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Joint ENGO Recommendations to Federal gov. on BHP “Olympic Dam Resource Development Strategy” copper-uranium mine expansion (Dec 2019)

Recommendations:

- 1. The Olympic Dam operation be assessed in its entirety in an EIS level public process under the EPBC Act, with the full range of project impacts subject to public consultation**

Given that uranium mining at Olympic Dam is a controlled “*nuclear action*” and Matter of National Environmental Significance under the federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the integrity of environmental protection requires that the entire Olympic Dam operation be subject to impact assessment so that regulatory conditions can be applied “*to consider impacts on the whole environment*”.

This is consistent with a key Recommendation by the federal Department of Environment (“[Olympic Dam expansion assessment report EPBC 2005/2270](#)”, Sept 2011, 7. Existing operation, p.62):

“... it is recommended that conditions be applied to the existing operation so that the entire Olympic Dam operation (existing and expanded) is regulated by a single approval under the EPBC Act”.

This 2019 BHP proposed mining expansion must trigger an EIS level Environmental Impact Assessment and public consultation across impacts of the entire Olympic Dam operation.

- 2. A comprehensive Safety Risk Assessment of all Olympic Dam mine tailings and tailings storage facilities is required as part of this EPBC Act EIS level public process**

In the public interest, the Federal EIS Assessment Guidelines must require a comprehensive Safety Risk Assessment to determine the long-term (in the order of 10,000 years) risk to the public and the environment from all radioactive tailings produced and stored at Olympic Dam. This approach is consistent with [federal EPBC Act Approval Condition 32 Mine Closure, Oct 2011](#).

This comprehensive Safety Risk Assessment of tailings must be subject to public scrutiny in the EIS process prior to the approval or advance of any new Tailings Storage Facilities or the proposed expansion of toxic radioactive tailings production.

Federal standards have been set at the Ranger uranium mine in the NT “to ensure that:

- The tailings are physically isolated from the environment for at least 10,000 years;*

- ii) *Any contaminants arising from the tailings will not result in any detrimental environmental impact for at least 10,000 years."*

This prudent approach and requirement must also be applied at Olympic Dam.

At a minimum, EPBC Act responsibilities to protect Matters of NES require that BHP's Tailings Storage Facility 6 and associated Evaporation Pond 6 Referrals must be subject to the rigour and transparency of a single comprehensive public environmental impact assessment process.

3. The EIS Assessment Guidelines must apply standards of Objects D of the Commonwealth-South Australia Assessment Bilateral Agreement

There is an obligation for the Guidelines to this EIS Assessment to require application of Objects D in the [Commonwealth-SA Assessment Bilateral Agreement](#) (signed 25 Sept 2014), which states that:

"The parties will work cooperatively so that Australia's high environmental standards are maintained by ensuring that: ...

b. Matters of National Environmental Significance (NES) are protected as required under the EPBC Act;

c. there are high quality assessments of the impacts of proposals on Matters of NES; and

d. authorized actions do not have unacceptable or unsustainable impacts on Matters of NES."

Applicable Matters of National Environmental Significance that must be assessed and protected as required under the EPBC Act, include: *"the environment"* (the whole environment) consequent to uranium mining as a controlled *"nuclear action"*; Listed Bird Species and Migratory Bird Species subject to impact and mortality from BHP's Tailings Storage Facilities and Evaporation Ponds; and protected Mound Springs along with the natural flows of fossil Great Artesian Basin waters on which the unique and fragile Mound Springs depend.

4. BHP must stop the use of Evaporation Ponds in order to reduce mortality in protected Bird Species, in accordance with EPBC Act fauna assessment conditions set in 2011.

The finalized EIS Assessment Guidelines must require that BHP: *"must not construct Evaporation Ponds for the purpose of the expanded mine"*; and to: *"phase out the use of Evaporation ponds as soon as practical"*.

