stations, including underground storage tanks 	<ul style="list-style-type: none"> • storage tanks often leak (see LEAD Action News v3n2 "Leakage of Underground Petrol Storage Tanks"), and sometimes they leak dramatically causing an explosion hazard such as in Newcastle on 26 February 1997.
<ul style="list-style-type: none"> • manufacturing particulate masks for cyclists and runners who exercise in heavily trafficked areas 	<ul style="list-style-type: none"> •
<ul style="list-style-type: none"> • health system to deal with miscarriages, strokes, 	<ul style="list-style-type: none"> • when money is wasted treating preventable illness, less

Table - The Cradle to Grave Impacts of Lead in Petrol (Continued)

<p>heart attacks in adults, and blood lead testing and treatment</p>	<p>money is available for prevention programs which already get less than 3% of health expenditure. Children's blood lead levels rise 1 µg/dL for every 10,000 cars per day going past their homes (see Cowie study, Sydney 1996). A US Centers for Disease Control document estimated the average benefits in 1991 of preventing blood lead levels from rising above 24 µg/dL in avoided medical costs, as being US\$1,300 per child.</p>
<ul style="list-style-type: none"> remedial education. Lead poisoned children need special consideration at school (see LEAD Action News v2n3 "The Early Lead Poisoned Child in the Classroom: Symptomatology and Intervention for School Psychologists and School-based Personnel") and generally require remedial maths, reading and learning skills. 	<ul style="list-style-type: none"> children's blood lead levels rise 1 µg/dL for every 10,000 cars per day going past their homes (Cowie study, Sydney 1996). A US Centers for Disease Control document estimated the average benefits in 1991 of preventing blood lead levels from rising above 24 µg/dL in avoided special education costs as US\$3,331 per child.
<ul style="list-style-type: none"> exhaust and engine repairs due to the build-up of lead from petrol, in the engine. Using ULP (unleaded petrol) reduces the damage to engines. 	<ul style="list-style-type: none"> see "A Heavy Responsibility" on page xx in this newsletter
<ul style="list-style-type: none"> manufacturing brominated and chlorinated additives ("lead scavengers" intended to reduce this lead build-up in engines, and to reduce therefore the contamination of used engine oil) 	<ul style="list-style-type: none"> see LEAD Action News v2n4 "Unleaded Petrol Reduces Dioxin Levels in Air"
<ul style="list-style-type: none"> the getting of raw materials to make lead scavengers 	<ul style="list-style-type: none">
<ul style="list-style-type: none"> dealing with chemical spills 	<ul style="list-style-type: none">
<ul style="list-style-type: none"> cleaning up fallout from petrol emissions 	<ul style="list-style-type: none"> housekeepers need to spend several hours twice a week cleaning leaded dust from every surface their young child might touch. Leaded ceiling dust removal costs around \$1000 per house (payable by the householder with no government subsidies yet available).
<p>RAW MATERIALS USED</p>	<p>IMPACTS of RAW MATERIALS used</p>
<p>1b) For the lead additive to be in petrol you need the following raw materials:</p> <ul style="list-style-type: none"> lead. who knows whether it is Australian lead that poisons children through leaded petrol emissions all over the world? 	<p>2 a) The environmental, social and health impacts of the raw materials consumption include:</p> <ul style="list-style-type: none"> While lead is left in the ground it is safe and there remains the possibility of it being put to good use by future generations. With the current lack of cradle to grave management, whenever lead is mined, smelted and incorporated into consumer products, second class citizens are being created, people (especially children) are being poisoned and the environment is being contaminated
<ul style="list-style-type: none"> tetra ethyl lead precursor 	<ul style="list-style-type: none"> who knows?
<ul style="list-style-type: none"> lead scavenger raw materials - bromine, chlorine, ethylene, what else? 	<ul style="list-style-type: none">
<ul style="list-style-type: none"> Iron ore etc to make dedicated tetra-ethyl lead transport containers and feeder pipes at the refinery 	<ul style="list-style-type: none">
<ul style="list-style-type: none"> healthy workers; mostly males, sterile females 	<ul style="list-style-type: none"> see "Lead - From the Boolaroo Smelter to Your Car" on p4 of this newsletter.

