PROPOSED APPROVAL

Yeelirrie Uranium Mine, Shire of Wiluna, WA (EPBC 2009/4906)

This decision is made under sections 130(1) and 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. Note that section 134(1A) of the EPBC Act applies to this approval, which provides in general terms that if the approval holder authorises another person to undertake any part of the action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such condition.

Details

| Person to whom the approval is granted (approval holder) | Cameco Australia Pty Ltd |
|--|---|
| ABN of approval holder | 65 001 513 088 |
| Action | To develop Yeelirrie open cut uranium ore mine, ore processing plant and associated infrastructure in the Shire of Wiluna, 500 kilometres north of Kalgoorlie, Western Australia. This includes the mining and processing of uranium ore, sourcing and supply of water and electricity, upgrades to roads, accommodation of a workforce and transport of uranium oxide concentrate by road from the mine to Kalgoorlie, as described in the referral received by the department on 21 May 2009 [See EPBC Act referral 2009/4906]. |

Proposed Approval decision

My decisions on whether or not to approve the taking of the action for the purposes of each controlling provision for the action are as follows.

Controlling Provisions

| Listed Threatened Species and Communities | | |
|---|---------|--|
| Section 18 | Approve | |
| Section 18A | Approve | |
| Listed migratory species | | |
| Section 20 | Approve | |
| Section 20A | Approve | |
| Nuclear actions | | |
| Nuclear actions | | |
| Section 21 | Approve | |
| Section 22A | Approve | |

Period for which the approval has effect

This approval has effect until 31 December 2043

Decision-maker

| Name | and | position |
|------|-----|----------|
|------|-----|----------|

The Hon Melissa Price MP Minister for the Environment

| Signature | PROPOSED DECISION DO NOT SIGN |
|------------------|---------------------------------|
| Date of decision | PROPOSED DECISION - DO NOT DATE |

Conditions of approval

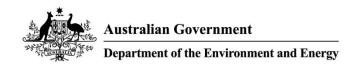
This approval is subject to the conditions under the EPBC Act as set out in ANNEXURE A.

ANNEXURE A – CONDITIONS OF APPROVAL

Part A – Conditions specific to the action

- 1. To avoid and mitigate impacts on the environment, the approval holder must:
 - a. implement conditions 8 15 of the WA approval, and
 - b. not **clear** more than 2422 hectares within the 4875 hectare **development envelope**.
- 2. To avoid impacts on troglofauna species, the approval holder must submit for the Minister's approval, evidence from a suitably qualified subterranean fauna ecologist that the action will not result in the extinction of troglofauna species located in Area 1. The approval holder must not commence clearing of Area 1 until the Minister has approved the evidence.
- 3. The approval holder must undertake the action in a manner that will not result in the extinction of subterranean fauna species.
- 4. The approval holder must submit for the **Minister's** approval, **evidence** from a **suitably qualified** subterranean fauna ecologist that condition 3 can be achieved. The approval holder must not **commence the action** until the **Minister** has approved the **evidence**.
- 5. To mitigate impacts on the **Western** *Atriplex yeelirrie* **population**, prior to the **clearing** of any **Western** *Atriplex yeelirrie* **population**, the approval holder must:
 - a. submit for the Minister's approval, evidence from a suitably qualified flora ecologist who has been approved in writing by the Department, that a viable population of the Western Atriplex yeelirrie population exists outside the development envelope within the Eastern Murchison (MUR1) IBRA subregion, and
 - avoid any direct or indirect impacts on the Western Atriplex yeelirrie population within the development envelope until the Minister has approved the evidence referred to in condition 5(a) in writing.
- 6. Prior to the commencement of the action, the approval holder must engage a suitably qualified fauna ecologist to undertake a Night Parrot survey within the development envelope, in accordance with the WA DBCA recommended Night Parrot survey methods. Within three months of the Night Parrot survey being completed, the approval holder must provide the Department with the Night Parrot survey results.
- 7. Should the **Night Parrot** or **evidence** of the **Night Parrot** be recorded during the survey required under condition 6 of this approval, the approval holder must submit a Night Parrot Management Plan for the **Minister's** approval. If the **Minister** approves the **Night Parrot** Management Plan then the **Night Parrot** Management Plan must be implemented.
- 8. If a **Night Parrot** Management Plan is required under condition 7, the approval holder must not **commence the action** unless the **Minister** has approved the **Night Parrot** Management Plan in writing.
- 9. The **Night Parrot** Management Plan must be consistent with the **Department's** *Environmental Management Plan Guidelines*, and must include:
 - The Night Parrot Management Plan environmental objectives relevant to the Night Parrot, and a reference to EPBC Act approval conditions to which the Night Parrot Management Plan refers,

- A table of commitments made in the Night Parrot Management Plan to achieve the objectives, and a reference to where the commitments are detailed in the Night Parrot Management Plan,
- c. Reporting and review mechanisms, and documentation standards to demonstrate compliance with the **Night Parrot** Management Plan,
- d. An assessment of risks to achieving **Night Parrot** Management Plan environmental objectives and risk management strategies that will be applied,
- e. Impact avoidance, mitigation and/or repair measures, and their timing, and
- f. A monitoring program, which must include:
 - i. measurable performance indicators,
 - ii. the timing and frequency of monitoring to detect changes in the performance indicators,
 - iii. trigger values for corrective actions, and
 - iv. proposed corrective actions, if trigger values are reached.
- 10. To compensate for the loss of **Malleefowl habitat** within the **development envelope**, the approval holder must:
 - a. legally secure for the life of the approval an offset area(s) containing Malleefowl habitat that
 is equal to or greater in size and quality to the Malleefowl habitat to be cleared within the
 development envelope; and
 - b. submit for the **Minister's** approval, a **Malleefowl** Offset Strategy detailing the environmental attributes of the offset area(s). The **Malleefowl** Offset Strategy must:
 - i. specify the proposed environmental offset area(s) including, but not limited to:
 - location,
 - proximity to high-value ecological corridors,
 - tenure,
 - suitability to offset impacts to the Malleefowl, and
 - baseline condition quantified using quality score for area of habitat, and if applicable, the number of Malleefowl individuals present.
 - provide evidence of the capacity of the offset site(s) to meet the requirements and intent of this condition, and the principles of the EPBC Act Environmental Offsets Policy (2012),
 - iii. detail when and how the offset area(s) will be protected in perpetuity under a conservation mechanism,
 - iv. demonstrate the adequacy of the proposed conservation mechanism proposed to legally secure the offset area(s), and describe any means by which a future site owner may seek to amend or remove the mechanism,
 - v. provide a completed *EPBC Act Offsets Assessment Guide* (offset calculator) for the **Malleefowl** offset area(s), and
 - vi. present **evidence** substantiating inputs to the offset calculator, including:



- confidence in result, time until ecological benefit, start and future condition (scale of 1 - 10), and risk of loss,
- the specific components used to derive start and future condition (i.e. stocking rate, site context and site condition) of the Malleefowl habitat at the offset site, and current condition of the Malleefowl habitat at the impact site, and
- set-out in general terms potential offset management activities considered feasible to achieve future condition and time until ecological benefit.

If the **Minister** approves the **Malleefowl** Offset Strategy then the **Malleefowl** Offset Strategy must be implemented. The approval holder must not **commence the action** unless the **Minister** has approved the **Malleefowl** Offset Strategy in writing.

Part B – Standard administrative conditions

Notification of date of commencement of the action

11. The approval holder must notify the **Department** in writing of the date of **commencement of the** action within 10 business days after the date of **commencement of the action**.

Compliance records

- 12. The approval holder must maintain accurate and complete compliance records.
- 13. If the **Department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.

Note: **Compliance records** may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the **Department**'s website or through the general media.

Preparation and publication of plans

- 14. The approval holder must:
 - a. submit plans electronically to the **Department** for approval by the **Minister**;
 - b. publish each plan on the website within 20 business days of the date the plan is approved by the Minister or of the date a revised action management plan is submitted to the Minister, unless otherwise agreed to in writing by the Minister;
 - exclude or redact sensitive ecological data from plans published on the website or provided to a member of the public; and
 - d. keep **plans** published on the **website** until the end date of this approval.
- 15. The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under conditions of this approval, are prepared in accordance with the **Department's** *Guidelines for biological survey and mapped data* (2018) and submitted electronically to the **Department** in accordance with the requirements of the **plans**.

Annual compliance reporting

- 16. The approval holder must prepare a compliance report for each twelve (12) month period following the date of commencement of the action, or as otherwise agreed to in writing by the Minister. The approval holder must:
 - a. publish each **compliance report** on the **website** within sixty (60) **business days** following the relevant 12 month period;
 - b. notify the **Department** by email that a **compliance report** has been published on the **website** within five **business days** of the date of publication;
 - keep all compliance reports publicly available on the website until this approval expires;
 - d. exclude or redact sensitive ecological data from compliance reports published on the website; and
 - e. where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within 5 **business days** of publication.

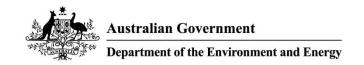
Note: Compliance reports may be published on the Department's website.

Reporting non-compliance

- 17. The approval holder must notify the **Department** in writing of any: **incident**; non-compliance with the conditions; or non-compliance with the commitments made in **plans**. The notification must be given as soon as practicable, and no later than two **business days** after becoming aware of the **incident** or non-compliance. The notification must specify:
 - a. the condition which is or may be in breach; and
 - b. a short description of the **incident** and/or non-compliance.
- 18. The approval holder must provide to the **Department** the details of any **incident** or non-compliance with the conditions or commitments made in **plans** as soon as practicable and no later than 10 **business days** after becoming aware of the **incident** or non-compliance, specifying:
 - a. any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;
 - b. the potential impacts of the incident or non-compliance; and
 - c. the method and timing of any remedial action that will be undertaken by the approval holder.

Independent audit

- 19. The approval holder must ensure that **independent audits** of compliance with the conditions are conducted for the twelve (12) month period from the date of this approval and for every subsequent twelve (12) month period.
- 20. For each **independent audit**, the approval holder must:
 - a. provide the name and qualifications of the independent auditor and the draft audit criteria to the **Department**;
 - b. only commence the **independent audit** once the audit criteria have been approved in writing by the **Department**; and



- c. submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.
- 21. The approval holder must publish the audit report on the **website** within ten (10) **business days** of receiving the **Department's** approval of the audit report and keep the audit report published on the **website** until the end date of this approval.

Revision of action management plans

- 22. The approval holder may, at any time, apply to the **Minister** for a variation to an action management plan approved by the **Minister** under condition 7, or as subsequently revised in accordance with these conditions, by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.
- 23. The approval holder may choose to revise an action management plan approved by the **Minister** under condition 7, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the **EPBC Act**, if the taking of the action in accordance with the RAMP would not be likely to have a **new or increased impact**.
- 24. If the approval holder makes the choice under condition 23 to revise an action management plan without submitting it for approval, the approval holder must:
 - a. notify the **Department** in writing that the approved action management plan has been revised and provide the **Department** with:
 - i. an electronic copy of the RAMP;
 - ii. an electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP;
 - iii. an explanation of the differences between the approved action management plan and the RAMP;
 - iv. the reasons the approval holder considers that taking the action in accordance with the RAMP would not be likely to have a **new or increased impact**; and
 - v. written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being at least 20 **business days** after the date of providing notice of the revision of the action management plan, or a date agreed to in writing with the **Department**.
 - b. subject to condition 26, implement the RAMP from the RAMP implementation date.
- 25. The approval holder may revoke their choice to implement a RAMP under condition 23 at any time by giving written notice to the **Department**. If the approval holder revokes the choice under condition 23, the approval holder must implement the previous action management plan approved by the **Minister**.
- 26. If the **Minister** gives a notice to the approval holder that the **Minister** is satisfied that the taking of the action in accordance with the RAMP would be likely to have a **new or increased impact**, then:
 - a. condition 23 does not apply, or ceases to apply, in relation to the RAMP; and
 - b. the approval holder must implement the action management plan specified by the **Minister** in the notice.

27. At the time of giving the notice under condition 26, the **Minister** may also notify that for a specified period of time, condition 23 does not apply for one or more specified action management plans.

Note: conditions 23, 24, 25 and 26 are not intended to limit the operation of section 143A of the **EPBC Act** which allows the approval holder to submit a revised action management plan, at any time, to the **Minister** for approval.

Completion of the action

28. Within 30 days after the **completion of the action**, the approval holder must notify the **Department** in writing and provide **completion data**.

Part C - Definitions

- 29. In these conditions, except where contrary intention is expressed, the following definitions are used:
 - a. **Area 1** is the area defined in <u>Attachment B</u> that covers the **troglofauna species** located through surveys within bores YYAC0018C, YYAC26, YYAC36 and YYD22.
 - a. Black-flanked rock-wallaby habitat means habitat for the EPBC Act listed Petrogale lateralis comprising rocky outcrops that provide shelter such as caves, cliffs, screes and rockpiles that co-exists with foraging habitat such as grasses, forbs, shrubs and occasionally seeds and fruits.
 - b. **Business days** means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.
 - c. Clear, clearing means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, and ringbarking, uprooting or burning of vegetation (but not including weeds see the Australian weeds strategy 2017 to 2027 for further guidance).
 - Cleared area means an area or areas (in hectares) within the development envelope where loss or long-term modification of habitat has occurred.
 - e. Commence the action or commencement of the action means the first instance of any specified activity associated with the action including clearance of vegetation and construction of any infrastructure. Commencement does not include minor physical disturbance necessary to:
 - undertake pre-clearance surveys or monitoring programs;
 - install signage and /or temporary fencing to prevent unapproved use of the project area;
 - protect environmental and property assets from fire, weeds and pests, including erection or construction of fencing and signage, and maintenance or use of existing surface access tracks, if agreed in writing by the **Department**.
 - f. Completion data means an environmental report and spatial data information clearly detailing how the conditions of this approval have been met. The **Department's** preferred spatial data format is **shapefile**. The environmental report and spatial data information must include the date, location, approved **development envelope**, actual total **cleared area**, total area and type of **Night Parrot habitat**, **Malleefowl habitat**, **Greater bilby habitat**, **Princess parrot habitat**, **Great Desert skink habitat** and **Black-flanked rock-wallaby habitat** cleared,

mine pit boundary and the environmental condition of the groundwater within the development envelope.

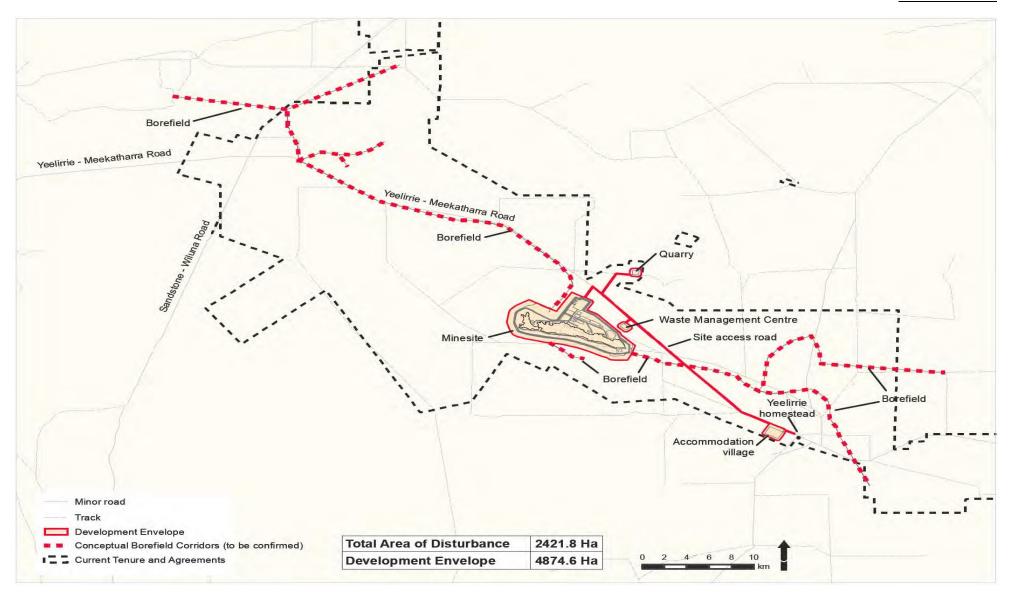
- g. **Completion of the action** means all specified activities associated with the action have permanently ceased.
- h. **Compliance records** means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession or that are within the approval holder's power to obtain lawfully.
- i. Compliance reports means written reports:
 - i. providing accurate and complete details of compliance, **incidents**, and non-compliance with the conditions and the **plans**;
 - ii. consistent with the **Department's** Annual Compliance Report Guidelines (2014);
 - iii. include a **shapefile** of any **clearance** of any **protected matters**, or their habitat, undertaken within the relevant 12 month period; and
 - iv. annexing a schedule of all **plans** prepared and in existence in relation to the conditions during the relevant 12 month period.
- j. Construction means the erection of a building or structure that is or is to be fixed to the ground and wholly or partially fabricated on-site; the alteration, maintenance, repair or demolition of any building or structure; preliminary site preparation work which involves breaking of the ground (including pile driving); the laying of pipes and other prefabricated materials in the ground, and any associated excavation work; but excluding the installation of fences and signage.
- k. **Department** means the Australian Government agency responsible for administering the **EPBC Act**.
- I. **Development envelope** means the 4875 hectare area defined in Attachment A.
- m. Environment is as defined under section 528 of the EPBC Act and includes:
 - a. Ecosystems and their constituent parts, including people and communities; and
 - b. Natural and physical resources; and
 - c. The qualities and characteristics of locations, places and areas; and
 - d. Heritage values of places; and
 - e. The social, economic and cultural aspects of a thing mentioned in paragraph (a), (b), (c) or (d).
- n. Environmental condition means the state of the groundwater on completion of the action, relative to the baseline environmental data defined in the baseline surveys required under condition 11 of the WA approval.
- o. **EPBC Act** means the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth).
- p. **Evidence** means written and photographic material.

