



MAPW - Health Professionals Promoting Peace

The Secretary

Joint Standing Committee on Treaties

House of Representatives

PO BOX 6021

Canberra ACT 2600

17<sup>th</sup> October 2016

Submission to the Joint Standing Committee on Treaties

*Agreement between the Government of Australia and the Government of Ukraine on Cooperation in the Peaceful uses of Nuclear Energy* (Washington DC, 31 March 2016)

MAPW welcomes this opportunity to contribute to this Inquiry by the Joint Standing Committee on Treaties. The question of a nuclear agreement between the Ukraine and Australia warrants rigorous scrutiny.

**The Medical Association for Prevention of War (Australia)** is a national association of doctors, nurses and other health care professionals which works for the elimination of all weapons of mass destruction and the prevention of armed conflict. We briefly outline our key concerns with this treaty in the attached pages. For any further information on issues raised in this MAPW submission please contact Dr Margaret Beavis. We briefly outline our key concerns with this treaty in the attached pages, but would appreciate an opportunity to appear before a public hearing of the JSCT Inquiry to discuss these matters in greater detail.

Thank you for your consideration of these matters.

Dr Margaret Beavis

President

Medical Association for Prevention of War

PO Box 1379, Carlton VIC 3053 Australia

t. (03) 9023 195 m. 0431 475 465

e. [eo@mapw.org.au](mailto:eo@mapw.org.au)

w. [www.mapw.org.au](http://www.mapw.org.au)

## SUMMARY

MAPW (Australia) has grave concerns about the proposed sales of uranium to Ukraine. The Ukraine is effectively still at war. Providing further nuclear material to Ukraine will exacerbate the humanitarian consequences of any attack on Ukraine nuclear facilities, with associated environmental and health risks.

The abolition of nuclear weapons is an imperative that is widely recognised by the most authoritative bodies and individuals in the world and by the Australian government. This goal will be much more difficult, if not impossible, to achieve in a world with nuclear power reactors and the nuclear fuel chain operating on an even larger scale than currently.

Safeguards cannot prevent Australian uranium from being used to produce nuclear weapons. The IAEA is underfunded and under resourced, and as a result is unable to provide sufficient inspections to ensure compliance with this agreement.

The Ukraine has an ageing reactor fleet and has had fires, shutdowns and many safety concerns. In January 2015 the government banned the State Nuclear Regulatory Inspectorate (SNRIU) from carrying out facility inspections on its own initiative.

Whistle-blowers form an important part of the detection of illicit activity. They must be given legal protection. In Ukraine they receive not protection but punishment.

The track record of the Ukraine (and the former USSR) with nuclear safety and environmental responsibility is appalling. Unfortunately, there has not emerged any sign since the demise of the USSR that its environmental management, especially of long-lived radioactive waste, has improved. Chernobyl has ongoing serious issues with containment of radiation.

Following the disaster at Fukushima the UN Secretary-General called for Australia to have a dedicated risk analysis of the impacts of the uranium sector. This has not happened and should take place before any new uranium deals are implemented.

## RECOMMENDATIONS

MAPW (Australia) recommends

1. The government conducts a detailed review of the impacts of the sale of Australian uranium.
2. Uranium exports and nuclear power should be phased out while low emission renewable solutions to climate change are implemented.
3. If, despite the risks inherent in doing so, the Australian government persists with plans to sell uranium to Ukraine, the following bare minimum conditions should be fulfilled before any such sales:
  - a) The Ukrainian state Nuclear Regulatory Inspectorate (SNRIU) is able to carrying out facility inspections on its own initiative
  - b) Enrichment of nuclear material beyond 20% is forbidden in all circumstances
  - c) Reprocessing of spent fuel is forbidden in all circumstances
  - d) The Ukraine demonstrates vastly improved nuclear waste management practices
  - e) Human rights and treaty obligations are consistently observed
  - f) More stringent and enforceable non-proliferation and export controls are in place
  - g) Whistle blowers will be provided with legal protection from prosecution.
4. The agreement is reviewed in 10 years, with renewal conditional on documented observance of safeguards and compliance with conditions in our third recommendation.