Table - The Cradle to Grave Impacts of Lead in Petrol (Continued)

WASTES and EMISSIONS PRODUCED	IMPACTS of WASTES and EMISSIONS
<p>1c) During the manufacture of the lead additive and the addition of it to petrol, its transport and its use as an auto fuel the following <u>emissions and wastes</u> are produced:</p>	<p>2 a) The environmental, social and health impacts of the production of <u>wastes and emissions</u> include:</p>
<ul style="list-style-type: none"> waste and emissions from manufacturing processes for lead additive and lead scavenger 	<ul style="list-style-type: none">
<ul style="list-style-type: none"> emissions from transport vehicles - ships, trucks transporting leaded petrol 	<ul style="list-style-type: none">
<ul style="list-style-type: none"> vehicle emissions of dioxins (from the lead scavengers) 	<ul style="list-style-type: none"> dioxins are carcinogenic
<ul style="list-style-type: none"> Air lead levels inside the vehicle can be markedly raised as a result of leaks in the petrol inlet or exhaust outlet of the car. 	<ul style="list-style-type: none"> children with parents who drive cars and don't use unleaded petrol, have a statistically significant higher blood lead level than children travelling on public transport or in ULP cars
<ul style="list-style-type: none"> greater emissions of hydrocarbons due to lack of opportunity to use a catalytic converter (which would be poisoned by the lead). In some developing countries, catalytic converter technology is precluded even in new imported cars, because ULP is not yet available. 	<ul style="list-style-type: none"> Political questions are raised about the ethics of developed countries manufacturing and exporting cars to developing countries, which run on leaded petrol and could not legally be sold at home. Is Australia one of these countries?
<ul style="list-style-type: none"> vehicle emissions of lead. 	<ul style="list-style-type: none"> lead in air in road tunnels is a major concern of the residents who live near the portals, the vents such as those in the Sydney Harbour Bridge pylons, or the proposed 6 storey high stacks for the Eastern Distributor tunnels in Sydney's south east. None of the tunnels in Sydney has filters or scrubbers (even in the proposed stacks) to remove the lead from the tunnel emissions
<ul style="list-style-type: none"> due to interchangeable use of fuel and transport facilities - all ULP has some lead contamination 	<ul style="list-style-type: none"> here is as good a place as any to mention that although sniffing any petrol is harmful to health, its the lead in petrol that kills or leaves sniffers with permanent brain damage.
<ul style="list-style-type: none"> some catalytic converters die young due to lead poisoning (either from misfuelling or from lead in air in heavy traffic being taken into the catalytic converter) 	<ul style="list-style-type: none"> lack of confidence in Australian made catalytic converters. Disposal problems for dead catalytic converters.
<ul style="list-style-type: none"> leaded street dusts, ceiling void dusts and sediments in urban areas with heavy traffic from historical and current leaded petrol emissions from cars. 	<ul style="list-style-type: none"> increased blood lead levels in populations exposed to heavy traffic leading to a wide range of adverse health effects; including increased tooth decay, heart attack and stroke from increased blood pressure, also reduced fertility, decreased growth in foetuses and children, decreased hearing acuity, greater aggression and delinquency rates. Decreased biodiversity in urban communities through lead's effect on endocrine and reproductive systems in soil microbial and sediment microbial populations.
<ul style="list-style-type: none"> Lead-contaminated soil alongside busy roads 	<ul style="list-style-type: none"> such soil is an enormous urban waste problem because of its bulk. House prices are reduced when the

Table - The Cradle to Grave Impacts of Lead in Petrol (Continued)

	contamination is realized - social impact that poorer people are forced to live in the cheaper properties on busy roads or to go to outer car-dependent suburbs to get their children away from pollution.
• lead in urban run-off	• raised heavy metal content of fish and shellfish in waterways suffering pollution from mines, smelters and urban run-off, and increased heavy metals in humans eating them
• leaded exhaust systems of old cars and leaded engines of old cars	• auto mechanics get lead poisoned and also take the dust home on their clothes to unwittingly poison their children.
• unhealthy workers	• lead poisoning and dioxin-induced cancers contribute to unhealthy workers being thrown on the scrap heap
• contamination from the recycling of cars - the whole car is placed in a high friction crusher which becomes so hot that seating and interior materials are burned up, leaving only a pot pourri of metals including lead	•
• emission of lead and dioxins when cars are burned eg by vandals or in crashes	•
• 25% of the lead in petrol remains in the vehicle, much of it in the (now) leaded engine oil	• used oil is said (on the transport trucks) to be "recycled" but in NSW it is not actually filtered before re-use as industrial fuel, at, for example, dairy food manufacturing facilities.
• emission of lead when reuse engine oil is burned as a fuel in industrial processes	•
• lead in soil when reuse engine oil is applied to soil to damp down the dust	•
• lead vapour is emitted when reuse engine oil is painted onto fences and lead is emitted when the timber is later burned. The timber so treated is leaded waste and the ash from burning is leaded.	•
• leaded fuel sludge is a waste product of leaded fuel storage. Storage tanks require disposal as do feeder pipes	• the only Australian "standards" for cleaning of tanks and disposal of this sludge are written by Associated Octel, who manufacture the lead additive.
• dusty products in shops alongside busy roads become a waste product if not sold	•
• in developing countries, milk can be refused at market (and becomes a waste product) because cows graze alongside busy roads	• the produce which is not tested is presumably consumed