- q. **Great desert skink habitat** means habitat for the **EPBC Act** listed *Liopholis kintorei* comprising of spinifex (*Triodia* spp.) and scattered shrubs (*Acacia* spp., *Eucalyptus* spp., *Hakea* spp., *Grevillea* spp.) or mulga.
- r. Greater bilby habitat means habitat for the EPBC Act listed Macrotis lagotis comprising of open tussock grassland on uplands and hills, Acacia aneura (mulga) woodland/shrubland growing on ridges and rises, and hummock grassland in plains and alluvial areas.
- s. IBRA means Interim Biogeographic Regionalisation for Australia, version 7.
- t. **Incident** means any event which has the potential to, or does, impact on **protected** matter(s).
- u. Independent audit: means an audit conducted by an independent and suitably qualified person as detailed in the Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines (2015) available from http://www.environment.gov.au/epbc/publications/independent-audit-report-guidelines.
- v. **Legally secured** means obtain a long-term protection under a voluntary agreement as provided for under the *Soil and Land Conservation Act 1945* (WA) or *Biodiversity Conservation Act 2016* (WA).
- w. Life of the approval means the period for which the approval has effect.
- x. Malleefowl means the EPBC Act listed Leipoa ocellata.
- y. **Malleefowl habitat** means habitat for the **EPBC Act** listed **Malleefowl** comprising of shrublands and low woodlands dominated by mallee or acacia and occasionally woodland dominated by eucalypts such as Wandoo *E. wandoo*, Marri *Corymbia calophylla* and Mallet *E. astringens*.
- z. **Monitoring data** means the data required to be recorded under the conditions of this approval.
- aa. **Minister** means the Australian Government Minister administering the **EPBC Act** including any delegate thereof.
- bb. Mine pit means the areas defined as Pit East and Pit West in Attachment C.
- cc. **New or increased impact** means a new or increased environmental impact or risk relating to any **protected matter**, when compared to the likely impact of implementing the action management plan that has been approved by the **Minister** under condition 7, including any subsequent revisions approved by the **Minister**, as outlined in the *Guidance on 'New or Increased Impact' relating to changes to approved management plans under EPBC Act environmental approvals (2017)* available from http://www.environment.gov.au/epbc/publications/new-increased-impact-guidance.
- dd. Night parrot means the EPBC Act listed Pezoporus occidentalis.
- ee. **Night parrot habitat** means habitat for the **EPBC Act** listed **Night parrot** comprising of sandplains supporting a mosaic of long-unburnt spinifex hummocked grasslands with supporting vegetation dominated by chenopod and/or grass species.

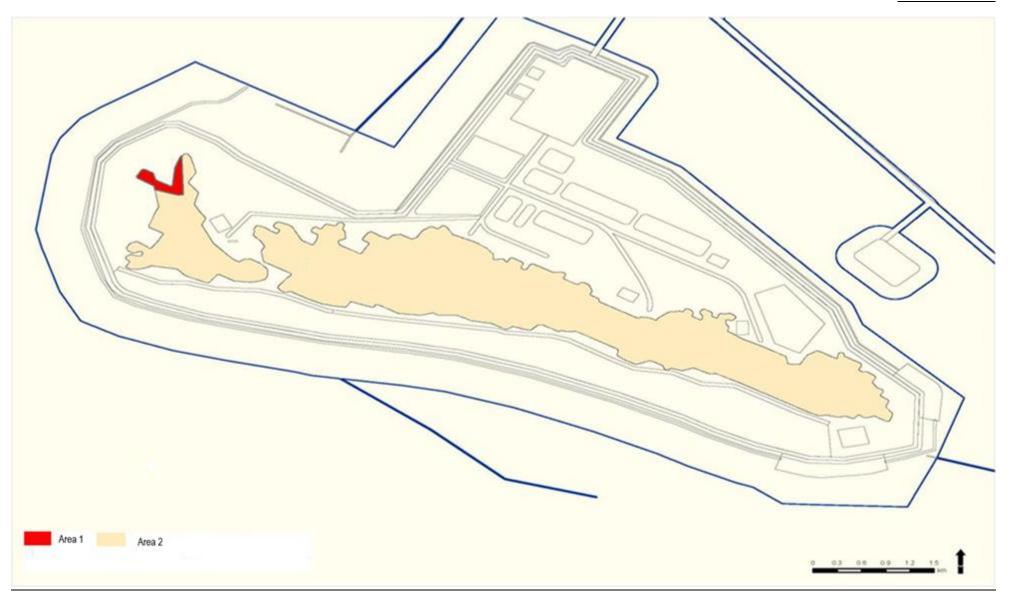


- ff. **Plan** means any of the documents required to be prepared, approved by the **Minister**, and/or implemented by the approval holder and published on the **website** in accordance with these conditions (includes action management plans and/or strategies);
- gg. **Princess parrot habitat** means habitat for the **EPBC Act** listed *Polytelis alexandrae* comprising of shrubland in swales between sand dunes, with a variety of shrubs (including *Grevillea*, *Hakea*, *Cassia* and *Eremophila* species) among scattered emergent trees and a ground-cover of spinifex *Triodia* species, and breeding habitat consisting of overstorey species with hollows including *Eucalyptus camaldulensis* (river red gum), *E. gongylocarpa* (marble gum) and *Allocasuarina decaisneana* (desert oak).
- hh. **Protected matter** means a matter protected under a controlling provision in Part 3 of the **EPBC Act** for which this approval has effect.
- ii. Sensitive ecological data means data as defined in the Australian Government Department of the Environment (2016) Sensitive Ecological Data – Access and Management Policy V1.0.
- jj. **Shapefile** means an ESRI shapefile containing '.shp', '.shx' and '.dbf' files and other files capturing attributes defined in the conditions of approval.
- kk. **Subterranean fauna species** comprises the eleven (11) stygofauna species *Enchytraeidae* sp. Y5, *Enchytraeidae* sp. Y6, *Halicyclops* cf. *eberhardi* sp. B, *Novanitocrella* 'araia' sp. n., *Schizopera akolos*, *Schizopera emphysema*, *Schizopera* sp. 7439, *Philoscidae* sp. n. Y2, *Atopobathynella* sp. 'line K', *Enchytraeidae* sp. Y4 and *Kinnecaris* 'lined' sp. n., and one (1) troglofauna species *Trichorhina* sp. n. F.
- II. Suitably qualified means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.
- mm. **Troglofauna species** means *Austrohorus* sp. n Y1, *Pauropoda* sp. S6B, *Symphyla* sp. Y7 and *Tyrannochthonius* sp. n. Y1 that are only known to occur within the **mine pit**.
- nn. **Viable population** means the survival of a self-sustaining population of mature individuals of the **Western** *Atriplex yeelirrie* **population**.
- oo. **WA approval** means Ministerial Statement 1053 signed 16 January 2017, which states that a proposal may be implemented under the *Environment Protection Act 1986* (WA).
- pp. **WA DBCA** means the Western Australian Department of Biodiversity, Conservation and Attractions or any other agency responsible for administering the *Conservation and Land Management Act 1984* (WA) from time to time.
- qq. **Website** means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.
- rr. **Western Atriplex yeelirrie population** is the western genotype of *Atriplex yeelirrie*. Currently the only known population of this species is located within the **development envelope** and defined in <u>Attachment D</u> as WP01 WP06.

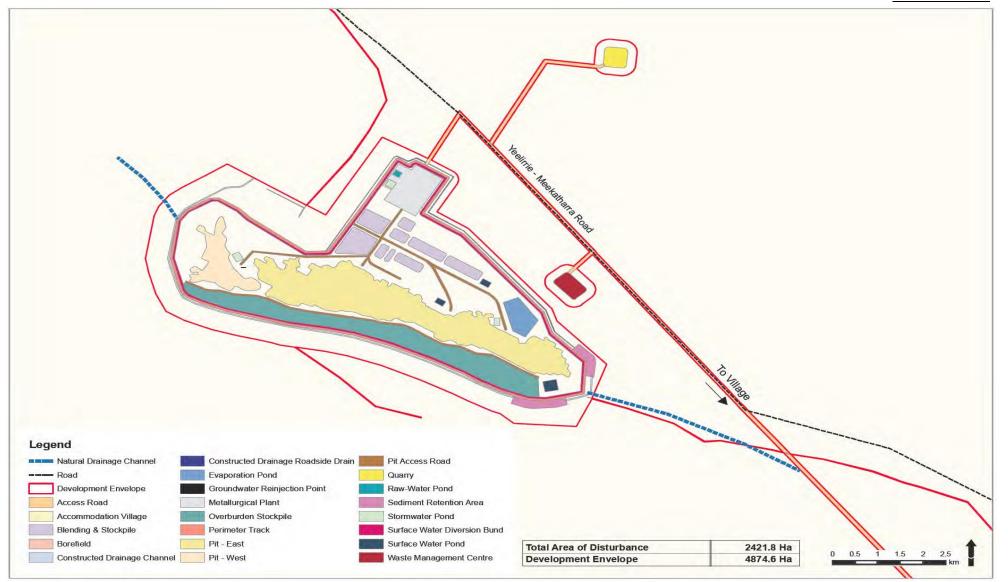
ATTACHMENT A



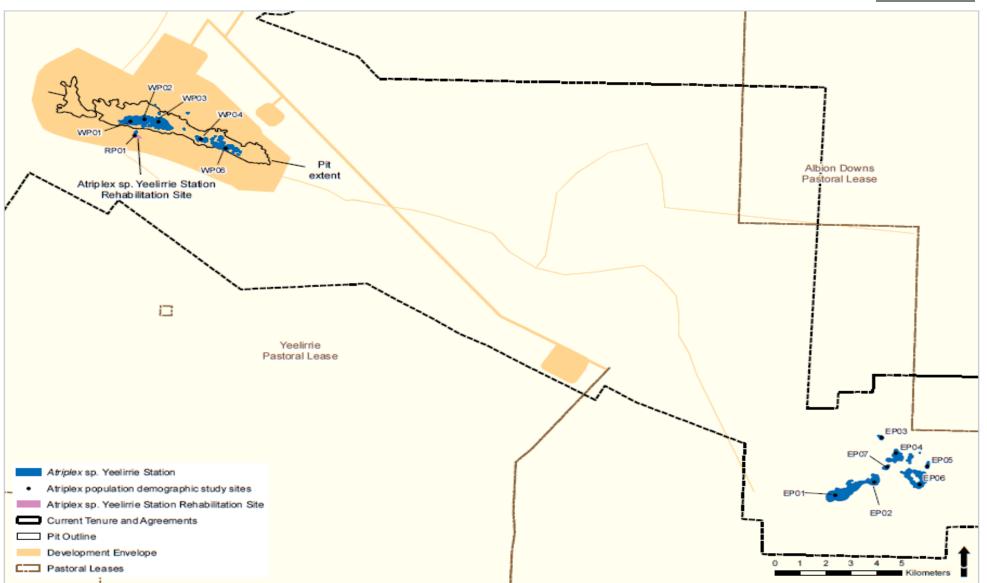
ATTACHMENT B



ATTACHMENT C



ATTACHMENT D





PROPOSED APPROVAL

Yeelirrie Uranium Mine, Shire of Wiluna, WA (EPBC 2009/4906)

This decision is made under sections 130(1) and 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. Note that section 134(1A) of the EPBC Act applies to this approval, which provides in general terms that if the approval holder authorises another person to undertake any part of the action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such condition.

Details

| Person to whom the approval is granted (approval holder) | Cameco Australia Pty Ltd |
|--|---|
| ABN of approval holder | 65 001 513 088 |
| Action | To develop Yeelirrie open cut uranium ore mine, ore processing plant and associated infrastructure in the Shire of Wiluna, 500 kilometres north of Kalgoorlie, Western Australia. This includes the mining and processing of uranium ore, sourcing and supply of water and electricity, upgrades to roads, accommodation of a workforce and transport of uranium oxide concentrate by road from the mine to Kalgoorlie, as described in the referral received by the department on 21 May 2009 [See EPBC Act referral 2009/4906]. |

Proposed Approval decision

My decisions on whether or not to approve the taking of the action for the purposes of each controlling provision for the action are as follows.

Controlling Provisions

| Listed Threatened Species and Communities | | |
|---|---------|--|
| Section 18 | Approve | |
| Section 18A | Approve | |
| Listed migratory species | | |
| Section 20 | Approve | |
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| Nuclear actions | | |
| Nuclear actions | | |
| Section 21 | Approve | |
| Section 22A | Approve | |

Period for which the approval has effect

This approval has effect until 31 December 2043

Decision-maker

| Name | and | position |
|------|-----|----------|
|------|-----|----------|

The Hon Melissa Price MP Minister for the Environment

| Signature | PROPOSED DECISION DO NOT SIGN |
|------------------|---------------------------------|
| Date of decision | PROPOSED DECISION - DO NOT DATE |

Conditions of approval

This approval is subject to the conditions under the EPBC Act as set out in ANNEXURE A.

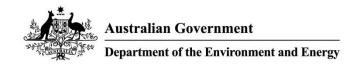
ANNEXURE A - CONDITIONS OF APPROVAL

Part A – Conditions specific to the action

- 1. To avoid and mitigate impacts on the environment, the approval holder must:
 - a. implement conditions 8 16 of the WA approval, and
 - b. not clear more than 2422 hectares within the 4875 hectare development envelope.
- 2. To avoid impacts on the stygofauna species *Atopobathynella* sp. 'line K', *Enchytraeidae* sp. Y4 and *Kinnecaris* 'lined' sp. n., the approval holder must ensure groundwater drawdown at bores within the **south-east site** is less than a 0.5 metres for the life of the approval.
- 3. To manage impacts on **subterranean fauna species**, the approval holder must not exceed the 0.5 metre **groundwater drawdown contour**.
- 4. Within 12 months from the date of this approval, the approval holder must develop a groundwater monitoring program. The objective of the groundwater monitoring program is to maintain the ecological function of groundwater within the development envelope to manage impacts on subterranean fauna species and troglofauna species. The groundwater monitoring program must be adequate to inform:
 - a. baseline data for groundwater quality and groundwater levels,
 - b. groundwater abstraction rates and groundwater levels to confirm predicted drawdown levels,
 - c. location of production bores to reduce impacts on subterranean fauna species,
 - d. trigger levels to reduce impacts on **subterranean fauna species** and avoid impacts on **troglofauna species** within Area 2 defined at <u>Attachment D</u>,
 - e. adaptive management of groundwater abstraction rates and ground water levels,
 - f. the outcomes of conditions 2 and 3 of this approval are being met, and
 - g. the extent of impact on subterranean fauna species and troglofauna species.
- 5. The groundwater monitoring program must be reviewed by a suitably qualified subterranean fauna ecologist and suitably qualified hydrogeologist. Following review of the groundwater monitoring program by a suitably qualified subterranean fauna ecologist and suitably qualified hydrogeologist, the approval holder must submit the groundwater monitoring program to the Minister for approval. If the Minister approves the groundwater monitoring program then the groundwater monitoring program must be implemented within 12-months of being approved in writing.
- 6. Within ten (10) days from the date of implementation of the groundwater monitoring program, the approval holder must notify the **Department** in writing of the date the groundwater monitoring program is implemented.
- 7. Up until **commencement of the action**, the groundwater monitoring program must be reviewed every two (2) years from the date of implementation by a **suitably qualified** subterranean fauna ecologist and **suitably qualified** hydrogeologist to ensure it meets the objective of the groundwater monitoring program set out in condition 4 of this approval. Within thirty (30) days of

the groundwater monitoring program being reviewed by a **suitably qualified** subterranean fauna ecologist and **suitably qualified** hydrogeologist, the approval holder must submit the groundwater monitoring program to the **Minister** for approval. If the **Minister** approves the groundwater monitoring program then the groundwater monitoring program must be implemented within 2-months of being approved in writing.

