

coalition for a nuclear free australia

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newsletter, vol. 1 no.1, april 2001

editorial

by hillel freedman, for the coalition for a nuclear australia

Campaign articles on the nuclear industry are often all doom and gloom.

They often read something like this. "Australia is currently undergoing the greatest rate of expansion of the nuclear industry since Maralinga", or "The US Star Wars program is likely to set in train another arms race between the superpowers, meaning that all out global nuclear annihilation is a becoming a very real and immediate danger".

Both of these statements are true. But they are very negative. They overlook the positives that anti nuclear campaigners have achieved. We need to focus more on our successes, and from their give the masses that hate the nuclear industry a vision of how we are going to win!

In Australia the Howard government came into power with a vision of treating uranium like any other mineral. What has this government achieved in five years? One mine in South Australia has gotten up! Jabiluka has been severely hindered! Honeymoon has been stalled! The international was dump proposed for SA has been banned! There is now a public inquiry into the new reactor for Sydney! People power has achieved a lot.

Internationally, whenever any government proposes anything nuclear it is met with staunch public resistance. All around the world governments are backtracking on plans for nuclear power and some are proposing reductions in nuclear arsenals. Yet other governments are threatening a new arms race by pushing ahead with the Star Wars program. What is the lesson from this? The nuclear industry is on the nose wherever it goes. Until it is killed off completely some governments will continue to propose it expansion.

We in Australia are in an envious position. We have one third of the world's uranium. If we lock that up we put a serious dent in the whole nuclear industry. If we reject support for the Star Wars program it seriously imperils the chances of it succeeding.

Now is the time for the widest possible movement to unite for A Nuclear Free Australia. We need the largest possible rallies around the country that call for a moratorium on Australian participation in the nuclear industry!

NO WEAPONS NO DUMPS NO MINES NO REACTORS

Whether you are a greenie, trade unionist, church or otherwise religious, student, anarchist, or socialist The Coalition For A Nuclear Free Australia needs your support and active participation.

Support us to protest against John Howard's radioactive vision for Australia.

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The Coalition is a collective of diverse groups working against the nuclear cycle. As such this newsletter represents a variety of approaches and opinions. Thanks to all contributors.

radioactive australia

by dave sweeny, australian conservation foundation

Against the backdrop of a Federal election the pro-nuclear Howard Government is pushing for an expanded nuclear industry with plans for more uranium mines, dumps and a new reactor. Community resistance to the imposition of radioactive industries and nuclear threats is growing and nuclear issues remain high on the public agenda around the country.

When the Howard Government came to power in 1996 there were two commercial uranium mines in Australia: Ranger in the Northern Territory and Olympic Dam (Roxby Downs) in South Australia. These mines, and their adverse impacts on Aboriginal country and culture, continue operating today. Since then Government support for more uranium mining has put it on a collision course with environment groups and activists, Traditional Owners, and the wider Australian community.

jabiluka

When the Jabiluka uranium mine in the World Heritage-listed Kakadu National Park was approved in 1997 a major community campaign began in opposition to Energy Resources of Australia's (ERA) controversial mine plan. Environment groups and solidarity activists have worked closely with the Mirrar Traditional Owners of the area that includes the Jabiluka and Ranger mineral leases to stop the project.

The campaign to halt Jabiluka has seen legal challenges, detailed media and public awareness initiatives, an eight month direct-action blockade at the site and extensive corporate campaigning focusing on the role of ERA and its former majority owner North Ltd. All of these moves have helped create a significant domestic and international profile for Jabiluka and contributed to the project being stalled since September 1999.

Internationally Jabiluka has attracted concern and opposition from the European Parliament; UNESCO's World Heritage Committee and many environmental and anti-nuclear groups. Jabiluka support groups have been established and actions held in over 20 cities around the globe.

The future of Jabiluka remains under review by ERA's new majority shareholder, the London-based mining group Rio Tinto. Last year Rio Tinto took over former owner North Ltd, and it is currently examining the options for Jabiluka. Speculation concerning the possible sale of ERA to the French nuclear company Cogema remains strong.

Environment groups, Jabiluka campaigners and Traditional Owners have called on the company to neither further develop nor on-sell either ERA or the Jabiluka deposit. The Jabiluka mine proposal is an abuse of human, cultural and environmental rights and will continue to be resisted. So far our efforts have slowed Jabiluka. Together we can now end it.

(See also Jabiluka Update p.6.)

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radioactive australia

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injecting poison

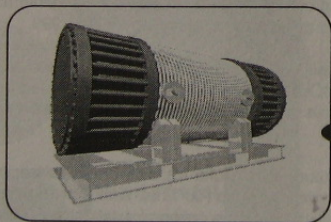
Australia has become the only western nation to approve the commercial use of the polluting and problematic acid leach mining technique. In situ leach operations, sometimes called ISL or solution mining involves injecting large volumes of sulphuric acid into the underground water system to dissolve uranium. This radioactive slurry is then pumped to the surface for processing and the liquid wastes are dumped back into the water table.

Acid-based ISL is a cheap and nasty processing technique that is based on transferring the long-term toxic legacy of mining to an unseen and little understood part of the environment. Groundwater contamination is extremely difficult to reverse and ISL mining effectively generates permanent pollution. For the first time in the modern era of Australian mining there is no requirement for the mining company to rehabilitate the surrounding groundwater. Instead the company merely needs to move in, inject acid to access the uranium, dump its wastes down the same drill holes and leave.