This is consistent with the federal EPBC Act Assessment and Decision in [Fauna Approval Conditions 18-21 \(EPBC 2005/2270, Oct 2011\)](#) to protect Matters of National Environmental Significance in Listed Bird Species, and 21 Listed Migratory Bird Species found in the area, from

mortality at Olympic Dam. These conditions must now be applied uniformly across the entire Olympic Dam operation.

The Guidelines must require BHP to prevent and limit impacts and mortality on Listed Bird Species protected under both the EPBC Act and the *SA National Parks and Wildlife Act*.

5. Pre-Conditions to protect Mound Springs and to explore alternatives to Great Artesian Basin water extraction must be required by the EIS Assessment Guidelines

The federal Department of Environment assessed Mound Spring protection issues in 2011. At this time the federal Minister set a range of strong [EPBC Act Conditions](#) on “*Groundwater*” and on “*Extraction of Water from the Great Artesian Basin*”.

These federal conditions must now be applied in the Guidelines to the required EIS Assessment process across the entire Olympic Dam operation, on both the proposed expansion of mining at Olympic Dam as well as existing BHP operations, including that:

- The conditions apply to all activities undertaken by the Approval Holder on the Special Mining Lease and to water extraction from Wellfields A and B in the Great Artesian Basin;
- The Approval Holder must ensure that the extraction of water from Wellfield A and B in the Great Artesian Basin does not have a significant adverse impact on groundwater dependent Listed Threatened Species or Ecological Communities; and
- That groundwater drawdown from mining operations will have no significant adverse impact on groundwater pressure in the Great Artesian Basin.

The EIS Guidelines must require that BHP present alternatives to any increase in extraction of Great Artesian Basin waters and the associated impacts and risks to protected Mound Springs, for EIS Assessment and public scrutiny.

The required alternatives must include options to close Wellfield A and to phase out Wellfield B.

Such action is also needed to protect the fundamental, important and ongoing Aboriginal cultural heritage associated with the unique and fragile Mound Springs.

6. BHP must lodge a Bond to cover 100% of Rehabilitation Liabilities at Olympic Dam

The Guidelines to the required EIS Assessment must mandate a statutory 100% unconditional bond is secured to cover estimated rehabilitation liabilities to ensure that the full costs of remediation and decommissioning at Olympic Dam.

Given that this bond has not been secured by the SA State government in the first instance, it must alternatively be secured directly by the federal government under the EPBC Act.

The Guidelines must require BHP to conduct relevant studies and release full contemporary cost estimates of mine rehabilitation, decommissioning and remediation work with respect to full rehabilitation liabilities across Olympic Dam operations for public consultation in the EIS process.

These studies must include a costed Mine Closure Plan and Tailings Disposal Plan to be based on the prerequisites required by a comprehensive Safety Risk Assessment of all Olympic Dam mine tailings.

Modern environmental practice and community expectations require the Guidelines to set a comprehensive Safety Risk Assessment to determine the long-term (in the order of 10,000 year) risk to the public and the environment from all radioactive tailings produced and stored at Olympic Dam. This approach is consistent with [federal EPBC Act Approval Condition 32 Mine Closure, Oct 2011](#).

Further, the federal government standards for disposal of radioactive ore tailings at the Ranger uranium mine need to be applied to Olympic Dam to ensure consistency with current best of sector approaches, in particular regarding the “*Environmental Requirements, Management of Tailings*” (1999) requirement “to ensure that:

- i) *The tailings are physically isolated from the environment for at least 10,000 years;*
- ii) *Any contaminants arising from the tailings will not result in any detrimental environmental impact for at least 10,000 years.”*

These studies and contemporary costings in rehabilitation liabilities across the entirety of Olympic Dam operations are essential to determine the value of a bond to meet the full cost of implementation of BHP’s rehabilitation liabilities and to best ensure that none are left to the public as a long-term legacy cost.

These studies and the proposed bond arrangement must be subject to public scrutiny in the EIS process prior to any new Tailings Storage Facilities or expansion of radioactive tailings output.