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## INTRODUCTION

MAPW has grave concerns about the proposed sales of uranium to Ukraine. The matters that concern our organization are of such severity that we find it difficult to comprehend the blinkered world-view that has led to serious consideration of such sales. There are several distinct problems that the proposed sales would either create or intensify, and they are problems that go to the heart of our security as a nation and our national interest.

This agreement must be seen in its current context. That context is a world threatened by two overwhelming forces, each of which has the power to drastically alter the world as we know it. They are climate change and a global stockpile of over 15,000 nuclear weapons. Australia's foremost interests are in resolving these two threats. Other threats to our national interest are relatively minor by comparison.

The abolition of nuclear weapons is an imperative that has been recognised as such by numerous of the most authoritative bodies and individuals in the world, and by the Australian parliament with a vote expressing bipartisan support in 2012.

The majority of nuclear weapons states have acquired their nuclear weapons under cover of a nuclear power program. The goal of nuclear weapons abolition will be much more difficult, if not impossible, to achieve in a world with nuclear power reactors and the nuclear fuel chain operating on an even larger scale than currently.

As MAPW's primary goal is the abolition of nuclear weapons, this submission will address the ways in which the proposed Agreement will undermine that goal. However we note also that, in relation to prospects for tackling climate change, the mantra of nuclear power as part of the solution is nothing more than wishful thinking.

Nuclear power is far too slow, too carbon intensive in every stage except the operation of the reactors, prohibitively expensive, too catastrophic when it goes wrong (as all technologies do on occasion), produces permanent toxic waste that no-one wants (including Australians) and is inextricably bound with production of the most terrifying weapons in existence.

Therefore Australia's interest in finding solutions to global warming is greatly undermined by feeding a possible resurgence of an energy source that was largely discredited in Western nations decades ago. Such action on our part merely distracts research, funding and attention from real solutions, and wastes scarce time.

These matters will now be addressed in more detail.

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## 1. UKRAINE REMAINS EFFECTIVELY AT WAR

In total, from mid-April 2014 to 15 August 2016, United Nations OHCHR recorded 31,814 casualties in the conflict area in Donetsk and Luhansk regions in eastern Ukraine, among Ukrainian armed forces, civilians and members of the armed groups. This includes 9,578 people killed and 22,236 injured.<sup>1</sup>

The recent increase in civilian casualties caused by shelling from various artillery systems is of particular concern. Between 16 May and 15 August 2016, OHCHR recorded 109 civilian casualties caused by shelling (11 killed and 98 injured). This is 60 per cent more than the number of casualties caused by shelling during the previous 8.5 months, between the ceasefire of 1 September 2015 and 15 May 2016.

As a result of the ongoing conflict and increased use of artillery there is significant risk that in the future nuclear reactors in the Ukraine could be attacked, with major humanitarian and environmental consequences<sup>2</sup>.

The Zaporizhia nuclear facility is Europe's largest and is only 200 kilometres from the conflict zone in eastern Ukraine.

A quote from the Ukrainian Government's statement in April at the Nuclear Security Summit in New York illustrates the major risks:<sup>3</sup>

"The occupation of the Autonomous Republic of Crimea and ongoing Russian aggression in the east of Ukraine have left without due control of the Ukrainian national regulator LEU research reactor in Sevastopol, 2 nuclear repositories and more than 1200 radionuclide sources in Crimea, as well as 277 in certain areas of Donetsk and Luhansk regions, 65 and 53 sites using the sources of ionizing radiation respectively.

In such circumstances we cannot exclude the illicit trafficking and malicious use of these sources and could even tackle the threats posed by eventual smuggling of HEU to and from the occupied Ukraine's Crimea.

For example, in July 2015 the Security Service of Ukraine discovered that Luhansk-based terrorists sold out a number of sources of ionizing radiation from the occupied coal mine in Luhansk region, which was lately found in the populated area in Donetsk region."