The international history of acid ISL mines has been one of cover-ups, contamination and failed rehabilitation. This widely discredited process is only used in some former Eastern bloc nations and, despite government and industry rhetoric of rigorous assessment and world's best practice, Australian uranium operations are now benchmarked against those in Bulgaria and Kazakhstan and are set to remain the focus of strong community opposition.

secret science

In the 1950s the Menzies Government commissioned a nuclear research reactor at Lucas Heights in what was then isolated bush land south of Sydney. Five decades later the suburbs have spread around the now obsolete reactor and the local community, Council and activists are fighting plans by the Australian Nuclear Science and Technology Organization (ANSTO) to build a new reactor in their backyard.



The decision to build a reactor was made by Federal Cabinet prior to any assessment process and, along with detail on key contractual arrangements, remains shrouded in secrecy. The reactor's development has been secretive and its implementation rushed. Key aspects of the project's design, siting options and waste management plans do not exist or have never been made public.

Despite Government assurances that all is well, a continuing Senate investigation into the reactor plan has heard testimony of ANSTO pressure for project approval, secret contracts being awarded to under-performing tenderers, inadequate scrutiny of performance, and incomplete safety data.

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It is also increasingly clear that the reactor proposal is facing massive cost over-runs and the very real potential of a financial meltdown. Documents obtained from the Federal Government by the Sutherland Council show expected costs are almost double the publicly stated amount. Australia's single largest expenditure on science and technology is running off the radioactive rails. The proposed reactor is also diverting valuable resources from other important medical research and development and from the commercial application of real environmental solutions such as renewable energy systems.

There are serious and fundamental flaws in the Government's reactor plan and the processes that are putting that plan into action. ANSTO still does not have a license to construct a new reactor and must clear a series of procedural hurdles before this can happen. ANSTO and the Government are increasingly desperate to get the paperwork signed prior to this year's election. Local residents and their growing numbers of supporters are equally keen to see that short-term political decisions do not leave a long-term radioactive burden.



wasting the future

The inevitable result of all nuclear technology is radioactive waste. Hot, difficult to manage, and highly toxic, these wastes are a growing global burden and will be for hundreds of thousands of years to come. Despite over six decades of research involving vast sums of money and technical

resources, no way exists to safely isolate these wastes from humans or the wider environment for the time periods required. The push for an expanded nuclear industry is having a dramatic impact on waste levels, with growing piles of radioactive mine tailings and proposals for both national and international radioactive waste dumps.

The Australian Government's embrace of all things atomic has not gone unnoticed internationally. As countries in North America and Europe disengage from the nuclear trade Australia is increasingly seen as out of step. This view is reinforced by supporting uranium mining in a World Heritage area, plans to develop a food irradiation industry, hosting nuclear vessels and Australia's promotion of nuclear power as a clean 'greenhouse friendly' energy source.

Against this backdrop European Company Pangea Resources has identified Australia as the key nation in their search for an international high level radioactive waste dump. British Nuclear Fuels Ltd, operators of the Sellafield nuclear plant in northern England and one of the world's largest generators of radioactive waste primarily back Pangea.

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radioactive australia

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Community opposition to Pangea's plan is strong and the Federal Government has stated that it is opposed to the plan. However in the nuclear industry, as in life, actions speak louder than words. The Government's pro-nuclear agenda and its refusal to follow the lead of Western Australia and South Australia and legislate against an international dump continues to keep a glow alive in the Pangea boardroom.

The push for a national radioactive waste dump to be built in South Australia is fundamental-

ly linked with plans for a new nuclear reactor in Sydney. ANSTO needs to be able to demonstrate that it has a plan to handle the existing reactors wastes as well as those from a new reactor in order to meet their licensing conditions. In its simplest form, it needs a dumpsite in order to get the all clear to be able to go ahead and produce more wastes.

Unfortunately for ANSTO and the Federal Government, the citizens of South Australia do not share their enthusiasm, nor do those in communities on the proposed waste transport routes. Late last year the South Australian Parliament passed legislation against the imposition of a national radioactive store for intermediate and higher level wastes in the State. Polls have regularly shown over 90 percent of South Australians are opposed to their community hosting a waste dump, and the region's Traditional Owner groups have

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expressed strong concerns over the plan.

The Federal Government, which refused to intervene in the debate over mandatory sentencing because of the importance of "states' rights", seems to put a higher value on radioactive waste than it does on human freedom. In response to the South Australian Parliament's move Industry Minister Minchin stated that any

NO RADIOACTIVE DUMP IN OUR COUNTRY

"legislation passed by the South Australian or other state or territory governments will not change our plans".

Again, a pro-nuclear agenda has put the Federal Government in direct conflict with the wishes of the broader community and the states.

The Government's nuclear agenda has led to communities around Australia organising to oppose and resist nuclear developments.

Radioactive dumps reactors and uranium mines have no place in the Australian landscape and 2001 is set to be a pivotal year in the struggle for a nuclear-free future.

jabiluka: where it's at now

by amelia young

On 22nd March news came through that Rio Tinto (68% owner of Energy Resources Australia) no longer "support[s] the development of Jabiluka in the short term". Interestingly, this announcement came on the third anniversary of the commencement of the months-long Jabiluka protest blockade, and less than a year after Rio Tinto took over North Ltd. in August 2000.

While the announcement is a very important development and somewhat of a landmark in the years-long campaign to prevent the expansion of uranium mining and milling within Kakadu National Park, it is by no means an indication of a sure and final discontinuation of the project.