- 8. From commencement of the action, the groundwater monitoring program must be reviewed every five (5) years by a **suitably qualified** subterranean fauna ecologist and **suitably qualified** hydrogeologist to ensure it meets the objective of the groundwater monitoring program set out in condition 4 of this approval. Within thirty (30) days of the groundwater monitoring program being reviewed by a **suitably qualified** subterranean fauna ecologist and **suitably qualified** hydrogeologist, the approval holder must submit the groundwater monitoring program to the **Minister** for approval. If the **Minister** approves the groundwater monitoring program then the groundwater monitoring program must be implemented within 2-months of being approved in writing.
- 9. To avoid impacts on **troglofauna species**, the approval holder must submit for the **Minister's** approval, **evidence** from a **suitably qualified** subterranean fauna ecologist that the action will not result in the extinction of **troglofauna species** located in **Area 1**. The approval holder must not commence **clearing** of **Area 1** until the **Minister** has approved the **evidence**.
- 10. To mitigate impacts on the **Western** *Atriplex yeelirrie* **population**, prior to the **clearing** of any **Western** *Atriplex yeelirrie* **population**, the approval holder must:
 - a. submit for the Minister's approval, evidence from a suitably qualified flora ecologist who has
 been approved in writing by the Department, that a viable population of the Western
 Atriplex yeelirrie population exists outside the development envelope within the Eastern
 Murchison (MUR1) IBRA subregion, and
 - avoid any direct or indirect impacts on the Western Atriplex yeelirrie population within the development envelope until the Minister has approved the evidence referred to in condition 10(a) in writing.
- 11. Prior to the **commencement** of the action, the approval holder must engage a **suitably qualified** fauna ecologist to undertake a **Night Parrot** survey within the **development envelope**, in accordance with the **WA DBCA** recommended **Night Parrot** survey methods. Within three months of the **Night Parrot** survey being completed, the approval holder must provide the **Department** with the **Night Parrot** survey results.
- 12. Should the **Night Parrot** or **evidence** of the **Night Parrot** be recorded during the survey required under condition 11 of this approval, the approval holder must submit a **Night Parrot** Management Plan for the **Minister's** approval. If the **Minister** approves the **Night Parrot** Management Plan then the **Night Parrot** Management Plan must be implemented.
- 13. If a Night Parrot Management Plan is required under condition 12, the approval holder must not commence the action unless the Minister has approved the Night Parrot Management Plan in writing.
- 14. The **Night Parrot** Management Plan must be consistent with the **Department's** *Environmental Management Plan Guidelines*, and must include:



- a. The Night Parrot Management Plan environmental objectives, relevant protected matter and a reference to EPBC Act approval conditions to which the Night Parrot Management Plan refers,
- A table of commitments made in the Night Parrot Management Plan to achieve the objectives, and a reference to where the commitments are detailed in the Night Parrot Management Plan,
- Reporting and review mechanisms, and documentation standards to demonstrate compliance with the Night Parrot Management Plan,
- d. An assessment of risks to achieving **Night Parrot** Management Plan environmental objectives and risk management strategies that will be applied,
- e. Impact avoidance, mitigation and/or repair measures, and their timing; and
- f. A monitoring program, which must include:
 - i. measurable performance indicators,
 - ii. the timing and frequency of monitoring to detect changes in the performance indicators,
 - iii. trigger values for corrective actions, and
 - iv. proposed corrective actions, if trigger values are reached.
- 15. To compensate for the loss of **Malleefowl habitat** within the **development envelope**, the approval holder must:
 - a. legally secure for the life of the approval an offset area(s) containing Malleefowl habitat that
 is equal to or greater in size and quality to the Malleefowl habitat to be cleared within the
 development envelope; and
 - b. submit for the **Minister's** approval, a **Malleefowl** Offset Strategy detailing the environmental attributes of the offset area(s). The **Malleefowl** Offset Strategy must:
 - i. specify the proposed environmental offset area(s) including, but not limited to:
 - location,
 - proximity to high-value ecological corridors,
 - tenure,
 - suitability to offset impacts to the Malleefowl, and
 - baseline condition quantified using quality score for area of habitat, and if applicable, the number of **Malleefowl** individuals present.
 - provide evidence of the capacity of the offset site(s) to meet the requirements and intent of this condition, and the principles of the EPBC Act Environmental Offsets Policy (2012),
 - iii. detail when and how the offset area(s) will be protected in perpetuity under a conservation mechanism,



- iv. demonstrate the adequacy of the proposed conservation mechanism proposed to **legally secure** the offset area(s), and describe any means by which a future site owner may seek to amend or remove the mechanism,
- v. provide a completed *EPBC Act Offsets Assessment Guide* (offset calculator) for the **Malleefowl** offset area(s), and
- vi. present **evidence** substantiating inputs to the offset calculator, including:
 - confidence in result, time until ecological benefit, start and future condition (scale of 1 - 10), and risk of loss,
 - the specific components used to derive start and future condition (i.e. stocking rate, site context and site condition) of the Malleefowl habitat at the offset site, and current condition of the Malleefowl habitat at the impact site, and
 - set-out in general terms potential offset management activities considered feasible to achieve future condition and time until ecological benefit.

If the **Minister** approves the **Malleefowl** Offset Strategy then the **Malleefowl** Offset Strategy must be implemented. The approval holder must not **commence the action** unless the **Minister** has approved the **Malleefowl** Offset Strategy in writing.

Part B – Standard administrative conditions

Notification of date of commencement of the action

14. The approval holder must notify the **Department** in writing of the date of **commencement of the** action within ten (10) business days after the date of **commencement of the action**.

Compliance records

- 15. The approval holder must maintain accurate and complete compliance records.
- 16. If the **Department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.

Note: Compliance records may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the **Department**'s website or through the general media.

Preparation and publication of plans

- 17. The approval holder must:
 - a. submit **plans** electronically to the **Department** for approval by the **Minister**;
 - b. publish each **plan** on the **website** within 20 **business days** of the date the **plan** is approved by the **Minister** or of the date a revised action management plan is submitted to the **Minister**, unless otherwise agreed to in writing by the **Minister**;
 - c. exclude or redact **sensitive ecological data** from **plans** published on the **website** or provided to a member of the public; and
 - d. keep **plans** published on the **website** until the end date of this approval.

18. The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under conditions 4, 12 and 15 of this approval, are prepared in accordance with the **Department's** *Guidelines for biological survey and mapped data* (2018) and submitted electronically to the **Department** in accordance with the requirements of the **plans**.

Annual compliance reporting

- 19. The approval holder must prepare a **compliance report** for each 12 month period following the date of **commencement of the action**, or as otherwise agreed to in writing by the **Minister**. The approval holder must:
 - a. publish each **compliance report** on the **website** within 60 **business days** following the relevant 12 month period;
 - b. notify the **Department** by email that a **compliance report** has been published on the **website** within five **business days** of the date of publication;
 - c. keep all compliance reports publicly available on the website until this approval expires;
 - exclude or redact sensitive ecological data from compliance reports published on the website; and
 - e. where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within 5 **business days** of publication.

Note: Compliance reports may be published on the Department's website.

Reporting non-compliance

- 20. The approval holder must notify the **Department** in writing of any: **incident**; non-compliance with the conditions; or non-compliance with the commitments made in **plans**. The notification must be given as soon as practicable, and no later than two **business days** after becoming aware of the **incident** or non-compliance. The notification must specify:
 - a. the condition which is or may be in breach; and
 - b. a short description of the **incident** and/or non-compliance.
- 21. The approval holder must provide to the **Department** the details of any **incident** or non-compliance with the conditions or commitments made in **plans** as soon as practicable and no later than 10 **business days** after becoming aware of the **incident** or non-compliance, specifying:
 - a. any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;
 - b. the potential impacts of the **incident** or non-compliance; and
 - c. the method and timing of any remedial action that will be undertaken by the approval holder.

Independent audit

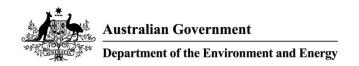
22. The approval holder must ensure that **independent audits** of compliance with the conditions are conducted for the 12 month period from the date of this approval and for every subsequent twelve (12) month period.



- 23. For each **independent audit**, the approval holder must:
 - a. provide the name and qualifications of the independent auditor and the draft audit criteria to the **Department**;
 - b. only commence the **independent audit** once the audit criteria have been approved in writing by the **Department**; and
 - c. submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.
- 24. The approval holder must publish the audit report on the **website** within ten (10) **business days** of receiving the **Department's** approval of the audit report and keep the audit report published on the **website** until the end date of this approval.

Revision of action management plans

- 25. The approval holder may, at any time, apply to the **Minister** for a variation to an action management plan approved by the **Minister** under condition 12, or as subsequently revised in accordance with these conditions, by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.
- 26. The approval holder may choose to revise an action management plan approved by the **Minister** under condition 12, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the **EPBC Act**, if the taking of the action in accordance with the RAMP would not be likely to have a **new or increased impact**.
- 27. If the approval holder makes the choice under condition 26 to revise an action management plan without submitting it for approval, the approval holder must:
 - g. notify the **Department** in writing that the approved action management plan has been revised and provide the **Department** with:
 - i. an electronic copy of the RAMP;
 - ii. an electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP;
 - iii. an explanation of the differences between the approved action management plan and the RAMP;
 - iv. the reasons the approval holder considers that taking the action in accordance with the RAMP would not be likely to have a **new or increased impact**; and
 - v. written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being at least 20 **business days** after the date of providing notice of the revision of the action management plan, or a date agreed to in writing with the **Department**.
 - h. subject to condition 29, implement the RAMP from the RAMP implementation date.



- 28. The approval holder may revoke their choice to implement a RAMP under condition 26 at any time by giving written notice to the **Department**. If the approval holder revokes the choice under condition 26, the approval holder must implement the previous action management plan approved by the **Minister**.
- 29. If the **Minister** gives a notice to the approval holder that the **Minister** is satisfied that the taking of the action in accordance with the RAMP would be likely to have a **new or increased impact**, then:
 - a. condition 26 does not apply, or ceases to apply, in relation to the RAMP; and
 - b. the approval holder must implement the action management plan specified by the **Minister** in the notice.
- 30. At the time of giving the notice under condition 29, the **Minister** may also notify that for a specified period of time, condition 26 does not apply for one or more specified action management plans.

Note: conditions 26, 27, 28 and 29 are not intended to limit the operation of section 143A of the **EPBC Act** which allows the approval holder to submit a revised action management plan, at any time, to the **Minister** for approval.

Completion of the action

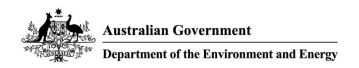
31. Within 30 days after the **completion of the action**, the approval holder must notify the **Department** in writing and provide **completion data**.

Part C - Definitions

- 32. In these conditions, except where contrary intention is expressed, the following definitions are used:
 - a. **Area 1** is the area defined in <u>Attachment D</u> that covers the **troglofauna species** located through surveys within bores YYAC0018C, YYAC26, YYAC36 and YYD22.
 - a. **Black-flanked rock-wallaby habitat** means habitat for the **EPBC Act** listed *Petrogale lateralis lateralis* comprising rocky outcrops that provide shelter such as caves, cliffs, screes and rockpiles that co-exists with foraging habitat such as grasses, forbs, shrubs and occasionally seeds and fruits.
 - b. **Business days** means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.
 - c. **Clear, clearing** means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, and ringbarking, uprooting or burning of vegetation (but not including weeds see the Australian weeds strategy 2017 to 2027 for further guidance).
 - d. **Cleared area** means an area or areas (in hectares) within the **development envelope** where loss or long-term modification of habitat has occurred.
 - e. Commence the action or commencement of the action means the first instance of any specified activity associated with the action including clearance of vegetation and construction of any infrastructure. Commencement does not include minor physical disturbance necessary to:



- undertake pre-clearance surveys or monitoring programs;
- install signage and /or temporary fencing to prevent unapproved use of the project area;
- protect environmental and property assets from fire, weeds and pests, including erection or construction of fencing and signage, and maintenance or use of existing surface access tracks, if agreed in writing by the **Department**.
- f. Completion data means an environmental report and spatial data information clearly detailing how the conditions of this approval have been met. The Department's preferred spatial data format is shapefile. The environmental report and spatial data information must include the date, location, approved development envelope, actual total cleared area, total area and type of Night Parrot habitat, Malleefowl habitat, Greater bilby habitat, Princess parrot habitat, Great Desert skink habitat and Black-flanked rock-wallaby habitat cleared, mine pit boundary and the environmental condition of the groundwater within the development envelope.
- g. **Completion of the action** means all specified activities associated with the action have permanently ceased.
- Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession or that are within the approval holder's power to obtain lawfully;
- i. Compliance reports means written reports:
 - i. providing accurate and complete details of compliance, incidents, and non-compliance with the conditions and the plans;
 - ii. consistent with the **Department's** Annual Compliance Report Guidelines (2014);
 - iii. include a **shapefile** of any **clearance** of any **protected matters**, or their habitat, undertaken within the relevant 12 month period; and
 - iv. annexing a schedule of all **plans** prepared and in existence in relation to the conditions during the relevant 12 month period.
- j. Construction means the erection of a building or structure that is or is to be fixed to the ground and wholly or partially fabricated on-site; the alteration, maintenance, repair or demolition of any building or structure; preliminary site preparation work which involves breaking of the ground (including pile driving); the laying of pipes and other prefabricated materials in the ground, and any associated excavation work; but excluding the installation of fences and signage.
- k. **Department** means the Australian Government agency responsible for administering the **EPBC Act**.
- I. **Development envelope** is the 4875 hectare area defined in <u>Attachment A</u>.
- m. Environmental condition is the state of the groundwater on completion of the action, relative to the baseline environmental data defined in the baseline surveys required under condition 11 of the WA approval.

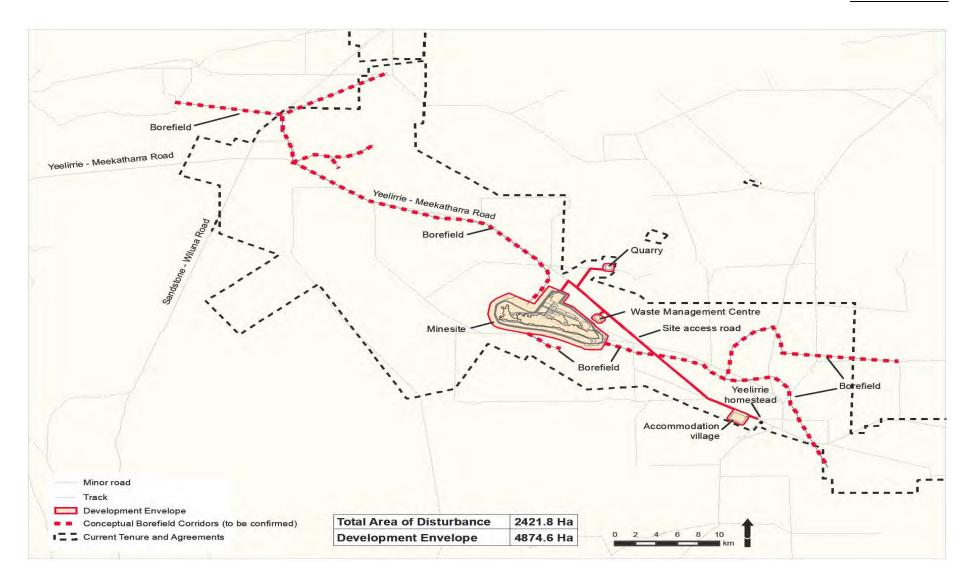


- EPBC Act means the Environment Protection and Biodiversity Conservation Act 1999 (Cth).
- o. **Evidence** means written and photographic material.
- p. **Great desert skink habitat** means habitat for the **EPBC Act** listed *Liopholis kintorei* comprising of spinifex (*Triodia* spp.) and scattered shrubs (*Acacia* spp., *Eucalyptus* spp., *Hakea* spp., *Grevillea* spp.) or mulga.
- q. **Greater bilby habitat** means habitat for the **EPBC Act** listed *Macrotis lagotis* comprising of open tussock grassland on uplands and hills, *Acacia aneura* (mulga) woodland/shrubland growing on ridges and rises, and hummock grassland in plains and alluvial areas.
- r. Groundwater drawdown contour means the 0.5 m drawdown level defined in Attachment B.
- s. IBRA means Interim Biogeographic Regionalisation for Australia, version 7.
- t. Incident means any event which has the potential to, or does, impact on protected matter(s).
- u. Independent audit: means an audit conducted by an independent and suitably qualified person as detailed in the Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines (2015) available from http://www.environment.gov.au/epbc/publications/independent-audit-report-guidelines.
- v. **Legally secured** means obtain a long-term protection under a voluntary agreement as provided for under the *Soil and Land Conservation Act 1945* (WA) or *Biodiversity Conservation Act 2016* (WA).
- w. **Life of the approval** means the period for which the approval has effect.
- x. Malleefowl means the EPBC Act listed Leipoa ocellata.
- y. **Malleefowl habitat** means habitat for the **EPBC Act** listed **Malleefowl** comprising of shrublands and low woodlands dominated by mallee or acacia and occasionally woodland dominated by eucalypts such as Wandoo *E. wandoo*, Marri *Corymbia calophylla* and Mallet *E. astringens*.
- z. **Monitoring data** means the data required to be recorded under the conditions of this approval.
- aa. Mine Pit means the areas defined as Pit East and Pit West in Attachment C.
- bb. **Minister** means the Australian Government Minister administering the **EPBC Act** including any delegate thereof.
- cc. **New or increased impact** means a new or increased environmental impact or risk relating to any **protected matter**, when compared to the likely impact of implementing the action management plan that has been approved by the **Minister** under condition 12, including any subsequent revisions approved by the **Minister**, as outlined in the *Guidance on 'New or Increased Impact' relating to changes to approved management plans under EPBC Act environmental approvals (2017)* available from http://www.environment.gov.au/epbc/publications/new-increased-impact-guidance.
- dd. **Night parrot habitat** means the **EPBC Act** listed *Pezoporus occidentalis*.