## 2. THE NOTION THAT AUSTRALIAN URANIUM IS PROTECTED FROM UNPLANNED USES IS NAÏVE

### Un-safeguarded facilities

Ukraine has given a treaty-level commitment to use Australian obligated nuclear material (AONM) only in facilities covered by its safeguards agreement with the IAEA. IAEA safeguards – limited as

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<sup>1</sup> <http://www.ohchr.org/EN/Countries/ENACARRegion/Pages/UARports.aspx>

<sup>2</sup> <http://www.independent.co.uk/voices/russia-is-teetering-on-the-brink-of-all-out-war-with-ukraine-a7207411.html>

<sup>3</sup> <http://www.nss2016.org/document-center-docs/2016/4/1/national-statement-ukraine>

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they are - are severely limited in their application, particularly in regions affected by military and civil conflict<sup>4</sup>.

### **Enrichment and reprocessing**

The most proliferation sensitive aspects of the nuclear fuel chain are uranium enrichment and fuel reprocessing. To make a nuclear weapon, either enriched uranium or plutonium is needed. Acquiring either of these materials is generally the greatest barrier to producing a nuclear weapon.

MAPW is pleased to note that, according to the Agreement, AONM will not be enriched to 20% or more, or reprocessed, without Australia's prior written consent. However even these stipulations are not sufficiently strong. Australia should require that facilities enriching AONM be under international monitoring and control.

In relation to reprocessing, we note that Australia has not ever rejected a request to reprocess AONM. A far more effective stipulation would be a prohibition on reprocessing of AONM under any circumstances, particularly as there is no energy or economic or safety justification for reprocessing<sup>5</sup>.

### **Violation of the Agreement**

We are assured that if the Ukraine violates its commitments to the Agreement, Australia can suspend its uranium sales. By definition, it is too late then. Our uranium could have, by then, been diverted to a purpose or location for which it was not intended. In any event, if such diversion did occur, it would be very difficult to detect, and highly likely that this would never be known.

### **Human Rights and Whistle Blowers**

An important aspect globally of the detection of illicit nuclear activities is the role of whistle blowers. Scientists and others who become aware of illegal activities at nuclear facilities must be not only assured of their personal safety if they report such activities, but they should also in fact be encouraged to do so. Nothing in the current political climate in Ukraine gives hope that this will occur.

The inclusion of a clause in the Agreement to the effect that whistle blowers must be protected would help to strengthen claims that illicit activities will be detected.

### **Room for improvement?**

The Australian public is given assurances that safeguards are regularly being upgraded. This necessarily means that there is room for improvement. Given this acknowledgement that safeguards are not perfect, the government cannot give meaningful assurances that our uranium will forever remain out of weapons. It takes approximately 3 kgs plutonium to make a nuclear weapon. Unless safeguards operate perfectly, they are not adequate.

## **3. AUSTRALIAN URANIUM WILL ADD TO UKRAINE'S NUCLEAR WASTE, SAFETY AND ENVIRONMENTAL CONTAMINATION PROBLEMS**

### **Nuclear Waste**

Beyond the issue of the spread of fissile material, the issue that most nuclear proponents wish to ignore is nuclear waste. While Ukraine's nuclear waste might seem irrelevant to Australia's national interest, the health of the planet that we all share cannot be simply addressed along national lines. Issues such as environmental refugees, and an increase in armed conflicts as environments become

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<sup>4</sup> <http://www.nonproliferation.org/annexation-of-crimea/>

<sup>5</sup> <http://fissilematerials.org/library/r14.pdf>

uninhabitable, render environmental issues central to more traditional notions of “security” and “national interest”. In addition the ongoing sale of uranium is likely to place additional pressure on Australia to become a nuclear waste dump, which would be totally and directly contrary to our national interest.