Quotable Quotes



“The worlds biggest aid lender to developing countries now puts banishing lead from petrol as its number one priority for Third World transport investment’....

“There is, says the World Bank, ‘no excuse for continuing to allow leaded fuels in any city’” [Pearce, New Scientist 27/7/96, page 13]

A Heavy Responsibility

The following is a summary (i.e. a series of extracts) of an article by Fred Pearce in *New Scientist* 27:7:96. Text in square brackets by Adrian Hill.

It is one of Merseyside's best kept secrets. At Ellesmere Port there is a factory which produces 80 per cent of the world's output of a chemical the World Bank calls the "greatest environmental threat" to health in many Third World cities. The chemical is tetraethyl lead, the "antiknock" compound added to petrol. The plant is run by Associated Octel...

Petrol used in [many developing countries] . . . still contains huge quantities of lead, most of it supplied by Octel. It fills the streets of fast-growing megacities with lead-laced exhaust fumes, exposing the brains of children to a toxic whirlwind. When children breathe in lead, it can permanently lower IQ, damage emotional stability, cause hyperactivity and reduce the ability to concentrate. It may also damage hearing and physical growth . . .

In June [1996], the American government persuaded the UN Habitats II cities summit in Istanbul to recommend that governments "eliminate as soon as possible the use of lead in gasoline". The World Bank says this task is cheap, technically achievable for all cars and could transform the prospects of tens of millions of children . . .

Yet many developing countries, advised by Octel, are resisting the call. Octel . . . openly admits that it is actively promoting the continued use of lead in petrol in developing countries. The company is telling governments that unleaded fuel is only suitable for cars with catalytic converters, a claim described as "nonsense" by experts . . .

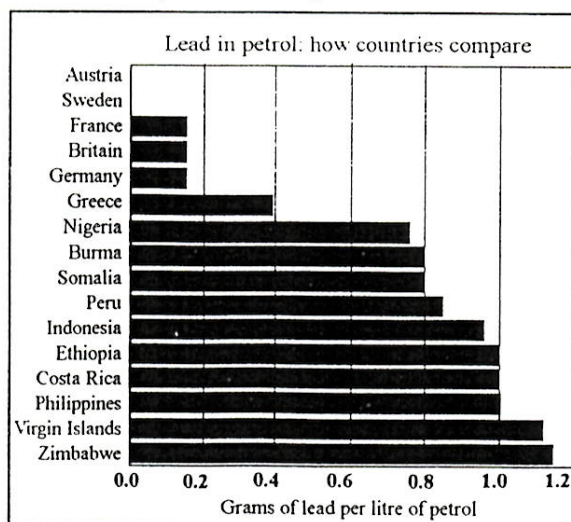
The argument over whether lead could be banned from petrol in the Third World as painlessly as has happened in many rich nations is more technical than financial. For many years, car and lead manufacturers argued that lead was essential to lubricate exhaust valves and reduce wear. But recent studies in the US suggest that the extra wear on valves from lead-free petrol has been greatly exaggerated. More important is the role of lead in raising the octane rating of fuel . . .

There are, however, two lead-free ways to raise octane levels. One is to blend the fuel with other additives with a high octane rating . . . They cost more than lead, but raise fuel prices by less than a cent per litre . . . and [they can] also help fuels burn

cleaner and more completely.