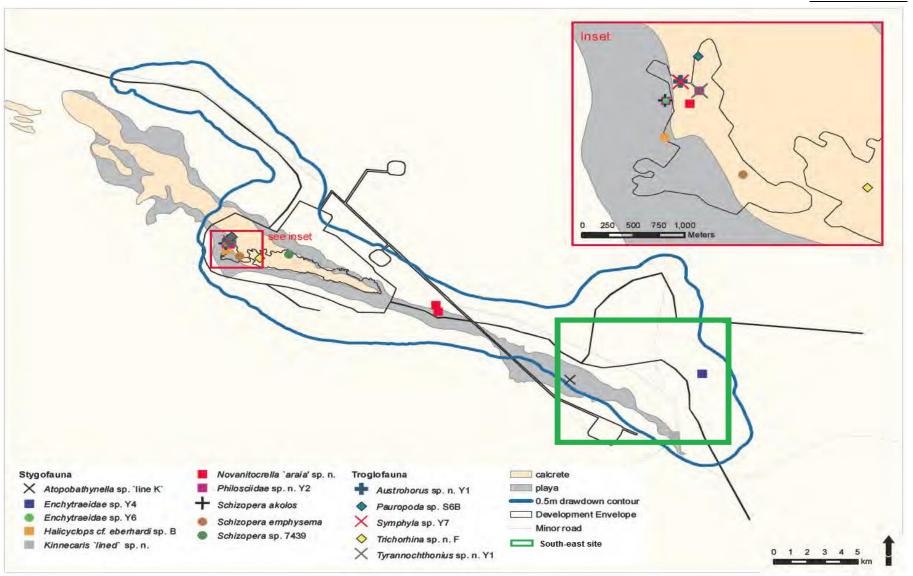
- ee. **Night parrot habitat** means habitat for the **EPBC Act** listed **Night parrot** comprising of sandplains supporting a mosaic of long-unburnt spinifex hummocked grasslands with supporting vegetation dominated by chenopod and/or grass species.
- ff. **Plan(s)** means any of the documents required to be prepared, approved by the **Minister**, and/or implemented by the approval holder and published on the **website** in accordance with these conditions (includes action management plans and/or strategies);
- gg. **Princess parrot habitat** means habitat for the **EPBC Act** listed *Polytelis alexandrae* comprising of shrubland in swales between sand dunes, with a variety of shrubs (including *Grevillea*, *Hakea*, *Cassia* and *Eremophila* species) among scattered emergent trees and a ground-cover of spinifex *Triodia* species, and breeding habitat consisting of overstorey species with hollows including *Eucalyptus camaldulensis* (river red gum), *E. gongylocarpa* (marble gum) and *Allocasuarina decaisneana* (desert oak).
- hh. **Protected matter** means a matter protected under a controlling provision in Part 3 of the **EPBC Act** for which this approval has effect.
- ii. **Sensitive ecological data** means data as defined in the Australian Government Department of the Environment (2016) *Sensitive Ecological Data Access and Management Policy V1.0.*
- jj. **Shapefile** means an ESRI shapefile containing '.shp', '.shx' and '.dbf' files and other files capturing attributes defined in the conditions of approval.
- kk. **South-east site** is the area defined as south-east site at <u>Attachment B</u>.
- II. **Subterranean fauna species** comprises the eight (8) stygofauna species *Enchytraeidae* sp. Y5, *Enchytraeidae* sp. Y6, *Halicyclops* cf. *eberhardi* sp. B, *Novanitocrella* 'araia' sp. n., *Schizopera akolos*, *Schizopera emphysema*, *Schizopera* sp. 7439, *Philoscidae* sp. n. Y2 and one (1) troglofauna species *Trichorhina* sp. n. F.
- mm. **Suitably qualified** means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.
- nn. **Troglofauna species** means *Austrohorus* sp. n Y1, *Pauropoda* sp. S6B, *Symphyla* sp. Y7 and *Tyrannochthonius* sp. n. Y1 that are only known to occur within the **mine pit**.
- oo. **Viable population** means the survival of a self-sustaining population of mature individuals of the **Western** *Atriplex yeelirrie* **population**.
- pp. **WA approval** means Ministerial Statement 1053 signed 16 January 2017, which states that a proposal may be implemented under the *Environment Protection Act 1986* (WA).
- qq. **WA DBCA** means the Western Australian Department of Biodiversity, Conservation and Attractions or any other agency responsible for administering the *Conservation and Land Management Act 1984* (WA) from time to time.
- rr. **Website** means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.

ss. **Western Atriplex yeelirrie population** is the western genotype of *Atriplex yeelirrie*. Currently the only known population of this species is located within the **development envelope** and defined in <u>Attachment E</u> as WP01 – WP06.

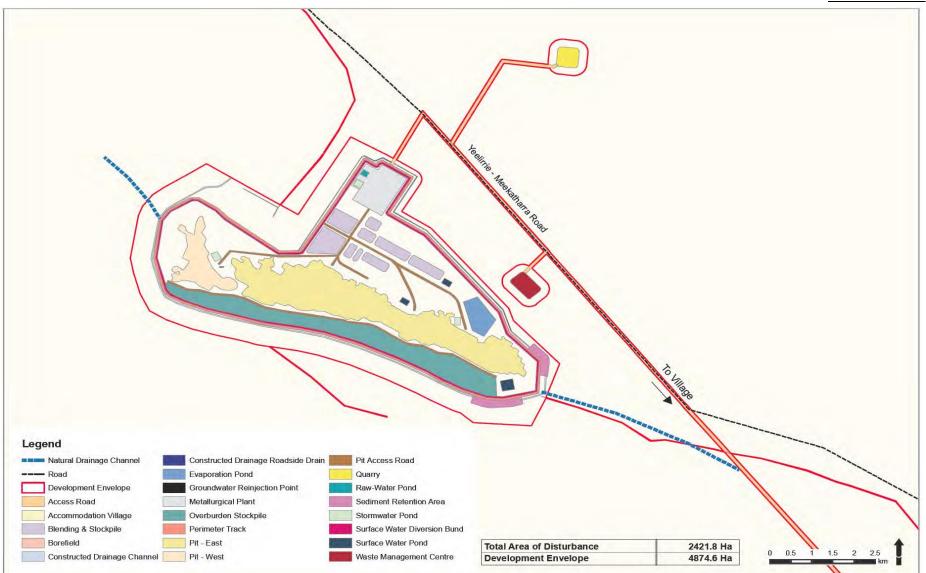
ATTACHMENT A



ATTACHMENT B



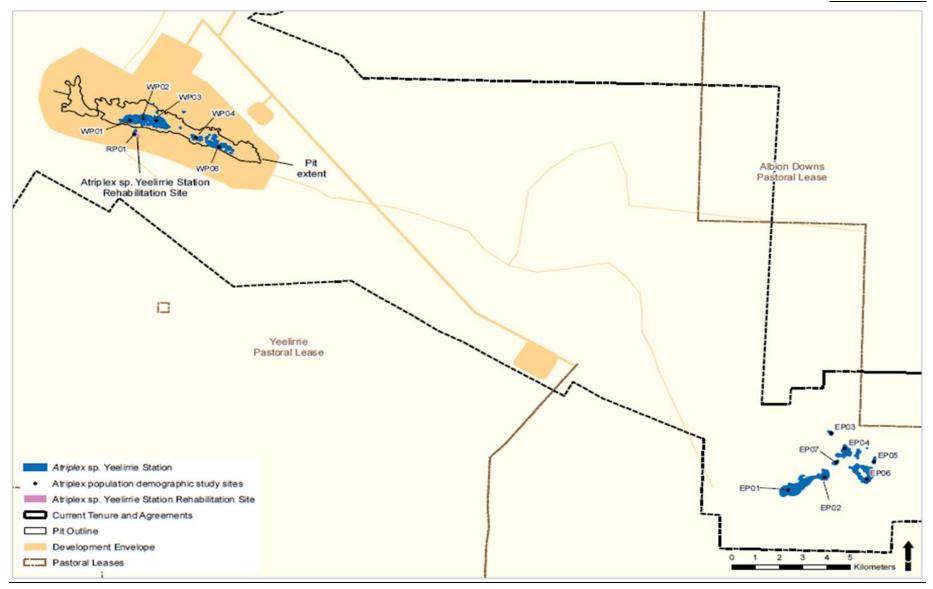
ATTACHMENT C



ATTACHMENT D



ATTACHMENT E





THE HON MELISSA PRICE MP MINISTER FOR THE ENVIRONMENT

MS18-001074

0.5 MAR 2019

Mr Simon Williamson General Manager Cameco Australia PO Box 1395 West Perth WA 6872

Dear Mr Williamson Simon,

Invitation to comment on proposed approval decision Yeelirrie uranium mine, Shire of Wiluna, WA (EPBC 2009/4906)

I am writing to you in relation to your proposal to develop the Yeelirrie open cut uranium mine, ore processing plant and associated infrastructure in the Shire of Wiluna, WA. The above proposal was referred and assessed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) for its impacts on Listed threatened species and communities (18 & 18A), Listed migratory species (ss 20 & 20A) and Nuclear actions (ss 21 & 22A). I am proposing to approve this proposal subject to conditions. My proposed decision is attached.

In accordance with the EPBC Act, I invite you to provide comments on my proposed decision of approval, including the conditions which I propose to attach, within 10 business days of the date of this letter.

Please quote the title of the action and EPBC reference, as shown at the beginning of this letter, in any correspondence. You can send information to:

by letter

Major Projects West Section

Assessment (WA, SA, NT) & Post Approvals Branch

Department of the Environment and Energy

GPO Box 787

CANBERRA ACT 2601

by email

Assessments.West@environment.gov.au

Yours sincerely

MELISSA PRICE



THE HON MELISSA PRICE MP MINISTER FOR THE ENVIRONMENT

MS18-001074

05 MAR 2019

The Hon Greg Hunt MP Minister for Health and Minister for Sport Parliament House CANBERRA ACT 2600

Dear Minister Greg,

Invitation to comment on proposed approval decision Yeelirrie uranium mine, Shire of Wiluna, WA (EPBC 2009/4906)

I am writing to you in relation to a proposal to develop the Yeelirrie open cut uranium mine, ore processing plant and associated infrastructure in the Shire of Wiluna, WA. The above proposal was referred and assessed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) for its impacts on Listed threatened species and communities (18 & 18A), Listed migratory species (ss 20 & 20A) and Nuclear actions (ss 21 & 22A). I am proposing to approve this proposal. My proposed decision is attached.

I understand that you may have administrative responsibilities relating to the action. I invite you to provide comments on my proposed decision within 10 business days of the date of this letter, including on any matters of economic or social concern that should be considered consistent with the principles of ecologically sustainable development.

Please quote the title of the action and EPBC reference, as shown at the beginning of this letter, in any correspondence. You can send information to:

by letter

Major Projects West Section

Assessment (WA, SA, NT) & Post Approvals Branch

Department of the Environment and Energy

GPO Box 787

CANBERRA ACT 2601

by email

Assessments.West@environment.gov.au

Yours sincerely

MELISSA PRICE



THE HON MELISSA PRICE MP MINISTER FOR THE ENVIRONMENT

MS18-001074

05 MAR 2019

Senator the Hon Matt Canavan Minister for Resources and Northern Australia Parliament House CANBERRA ACT 2600

Dear Minister Mat

Invitation to comment on proposed approval decision Yeelirrie uranium mine, Shire of Wiluna, WA (EPBC 2009/4906)

I am writing to you in relation to a proposal to develop the Yeelirrie open cut uranium mine, ore processing plant and associated infrastructure in the Shire of Wiluna, WA. The above proposal was referred and assessed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) for its impacts on Listed threatened species and communities (18 & 18A), Listed migratory species (ss 20 & 20A) and Nuclear actions (ss 21 & 22A). I am proposing to approve this proposal. My proposed decision is attached.

I understand that you may have administrative responsibilities relating to the action. I invite you to provide comments on my proposed decision within 10 business days of the date of this letter, including on any matters of economic or social concern that should be considered consistent with the principles of ecologically sustainable development.

Please quote the title of the action and EPBC reference, as shown at the beginning of this letter, in any correspondence. You can send information to:

by letter

Major Projects West Section

Assessment (WA, SA, NT) & Post Approvals Branch

Department of the Environment and Energy

GPO Box 787

CANBERRA ACT 2601

by email

Assessments. West@environment.gov.au

Yours sincerely

MELISSA PRICE



THE HON MELISSA PRICE MP MINISTER FOR THE ENVIRONMENT

MS18-001074

Senator the Hon Nigel Scullion Minister for Indigenous Affairs Parliament House CANBERRA ACT 2600

Dear Minister Nigel

Invitation to comment on proposed approval decision Yeelirrie uranium mine, Shire of Wiluna, WA (EPBC 2009/4906)

I am writing to you in relation to a proposal to develop the Yeelirrie open cut uranium mine, ore processing plant and associated infrastructure in the Shire of Wiluna, WA. The above proposal was referred and assessed under the *Environment Protection and Biodiversity*Conservation Act 1999 (EPBC Act) for its impacts on Listed threatened species and communities (18 & 18A), Listed migratory species (ss 20 & 20A) and Nuclear actions (ss 21 & 22A). I am proposing to approve this proposal. My proposed decision is attached.

I understand that you may have administrative responsibilities relating to the action. I invite you to provide comments on my proposed decision within 10 business days of the date of this letter, including on any matters of economic or social concern that should be considered consistent with the principles of ecologically sustainable development.

Please quote the title of the action and EPBC reference, as shown at the beginning of this letter, in any correspondence. You can send information to:

by letter

Major Projects West Section

Assessment (WA, SA, NT) & Post Approvals Branch

Department of the Environment and Energy

GPO Box 787

CANBERRA ACT 2601

by email

Assessments.West@environment.gov.au

Yours sincerely

MELISSA PRICE



THE HON MELISSA PRICE MP MINISTER FOR THE ENVIRONMENT

MS18-001074

Mr Mike Rowe Director General Department of Water and Environmental Regulation Locked Bag 33, Cloisters Square PERTH WA 6850

0.5 MAR 2019

Dear Mr Bowe Mike,

Invitation to comment on proposed approval decision Yeelirrie uranium mine, Shire of Wiluna, WA (EPBC 2009/4906)

I am writing to you, as the delegated contact for the Western Australian (WA) Minister for Environment and Disability Services, Mr Stephen Dawson MLC, and the WA Minister for Mines and Petroleum, the Hon Bill Johnston MLA, in relation to a proposal to develop the Yeelirrie open cut uranium mine, ore processing plant and associated infrastructure in the Shire of Wiluna, WA. The above proposal was referred and assessed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) for its impacts on Listed threatened species and communities (18 & 18A), Listed migratory species (ss 20 & 20A) and Nuclear actions (ss 21 & 22A). I am proposing to approve this proposal. My proposed decision is attached.

I understand that you may have administrative responsibilities relating to the action. I invite you to provide comments on my proposed decision within 10 business days of the date of this letter, including on any matters of economic or social concern that should be considered consistent with the principles of ecologically sustainable development.