Rio Tinto still has the option of selling off the Jabiluka mineral lease, and/or Energy Resources Australia, leaving open the possibility of handballing this ever-increasingly contentious mine to yet another corporation. Alternatively, the corporation could opt to wait until 2004 when the Mirrar-declared five year moratorium on milling the ore at the Jabiluka is due to expire.

Indigenous and community groups are therefore anxious that the Jabiluka mineral lease be returned to the Mirrar and the project discontinued in its entirety. If not, Rio risks revisiting what will most likely be escalated levels of national and international protest in 2004, should it elect to then attempt to build a mill on the Jabiluka site.

Jacqui Katona, spokesperson for the Mirrar, traditional owners of the Ranger and Jabiluka areas has said that "There would be no satisfaction if last week's announcement simply meant Jabiluka is put 'on the back burner'". Together with green and community opposition

groups Ms Katona has emphasised the need to maintain pressure on Rio Tinto to mothball the project once and for all and to use this admission of the project's unviability to announce its discontinuation.

Tellingly, levels of protest over past few years to halt the mine have had significant effect with Rio Tinto CEO Leigh Clifford citing indigenous and public opposition as contributing to a climate in which further development of the mine is hampered. As Friends of the Earth national nuclear campaigner Bruce Thompson remarked, the "news is a tribute to the community campaign that continues to prove Jabiluka remains deeply unpopular and should not proceed." Not to mention the abysmal market price of uranium today, which has reached a record low.

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In this climate demands that Rio Tinto commit to neither selling on nor developing Energy Resources Australia and/or the Jabiluka mineral lease have increased tenure, and cannot continue to be marginalised as either unrealistic or radical.

As said in a joint statement put out by green groups after the Rio Tinto announcement, "All efforts are useful and welcome and we need to use this significant opportunity to help make sure that Jabiluka remains on the public agenda and a thorn in the side of any company that is involved."

the nuclear cycle:

spelling out what really goes on

by daniel moss

Since the atomic bombing of Hiroshima and Nagasaki in 1945, the world has known of the horrors of the nuclear threat. The massive stockpile of nuclear weapons that has risen since - to the point that the planet could be blown up thousands of times over - compounds people's fear of nuclear devastation, and shows the absurdity and destructiveness that those in power have yielded on our living planet.

Radioactivity will never be safe, no matter what precautions are taken. You don't need a science degree to work that out.

The nuclear accidents at Three Mile Island and Chernobyl confirmed the world's fears of a radioactive disaster occurring at a nuclear reactor. We know uranium is radioactive, that radiation is bad and kills and mutates living organisms, and is the key ingredient of the nuclear cycle.

But what is the nuclear cycle? It is hard to understand the scientific jargon and chemistry that comes with this killer technology, the most killer invention of them all. The nuclear cycle for power generation was declared 'safe'. Yet radioactivity will never be safe, no matter what precautions are taken. You don't need a science degree to work that out.

Every part of the nuclear cycle is deadly. This is an attempt to interpret the nuclear cycle in simple terms. The nuclear cycle (or nuclear fuel cycle) involves many parts. It starts with land degradation during uranium mining, conversion and enrichment of uranium to produce fuel for reactors, fission (splitting) of uranium in reactors to release heat, (for) the generation of electricity by steam turbines, reprocessing of spent fuel to isolate plutonium and unburned uranium, and storing the radioactive wastes for many, many thousands of years.

The fact that there is no cure to the enormous amount of nuclear waste we are creating, the nuclear 'cycle' is a bit of a misnomer. It is known as a cycle because the plutonium and unused uranium can be returned from the back end of the cycle to the near the front and reused as fuel by reprocessing the wastes.

However the 'cycle' is an unnatural one as it is transported around the world for its various operations, threatening radiation accidents at every part of the journey. An example of this is the reprocessing of spent uranium from Sydney's Lucas Heights reactor which was recently sent to France for reprocessing, passing through local neighborhoods then over sea. Now it sits on board a ship bobbing in the harbour waiting to be unloaded. Supposedly it will return to Australia in fifteen years to be stored as nuclear waste, but recent efforts by peace and anti-nuclear activists in both France and Germany hampering the transportation of waste indicate that perhaps this dangerous global transportation is coming to an end.

the nuclear cycle

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Plutonium-239 fissions faster than uranium-235. It is used in reactors known as breeder reactors as it is able to produce more plutonium-239 than it burns, overcoming problems of low uranium supplies. However the breeder reactor has not been practically successful and has been rejected by many countries due to safety concerns. It is also mixed with uranium for use in thermal reactors. Plutonium is most likely to be stockpiled for nuclear bombs.

The mining of uranium is also a dangerous business. Miners are exposed to the hazards of ionizing radiation from radon and radioactive dust. The environment of the mine and surrounds is destroyed. The local communities, often indigenous people, the waterways and whole ecosystems are under threat of, and are often contaminated by radioactive materials. People suffer cancer and birth defects. Other living organisms also suffer these and other fates.



Ranger Uranium Mine

Tailings dams are where all the unwanted material that is mined is stored. Once the mining stops, the tailing dams are left to become hills of fine sand-like solids. These retain 80% of the radioactivity of the uranium ore body. Some of this waste material can decay into a gas (radon-222) which can spread over the region. Radioactive radium, dust and radon contaminate surrounding ecosystems. Natural disasters, such as earthquakes or flash floods are often not considered when the dams are designed, posing additional threats. The radioactive dangers persist for over 100 000 years from these uranium mining tailings dams.