Another approach is to adapt oil refineries to produce higher-octane fuel . . . There are, however, [according to Octel] fears over the carcinogenic effects of benzene [which can be produced with this approach], although the World Bank considers them less worrying than the effects of lead....Bob Larbey [Octel's external affairs manager] himself concedes that the potential problems of benzene can be avoided without catalytic converters.

But despite the options for using alternatives to lead, very little is being done. Valerie Thomas of the Center for Energy and Environmental Studies at Princeton University in the U.S. charges Octel with using misleading arguments to discourage governments from taking these obvious steps. She says Octel's claim that "governments should only think about removing lead from petrol for cars with catalytic converters" is dangerous nonsense. "All cars can run safely on unleaded petrol," she says, pointing out that any wear on valves is counterbalanced by reduced damage to other parts of the engine. In any case, she says, "even under severe engine conditions, all studies agree that 0.05 grams of lead per litre is sufficient" to prevent damage to valves.



- WORLDWIDE CHILD BLOOD LEAD LEVELS
- Parts of Africa - over 90% above 10ug/dL
- Budapest/Mexico City - average 25ug/dL
- Cairo - average 30ug/dL
- Bangkok - average 40ug/dL
- Fuzhou (China) - up to 70ug/dL

Britain Changes Direction on Transport Policy

Based on a talk by visiting UK consultant Tim Pharoah and an interview in "Hell on Wheels" No. 4. Comments in square brackets by Anne Roberts and Adrian Hill.

In Britain the Standing Advisory Committee on Trunk Road Assessment proved what the government had hitherto refused to accept - that building new roads generates more traffic [Hallelujah!]. The budget for the national road building project has now been halved, with very few proposals for new routes. But what is exciting about all this is that they are not just trying to provide enough public transport to reduce trips by car - they are taking a more holistic approach - they are reducing the demand for trips.

They are reducing demand in five ways:

- (1) **Promoting development within existing urban areas** rather than "greenfield" sites; There is a move away from business parks - to which everyone drives by car - and from mega-retail centres built next to motorways. Developers now have to prove that they are unable to invest in the town centre before other sites are allowed to be considered.
- (2) **Locating activities that generate trips at public transport nodes**, so trips can be done by public transport rather than by car:
- (3) **Strengthening local centres:**
- (4) **Improving the choice of transport mode;**
- (5) **Limiting the provision of parking.** The British firm of Tesco is establishing smaller scale centres with *no* car-parking, and with mixed-use buildings.

In addition to transport reduction measures, they are also encouraging **alternative transport** to fill the car gap, such as providing for pedestrians and cyclists, slowing traffic ("traffic calming"), and giving precedence to public transport where traffic merges.

Tim Pharoah says he's seen road plans here in NSW that look 25 years out of date. He says the car is a de-socialising instrument - Australian car-based suburbs provide little opportunity for normal human contact except in the sterilised environment of the shopping mall or the TAB. Australia is likely to develop the same problems (of alienation and crime) as the USA and Britain.



Interestingly, a European Union survey indicates that 84% of people want more public transport so they can drive less, but political leaders thought that only 49% of people would be of that opinion - suggesting that politicians are behind in their thinking.

There are mistakes to be made, even in trying to promote public transport - San Francisco's Bay Area Rapid Transit has undermined its attempts to develop public transport nodes. By providing so many car spaces for "park and ride" the retail, commercial and residential development is forced to locate beyond easy walking distance of public transport!

Traffic restraint needs to be metropolitan wide, not just in the CBD. Employment needs to be located at centres, not dispersed. Attempting to attract jobs to residential areas is questionable, since it assumes that the people who take the jobs will live close by.

It appears that in Australia there are still pet projects which grab government's attention. In Europe there is better understanding of the need to coordinate different types of travel, different types of project - not just look at issues from an engineering viewpoint, but work with the community to develop scenarios which are more sustainable, and economically and environmentally better. [Key election promises of the present NSW government were to curb the power of the RTA and to place an immediate moratorium on expressway projects except for the M2. These promises were quickly dropped after the election.]

It's a problem for Sydney. In Britain there is a very strong movement to protect cities against urban road building. "The Government knows now it cannot build a single metre of new urban road without having to deal with major direct action campaigns."

Tim Pharoah is the author of the recent book Transport Concepts in European Cities: Ten Case Studies.

The Devil's Fart

Edited by Simon McRae of Greenpeace Melbourne and Adrian Hill of The LEAD Group, based on "Lead Overload: Lead battery waste trade and recycling in the Philippines" by Greenpeace Australia.