Please quote the title of the action and EPBC reference, as shown at the beginning of this letter, in any correspondence. You can send information to:

by letter

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Yours sincerely

MELISSA PRICE

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The Hon Josh Frydenberg MP Minister for Environment Room M140 Parliament House Canberra ACT 2600

23rd February 2017

Dear Minister,

Re: EPBC assessment of the Yeelirrie Uranium Project Extension [WA OEPA Project 1574] possible extinction of 11 species of subterranean fauna.

I write to you in relation to the current EPBC assessment of the Yeelirrie Uranium Project in the Northern Goldfields of Western Australia. I write to draw your attention to the serious threat that the mine poses to the survival of 11 species of subterranean fauna. The WA EPA recommended the project be rejected on the grounds that the project could not meet objectives under the Environmental Protection Act 1986 – including the Precautionary Principle and the Principle of the Conservation of Biological Diversity and Ecological Integrity and the Principle of Intergenerational Equity.

Through the appeals process, following the Public Environment Review, the Office of the Appeals Convenor and the Minister reviewed the advice from the EPA and reached the conclusion that the EPA's findings in relation to subterranean fauna remain valid – ie. that the project could cause the extinction of 11 species of subterranean fauna.

The overwhelming evidence and the majority view of WA decision making authorities is that 11 species could become extinct if the Yeelirrie Uranium Project proceeds. The WA Government has made a serious error in their decision to grant environmental approval for the project despite the projects failure to meet principles under the EP Act.

We urge you to reject the project on the grounds that the project is inconsistent with Section 3 Objects of the Environmental Protection and Biodiversity Conservation Act 1999:

| 1(c) | to promote the conservation of biodiversity |
|------------|---|
| 2 (e)(i) | protect native species (and in particular prevent the extinction, and |
| | promote the recovery, of threatened species) and ensure the |
| | conservation of migratory species |
| 2 (e)(iii) | protect ecosystems by means that include the establishment and |
| | management of reserves, the recognition and protection of ecological |
| | communities and the promotion of off-reserve conservation measures |
| 2 (e)(iv) | identify processes that threaten all levels of biodiversity and |
| | implement plans to address these processes |



We urge you to reject the project on the grounds that the project is inconsistent with important principles of ecologically sustainable development of the Environmental Protection and Biodiversity Conservation Act 1999 under Section 3A:

- b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental damage.
- c) the principle of intergenerational equity that the present generation should ensure the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations
- d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making

In the unfortunate event that you decide to proceed with the assessment then I urge you, in the least, to stop the clock on the project until the 11 species can be assessed and/or listed under section 178 of the Environmental Protection Biodiversity and Conservation Act 1999 by the Threatened Species Scientific Committee.

Because of the deficiencies in the EPA assessment of this factor I write to request you invoke section 132 of the EPBC Act to require more information.

Background

The subterranean fauna community at Yeelirrie, including both stygofauna and troglofauna, are listed by the WA Department of Parks and Wildlife as a Priority 1 - Priority Ecological Community (PEC)—referred to as "Yeelirrie calcrete groundwater assemblage type on Carey palaeodrainage on Yeelirrie Station". The threat to this PEC is listed as mining.

Stygofauna:

The WA EPA summarized that there are1:

- 73 stygofauna species within the PEC
- Three species are known to exist in other calcretes in the Yilgarn region
- Possibly one species Halicyclops cf.eberhardi (most likely sp.A) is known in other calcretes outside the development envelope
- 16 species are found inside the calcrete area
- 27 species are found only in the sandplain area
- 11 species are currently only known from the impact area (pg 20) (where the drawdown is greater than 0.5m including the mine pits) but the EPA list just 10 (pg 21):
 - Atopobathynella sp. 'link K'
 - Enchytraeidae sp.Y4

http://www.epa.wa.gov.au/sites/default/files/EPA Report/Rep%201574%20Yeelirrie%20PER%20030816.pdf

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¹ EPA Report 1574 - Yeelirrie Uranium Project



- Enchytraeidae sp.Y6
- o Halicyclops cf. eberhardi sp. B
- o Kinnecaris lined
- Novanitocrella 'aria' sp. N.
- o Philosciidae sp. N. Y2
- Schizopera akolos
- Schizopera emphysema
- o Schizopera sp. 7439

*note the proponent has argued that similar species (surrogates) exist in other calcretes so it is possible that these species could exist elsewhere. The EPA noted that the proponents use of 'surrogates' is not consistent with EAG12 guidelines – that there remains a level of uncertainty about the distributions of the species that are apparently restricted to the impact area (this is where the precautionary principle applies).

The critical aspects of the project that threaten these species include;

- Excavation / mining removal of habitat
- Water drawdown removal of habitat
- Post mine closure habitat will be replaced with uranium mine tailings and other contaminated material. Groundwater levels will be restored within 50 100 years unclear if this will ever provide suitable habitat.

The WA EPA summarise that "the EPA notes that while removal of habitat through the development of the pits would be permanent, it is unclear if the restoration of groundwater levels would result in the re-establishment of subterranean fauna habitat."

Yeelirrie is the most highly sampled subterranean fauna locality in the Yilgarn region, and owing to the high degree of morphological and genetic taxonomic work, has some of the most comprehensively studied subterranean fauna communities in Australia.

Yeelirrie has extremely high diversity and short-range endemism of the subterranean fauna making it highly likely that many restricted species of stygofauna and troglofauna are going to suffer high or critical impacts as a result of mining. There are 11 species known only to exist inside the impact area of the proposed mine pit and drawdown areas.

The WA EPA note that of the suspected restricted stygofauna species - three species had a high capture rate in the survey's which give a greater level of certainty that those species are restricted to the impact area:

- Halicyclops cf.eberhardi sp.B
- Novanitocrella 'araia linec' ssp.n

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Kinnecaris lined

The WA EPA note that the proponent's protection measures are not adequate to mitigate the impact and maintain the diversity of the species only known within the impact area.

The WA EPA notes that the Yeelirrie calcrete is a complex habitat and the stygofauna are unlikely to be evenly distributed across the PEC and that different species may be confined to various areas.

Troglofauna:

The WA EPA summarised that there are:

- forty-five troglofauna species in the Yeelirrie Study area.
- 11 species found inside the calcrete area
- 3 species found only within the inferred playa area
- 8 species common to both calcrete and playa areas
- 19 species found only in the sandplain areas
- 3 species common to the calcrete and sandplain areas
- 1 species common to the playa and sandplain area

The WA EPA note that initially five species of troglofauna were only know from the disturbance area they are:

- Trichorhina sp. n. F,
- Tyrannochthonius sp.n. Y1,
- · Austrohorous sp.n. Y1,
- Pauropoda sp. S6B and
- Symphyla sp. Y7.

The critical aspects of the project that threaten these species include;

Excavation / mining - removal of habitat

The proponent revised plans to create an exclusion zone. Following those revised plans it is now the view of the EPA that there is still one species - Trichohina sp. N. F - that is restricted to the disturbance area – in the centre of the mine pit area. Mining would remove 100% of the known habitat of this species and likely cause extinction.

The EPA notes that there would need to be further work to confirm wider distribution.



Summary:

After the proponent's revised plans were submitted through the Public Environment Review process there are now 11 subterranean species known only to exist inside the impact area of the revised mine pit and drawdown areas. Given the evidence provided in the Yeelirrie PER and base line studies it is agreed that at least 11 species are critically in danger of becoming extinct if this proposal is approved.

While minimising impacts from reducing groundwater drawdown or not mining in some areas have been proposed, these revised plans have only reduced impacts to a few species, and 11 species remain in critical danger of becoming extinct.

The revised plans have not addressed post closure threats of contaminated material and seepage into habitat that has been quarantined and there remains an unacceptable level of uncertainty about future recovery of habitat and suitability of habitat for the PEC.

Listing of Species

Enough is known about each of the described species at least to place each of them on the Threatened species lists under the *Wildlife Conservation Act 1950* or the *Environmental Protection and Biodiversity Conservation Act 1999*. No species from Yeelirrie have yet been placed on these lists because the information required for their assessment has not been available due to commercial confidentiality. All of the necessary information regarding the unique taxonomy, the habitat and the limits to distribution of these species has now been made available through the release of the PER and baseline report Subterranean Ecology 2011 and the impact assessment report Bennelongia 2015, as well as a number of taxonomic publications Karanovic and Cooper 2011a, 2011b, 2012, Karanovic et al. 2014, and Baehr et al. 2012. Given this new information I urge the Minister to assess these species as equivalent to Threatened species.

There is no reasonable evidence or arguments presented by the proponent to show that multiple species extinctions can be avoided. The current status and listing of the species should not be used to allow a project to proceed when all available information and evidence suggests that multiple species would become extinct.

For these reasons, I ask you to reject the project on the ground that the project is inconsistent with multiple Objects of the Environment Protection and Biodiversity and Conservation Act 1999 under section 3:

1(c) to promote the conservation of biodiversity

Fax: (+61) 02 6277 5821 Senator.Ludlam@aph.gov.au | scottludlam.org.au



| 2 (e)(i) | protect native species (and in particular prevent the extinction, and promote the recovery, of threatened species) and ensure the |
|------------|---|
| | conservation of migratory species |
| 2 (e)(iii) | protect ecosystems by means that include the establishment and |
| | management of reserves, the recognition and protection of ecological |
| | communities and the promotion of off-reserve conservation measures |
| 2 (e)(iv) | identify processes that threaten all levels of biodiversity and |
| | implement plans to address these processes |

And that the project is inconsistent with multiple Principles of the Environment Protection and Biodiversiry and Conservation Act 1999 under section 3A:

- b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental damage.
- c) the principle of intergenerational equity that the present generation should ensure the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations
- d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making

In the unfortunate situation that the Minister continues to assess the project I declare that you need more time and invoke the 'stop the clock' provision under section 132 of the EPBC Act. This section states:

132 Requesting further information for approval decision

If the Minister believes on reasonable grounds that he or she does not have enough information to make an informed decision whether or not to approve for the purposes of a controlling provision the taking of an action, the Minister may request the designated proponent of the action to provide specified information relevant to making the decision.

The information that has come to my attention presents clear 'reasonable grounds' to conclude that without the assessment of the 11 species of subterranean fauna under section 178 of the Environmental Protection and Biodiversity Conservation Act by the Threatened Species Scientific Committee that there is not enough information to make an informed decision.

I look forward to your reply.

Yours sincerely

Senator Scott Ludlam

Senator.Ludlam@aph.gov.au | scottludlam.org.au

The Hon Josh Frydenberg MP Minister for Environment Room M140 Parliament House Canberra ACT 2600

23rd February 2017

Dear Minister,

Re: EPBC assessment of the Yeelirrie Uranium Project Extension [WA OEPA Project 1574] – economic matters and company's environmental history

I write to you in relation to the current EPBC assessment of the Yeelirrie Uranium Project (WUP Extension) in the Northern Goldfields of Western Australia. I write to draw your attention to deficiencies in assessment of the Yeelirrie project with regard to the companies track record and current economic factors influencing the uranium sector.

I note that these matters must be considered under:

- EPBC Act Section 136 mandatory considerations 1. In deciding whether or not to
 approve the taking of an action, and what conditions to attach to an approval, the
 Minister must consider the following, so far as they are inconsistent with any other
 requirement of this Subdivision: (b) economic and social matters
- EPBC Act Section 136 person's environmental history 4. In deciding whether or not to approve the taking of an action by a person, and what conditions to attach to an approval, the Minister may consider whether the person is a suitable person to be granted an approval, having regard to: (c) if the person is a body corporate that is a subsidiary of another body or company (the parent body) the history in relation to environmental matters of the parent body and its executive officers.

One of the key components of the State Ministerial decision to approve the Yeelirrie project, despite the recommendation to reject the project by the EPA on environmental grounds, was said to be based on economics and jobs. The rationale here is deeply flawed given the low uranium price, the company's withdrawal from their other uranium projects in Australia and the closure and reduced production at operating mines. I urge the Minister to critically review the market conditions under section 136 1(b) of the EPBC Act and consider the real short and mid term economic and social costs and benefits of the project.

Cameco is perhaps the world's largest uranium mining company. They have mining operations in Canada, Kyrgyzstan and the USA. The company is currently facing court in both Canada and the U.S. over tax evasion charges and have a very long list of license breaches and environmental incidents at their operating mines. I urge the Minister to review the history of the company and its executives under section 136 4(c) of the EPBC Act.



Because of the deficiencies in the EPA assessment of this factor I write to request you invoke section 132 of the EPBC Act to require more information to assist in the assessment of the project under section 136 1(b) & 4(c).

Background

Market Conditions - economic and social matters

On February 9th 2017 Cameco Corporation wrote down the total value of the Kintyre uranium deposit in West Australia from \$238 million to \$0¹. This is a key indication that new uranium mines in Australia, and particularly Western Australia are not feasible in the current market and unlikely to be in the near to mid-term.

Other recent events that indicate new uranium mines are not feasible include:

- Cameco's decision to suspend production at the Rabbit Lake uranium mine in Canada²
- Cameco's decision to reduce production of uranium at the McArthur River and Key Lake mines in Canada³
- Cameco's decision to reduce production of uranium at Crowe Butte and Smith Ranch Highland in the U.S⁴
- TEPCO's announcement to cancel a \$1.3 billion uranium supply contract with Cameco⁵
- Kazakhstan's announcement that they would produce 10% less uranium in response to ongoing oversupply in the uranium market⁶
- A low uranium price (reached a low of \$18.25 in December 2016 prompting the Kazakhstan and TEPCO announcements the price has since recovered slightly to \$26.50)⁷
- A low uranium enrichment price (which means enrichment will be favoured over newly mined uranium)⁸

 $^{^1\,}Cameco\,Corporation\,Q4\,Financial\,report\,Feb\,\,2017\,\,\underline{https://www.cameco.com/invest/financial-information/quarterly-reports/2016/q4}$

² World Nuclear News, 22 April 2016, 'Cameco scales back uranium production', <u>www.world-nuclear-news.org/UF-Cameco-scales-back-uranium-production-2204167.html</u>

³ ibid

⁴ ibid

⁵ Cameco Corporation Q4 Financial report Feb 2017 https://www.cameco.com/invest/financial-information/quarterly-reports/2016/p4

 $^{^6 \} World \ Nuclear \ Association, 10 \ Jan \ 2017, \ 'Oversupply \ prompts \ Kazakh \ uranium \ production \ cut', \ \underline{www.world-nuclear-news.org/UF-Oversupply-prompts-Kazakh-uranium-production-cut-1001177.html}$

^{7 &}lt;u>https://www.uxc.com/p/prices/UxCPrices.aspx</u>



 The huge financial losses reported by some of the worlds largest nuclear power companies – annual loss of \$7.1 billion by Toshiba and accumulated losses of \$51.8 billion by EDF and \$14 billion by Areva. These huge losses have global implications for new nuclear reactors and will influence global uranium prices well into the future⁹.

Over a longer period we have seen a number of other mines in Australia and Africa be placed on 'care and maintenance' – not operating and not rehabilitated with some expectation that the owner is managing the site. Given the high number of uranium mines globally that have gone into care and maintenance or are operating at reduced capacity it is only fair to assume that, if or when the uranium price recovers, those existing mines will reopen or increase production, stabilising the uranium price, which may exclude any new entries to the uranium market.

These economic conditions are not favourable to mining. The proponent has not shown evidence of capacity or commitment to continue mining for the full life of mine and so there is a high risk of non-compliance with mine closure criteria by the proponent. As the Minister can appreciate through the process of preparing for closure at the Ranger uranium mine in the NT, closure is both important and complex and involves a high level of commitment and expenditure by the proponent. This has clearly not been demonstrated by Cameco Australia or their parent company Cameco Corporation.

The economic considerations are often made when considering a benefit over a cost of environmental degradation. In this case the cost of the project being implemented is the extinction of 11 species of subterranean fauna – it is this cost that the WA EPA found as being inconsistent with the Precautionary Principle, the Principle of Conservation of Biological Diversity and Ecological Integrity and the Principle of Intergeneration Equity. I submit to you that the benefits are overstated and unlikely to materialise and the costs for the environment are high particularly for biological diversity and ecological integrity.

There are other costs of approving a project that are inconsistent with State and Federal environmental law, where there is likely to be multiple species extinctions and where there is no likely economic or social benefit; those costs are to:

- public confidence in our environmental laws
- public confidence in the decision-making authorities to uphold our environmental laws

⁸ Steve Kidd, 8 Dec 2016, 'Uranium enrichment – why are prices now much lower and what is the impact?', www.neimagazine.com/opinion/opinionuranium-enrichment-why-are-prices-now-much-lower-and-what-is-the-impact-5692128/

⁹ Dr Jim Green http://reneweconomy.com.au/nuclear-powers-rapidly-accelerating-crisis-26711/



- public confidence in the assessment process
- the reputation of decision making authorities and Governments of the company

Such matters as these could also end up in the courts, costing the Government and the tax payer as well as costs to any civil society group or individuals bringing the case. These scenarios add to the reputational cost and the cost to public confidence.