An enrichment nuclear reactor producing reactor grade uranium (3% uranium-235) can also produce higher weapons grade uranium (over 90% uranium-235) for use in nuclear weapons. When Australia sells uranium to America or France there is no guarantee that the uranium is only being used for nuclear power. An enrichment plant can produce fuel for nuclear weapons very quickly.

Uranium hexafluoride (hex) is used for enriching uranium to weapons grade and is a radioactive gas at low temperatures. The hex gas causes major kidney damage, as well as other radiation

Uranium is a naturally occurring radioactive element that is the key ingredient in the nuclear cycle. This is due to its unstable atomic structure. Uranium is a dangerous substance as it is highly radioactive and produces radioactive waste that lasts for hundreds of thousands of years. Within an atom, there is a nucleus with electrons (negative charge) that orbit around it. Protons (positive charge) and neutrons (neutral charge) are found within the nucleus. An atom is neutral if it has an equal number of electrons and protons. Atoms of the same element have the same amount of protons. However atoms of the same element can have different amounts of neutrons and so have different atomic weights known as nuclides. For the uranium element, uranium-235 contains 143 neutrons and 92 protons within its nucleus whereas uranium-238 has 146 neutrons and 92 protons.

Some nuclides known as radioisotopes are unstable and decay into other nuclides. This decay is called radioactivity. Different radioisotopes decay at different rates, depending on its instability. A half-life is the time it takes for half the radioisotope to decay. The half-life of uranium-235 is 713 million years while the half-life of uranium-238 is 4.5 billion years.

As the uranium atoms decay, alpha, beta and gamma rays are released. Alpha rays, heavy positively charged particles, can spread radiation very fast, moving several kilometers a second. Beta rays are negatively charged electrons 7000 times lighter than alpha particles, while gamma rays are electromagnetic radiation found in many radioisotopes.

The energy released from the decay of uranium takes many thousands of years so cannot be put to use. The atom needs to be ruptured to produce the energy much quicker. In 1938 it was realised that bombarding uranium-235 with neutrons caused the unstable element to fission or split into two smaller atoms and releases more neutrons. This is known as atomic fission.

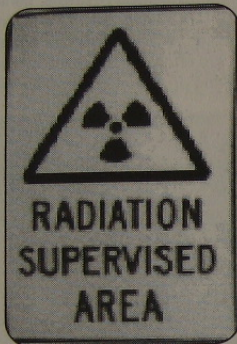
As uranium-235 atoms split more and more neutrons are released until a chain reaction starts. An uncontrolled chain reaction occurs in nuclear bombs, as seen in Hiroshima and Nagasaki.

In a nuclear reactor, the chain reaction must be controlled to avoid the chain reaction growing to a dangerous explosion such as the ones that occurred at Chernobyl and Three Mile Island. Rods containing the element boron are used as boron can clean up excess neutrons. A safe working reactor needs to balance the neutrons being released with the number absorbed by uranium-235 as it splits. Many other safety mechanisms are required to minimise the likelihood of radiation 'accidents'.

Uranium-238 is different to uranium-235 as it rarely fissions, but it can gain a neutron to create plutonium-239. Plutonium-239 is an artificial element that can only be produced by bombarding uranium with neutrons, a process that occurs at nuclear reactors.

Plutonium is one of the most toxic substances known. One millionth of a gram is enough to cause cancer. Plutonium replaces calcium in mammal bones, so once in the food chain it remains there.

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problems. These gases are released into the atmosphere during enrichment. Workers are also exposed.

Every year one third of the fuel rods in a reactor are replaced. The spent uranium fuel rods are stored in cooling ponds at the reactor to lose its initial radioactivity and heat. This will be reprocessed or stored indefinitely. Each year in an average nuclear reactor, about 250kgs of plutonium are left in the spent fuel.

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Radioactive water and gases are regularly released from a nuclear reactor, into the ocean and atmosphere. Many reactors are built near rivers and water supplies. Releasing tritium (radioactive hydrogen) which has been linked to child leukemia and birth defects, and is readily absorbed through the skin. 'Minor' accidental releases occur and can often not be publicised. Others like Chernobyl leave a legacy known for generations, affecting millions of people.

Decommissioning a reactor is very expensive, and the price rises the longer it is in operation as the waste and the reactor must be stored and guarded for hundreds of years. People living near reactors have higher levels of cancer and other illnesses, especially children. All radiation released into the environment will harm living organisms.

Depleted uranium called tails is uranium-238, depleted of its uranium-235. As well as converting it into plutonium, it is also used as depleted uranium weaponry, which has been receiving a lot of attention lately due to increased cancers and illnesses (and birth defects in offspring) of returned Gulf and Balkan war veterans where the weapons were used. (Not to mention the communities which live there.) The depleted uranium tails are stronger than lead and able to pierce tanks and other armoured vehicles. It is still radioactive and dangerous to health.

Nuclear waste is placed in three different categories, depending on their health risk: low, intermediate and high levels. Low level waste includes radioactive rubbish like tools, plastic, building materials, paper and clothing which are all contaminated throughout the nuclear cycle. It is dumped in shallow landfill and covered with earth. Before 1975, it was merely dumped at sea.

Intermediate waste includes containers, equipment and sludges contaminated with transuranic elements, like plutonium and americium. This waste is buried in concrete lined trenches in 'guarded' areas. However, intermediate waste has leaked into surrounding soil and waterways.