In a small village in the Philippines a few kilometres north of Manila, residents clasp scarves to their faces and gag and choke for breath. In May 1996, locals from the village Barrio Patubig were found to have blood levels contaminated with enough lead to trigger toxicological damage. These people are victims of a shameful international toxic trade - and investigations show they may be choking on Australian poison.

What's Going Where

In 1995 Australia sent 6,185 tons of used lead acid batteries to the Philippines, which made it the third-biggest toxic trader in scrap lead batteries to that country. Figures compiled by Greenpeace show that since 1991 at least 76,000 tons of lead acid batteries have been imported to the Philippines. In the last 6 months of 1996 Australia exported over 1.2 million scrap batteries to the Philippines.

Lead is one of the most toxic of all environmental contaminants, with infants and pre-school children at particular risk. Exposure to lead can cause poisoning, brain damage and even death.

In October 1996 Greenpeace and the University of the Philippines surveyed 35 children living near lead disposal facilities. Blood lead levels were up to 3 times the Australian standard of 10ug/dL. Of the 10 preschoolers, almost half were over 15ug/dL.

One [adult] worker who was employed for three months [on wages of less than \$4 per day] was hospitalised for five months and had to pay his own medical expenses. Workers at most recycling plants in the Philippines have very little protection from lead contamination.

Residents of Patubig liken the toxic fumes from the plant to the "devil's fart", and watch the Marilao River turn black from its discharges. Samples collected by Greenpeace around the plant show severe lead contamination of soil, river sediment and vegetation. Greenpeace sampling of effluent from the plant found lead levels 1,900 times Australian allowable standards. Lead is the biggest waste product of scrap batteries, but plants can also discharge highly toxic arsenic, mercury, and sulphuric acid.

"Hazardous waste recycling in developing countries

OH, EXCUSE
ME!



can be characterised as either sham or dirty recycling. The facilities often pollute far more than a final disposal facility would," says the Greenpeace report *Lead Overload*.

The situation is no better in India. Australia is the second largest exporter of highly toxic zinc and lead ash. Investigations show that over the past two years Australia has exported more than 9,000 tons of toxic waste to India. Only the US sent more.

What Greenpeace is Doing

Greenpeace campaigners Von Hernandez from the Philippines and Ravi Agawal from India toured Sydney, Canberra and Melbourne, spoke at seminars and inspected an Australian lead acid battery recycling plant in Sydney, jointly run by Pasmenco and Simsmetals. They met with government ministers and senior bureaucrats to put the case from the non-OECD viewpoint on harmful toxic trade. Although Australia is a signatory to the Basel Convention [which bans hazardous waste exports to developing countries for disposal], the law it passed to ratify the treaty was seriously deficient. In September 1995 the parties to the Basel Convention agreed to the Basel Ban amendment which bans waste for recovery operations in developing countries by 31st December 1997. Thanks to pressure from Greenpeace and other Organisations the government has since been forced to amend its initial bill. To meet its international obligations to the Basel Convention the amendments which came into effect on December 12th 1996 now require waste traders to get permits from the Federal environment Minister to export hazardous waste including lead, with fines of up to \$1 million for false reporting.

What can I do?

Write to the Federal Environment Minister, Senator Robert Hill c/- Parliament House, Canberra, ACT 2600. Demand that the Australian government implements the Basel Ban on sending waste for recycling and recovery in poor developing countries NOW. Do not wait until 1998.

Man Wins Lead-Poison Costs Fight

By Ann Treweek of the Sunday Times. WA. 26.1.97, reprinted with kind permission.

Ed. This is the latest on "Lead Worker: A Case History", published in LEAD Action News vol 4 no 3.

A former mine laboratory worker who suffered high lead levels has won compensation for medical costs 16 years after exposure. The man claims that despite high blood lead levels, health officials failed to diagnose his poisoning. Now he plans to have chelation therapy to remove lead from his tissues and says the State Government Insurance Office will pay.

He has suffered bad moods, memory trouble, lack of concentration, tremors and fatigue since working as an assayer at a gold mine laboratory in 1981.

When a test found his blood lead levels were abnormally high, the company moved him to another section and his levels fell to normal.

The man said he made no compensation claim at the time, but asked about long-term effects. He said a doctor then with the Health Department, and now working with Worksafe, laughed at his concerns.