Cameco Corporation – environmental history

Cameco Australia is a subsidiary of parent company Cameco Corporation – listed on the TSX and NYSE. Cameco has a long track record of non-compliance, mis-management, tax irregularities, links to the manufacturing of depleted uranium weapons as well as leaks and spills of radioactive material into the environment. Here is a list of some of those incidents:

- 1989 Cameco pleaded guilty to negligence and was fined \$10,000 for leaking 2 million litres of radioactive liquid into a creek.
- 1993 Inter-Church Uranium Committee (ICUC) from Saskatchewan, Canada, revealed the export of at least 500 metric tons of depleted uranium to the US military by Cameco Corporation.
- 2003 There was a cave in and flood of radioactive water from Cameco's McArthur River uranium mine – this followed ongoing safety breaches at the site. The company received multiple warnings from the lead geologist, the superintendent and contract workers in the lead up to the cave in and failed to act to prevent the incident.
- 2008 Cameco paid \$1.4 million to the state of Wyoming and a further \$50,000 to the state of Nebraska for compliance failure on reporting and license violations which included groundwater restoration, site reclamation, spills and reclamation cost estimates.
- 2008 Uranium leak at Cameco's Rabbit Lake mine and contamination at Cameco's Port Hope refinery was discovered
- 2010 Sierra Club Canada reported "As of 2010, water releases from Deilmann Tailings in cadmium exceed the Saskatchewan standard by an extraordinary 5,782 percent. Uranium concentrations were above the standard on average 1,323 percent and at the high level value by 10,153 percent! Radium 226 and lead 210 concentrations on average exceed the standard by 1,481 and 140 percent respectively. ..."
- 2010 And "At the McArthur River site, concentrations of arsenic, selenium, and uranium in water effluent have exceeded the standards by 54 percent for arsenic, 700 percent for selenium and an astronomical 1,230 percent for uranium. There is no reporting done on mercury. Blueberries and fish are contaminated with uranium."
- 2012 Uranium oxide powder was released at several Cameco operated sites under different circumstances each resulting in occupational exposure to workers.
- 2013 Several transport incidents occurred involving uranium supplied by Cameco.
- 2015 Occupational exposure of workers occurred at Cameco's Key Lake Mill.



 2017 - Cameco is currently in the tax court over \$800 million to \$850 million in corporate taxes the Canada Revenue Agency says went unpaid between 2008 and 2012. Cameco also face similar charges in the U.S.

A full list of incidents involving Cameco Corporation is provided as an appendix to this letter, based on research conducted by Friends of the Earth Australia. This report includes more details of more incidents and accidents as well as conflicts with Aboriginal communities in Canada and Australia.

One of the ongoing incidents involving Cameco is the environmental contamination from the Port Hope Refinery that has devalued homes and caused public health scares in homes and schools and is now subject to what is described as the biggest radioactive clean up in Canada's history. I urge the Minister to fully consider the companies behaviour and actions in regards to the Port Hope contamination issue and to consider the costs to the Government and the public.

The proponent's track record which is documented here only includes publicly known incidents. There are quite possibly other accidents, incidents, leaks and spills that are not know publicly – I urge the Minister to enrol the support of regulators in Canada to identify additional information on the environmental history of the company.

From the known incidents it is clear that where there has been a risk and evidence of a risk the company has not acted to mitigate and avoid accidents from occurring which have put workers and the environment at risk and led to occupational exposure. I urge the Minister to fully consider the environmental incidents at Cameco mines mills and refineries in Canada and the U.S and their records of occupation exposure of workers and the public.

It is clear that the company in U.S and Canada have had issues with tax payments and accountability. These issues are yet to be resolved through the courts but there are strong indications that there is an issue with tax avoidance. I urge the Minister to fully consider the companies mode of operation and tax avoidance strategies that could be applied with the Yeelirrie project – with consideration to the Yeelirre State Agreement Act and other relevant legislation.

I urge the Minister to seek further information regarding the companies non-compliance and license breaches in both the U.S and Canada.

For these reasons I ask you to declare that you need more time and invoke the 'stop the clock' provision under section 132 of the EPBC Act. This section states:

132 Requesting further information for approval decision If the Minister believes on reasonable grounds that he or she does not have enough information to make an informed decision whether or not to approve for the purposes of a controlling provision the

Senator.Ludlam@aph.gov.au I scottludlam.org.au



taking of an action, the Minister may request the designated proponent of the action to provide specified information relevant to making the decision.

The information that has come to my attention presents clear 'reasonable grounds' to conclude you have not been provided with enough information to make an informed decision.

Accordingly, I request that the Minister make further inquiries and seek further information regarding the company's track record and the current economic and market factors affecting the uranium sector.

I look forward to your reply.

Yours sincerely

Senator Scott Ludlam

Senator.Ludlam@aph.gov.au | scottludlam.org.au



TABLE OF CAMECO'S INCIDENTS

Compiled by Dr Jim Green and Mara Bonacci – Friends of the Earth Australia Updated in 2016.

"When you put the pieces together, they build a story of really fundamental issues about the competence of the company."

- Prof. Christopher Barnes, geologist and Canadian Nuclear Safety Commission member, 2003

| Date | Locati | Description of Incident | Source |
|--------|----------|--|-----------------------|
| | on | | |
| 1981- | Saskatch | A total of 153 spills occurred at three uranium mines in | MediaScan |
| 89 | ewan | Saskatchewan, Canada from 1981 to 1989. Amoc Mining reported 62 | Canada |
| | | spills, Cameco 48 and Key Lake 43. The spill totals were requested | 10/11/89; WISE |
| | | after Cameco's Rabbit Lake mine reported a spill of two million litres | Nuclear |
| | | of radium- and arsenic-contaminated water. | Monitor |
| | | | #323/324, |
| | | | 22/12/89 |
| | | | http://scott- |
| | | | ludlam.greensm |
| | | | ps.org.au/let- |
| | | | the-facts-speak |
| 1989 | Rabbit | In November 1989, around two million litres of radioactive and | Moody, R, 1992, |
| | Lake, | heavy metal (radium, arsenic and nickel) -bearing fluids burst into | The Gulliver |
| | Canada | Collins creek, which itself flows into Wollaston Lake. The seepage | File : Mines, |
| | | occurred from a faulty valve on a 10 km long pipeline carrying | People and |
| | | runoff and seepage from the Collins Bay mine: loss of pressure in the | Land – A Global |
| | | pipe was recorded by monitoring equipment but not noticed until 14 | Battleground. |
| | | hours after the rupture. Rabbit Lake is majority owned by Cameco. | Minewatch |
| | | Cameco was fined C\$10,000 under the Atomic Energy Control Act of | (London, UK), |
| | | 1946 – the maximum penalty applicable – after pleading guilty to | p.894. |
| 1000 | DI: I | two charges of negligence. | |
| 1990, | Blind | Leak shuts down the Canadian refinery. Approximately 178 kgs of | 'Nuclear |
| May | River | radioactive uranium dust leaked from Cameco's Blind River | Awareness |
| 13 | Uranium | Uranium Refinery into the air over a 30-hour period during the week | News', Canada, |
| | Refinery | of the 13th May. The filter system was bypassed accidentally and | Spring 1990 |
| | | officials are unsure whether it was a mechanical or human error. | WISE Nuclear |
| | | | Monitor #335 |
| | | | 6/7/90 |
| | | | http://scott- |
| | | | <u>ludlam.greensm</u> |
| 12.313 | | | ps.org.au/let- |
| | | | the-facts-speak |



| 1993 | Canada/ | The Inter-Church Uranium Committee (ICUC) from Saskatchewan, | http://www.wis |
|-------|------------|---|-----------------------|
| 1993 | US Canada/ | Canada, has revealed the export of at least 500 metric tons of | einternational.or |
| | 05 | depleted uranium to the US military by Cameco Corporation, | g/node/813 |
| | | despite several Canadian treaties to export uranium only for | B/110 dt c/ 0 220 |
| | | "peaceful purposes". | |
| 1993 | Wollasto | Cameco's evidence of public consultation is referred to as "a | http://www.wis |
| 17,70 | n Lake, | transparent manipulation of public opinion." | einternational.or |
| | Canada | | g/node/796 |
| | Curtucu | | Saskatchewan |
| | | 그 사람이 없는 사람이 되는 사람이 되었다. 사람들은 사용하는 사용하는 것이다. | uranium |
| | | | hearings |
| | | | update, (March |
| | | | 28, 1993) |
| 1998 | Kyrgyzst | 70 litres of nitric acid spilled | http://www.min |
| | an | | ingwatch.ca/fata |
| | | | lity-troubled- |
| | | | kumtor-gold- |
| | | | mine-kyrgyz- |
| | | | and- |
| | | | international- |
| | | | ngos-renew- |
| | | | <u>call-</u> |
| | | | independent- |
| | | | <u>environmenta</u> |
| 1998 | Kyrgyzst | A mine truck spilled 2 tons of cyanide into the Barskoon River, a | http://www.min |
| | an | local drinking water and agricultural water source. Government and | ingwatch.ca/fata |
| | | health officials attributed a number of human fatalities and many | <u>lity-troubled-</u> |
| | | illnesses to the cyanide spill. Various reports listed the number of | <u>kumtor-gold-</u> |
| | | deaths at one, four or zero. The company, the Kyrgyz government | mine-kyrgyz- |
| | | and others disputed the reported deaths and a WHO report was | and- |
| | | unable to verify any deaths, although they were not given full access | international- |
| | | to all medical records. There is no dispute that many illnesses | ngos-renew- |
| | | followed the spill. 2,600 people were treated and more than 1,000 | <u>call-</u> |
| | | hospitalized. | independent- |
| | | | <u>environmenta</u> |
| 2000 | Kyrgyzst | A mine truck dumped 1.65 tons of ammonium nitrate. | www.miningwa |
| | an | | tch.ca/fatality- |
| | | | troubled- |
| | | | <u>kumtor-gold-</u> |
| | | | mine-kyrgyz- |
| | | | and- |
| | | | international- |
| | | | ngos-renew- |
| | | | <u>call-</u> |



| | | | independent- |
|-------|----------|---|------------------------------|
| | | | environmenta |
| 2001- | Bruce | We understand that Cameco part-owns the Bruce B nuclear power | [1] |
| onwar | nuclear | plant and that before a 2005 restructure Cameco part-owned Bruce A | www.cameco.co |
| ds | power | [1,2], and that Cameco's involvement in Bruce dates from the | m/fuel and po |
| | plant - | formation of Bruce Power in 2001 [2] if not earlier. | wer/bruce pow |
| | Ontario | A 2003 report by the Sierra Club of Canada provides details of 20 | er/ |
| | | major safety-related incidents and unresolved safety concerns at the | [2] |
| | | Bruce plant [3]. The report further states: "Since the Bruce Power | http://en.wikipe |
| | | took over operation of the Bruce nuclear stations, beginning in the | dia.org/wiki/Bru |
| | | second quarter of 2001, there have been 218 reportable events at the | ce Power |
| | | Bruce A station (to the end of the second quarter in 2003), despite the | [3] |
| | | fact that there were no reactors operating. From the beginning of the | www.sierraclub. |
| | | second quarter of 2001 to the end of the first quarter of 2003, there | ca/en/node/237 |
| | | have been 397 reportable events at the Bruce B nuclear station. | |
| | | Reportable events are the more serious safety- related events at | |
| | | nuclear plants. Some of these events stood out dramatically as | |
| | | incidents of serious safety concern. There are also a number of | |
| | | unresolved safety concerns that merit special attention." | |
| | | The report further states: "The CNSC and Bruce Power have refused | |
| | | to provide the Sierra Club with six important safety-related | |
| | | documents." | |
| 2002 | Kyrgyzst | Fatality at Kumtor Gold Mine. Death of a Kyrgyz national, who was | www.miningwa |
| | an | buried in the collapse of a 200 metre high pit wall. This latest | tch.ca/fatality- |
| | | incident follows three chemical spills at the mine | troubled- |
| | | | kumtor-gold- |
| | | | mine-kyrgyz- |
| 0-10 | | | and- |
| | | | international- |
| | | | ngos-renew- |
| | | | <u>call-</u> |
| | | | independent- |
| 2003 | McArthu | Cave in and flood of radioactive victor at the Manual P. | <u>environmenta</u> |
| April | r River, | Cave-in and flood of radioactive water at the McArthur River mine, | www.miningwa |
| P111 | Saskatch | the world's largest uranium mine. Cameco had known about the danger of a cave-in for months if not years and how "miners worked | tch.ca/cameco- |
| | ewan | without ventilation masks to save the mine and their jobs." Miners | comes-under- |
| | Citati | installing bulkheads to contain the water flow were not informed | fire- |
| | | that radon levels were 0.2 working levels (WL) between the | mismanagement |
| | | bulkheads, but reached 28.9 WL downstream of the bulkheads and | -mcarthur-river- |
| | | 129.6 WL upstream. Dirty water was inadvertently pumped into the | uranium-mine |
| 7434 | | clean water line; as a result, miners experienced high radon | www.wise- |
| | | exposures whenever they washed the floor in the refuge station or | uranium.org/u mopcdn.html |
| | | 1 I I I I I I I I I I I I I I I I I I I | THODCULL HILLIII |



| | No. | System Improvements Inc., a consultant hired by Cameco, stated: "If | http://forum.sto |
|--------|----------|---|------------------|
| | | effective ground support had been in place on April 6, 2003, the | pthehogs.com/p |
| | | ground would not have failed and the water inflow could not have | hpBB2/viewtopi |
| | | occurred." The report also said that Cameco had been repeatedly | c.php?t=1254 |
| | | warned by their chief geologist, the mine superintendent and | |
| Nata: | | contract workers about the potential dangers from water hazards | www.wise- |
| | | right up until the accident happened. | uranium.org/u |
| | | The mine resumed operation on 2 July 2003. | mopcdn.html |
| 2004 | Key Lake | CNSC approves Key Lake license renewal, in spite of continuing pit | www.wise- |
| - 10-1 | | sidewall sloughing into the tailings disposed in the Deilmann pit. | uranium.org/u |
| | | The license renewal was issued, although the tailings disposal in the | mopcdn.html |
| | | former Deilmann open pit suffers from periodic sloughing of the pit | |
| | | sidewalls. One million cubic meters of sand have already slumped | |
| | | into the tailings, and another half a million cubic meters potentially | |
| | | may follow. This sloughing not only decreases the capacity of the | |
| | | tailings disposal facility, it moreover distorts the performance of the | |
| | | facility in the long term which is based on the impermeability of the | |
| | | tailings. | |
| 2004 | Dr | Gamma radiation was discovered in the school's playground during | http://forum.sto |
| April | Power's | testing in advance of playground upgrades. Though the Canadian | pthehogs.com/p |
| 1 | school, | Nuclear Safety Commission, Health Canada and Atomic Energy of | hpBB2/viewtopi |
| | Port | Canada Limited tried to dismiss the findings as inconsequential at | c.php?t=1254 |
| | Норе, | the time, the material under the school had to be removed when it | |
| | Ontario | was converted to low-cost housing in 2011. The contaminated | |
| | | material came from the uranium processing facility in Port Hope, | |
| | | now owned by Cameco | |
| 2006 | Cigar | Construction delayed at Cigar Lake. A water inflow began on April 5 | http://www.wis |
| April | Lake, | at the bottom of the 6-metre wide shaft, 392 metres below the | <u>e-</u> |
| | Saskatch | surface. All the workers left the area and removed equipment. The | uranium.org/up |
| | ewan | company's preliminary assessment indicates that Cigar Lake | cdncl.html |
| | | production may be delayed by about six months and begin in late | |
| | | 2007. | Cameco, 4 May |
| | | According to Bill Good, one of the first miners sent in, "the mine's | 2007, 'Shaft #2 |
| | | radiation alarm kept going off, but the radiation technician merely | flood |
| | | re-set the alarm, assuring us that everything was fine. He'd just go | investigation |
| | | over and turn it off, and on. And then it would go green and then ten | and |
| | | minutes later it would be red again." The alarm normally turns red | management |
| | | when radon levels rise above one picocurie per litre. However, | response', |
| | | radon levels in the first 48 hours went as high as 44 picocuries per | www.cameco.co |
| | | litre. | m/common/pdfs |
| | | | /media gateway |
| | | | /news/Shaft%20 |
| | | | <u>2-</u> |
| | | 그 전 경험 보고 하다면 하면 없는 경험 전 하는 그 보고 있는 것이 없다고 있다. | Responses and |