Reprocessing uranium produces extremely dangerous radioactive liquid wastes. Most of this high level waste is stored in tanks until it evaporates or solidifies into glass blocks. The glass blocks are to be placed into deep burial sites. The heat of radioactivity (decay) has been found to crack the glass blocks, so it is now placed in cool stores for 100 years before burial.

All radiation released into the environment will harm living organisms.

The fact that the proponents of nuclear power can demand more and more reactors and still not have a safe, long term plan for the storage of this long-lived deadly waste, shows at the very least, irresponsibility or even the possible future genocide of the whole planet. It shows contempt for past, present and future generations.

In 5000 years, people will still have radioactive disasters waiting to happen, as in 100 000 years. Of course they may not have to worry about it, as then there is the story of the nuclear bombs.....STOP THE INSANITY LET'S HALT THE NUCLEAR CYCLE.

local groups

by marcus brumer

There are two functioning local Nuclear Free Australia groups:

NUCLEAR FREE AUSTRALIA (INNER CITY)
NUCLEAR FREE AUSTRALIA (EASTERN REGION)

These local groups are part of the Coalition For A Nuclear Free Australia (CANFA).

They have been operating for some months now. They are part of the resurgence of the anti-nuclear movement. There is much potential for growth. About 20 years ago, the group, Movement Against Uranium Mining had about 72 local branches in Victoria.

While the local Nuclear Free Australia (NFA) groups share CANFA's name and aims, they are autonomous and are a decentralised form of grassroots organising. Local groups offer the opportunity for people to participate in a more informal, intimate, fun surround. They allow activists to make connections in their local communities.

Anybody can start their own Nuclear Free Australia local group. You can even form a NFA chapter within your own organisation, ie union, church, school etc...The only proviso is that you stick to the stated aims of campaigning for a nuclear-free Australia and use non-violent means of protest.

Local NFA groups can organise whatever direct action they want, such as: making your municipality go nuclear-free, blockades, occupations, info-sessions, public meetings, rallies, fundraisers, concerts...The sky's the limit! Different local groups can work with each other, and help build big events planned by the Coalition (CANFA).

So far, the existing local NFA groups have organised a successful anti-nuclear festival (Balluk Beek), an occupation and sliming of the Victorian HQ of the Liberal Party, info/ music night and film night.

Upcoming attractions include the 'Mayday Picnic For Peace' which will start from 7:00AM on Tue, May 1st at Western Mining Corporation (IBM Tower, City Rd, back of Southgate). This day will see a spectacular tour of uranium companies and end with a picnic in the Flagstaff Gardens.

All these events were organised by a small number of committed individuals. That's all it takes!

So please either get involved with an existing group or start your own. This year it is crucial we make nuclear issues an election issue.

Please check the calendar of events for upcoming meetings and other activities.

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resource list

here . . .

Nuclear Files.org
<http://www.nuclearfiles.org/> An amazing anti weapons and graphics site
http://www.sea-us.org.au/cracker.html has the email addies of a lot of federal politicians
— **Nuclear Age Peace Foundation** <http://www.wagingpeace.org/about.html>,
<http://www.napf.org/home.html>, <http://www.mapw.au.nu/>, <http://www.uig.org.au>
The Sustainable Energy and Anti-Uranium Information Service Inc. <http://www.sea-us.org.au>
Kupa Piti Kungka Tjuta <http://www.iratiwanti.org>
Sydney People Against A New Nuclear Reactor <http://www.spannr.org>
<http://www.reachingcriticalwill.org>
Abolition 2000 A Global Network To Eliminate Nuclear Weapons
<http://www.abolition2000.org>
Council For A Liveable World
<http://www.clw.org>
<http://www.pcrc.org.fj>

WHAT YOU CAN DO

Become actively involved in anti nuclear campaigning

* Come along to the Coalition for A Nuclear Free Australia monthly General Meeting.

* Come along to a regional group meeting of the Coalition for A Nuclear Free Australia.

*Help as a volunteer.

*Educate yourself and others; visit useful websites, read all the information available to you. Tell others what you learn.

* Fill out your details on the enclosed membership / expression of interest form.

*Write a letter to your local council, requesting that they declare themselves a Nuclear Free Zone. Local Councils were all nuclear free until the Kennett induced amalgamations in 1994. Reinstate the nuclear-free status and prevent the transport of radioactive waste through your neighbourhood (amongst other things). For more info visit <http://algin.net.cnclist.htm>

*Write letters to Environment Minister Robert Hill urging him to ban In situ leach mining (100 King William St., Adelaide SA 5000), and Minister for Industry Nick Minchin (423 Henley Beach Rd., Brooklyn Park SA 5032 <Senator.Minchin@aph.gov.au>) requesting that he not override community desire to ban radioactive waste and its required storage.

*Contact Rio Tinto. Ask them to neither sell nor develop Jabiluka. (55 Collins St., Melbourne VIC 3000 <postmaster@riotinto.com>).

*Contact the Foreign investment review Board asking them not to approve snay sale of ERA or Jabiluka (FIRB Treasury, Parkes Pl., Parkes ACT 2600).