Australia has a poor track record on mine rehabilitation, particularly in the uranium sector. It is imperative that the Olympic Dam project does not build on this history of under-performance and cost shifting. The continuing allocation of public funds to address inadequate earlier rehabilitation at Rum Jungle in the NT is a salient case here.

7. EIS Guidelines to investigate and recommend on Aboriginal heritage issues

The Guidelines for the EIS Assessment process on BHP's proposed 2019 Olympic Dam mining expansion project should require investigation of Aboriginal heritage issues across the entire Olympic Dam operation, with the EIS Assessment to make relevant recommendations.

This should include investigations on the lead set of public matters raised on Indigenous issues and summarised in the [SA Assessment Report, Chapter 12: Effects on communities](#) (SAAR, p.369, Sept 2011) during assessment of BHP's previous Olympic Dam mine expansion project:

- *“The impact of the Indenture on BHP's statutory obligation to consult with traditional owners, and the level of protection they receive;*
- *Additional detail on measures undertaken and proposed by BHP to protect cultural heritage and to consult with relevant groups;*
- *The cultural significance of the Mound Springs and Great Artesian Basin to Aboriginal people;*
- *Concern that Aboriginal people would inherit radioactive land and waters when the mine closed and that they should be included as stakeholders to be consulted post-closure.”*

8. Efficacy of existing occupational health and safety and radiological protection regimes

An assessment of the efficacy of existing occupational health and safety and radiological protection regimes, including:

Implementation of key Inquiry Recommendation No.5 by the “*Senate Select Committee on Uranium Mining and Milling*” ([Ch.4 Occupational Health and Safety, 1997](#)) to ensure public disclosure of Olympic Dam dose exposure records:

“The Olympic Dam indenture agreement should be amended or repealed to ensure that the public has access to all dose records in a form which does not allow individual identification (except individual records which remain the property of the individual).”

9. The need to assess a feasible no-uranium sales alternative for Olympic Dam

The EIS Guidelines set by or required by the Federal government should direct the proponent BHP to properly assess:

- A [No Uranium Sales](#) approach as a feasible alternative project configuration. This would see no uranium removed from the mine site, with all uranium retained on-site and discharged to the tailings waste system. This assessment would explore potential savings in water, electricity and chemicals, economic costs and benefits, radiation exposures, nuclear safety and related issues;

- BHP has a primary duty of care to properly assess the benefits in potentially significant lower ionizing radiation exposures to workers by not processing uranium oxide at Olympic Dam.

10. The UN Secretary General’s Recommendation for a net cost impact assessment of uranium mining

Following the Australian uranium fuelled Fukushima nuclear crisis in 2011 the United Nations conducted a detailed nuclear industry review that has important implications for Australia’s uranium sector, including the recommendation that:

“An in-depth assessment of the net cost impact of the following is required: ...

- *Local Impacts of Mining. There are concerns regarding the impact of mining fissionable material on local communities and ecosystems.”* (Paragraph 70, p.14)

“High-level Meeting on Nuclear Safety and Security convened by the Secretary-General. United Nations system-wide study on the implications of the accident at the Fukushima Daiichi nuclear power plant. [Report of the Secretary General](#) (Sept 2011, SG/HLM/2011/1)”

Consideration of any BHP expansion proposal should include this in-depth impact assessment.

11. A Nuclear Events Risk Analysis is needed to address uranium sector social license issues

A full Nuclear Events Risk Analysis examining the life cycle impacts of the nuclear fuel chain is needed. This would include an assessment of the potential economic consequences for the proposed project and the potential for loss of BHP’s social license to operate in sale of uranium across the following potential nuclear events and issues:

- Nuclear accidents, including in use of Australian origin nuclear materials and uranium (as occurred at the Fukushima nuclear disaster on 11 March, 2011);
- Continued unresolved nuclear waste management and consequences for Australian origin nuclear materials derived from the use of BHP Olympic Dam uranium;
- Adequacy of state and federal transparency and accountability on nuclear issues, including a review of the state *Roxby Downs (Indenture Ratification) Act 1982*;
- Assessment of the impact of sustained high-level water extraction from the Great Artesian Basin, including impacts on the Mound Springs ecological community;

- Assessment of the adequacy of nuclear regulation in customer countries for Olympic Dam uranium. This is particularly needed given the concerns over inadequate regulation in some of those countries (e.g. China, India) and the wide recognition that inadequate regulation was a fundamental cause of the 2011 Fukushima nuclear disaster, which was directly fuelled by Australian uranium;
- Potential nuclear terrorist actions or threats;
- Nuclear proliferation, the diversion of nuclear materials and the threat of use or the actual use of nuclear weapons.