But the man recently learnt from action groups outside WA that other lead-exposed people had similar memory and tremor problems.

While his blood levels were normal, he believed lead in his tissues still caused problems.

He said the SGIO had just accepted liability for medical costs.

But the six-year statute of limitations prevented him from claiming damages, even though he expressed concern about his long-term health in 1981 and 1982.

Labor MP Alannah McTiernan has taken up his case.

Tooth Decay Linked to Persistent Lead Pollution

Reprinted from New Scientist, 18.1.97, with kind permission.

Lead pollution from traffic fumes and tap water may cause tooth decay, say Spanish researchers Francisco Gil and his colleagues at the University of Granada have found that teeth from children and adults that contain high concentrations of lead have more car-

ies, plaque and dental staining

Measuring the lead content of children's milk teeth as they are shed is a standard test for exposure to environmental lead and its accumulation in the body. Gil's team also found that children with 10 or more sites of decay in their mouths had three times as much lead in their blood as children with no decay.

The researchers, whose results appear in the December issue of *The Science of the Total Environment*, suggest that lead either goes directly into the mouth, where it replaces traces of metals that are natural constituents of tooth enamel, or that it reaches teeth via the blood. Once present in the tooth, the researchers believe that lead makes the enamel more susceptible to attack by bacteria. Their discovery may explain why older people, who over the years accumulate more and more lead in their teeth, suffer most from tooth decay.

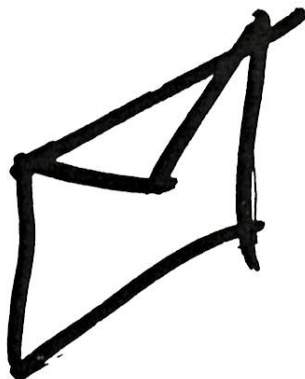
The study is the first published analysis to find a significant correlation between lead and dental decay. But Lindsay Paterson and Philip Sutcliffe of the University of Edinburgh say that they made a similar finding in the early 1990s. "We also found a statistically significant association," says Paterson. "We had intended to publish the results, but Sutcliffe, the lead author, got involved in a long campaign to save the university's dental school."

US-HUD Grant

Reprinted with kind permission from the *Asbestos and Lead Abatement Report*, 2/12/96, published by Business Publishing Inc, 951 Pershing Dr. Silver Spring, MD 20910, US, 00111 800 274 6737.

The Community Development Department in Cambridge, Massachusetts, has received a \$2.2 million grant from the US Housing and Urban Development Department (HUD) to assist property owners in deleading their homes. The grant will be administered by the department's Lead-Save Cambridge program, initiated in October 1994. The program aims to grant funds to property owners for lead abatement and also seeks to expand programs for temporary relocation and offer medical and educational services to low- and moderate-income tenants. In return, owners must agree to keep their homes affordable for five years after the abatement. City officials said thus far, the program has assisted more than 150 households. The HUD grant allows city officials to extend and expand the program. For more information, call 0011 1 617 549 5323.

Letters

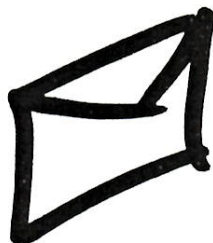


4 November 1996

Dear Ms O'Brien

Further to my representations on behalf of The LEAD Group Inc. regarding future funding for the Leadline Project, I have today received a response from Senator the Hon. Robert Hill, Leader of the Government in the Senate and Minister for the Environment, a copy of which I have enclosed for your information . . . [below].

Yours sincerely
Paul Zammit, MP
Federal Member for Lowe



Received 21 Oct 1996

Dear Mr Zammit

Thank you for your letter of 7 May 1996 concerning future funding for the Leadline Project run by The LEAD Group Inc. of Dulwich Hill. I apologise for the delay in replying to your letter.

I am advised that a one off grant was made to The LEAD Group in 1995/96 for a community based information and referral service in support of the national survey of blood lead in children, which was anticipated would cause heightened community awareness and concern . . .

The service provided by The LEAD Group has been a valuable back up to the national lead awareness program and is very much appreciated. As the funds for this program terminate this year I am not in a position to give any commitments on future funding. I will be reviewing the Department's grants program for non government organisations and will take The LEAD Group's claim, and those of other community groups, into account in this context.