Anti Nuclear Alliance Of West Australia
<http://www.anawa.org.au/>
Sutherland Shire Environment Centre
<http://www.ssec.org.au/>
Medical Association for the Prevention of War <http://www.mapw.au.nu/>
Keepers Of Lake Eyre
<http://www.come.to/lakeyre/>
World Wide Information Service On Energy
<http://www.antenna.nl/~wise/>
Nuclear Information And Resource Service
<http://www.nirs.org/>
Australian Conservation Foundation
<http://www.acfonline.org.au/>
Friends Of the Earth Melbourne
<http://www.melbourne.foe.org.au/>
Greenpeace
<http://www.greenpeace.org/cnuk.html/>
The Australian Greens
<http://www.greens.org.au/>
Nuclear Disarmament Party
<http://www.nucleardisarmament.org.au/>
The Wilderness Society
<http://www.wilderness.org.au>
Gundjehmi Aboriginal Corporation
<http://www.mirrar.net>
Conservation Council Of South Australia
<http://www.ccsa.asn.au/campaigns/nuclear>
Environment Centre Of The Northern Territory
<http://www1.octa4.net.au/ecnt>
Alliance Against Uranium
<http://parallel.hpc.unsw.edu.au/alliance/>

depleted uranium: the secret nuclear war

by jacob grech

Since the development of the first nuclear power generators, which utilised the 'peaceful atom' in the 1950s, stockpiles of the radioactive waste known as Depleted Uranium have been growing.

Natural uranium ore contains about 0.7% U235, traces (0.005%) of U234, and the rest (about 99.3%) is U238. They each have 92 protons but different numbers of electrons (143, 142 and 146 respectively). In order for it to be used in nuclear reactors the percentage of U235 needs to be increased to between 3 and 4% depending on the type of reactor. This process is known as enrichment. As you can imagine if you enrich uranium from 0.7% to about 3.5% U235, there'll be a lot of U238 left over, this is Depleted Uranium, as opposed to Enriched Uranium. Still radioactive, still toxic and with a half life of about 4.2 billion years (ie: forever), there is seven times as much DU produced by the enrichment process as there is EU. Seven tonnes of waste for each tonne of product.

Back in the late 60s the US Dept of Energy started copping a lot of flak about the huge stockpiles of radioactive waste it was storing in containers similar to cream cans in paddocks and yards adjoining their nuclear facilities. In an

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effort to reduce this stockpile they asked American industry to come up with ideas of how to reuse it.

As DU is quite heavy (about 1.7 times the density of lead) most of ideas industry came up with made use of this property. Some of the successful ideas included using DU as counterweights in aircraft and ships and as a shielding for more highly radioactive waste.

Back in the late 1960s the US Department of Energy started copping a lot of flak about the huge stockpiles of radioactive waste it was storing in containers similar to cream cans in paddocks and yards adjoining their nuclear facilities.

At this time the USA was in the middle of the Vietnam War and its relations with China so low that imports of Chinese tungsten were being threatened. Tungsten was (and is) used by weapons manufacturers for armour piercing ammunition because of its density: it was only a matter of time before some evil military bastard thought of replacing Chinese tungsten with radioactive waste.

And so began one of the most insidious chapters of US military history and that's saying something.

depleted uranium

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From the very start in the early 1970s the military's own health and environmental reports have recognised the inherent radioactivity and chemical toxicity of DU. These tests however happened at a time when US (and Australian) veterans of the Vietnam War were making a lot of noises about the effects of Agent Orange and the prevailing military culture of deny, duck and cover ensured that these reports would never see the light of day (or at least not for twenty-five years).

A DU shell, marketed by their manufacturers as the *Silver Bullet*, is made up of a DU penetrator rod encased in a light metal backed up by explosive. When fired the DU slices through tank armour like butter, catching fire (DU is pyrophoric) and aerosolizing into a very fine uranium ceramic dust. A typical *Silver Bullet* fired from an A10 Warthog or Harrier jet contains 300 grams of DU. These planes are equipped with 30mm Gatling guns that can fire 3900 shells per minute, usually every fifth shell is a *Silver Bullet*. This means that either of these planes could release 234 kilograms of DU in a minute. Estimates are that over 300 tonnes of DU was dropped on Southern Iraq and 'only' about 10 tonnes on the Balkans.

DU's radioactivity is in the form of Alpha particles. Alpha particles are rightly described by the military as the 'weakest' form of radiation, they can be stopped by skin. However, when aerosolised into ceramic dust they are easily inhaled and can stay in the lungs for years, irradiating lung tissues causing emphysema or fibrosis. In addition to being inhaled, DU dust can settle on plants where it can be eaten and on open wounds, common in a war zone, where there is no skin to block the alpha radiation from irradiating soft body tissues. In the USA particles of DU have been found in the filters of air-conditioning units over twenty miles from any known source.

In addition to its radioactivity, Depleted Uranium is also chemically toxic as a heavy metal. DU dissolves in water. This heavy metal toxicity can be absorbed by plants and pollute ground water reserves. DU ends up in the kidneys and gastro intestinal tract causing a host of illnesses in a similar way to lead poisoning.

While veterans' organisations in the US claim that hundreds of ex service persons and their families have been adversely affected by DU, it is impossible to estimate the number of people in Iraq and the Balkans suffering from a range of illnesses including congenital birth deformities caused by DU.

Tungsten was (and is) used by weapons manufacturers for armour piercing ammunition because of its density: it was only a matter of time before some evil military bastard thought of replacing Chinese tungsten with radioactive waste.

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depleted uranium

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By its indiscriminate nature and its ability to manifest itself through generations, Depleted Uranium is a weapon of genocide.

From mining the uranium used, to supporting the US use of DU and testing DU rounds in Australia, the Australian Government is well and truly implicated in this genocidal action. DU was tested here in the mid 1980's at Jervis Bay on the New South Wales South Coast, ironically just a couple of years before it was declared a Marine National Park.