12. Repeal BHP legal privileges overriding SA laws, standards and due process

The Australian Conservation Foundation, Friends of the Earth Australia and Conservation SA call for the repeal of outdated unacceptable legal privileges in the *Roxby Downs (Indenture Ratification) Act 1982* held by the proponent BHP over the Olympic Dam mine operations.

The entire Olympic Dam operation, existing and any proposed expansion, should be assessed and regulated under the objects and provisions, standards and procedures and other due process requirements of contemporary relevant legislation of the South Australian Parliament.

There is a strong public interest imperative to repeal the Olympic Dam Indenture Act 1982, especially the overrides of the *Environment Protection Act 1993*, the *Aboriginal Heritage Act 1988* and the *Natural Resources Management Act 2004* (incorporating ground water issues).

The Australian Conservation Foundation, Friends of the Earth Australia and Conservation SA call on BHP to surrender its outdated Olympic Dam Indenture Act legal privileges as a clear corporate commitment to compliance with best of sector practice.

BHP should surrender and forego the outdated and unacceptable legal privileges in the *Roxby Downs (Indenture Ratification) Act 1982* over the Olympic Dam mine.

BHP should agree to be governed by contemporary public interest laws and standards and due process in SA across the entire Olympic Dam mine operation. This includes existing operations, any future proposed “*enabling activities*” and the current 2019 BHP proposed Olympic Dam copper-uranium mining expansion project.

Joint ENGO Submission to Federal gov. on Olympic Dam mine expansion:

See the full Joint ENGO submission (Dec 2019) to the Federal Minister for Environment on the BHP “*Olympic Dam Resource Development Project*” EPBC Referral 2019/8570, available at:

<https://nuclear.foe.org.au/wp-content/uploads/2019-Dec-final-submission-joint-ENGOS-BHP-Olympic-Dam-EPBC-Referral-2019-8570.pdf>

Olympic Dam Key Issue Briefings:

A set of Joint ENGO Key Issue Briefing Papers (June 2019) on BHP's proposed expansion of the Olympic Dam copper-uranium mine are available at: nuclear.foe.org.au/olympic-dam

- [BHP Legal Privileges in the Olympic Dam Indenture Act 1982 Override SA Laws](#)
- [BHP Seek a Toxic Tailings Expansion Without a Full Safety Risk Assessment](#)
- [Preconditions to Protect Mound Springs in Olympic Dam Expansion EIS Guidelines](#)
- [BHP Uranium Mining Triggers “Protection Of The Environment” Under the EPBC Act](#)
- [BHP Must Lodge a Bond to Cover 100% of Rehabilitation Liabilities at Olympic Dam](#)
- [Migratory Birds at Risk of Mortality if BHP Continues Use of Evaporation Ponds](#)
- [The Need to Assess a Feasible Alternative: No-Uranium Sales from Olympic Dam](#)

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Overview Article on Federal Environment responsibilities at Olympic Dam:

An over-view article on EPBC regulatory responsibilities to Matters of National Environmental Significance in Olympic Dam issues, is currently before the Productivity Commission “Resources Sector Study” as part of [Public Submission No.1](#) (David Noonan, Independent Environment Campaigner, 28 August 2019):

BHP Olympic Dam Tailings: an “Extreme” Risk to Workers and to the Environment

Article available at: https://www.pc.gov.au/_data/assets/pdf_file/0006/244788/sub001-resources-attachment.pdf