## 4. RISK OF ACCIDENTS

### Poor Safety Record

The track record of Ukraine (and the former USSR) with nuclear safety and environmental responsibility is appalling. The lack of a “safety culture” that contributed to the Chernobyl catastrophe (the health and other effects of which are still the subject of a major cover-up by the nuclear industry) permeated the whole of the USSR’s nuclear establishments. *US News and World Report* published a report in February 1992 “Moscow’s dirty nuclear secrets: Four decades of recklessness and stupidity have left dozens of environmental horror stories”.

Unfortunately, there has not emerged any sign since the demise of the USSR that these well-documented “horror stories” are a thing of the past and that environmental protection, especially from long-lived radioactive contamination, comes even close to adequate standards.

### Ageing reactor fleet

Ukraine has 15 nuclear reactors - four are currently running beyond their design lifetime while a further six will reach this in 2020. That means two thirds of Ukraine's nuclear reactors will be past their use-by date within five years.

On top of that, there is growing regional concern over the risks associated with the Poroshenko administration focus on keeping the reactors running. In rushing to extend operating licences Ukraine is cutting process and safety corners and not complying with its obligations under the Espoo Convention – an international framework agreement around transboundary environmental impact assessment.

In 2013 the Eastern Partnership, a leading East European civil society forum, declared that the absence of environmental impact assessment for nuclear projects posed “a severe threat to people both in Ukraine and in neighbouring states, including EU member states”<sup>6</sup>.

These concerns have been amplified after a series of recent shutdowns, fires and safety concerns at Ukrainian nuclear facilities.

Kiev's response was a government decree as of January 2015 preventing the national nuclear energy regulator the State Nuclear Regulatory Inspectorate (SNRIU) from carrying out facility inspections on its own initiative<sup>7</sup>. This coupled with increased pressure on industry whistle-blowers and critics has done nothing to address the real risks facing the nations aging nuclear fleet.

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<sup>6</sup> [eap-csf.eu/assets/files/Chisinau/Resolutions/STATEMENT\\_EspooConvention.pdf](http://eap-csf.eu/assets/files/Chisinau/Resolutions/STATEMENT_EspooConvention.pdf)

<sup>7</sup> <http://bankwatch.org/news-media/for-journalists/press-releases/new-study-sounds-alarm-safety-ukrainian-nuclear-power-plan>

### **Loss of trained nuclear scientists**

A further cause of major concern in relation to Ukraine's nuclear facilities is the exodus of nuclear scientists from positions that were previously prestigious and well-paid. The Carnegie Endowment for International Peace reported in 2001 that the world faced the prospect of a major nuclear weapons disaster because Russia's impoverished nuclear scientists were abandoning their posts in droves.<sup>8</sup> While this report referred to nuclear weapons rather than nuclear power facilities, it would be extraordinarily naïve to assume that the Ukraine has maintained a well-resourced nuclear power sector.

## **5. AUSTRALIA'S ROLE IN PREVENTING NUCLEAR ACCIDENTS, WEAPONS PROLIFERATION AND THE EVER INCREASING ACCUMULATION OF NUCLEAR WASTE**

The JSCOT recommended against exporting to Russia in 2008, and most of the reasons for that decision apply to exports to the Ukraine. Despite this exports were approved. However Australia ceased exporting uranium to Russia in 2014 after a single shipment. Many of the reasons for the government suspending uranium sales to Russia are also valid reasons for not starting exports in case of an unstable and conflict ridden Ukraine.

Following the disaster at Fukushima the UN Secretary-General called for all uranium producing countries to have a dedicated risk analysis of the impacts of the uranium sector. This has not happened in Australia and should take place before any new uranium deals are implemented.

If, despite these indications of a system in crisis, the Australian government believes that there are adequate safety procedures and waste management at all of Ukraine's nuclear facilities, then evidence of this should be produced *before* proceeding with an agreement. Otherwise the export of Australian uranium will add to the problem for all future generations of Ukrainians, their neighbours, and, ultimately, the rest of us.

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<sup>8</sup> Cited in Patrick Cockburn, "Russia faces major nuclear disaster as experts quit in droves".  
<http://news.independent.co.uk>. Accessed 12 May, 2001