The Australian Government's new White Paper on Defence has, as one of its central tenets, a greater interoperability with the United States: it is more than likely that this will lead to Australian troops using DU weapons in the near future.

Another worrying aspect of our close military ties with the US is the hosting of military training exercises in Australia. Our Government's *don't ask, don't care* policy with the US military means that we do not know whether or not DU weapons have been used in Australian exercises. However, as we know that most exercises in the US use some DU, we can only assume that the same is the case here.



It is impossible to estimate the number of people in Iraq and the Balkans suffering from a range of illnesses including congenital

It is time for Australia's gutless government to come clean on the issue of DU.

To find out more about DU and help in the campaign against this genocidal weapon write to The Nuclear Disarmament Party, PO Box 354, Rosanna 3084.



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nuclear warships

by loretta o'brien, nuclear campaigner for friends of the earth

On Saturday 20 January, 2001 an article appeared in The Age about the visit of a US warship at Station Pier in Port Phillip Bay. The government claims that Victoria can still be Nuclear Free whilst having these warships visit us.

This is plainly wrong. They are either nuclear powered armed, or supply ships for ships that are. The vessel that visited Melbourne the USS Shiloh was an escort for the USS Abraham Lincoln, a nuclear powered warship in the Persian Gulf.

Victorian Premier Steve Bracks was the first to climb aboard the nuclear bandwagon, declaring in State Parliament that he had no problem with US nuclear vessels docking in the Port Phillip Bay. In fact when questioned as to his intent, Premier Bracks clarified his comments by saying "The next Nuclear powered warship to visit Victoria I will in fact personally welcome".

It has surprised some Victorians that a Labour leader has made comments so clearly out of step with Labour Party Policy to keep Victoria nuclear free. Mr Bracks comments are interesting in that they came shortly after a visit from Admiral Blair, a senior US Military officer responsible for naval defence links. Was this what they talked about?

Victorian Premier Steve Bracks was the first to climb aboard the nuclear bandwagon.

In the eighties thousands of people gathered on docks around Australia to oppose nuclear warships. Unions, churches, and peace groups united to prevent the docking of nuclear ships in

Victoria. For good reasons, nuclear powered ships pose a significant risk to the health and safety of all Victorians. A nuclear meltdown could have catastrophic effects on the Victorian population. Communities in the US who have refused to let their own warships dock in local ports echo the concerns.

Australia should be encouraging nuclear disarmament. Providing docking for nuclear powered warships runs counter to community opposition to nuclear weapons and Australia's supposed commitment to nuclear disarmament.

Nuclear free means an absence of trade in all nuclear materials.

Maintaining Victoria's nuclear free status has never been more important as a principled statement against an industry that creates both radioactive waste and nuclear weapons. The nuclear industry is currently expanding in Australia at the fastest rate since British nuclear testing at Maralinga. The Australian Government is pushing new uranium mines, radioactive dumps, nuclear reactors and increased military reliance on the US nuclear arsenal.

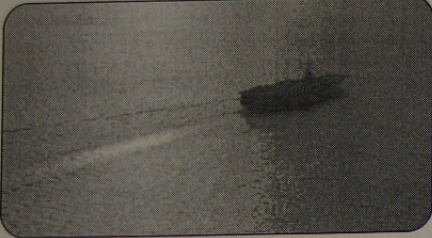
Nuclear free means an absence of trade in all nuclear materials. It is impossible to know whether these ships are nuclear armed. It is standing policy of the United States to refuse to confirm if their ships are nuclear armed.

It has been some time since Victorians have had to deal with the nuclear issue in their own backyard. Other states have copped the brunt of the expansion of the nuclear industry in Australia.

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nuclear warships

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If Steve Bracks thinks that the absence of community protest when this ship came in means that Victorians support having these kinds of warships dock in our ports he is wrong. We are organising and will mount as much resistance as we can.

Every time nuclear powered and/or armed warships and submarines enter your port they endanger your life.

☐ They emit small quantities of radioactive gases and liquids during operation at sea and occasionally in harbours.

☐ Monitoring this can only indicate the disastrous release of such pollutants, it is not capable of rectifying or controlling these leaks.

☐ Naval reactors run on uranium (U235) fuel enriched 90 – 95%. Civil reactors run on only 3-5% uranium enriched fuel.

☐ Naval reactors do not have emergency core cooling (ECCS) which is standard on civil reactors. If a reactor should rupture, radioactive components of the fuel would be released to the atmosphere, components such as iodine, which attacks the thyroid of human beings, and ruthenium that predisposes to lung cancer.

What is a nuclear reactor?

A nuclear reactor is a power plant, which is fuelled by uranium. Uranium is brought together at a core to sustain a chain reaction. The neutrons produced to produce smaller atoms, called fission products split atoms. Heat and neutrons are released which split the atoms and keep the chain reaction going. Heat from the chain reaction is absorbed through the reactor. The heat from the coolant is used to produce steam, which turns a turbine to generate electricity.

Protecting Australia?

The Australian Government takes up a high profile in international forums on nuclear disarmament, and the campaign for a Nuclear Free Pacific, yet it bows to the increasing demands for port facilities, laboratories and uranium supplies for the global war machines of major nuclear powers.

The Victorian State Government conforms to the stand taken by the federal government by providing state facilities for port visits by nuclear warships. This is in stark contrast to its proclamation that Victoria is a "Nuclear Free State".