| | | | TapRoot.pdf |
|-------|--------|---|---|
| | | | Pat McNamara, |
| | | | 25 Sept 2012, |
| | | | http://forum.sto |
| | | | pthehogs.com/p |
| | | | hpBB2/viewtopi |
| | | | <u>c.php?t=1254</u> |
| 2006 | Cigar | More flooding hits Cigar Lake, delaying production by at least | Disgraced |
| Octob | Lake, | another year. | Uranium Miner |
| er | Canada | Cameco CEO Jerry Grandey admits the uncertainties of groundwater | Opens Alice |
| | | geology. "Management's about taking risks calculated risks." he | Shop, 21 July |
| | | said of the Cigar Lake Incident. "We thought we were on the safe | 2008 |
| | | side of that calculation," he says. "And we were wrong." | http://no- |
| | | WISE-Uranium provides the following information: On Oct. 23, | waste.org/?page |
| | | 2006, Cameco Corporation reported that Cigar Lake mine | <u>=fastpages/show</u> |
| | | construction is expected to be delayed by at least a year after the | article.php&id= |
| | | mine experienced a significant water inflow following a rock fall and | <u>3247</u> |
| | | a portion of the underground development was allowed to fill with | |
| | | water. The incident began on October 22, 2006, in the future | www.wise- |
| | | production area that previously had been dry. Cameco later reported | uranium.org/up |
| | | that it was unable to contain the water inflow by closing bulkhead | <u>cdncl.html</u> |
| | | doors and that all underground areas of the Cigar Lake project are | |
| | | expected to be filled with water. | Cameco, 4 May |
| | | On Mar. 18, 2007, Cameco announced that production startup is | 2007, |
| | | targeted for 2010, subject to regulatory approval and timely | 'Underground |
| | | remediation. Total flood remediation cost is estimated at C\$92 million. | development |
| | | | flood |
| | | On April 3, 2007, Cameco issued a Technical Report on Cigar Lake, | investigation |
| | | including an updated capital cost estimate and a production forecast | and |
| | | that are considered necessary because of the October 23, 2006 water inflow. | management |
| | | Cameco Corp. said its "deficient" development of the Cigar Lake | response', |
| | | mine contributed to a flood that delayed the project by three years | www.cameco.co |
| | | and will double construction costs. Blasting by contract miners was | m/common/pdfs |
| | | performed with the wrong equipment and inadequate safeguards, | /media gateway |
| | | producing a greater opening in the earth than specified and allowing | /news/Inflow R |
| | | the mine to flood with groundwater on Oct. 22, 2006, Cameco said. | esponses and T apRoot.pdf |
| | | "Insufficient assessment of the ongoing development, lack of quality | <u>aprioot.pui</u> |
| | | control of the excavation and slow installation of ground support – | Elliot Blair |
| | | when taken together – demonstrate" Cameco "failed to fully | Smith and |
| 7 - 1 | | appreciate the degree of risk of developing in less than ideal ground | Christopher |
| | | conditions," Chief Operating Officer Tim Gitzel said in a May 2, | Donville, 20 |
| | | , or the order batta in a may 2, | 201111111111111111111111111111111111111 |



2007, letter to federal and provincial nuclear regulators that was included in the report. (Bloomberg May 4,2007)

On Oct. 31, 2007, Cameco announced that the production startup date is now expected to be 2011, at the earliest.

An 20 April 2007 Bloomberg article states:

"Cameco Corp. announced at 2:11 a.m. on Oct. 23 [2006] that its Cigar Lake uranium mine in northwest Canada had flooded after a "rock fall," jeopardizing the world's richest undeveloped source of nuclear fuel. In the six months since, Cameco has said little about the circumstances behind a disaster that will delay production at its \$25.5 billion claim for up to three years. ... Canadian government records and interviews with authorities reveal that blasting by Cameco workers may have triggered the flood at Cigar Lake and that the company couldn't control the water because it didn't fulfil repeated pledges to regulators to install more underground pumps there. Those promises came after a similar accident at another of its Saskatchewan mines three years earlier. ...

"Previous Accidents: In April 2003, blasting contributed to a flood that exceeded Cameco's pumping capacity and almost cost the company its flagship McArthur River mine, 50 kms southwest of Cigar Lake, according to a company report filed with the nuclear safety commission. Another flood at Cigar Lake in April 2006 knocked out a secondary shaft that remains underwater. A company report on the accident that was due in February hasn't been filed with regulators yet. The setbacks are prompting Canadian regulators to question Cameco's ability to master the daunting geology of northern Saskatchewan's uranium-rich, water-laden Athabasca Basin. ...

"Regulators' concerns about the accident have a precedent in the company's own findings that blasting and inadequate pumping capacity contributed to the April 2003 flood at the McArthur River mine. The Saskatchewan Labour ministry's investigation of that flood, completed two months later, attributed the inundation to workers blasting without adequate "ground support" -- that is, earth-stabilizing materials such as bolts, steel reinforcing rods and a form of sprayed concrete known as shotcreting.

"An analysis for Cameco by Knoxville, Tennessee, consulting firm System Improvements Inc. also concluded: "If effective ground support had been in place on April 6, 2003, the ground would not have failed and the water inflow could not have occurred," according to a copy filed with federal regulators.

"The consultants' report also said the chief geologist at McArthur River had warned as early as January 2001 about the company's "lack of readiness to fight serious water inflow." The mine

April 2007, 'Flood at Canada Uranium Mine Tied to Cameco Blasting (Update 1)', http://web.archi ve.org/web/2015 0711205655/http ://www.bloomb erg.com/apps/ne ws?pid=newsarc hive&refer=hom e&sid=aYNr8siT ro.Q



| | | superintendent and contract workers continued expressing warnings and misgivings to superiors about water hazards almost up to the time of the accident, the report says "During the regulators' December hearing, nuclear commission member Christopher Barnes, a geologist, admonished Cameco officials for the Cigar Lake accident. "My concern is that you're developing a mine here without adequate geologic, geotechnical, hydrogeologic knowledge; and when events like this one or the one at McArthur River take place, they put workers in considerable jeopardy," he said. "Barnes also criticized company officials three years earlier during a hearing on the McArthur River accident. "When you put the pieces together, they build a story of really fundamental issues about the competence of the company," he said in April 2003. | |
|------|--------------------------|--|---|
| 2007 | Port Hope, Ontario | Substantial leakage of radioactive and chemical pollutants into the soil under the conversion facility – leakage which was not detected by the monitoring wells set up around the plant. The Port Hope refinery plant was closed when contaminated soil was discovered, but during the "clean-up" it is likely that tailings found their way into the harbour. | CCNR submission on the proposed relicensing of Cameco's Port Hope Conversion Facility, 19 Dec 2011, www.ccnr.org/C CNR Submissio n 2011.pdf Traditional owner: don't mine our land 4 Feb 2009, |
| 2000 | 110/0 | | www.greenleft. org.au/2009/781/ 40253 |
| 2008 | US/Cana da | Failures of the corporation to adhere to research and reporting requirements including the filing of their license application which was missing 20 pages. According to research by done by Owe Aku, the ISL mines owned by Cameco, Inc. in Nebraska, Wyoming, and Canada have all had spills and leaks since beginning ISL mining of uranium, recently making a settlement payment of \$1.4 million to Wyoming for license violations, and \$50,000. to Nebraska for license violations. Cameco manages a radioactive waste site near Port Hope, Ontario, and have been charged recently by area residents with discharging the toxic cocktail of uranium, arsenic and radium onto a | http://censored- news.blogspot.c om.au/2008/09/c ameco- continues-to- target- lakota.html |



| | 4.176.411.13.4 | | |
|---------------------|----------------------------------|--|---|
| | | public beach of Lake Ontario in violation of Ontario Residents' Environmental Rights, and Cameco's ISL mine in Cigar Lake, Canada, shut down due to flooding. | |
| 2008 | | A recent controversy embroiling Cameco resulted in a US\$1.4 million settlement with the Wyoming Department of Environmental Quality. This was in relation to non-compliance issues at the state's Smith Ranch Highlands mine. Listed environmental regulations breaches included pace of groundwater restoration, mine permit documentation, site reclamation schedules, spills and its reclamation cost estimates. | Disgraced Uranium Miner Opens Alice Shop 21 July 2008 http://no-waste.org/?page =fastpages/show article.php&id=3247 |
| 2008 Janua ry | Rabbit Lake | Seepage discovered at Rabbit Lake mill. Seepage from underneath Cameco Corp.'s Rabbit Lake mill was discovered after a contract worker noticed a pool of uranium-tainted ice at an outdoor worksite adjacent to the facility. After an investigation into the spill, the company found a solution used in processing uranium was leaking through certain areas of the mill floor and was travelling to the nearby worksite. The site is where an excavation was underway to install an addition to the area's environmental management system, said Cameco spokesman Gord Struthers. When the leak was first found on Jan. 26, 2008, the solution had a uranium concentration of 3.2 grams per litre, he said. As of March 16, 2008, solution that had not yet been pumped back to the mill for processing had a uranium concentration of 0.27 grams per litre. The mill floor has since been repaired and resealed. | The Leader-Post, April 11, 2008 www.wise-uranium.org/umopcdn.html |
| 2008 May | Port Hope, Lake Ontario | It was discovered during soil decontamination at the suspended Port Hope uranium processing facility in Canada that egress from degraded holding floors had contaminated the harbour surrounding the facility, which flows into Lake Ontario. | http://no- waste.org/?page =fastpages/show article.php&id= 3247 www.iht.com/ar ticles/2008/05/22 /business/22poll ute.php |
| 2008 June | Key Lake | The Canadian Nuclear Safety Commission intends to approve the license renewal for Cameco's Key Lake mill, although: * CNSC staff assigned C ratings ("below requirements") in four out of ten program areas assessed: operations (in particular waste management and fire protection), quality management, environmental protection, and training. | www.wise- uranium.org/u mopcdn.html |



| | T** | | |
|--------------------|-----------------|--|---|
| 2008 July | Wyomin g, US | * the measures taken to reduce molybdenum and selenium loads in the plant's effluents are not working * the problem of pit wall sloughing in the Deilmann open-pit tailings facility (characterized by Cameco as a "world class facility for long-term tailing storage"!) remains unresolved * no concept exists for the final long-term management of the tailings stored at the site. Cameco makes a US\$1.4 million settlement for not complying with Wyoming state environmental standards. | www.canada.co m/saskatoonstar phoenix/news/st ory.html?id=a00 |
| | | | edc3f-cd99- 4b60- |
| 2008 Augu st | Cigar Lake | Cameco reports that remediation work at the No. 1 Shaft at its Cigar Lake uranium project was temporarily suspended on Aug. 12, 2008, after an increase in the rate of water inflow to the mine was observed. No. 1 Shaft had been pumped down to 430 metres below surface when the increase was reported in the early morning of Aug. 12, 2008. Work in the shaft was suspended a few hours later. During the day, the inflow rate increased steadily to approximately 600 cubic metres per hour (m3/hr), which is beyond the range that can be managed while sustaining work in the shaft. The mine has a total depth of 500 metres and the mine underground workings are at the 480-metre level. Work in the shaft has been suspended while the situation is assessed to determine the source and characteristics of the inflow, implications for planned remediation work and the impact, if any, on our planned production date. Our current plan is to allow the water level in the shaft to rise to approximately 100 metres below surface. | Cameco, 12 Aug 2008 www.wise- uranium.org/up cdncl.html |
| 2009 | Rabbit Lake | Sharp increase of uranium loads in lake sediments near Rabbit Lake mine. Effluents from the Rabbit Lake mine are causing a sharp increase in uranium loads in sediments of Wollaston Lake's Hidden Bay. While natural uranium levels in the lake sediment are below 3 µg/g, levels in Hidden Bay had reached approx. 25 µg/g in 2000, and have more than doubled each year since. According to the Athabasca Working Group, who performed the tests during its annual environmental monitoring program, "This has been recognized by the company and they are looking into ways of reducing uranium in the effluent." (Wollaston Lake, Athabasca Working Group Environmental Monitoring Program 2003) Apparently, efforts in reducing the uranium in the effluent were | www.wise- uranium.org/u mopcdn.html More information: Athabasca Working Group Environmental Monitoring Program 2009, www.arevareso |
| | | | |



| | | levels in the lake sediment of approx. 90 $\mu g/g$, but these values are still approx. 30 times background. (Wollaston Lake, Athabasca Working Group Environmental Monitoring Program 2005) In 2007 and 2008, however, the uranium levels in sediment showed a sharp rise again, easily exceeding the federal "probable effects level" (PEL), at which no harmful effects to aquatic life are expected to occur. The 2008 level of approx. 280 $\mu g/g$ even exceeded the peak level observed in 2003. In 2009, the level decreased again, but still remained above the PEL level. | n/pdfs/library/at habasca workin g_group/2009 Wollaston Lake .pdf |
|------|--------------------------------|---|---|
| 2009 | Western Australia | Graded an old track that runs through two different registered Aboriginal Sites without permission from the Department of Indigenous Affairs (DIA). | http://censored- news.blogspot.c om.au/2009/10/c ameco-violates- australian- aboriginal.html |
| 2009 | Alice Springs, Australia | Cameco-Paladin were granted an exploration permit by the Northern Territory government in 2007. A May 27, 2008 media release from the Central Land Council (CLC) said that negotiations were being conducted with traditional owners, yet local owners such as Silverton, who do not want the plans to go ahead, say they have been excluded from the process. Silverton, who worked as a councillor for the CLC, said that consultation with the Aboriginal population has been either limited or non-existent. | Traditional owner: don't mine our land 4 February 2009 www.greenleft. org.au/2009/781/40253 |
| 2010 | Rabbit Lake | 2010: Uranium discharges from Rabbit Lake (highest by far in Canada) showed increase rather than the predicted decrease in 2010. In 2010, the average monthly uranium discharge concentrations of the Rabbit Lake facility exceeded the 0.1 mg/L Uranium Screening Objective during three months (Aug., Sep., Dec.), while in 2009, they had remained below the Screening Objective during all months. Moreover, the facility's total loading of uranium to the environment increased in 2010 by 15% to 390 kg. These increases stand in contrast to the further decreases expected for 2010 in the 2009 report. | www.wise- uranium.org/u mopcdn.html More information: Canadian Nuclear Safety Commission, 2010 Annual Report on Uranium Management Activities, www.nuclearsaf ety.gc.ca/eng/re adingroom/repo rts/uranium/201 0-annual-report- on-uranium- |



| | | | management- activities.cfm |
|--------------------|--|--|---|
| 2011 | Ship en route from Vancouv er to China | A number of the sea containers that held drums of uranium concentrate damaged and loose uranium in the hold. | www.cameco.co m/media/news releases/2011/?i d=543 |
| 2012 Augu st | Port Hope fuel fabricati on plant | CNSC staff received notification from Cameco Fuel Manufacturing Inc. (CFM) of an unusual event at their facility on August 21, 2012. There was a localized spill of uranium dioxide powder at one of the transfer stations within the facility that resulted in one worker being exposed to uranium and three other workers potentially exposed during cleanup. The worker was wearing personal protective equipment and early urinalysis tests do not indicate abnormal results. All four workers were examined by medical personnel and were temporarily re-assigned as a precautionary measure. There was no risk to the surrounding environment and the general public as a result of this event. | CNSC Aug. 27, 2012 www.wise- uranium.org/ep cdn.html |
| 2012 | Northern Saskatch ewan | Draft agreement between Cameco, Areva and the Aboriginal community of Pinehouse includes extraordinary clauses such as this: "Pinehouse promises to: Not make statements or say things in public or to any government, business or agency that opposes Cameco/Areva's mining operations; Make reasonable efforts to ensure Pinehouse members do not say or do anything that interferes with or delays Cameco/Areva's mining, or do or say anything that is not consistent with Pinehouse's promises under the Collaboration Agreement."[1,2] Unclear whether the 'gag order' was retained in the final agreement, signed in December 2012. On 24 June 2013, a statement of claim was filed in provincial court in Prince Albert on behalf of 42 plaintiffs who are challenging the legality of the agreement and the lack of consultation in Pinehouse, a primarily Métis community located 500 kilometres north of Saskatoon.[3] "They talk about prosperity and money coming into town, but they have a fixed view of what they would like to see and it seems to exclude everybody else," said Dale Smith, a Pinehouse resident and plaintiff in the case.[3] Fred Pederson said: "When we wanted the original document—contract—they wouldn't give it to us until after they signed the collaboration agreement. There was absolutely no consultation except for one or two days when they brought it and told the people what they are going to do They're supposed to be trusted, elected leaders. They're supposed to [consult] the town. My hope is that [the | [1] http://committee forfuturegenerat ions.files.wordp ress.com/2012/1 1/collaborationa greement.pdf [2] Jason Warick, The StarPhoenix, 27 Nov 2012, http://nuclear- news.net/2012/1 2/03/cameco- and-areva-s- deal-with- indigenous- people-to- silence- criticism-of- uranium- mining/ [3] www.mediacoo p.ca/story/legal- |