Yours sincerely
Senator the Hon. Robert Hill



Received 10 February 1997

Dear Ms O'Brien

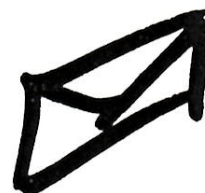
I just wanted to say a huge thank you for your phone advice, referrals and the written information mailed to me.

The issue of lead paint on my house has been very worrying. Your advice and assistance greatly helped me to make a decision about how to deal with it with which I am happy.

There seems such a long way to go in making people more aware of the hazards of lead and obviously your service is really important in this regard. My contact with your service continued to affirm that I was dealing with this issue in the right way despite the comments of people around me who are yet to be convinced. When I am finished with the wonderful information kit you sent me I will be forwarding it on!

Once again thank you and be assured that I will raise this issue wherever I can.

Diane Gosling
Penrith



Dear LEAD Group,

I am writing to thank you for all your advice over the last year and to tell you that thanks to lead aware housekeeping recommended by you, our one and a half year old daughter Rose's lead levels have dropped from 14.5 ug/dL to 6.3 ug/dL in just 5 months. We are feeling very proud of ourselves and grateful for The LEAD Group's existence. Meanwhile we keep wet dusting and mopping into the new year . . . Ho hum.

Thank you and all the best for more and more funding.

Yours sincerely
Fiona Mackenzie & David Peterson



Hi Elizabeth, Robyn and . . .

Thank you for all your help and advice! Season's Greetings from Ingrid and "the micromoles".

News Briefs



Autism Claim

Author Hulda Regehr Clark, PhD, claims in her book A Cure for All Diseases, that lead accumulation is always seen in children with autism.

New Sander Tested

A new orbital sander with vacuum extraction was given very favourable reports in tests conducted by CTI on leaded paint removal. The sander is manufactured by Rupes Australia.

Lower Blood-leads

Blood lead concentrations have fallen substantially in the UK since 1984, says the 1995 health survey of England, conducted by Shilu Tong and colleagues. (Published Oct. 96).

Questionnaire Ineffective

Researchers led by Dr. James Sargent in Dartmouth, USA, have found the Centers for Disease Control and Prevention (CDC) Assessment Questionnaire for lead exposure does not successfully identify which children should be targeted for screening.

Low Birth Weight

Men whose occupations expose them to high levels of lead may father babies with lower birth weights, according to a recent study by Dr Yuan-I Min of John Hopkins & Colleagues.

Cleaning Not Enough

A study by Dr Bruce P. Lanphear of the University of Rochester found no correlation between recommended cleaning practices and blood lead levels.

Fats and Lead

A study by Susan Lucas at the University of Maryland reports children with high levels of fat in their diet are more likely to have high blood lead levels.

Candy Wrappers

Tests by the California Department of Health Ser contained 80 times the amount of lead considered safe. The candy is called Storck and is from the Philippines.

British Lap Up Lead in Water*

British health and environmental officials are including lead in drinking water in a major blueprint for future health care, to be called the "Health of the Nation Strategy"

Filtration Plant*

A filtration plant that sifts organic nutrients in the drinking water of Rochester, New York, also reduces levels of lead found in water, city officials said.

New Blood Lead Survey

A December 1996 survey by the South Eastern Sydney Area Health Service found that 13.6% of 1-4 year olds in Eastern Sydney child care centres had blood lead levels over the national goal of 10 ug/dL

New Lead Mines On The Way?

Two potential new lead mines are currently being prospected in NSW. They are the Lewis Ponds prospect 13km East of Orange, controlled by Tri Origin Australia NL and the Bowdens prospect 25km ESE of Mudgee, controlled by Ashanti Goldfields Co. Ltd.

Lead Poisoning a Notifiable Disease

Blood lead levels of 15ug/dL became a notifiable disease in NSW as of December 1st 1996. This means any laboratory which finds such a result must notify a Public Health Unit.

Miscarriage Risk

The Pregnancy and Lifestyle Study (PALS) by Dr. Judy Ford found that for women involvd in renovating, there is a four times increase in the risk of miscarriage.

Lead Extraction*

A new method for extracting lead and other metals from water and soil for the purpose of laboratory analysis has been developed by 3M recently. They claim the Empore Extraction Disk works in under 20 minutes.

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*The Lead Education and Abatement Design Group
 Aiming to eliminate childhood lead poisoning in Australia by
 the year 2002 and to protect the environment from lead.*

The NSW Community
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 is supported by the
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