**Every time
nuclear powered
and/or armed
warships enter
your port they
endanger your life**

Nuclear powered and or armed warships visiting Port Phillip Bay represent two dangers. One is the fact, that they are continuously tracked and targeted. Thus, wherever such a vessel is berthed, the surrounding area is a nuclear target.

**Other countries, including some ports
in the USA, have had the common sense to
ban the visits of nuclear powered
or armed warships.**

Secondly, like all ships, they can be involved in collision, which could damage the nuclear reactor, or the weapons being carried. Although the reactor can not explode like a nuclear bomb, and it is extremely unlikely that a nuclear weapon would explode accidentally, both if severely damaged could release significant amounts of radioactive materials into the bay. Some of the substances remain radioactive for a very long time and could concentrate in fish and shellfish, making them unfit for human consumption. This would destroy the already declining bay fishing industry. Other countries, including some ports in the USA, have had the common sense to ban the visits of nuclear powered or armed warships.

WHAT CAN YOU DO TO KEEP VICTORIA NUCLEAR FREE?

Write to Premier Steve Bracks, Parliament House, Spring Street,
Melbourne 3001

Find out if your council is nuclear free, if not write a letter urging them to
become nuclear free to stop the expansion of the nuclear industry
(visit www.algin.net.au/cnclist.htm)

**Join us on the ports when the vessels come in. Register
your name, phone number, and email address with Friends
Of the Earth (9419 8700 or email foe@foe.org.au), or the
Coalition For A Nuclear Free Australia.
(www.green.net.au/NukeFreeAus)**

Become involved in the campaign.

anti-nuke timeline

here . . .

NUCLEAR FREE AUSTRALIA (EASTERN REGION), 6PM TUE 10 APRIL, 36 PITT ST, RINGWOOD, NEAR RINGWOOD STATION. 9754 1968 OR NUCLEARFREEOZ@HOTMAIL.COM

WED APRIL 11 WESTERN MINING CORPORATION ANNUAL GENERAL MEETING. MEET 9:30 AM MELBOURNE CONCERT HALL, 100 ST KILDA RD. OUTSIDE THE ARTS CENTRE. WMC OWN THE ROXBY URANIUM MINE IN SOUTH AUSTRALIA . BYO COSTUMES, BANNERS, DRUMS, MUSICAL INSTRUMENTS ETC

NUCLEAR FREE AUSTRALIA (INNER CITY) 6PM WED 11 APRIL, PINK PALACE, 56-58 EASTMENT ST, NORTHCOTE, NEAR NORTHCOTE STATION OR 86 TRAM FROM BOURKE ST, CITY 9754 1968 OR NUCLEARFREEOZ@HOTMAIL.COM

COALITION FOR A NUCLEAR FREE AUSTRALIA GENERAL MEETING - ALL WELCOME.
7 PM MON 23 APRIL, EVATT ROOM, TRADES HALL

NEXT PUPPET/COSTUME/BANNER WORKSHOPS FOR MAYDAY PICNIC STARTS 1:00PM ON SAT APRIL 21ST AND SAT APRIL 28, 36 PITT ST, RINGWOOD, NEAR RINGWOOD STATION

MAY1 MAY DAY. MEET AT RIO TINTO (COLLINS ST., MELBOURNE)

HIROSHIMA DAY RALLY AUGUST 6

NAGASAKI - INDIGENOUS PEOPLE'S DAY AUGUST 9. PROBABLE NATIONAL DAY OF ACTION WITH NATIONAL UNION OF STUDENTS. MELBOURNE END LOOKS LIKE BEING A JABILUKA RALLY

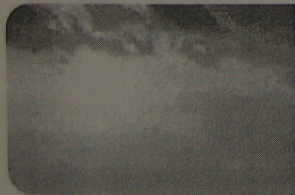
A CONFERENCE BUT ON BY CFANFA ON CAMPAIGNING FOR A NUCLEAR FREE AUSTRALIA SOMETIME DURING SPRING

SAT OCT 13 INTERNATIONAL DAY OF ACTION ON NUCLEAR MISSILE DEFENCE

EASTER 2002 PROTEST AT AUSTRALIA'S ONLY US BASE ABOUT AUSTRALIA'S SUPPORT FOR NUCLEAR MISSILE DEFENCE

THE COALITION HAS MONTHLY GENERAL MEETINGS ONCE A MONTH ON MONDAY NIGHTS 7PM TRADES HALL *NEXT APR 23 RD*

THE FRIENDS OF THE EARTH A-U COLLECTIVE MEETS WEDENSDDAYS, 6:30PM AT FOE, 222 SMITH ST., FITZROY, 9419 8700



coalition for a nuclear free australia
[cfanfa]

web: <http://www.green.net.au/NukeFreeAus>

email: nukefreeaus@green.net.au

post: cfanfa po box 285 carlton south vic 3053

phone: (03) 9444 8197

MEMBERSHIP FORM

Cheques payable to **Coalition for a Nuclear Free Australia**. Please send

form and payment to: PO Box 285 Carlton South 3053

web: <http://www.green.net.au/NukeFreeAus>

email: nukefreeaus@green.net.au phone: (03) 94448197

ORGANISATION, FAMILY AND INDIVIDUAL MEMBERSHIP

Name of Organization, Family or Individual (please circle which)

Number of Members _____

Address _____

Postcode _____

Phone _____ Mobile _____

email _____

Organization Rate (No GST)

<500 \$20

500-1500 \$50

1500-3000 \$150

> 3000 \$250

Individual rate (No GST) \$10

Family rate (No GST) \$30

Applicable rate: _____ \$