| | | legal action] will hopefully straighten out some of the dishonesty | action- |
|------|-----------|--|--------------------|
| | | and stuff that has been going on with our leaders in Pinehouse. | <u>challenges-</u> |
| 4.34 | | Because they have been pushing us down, pushing us down, | <u>uranium-</u> |
| | | pushing us down."[3] | <u>industry-</u> |
| | | "They are trying to take away our voice as individuals and as a | agreement/1809 |
| | | community," said John Smerek, a resident of Pinehouse.[2] | 9 |
| | | The claim against the Pinehouse agreement asserts that it violates | [4] |
| | | many statutes, including the Canadian Constitution, Treaty rights, | http://committee |
| | | the Northern Municipalities Act, and the United Nations Declaration | forfuturegenerat |
| | | on the Rights of Indigenous Peoples – particularly the right to free, | ions.wordpress. |
| | | prior and informed consent. Plaintiffs are also seeking an | com/2013/06/25/ |
| | | independent assessment of the impact of uranium mining on the | legal-action- |
| | | environment and health of northerners.[4] | seeks-to-annul- |
| | | In 2014 Justice Alison Rothery dismissed the suit.[5] | uranium- |
| | | In 2014 Justice Anson Routery distinssed the satures | collaboration- |
| | | (2015년 - 1915년 - 1915년 - 1915년 - 1917년 - 1917 | agreement/ |
| | | | [5] StarPhoenix |
| | | 물리 집에 보면 가는 가는 하면 하는 것이 없는 것이 없는 것이 없다. | Sep. 10, 2014. |
| | | 다 경기 살아보는 아무리는 일이 얼마를 하는 것이 되었다. | www.wise- |
| | | | |
| | | | uranium.org/up |
| | | | <u>cdnsk.html</u> |
| 2012 | Key Lake | Caribou wanders into Key Lake uranium mill tailings pond. Anti- | CBC Sep. 28, |
| 2012 | Rey Lake | nuclear activist Pat McNamara says concerns have been raised about | 2012 |
| | | the health of wildlife in Saskatchewan's north, following a report | 2012 |
| | | that on April 22 a caribou had wandered through a fence and into a | www.wise- |
| | | tailings pond at Cameco's Key Lake mine. The animal spent several | uranium.org/u |
| 300 | | hours in the water and McNamara claims northern residents are | mopcdn.html |
| | | worried about how the animal may have been affected. | mopeanim |
| 2012 | Blind | Workers sprayed with uranium dust at Cameco refinery. Three | http://www.cbc. |
| 2012 | | Cameco workers in Ontario were exposed to airborne uranium dust | ca/news/canada/ |
| | River | in an incident at the Saskatchewan company's Blind River refinery, | saskatchewan/w |
| | refinery, | fodoral regulators cay. The exposure happened June 23 when a | orkers-sprayed- |
| | Ontario | federal regulators say. The exposure happened June 23 when a | with-uranium- |
| | | worker loosened a ring clamp on a 208-litre drum of uranium oxide | dust-at-cameco- |
| | | yellowcake. The lid blew off and about 26 kilograms of the material | refinery- |
| | | were ejected into the air. The worker closest to the drum and two | |
| | | others in the area, who were not wearing respirators, were exposed | 1.1146949 |
| | | to the dust. The drum of yellowcake came from Uranium One's | http://www.cio- |
| | | Willow Creek facility in Wyoming. According to the U.S. | http://www.sier |
| | | government, several other Uranium One drums that had been | raclub.ca/en/sea |
| | | shipped to Blind River were found to be bulging from internal | rch/node/camec |
| | | pressure. | <u>o</u> |
| | | | |
| | | | www.wise- |



| | | | uranium.org/ep cdn.html |
|------|------------|--|----------------------------|
| 2012 | Saskatch | Canada's Nuclear Waste Management Organization (NWMO) is | [1] Pat |
| | ewan | doing some of the industry's dirty work. Cameco is not directly | |
| | | involved in the NWMO but would presumably dump its high-level | McNamara, 25 |
| | | nuclear waste in any facility the NWMO manages to establish. | Sept 2012, |
| | | | http://forum.sto |
| | | The Saskatchewan government is perpetuating an 80-year history of | pthehogs.com/p |
| | | genocide, racism and environmental degradation by provincial and | hpBB2/viewtopi |
| | | federal governments. One episode involves the NWMO's attempt to | c.php?t=1254 |
| | | find a site for Eastern Canada's high-level nuclear waste in northern | |
| | | Saskatchewan. Brad Wall's government is giving its tacit approval by | [2] |
| | | allowing municipal officials in Pinehouse and NWMO staff to | www.mediacoo |
| | | intimidate the community into accepting the project. The most | p.ca/story/exten |
| | | disturbing examples of this intimidation were directed toward a 17- | sive-open- |
| | | year old Metis youth who respectfully opposed the waste project at | consultations- |
| | | public meetings and in front of local council. The absolute low point | behind-closed- |
| | | came when one of NWMO's paid advisors pointed at the youth | doors/13430 |
| | | during a public meeting and said "you'll be in jail before you even | |
| | | graduate, so you might as well go hang yourself with your Metis | See also: |
| | | sash." The 200 people who attended the meeting were shocked and | www.dominion |
| | | many walked out. Suicide was already on everyone's mind as five | paper.ca/articles |
| | 13.1403.1 | youth in local communities had taken their lives in the preceding | <u>/4587</u> |
| | 3.14.114.1 | months. This callousness has been endemic to the treatment of | |
| | | northern people by the nuclear industry since its inception.[1] | |
| | | According to Fred Pederson, community residents being uninformed | |
| | | about meetings going on in their midst is not a one-time occurrence. | |
| | | Most of the visits to Pinehouse by NWMO representatives are | |
| | | unannounced meetings with the village mayor and council behind | |
| | | closed doors, he explained. "We're never told the dates. We're never | |
| | | told they're coming in," he said. "They go and have a closed door | |
| | | meeting with these guys. And then the public is never told what | |
| | | they've discussed or nothing. We are not told. The people are not | |
| | | told what goes on in the meeting, 'cause [it's] just them guys | |
| | | themselves." Critiques of the secrecy surrounding NWMO meetings | |
| | | abound in communities in northwestern Saskatchewan. Île-à-la- | |
| | | Crosse resident Jules Daigneault, 70, was out on the lake in his skiff | |
| | | looking for moose one day when he stumbled upon a NWMO | |
| | | meeting across the lake.[2] | |
| 2013 | Canada | Cameco is battling it out in tax court with the Canada Revenue | www.leaderpos |
| | | Agency (CRA) Over \$800 million to \$850 million in corporate taxes | t.com/news/Ma |
| | | the CRA says went unpaid between 2008 to 2012. Cameco set up a | ndryk+Wall+sile |
| | | subsidiary in Zug, Switzerland allegedly for the sole purpose of | nt+Cameco+mo |
| | | avoiding taxes in Canada. | |
| | | WISE-Uranium provides the following information: | <u>ve/8950686/stor</u> |
| | | THE STANDARD PROVIDES THE TOHOWING INTOFINATION: | <u>y.html</u> |



Cameco is in the midst of a multi-million dollar tax court battle with Canada Revenue Agency (CRA). Cameco has publicly estimated that it could end up owing CDN\$800-850 million in Canadian corporate taxes for the years 2008 to 2012, if it loses the case. CRA contends that the uranium giant set up a subsidiary in Zug, Switzerland for the purpose of avoiding taxes in Canada. (CBC Sep. 19, 2013) In 1999, Cameco set up a subsidiary, Cameco Europe Ltd., in low-tax Zug, Switzerland. Cameco then signed a 17-year deal to take the uranium it produces in Canada, sell it to Cameco Europe, and have Cameco Europe make the final sale to the end customers all across the world. Cameco is selling the uranium to Cameco Europe at the low prices reflective of 1999, when the deal was signed. Cameco is recording little to any profit in Canada; instead, all the profits appear in Zug, where the tax rate is lower. The uranium producer estimates it has avoided declaring C\$ 4.9 billion in Canadian income, saving it C\$1.4 billion in taxes, over the last 10 years. (The Globe and Mail, May 1, 2013)

Veritas Investment Research Corporation states in an April 2013 report: "Thus far, the CRA has reassessed Cameco's 2003-2007 tax returns for an additional \$1.3 billion of income, amounting to an estimated \$0.4 billion of back taxes. Cameco expects the CRA will also reassess subsequent years."

UPDATES (from www.wise-uranium.org/umopcdn.html):

Activists present Cameco with tax payment petition: A group of activists delivered a petition to the head office of Cameco this morning. The petition, signed by 36,600 people, demands that the uranium mining company pay more than \$2 billion in back taxes to the Canadian government.

At issue is a controversial subsidiary set up by Cameco in Switzerland. The Canada Revenue Agency (CRA) claims that the subsidiary was created to avoid paying taxes in Canada, something that Cameco refutes. (CBC June 15, 2016)

Cameco now also involved in tax dispute with the United States:

Cameco the uranium mining company, has disclosed that it is currently involved in a tax dispute with the United States. The company referenced the dispute with the IRS [United States Internal Revenue Service] in its 2014 Financial Results released Feb. 6, 2015:

"The current position of the IRS is that a portion of the non-US income reported under our corporate structure and taxed in non-US jurisdictions should be recognized and taxed in the US on the basis that: the prices received by our US mining subsidiaries for the sale of uranium to CEL [Cameco Europe Limited] are too low; the compensation being earned by Cameco Inc., one of our US subsidiaries, is inadequate."

www.wiseuranium.org/u mopcdn.html

Veritas
Investment
Research, 2
April 2013,
'Cameco's Tax
Fallout',
www.veritascor
p.com/home/Ac
counting%20Ale
rts%20%20Cameco%20
Corp.%20April
%202,%202013%
20Veritas.pdf



| 2013 Northern Saskatch ewan 2013 English River First Nation, | According to Cameco, the IRS is seeking an additional \$32 million in taxes, plus interest. The company said the IRS may also seek penalties. Figures in the financial statements are reported in Canadian dollars. (CBC Feb. 9, 2015) Residents formally express their opposition to license renewals for uranium mining and milling projects at Canadian Nuclear Safety Commission (CNSC) hearings in La Ronge. Every day that one of Cameco's uranium mines is in operation, an even greater volume of extremely hazardous nuclear waste is created that will remain radioactive for a million years. It's time to put a stop to the destruction of the lands and waters we call home." Formal opposition to a license at these hearings would breach the agreements, jeopardizing contracts, jobs and funds. Our communities are being railroaded into becoming cheerleaders for industry Cameco's operations – and the licensing and relicensing processes themselves – are taking place within a larger context of Canadian settler-colonialism, exploitative resource extraction, and dispossession of Indigenous territory." English River First Nation signs deal with Cameco and Areva: Uranium giants Cameco and Areva have reached a \$600 million deal with a Saskatchewan First Nation to support their mining operations and drop a lawsuit over land near the proposed Millennium project. | http://committee forfuturegenerat ions.wordpress. com/2013/10/01/ northerners-to- oppose- relicensing- camecos- uranium- operations/ http://business.fi nancialpost.com /2012/08/27/cam eco-buys-while- |
|---|--|--|
| River First | Uranium giants Cameco and Areva have reached a \$600 million deal with a Saskatchewan First Nation to support their mining operations | nancialpost.com |
| River | English River First Nation signs deal with Cameco and Areva: Uranium giants Cameco and Areva have reached a \$600 million deal with a Saskatchewan First Nation to support their mining operations | nancialpost.com |
| Nation, Canada | The collaboration agreement is with the English River First Nation, a band of more than 1,000 people who live on reserves about 600 kilometres north of Saskatoon. A condition of the agreement was that English River First Nation | uranium- valuations-are- low/ |
| | discontinue their lawsuit against the Saskatchewan government relating to Treaty Land Entitlement section of lands near the proposed Millenium mine project. Some English River First Nation band members reacted strongly to | www.wise- uranium.org/up cdnsk.html |
| | the agreement. Cheryl Maurice, a life-long resident of English River First Nation, and a group of band members are expressing concern about the agreement signing process. At the heart of the issue was a lack of a proper consultation leading up to the deal's ratification, she said. "I am speaking for a group of people who weren't aware that this agreement was being negotiated because there was no consultation process." (CJME June 4, 2013) | Nuclear Heritage Network – NukesNews #10, 29 July 2013, http://nukenews |
| | | .nuclear- heritage.net |
| 2013 | The provincial government should not issue any new permits for | Saskatoon Star |



| June | | potash, uranium or other resource development until First Nations | Phoenix, June 7, |
|-------|----------|---|--------------------------------------|
| juile | | concerns are addressed, <u>Federation of Saskatchewan Indian Nations</u> | 2013 |
| | | Chief Perry Bellegarde says. | |
| | | "We need to change how we do business with the province," | www.wise- |
| | | Bellegarde told chiefs and delegates at the FSIN assembly on the | uranium.org/up |
| | | Whitecap Dakota Nation south of Saskatoon this week. Bellegarde | cdnsk.html |
| | | said the province's lack of a revenue sharing deal with First Nations | |
| | | stemmed from "economic racism." "Do not issue a licence to Cameco | |
| | | or Areva or BHP until indigenous issues are addressed," he said. | |
| 2013 | Ontario | Since 2010, more than one truck in seven carrying radioactive material has been pulled off the road by Ontario ministry of | John Spears, 15 Nov 2013, |
| | | transportation inspectors for failing safety or other requirements. 16 | 'Trucks with |
| | | out of 102 inspected trucks were placed "out-of-service," which | radioactive |
| | | means the vehicle "must be repaired or the violation corrected before | cargo fail |
| | | it is allowed to proceed." Violations included faulty brake lights; | inspections', |
| , i | | "load security" problems; flat tyres; false log; damaged air lines; and | www.thestar.co |
| | | a driver with no dangerous goods training. In other cases, trucks | m/business/2013 |
| | | were allowed to proceed but were slapped with enforcement actions | /11/15/trucks wi |
| | | for problems with hours of service; annual inspection requirement; | th radioactive c |
| | | missing placards; exceed gross weight limit; speed limiter; | argo fail inspec |
| | | overlength combination; overheight vehicle; and vehicle registration | tions.html |
| | | / insurance. | |
| | | | Ministry of |
| | | | Transportation - |
| | | | Undertaking |
| | | | #61: <u>www.ceaa-</u> |
| | 5-13-17 | | acee.gc.ca/050/d |
| | | | ocuments/p1752 |
| | | | <u>0/95562E.pdf</u> |
| 2013 | Northwe | After the Pinehouse collaboration Agreement with Cameco and | Nuclear |
| May | st | Areva in December 2012, with the English First River Nation in May | Heritage |
| | Saskatch | 2013 another indigenous community of Northwest Saskatchewan | Network, NukesNews |
| | ewan | has – against protests of some of their community members – signed | #10, 29 July |
| | | an agreement with these uranium mining companies to support their | 2013, |
| | | business and not to disturb it any more. The agreement – which | nukenews.nucle |
| | | members have not been permitted to see – allegedly promises \$600 | ar-heritage.net |
| | | million in business contracts and employee wages to the Dene band, | ar-nernage.net |
| | | in exchange for supporting Cameco/Areva's existing and proposed | Committee for |
| | | projects within ERFN's traditional territory, and with the condition that ERFN discontinue their lawsuit against the Saskatchewan | Future |
| | | government relating to Treaty Land Entitlement section of lands | Generations |
| | | government relating to freaty Land Entituement section of lands | Scherations |
| | | | http://committee |
| | | near Cameco's proposed Millenium mine project. | http://committee forfuturegenerat |



| | | | com/ |
|-------|----------|--|---------------------------|
| | | | Peter Prebble |
| | | | and Ann |
| | | | Coxworth, July |
| | | | 2013, 'The |
| | | | Government of |
| - | | | Canada's |
| | | | Legacy of |
| | | | Contamination |
| | | | in Northern |
| | | | Saskatchewan |
| | | | Watersheds, |
| | | | http://tinyurl.co |
| | | | m/uran-sask |
| 2013 | Troy, | Burning truck hauling uranium hexafluoride. On August 22, 2013 in | www.thestar.co |
| Augu | Ohio, US | Ohio, USA, a fire occurred on a truck carrying uranium | m/business/2013 |
| st | | hexafluoride. Nuclear regulators in Canada – where the cargo | /10/31/burning t |
| | | originated – and in the US were not informed of the incident. The | ruck hauling n |
| | | fire was caused by brake overheating. The driver doused the fire | uclear load flie |
| | | with water and thought he had extinguished it, and climbed back | s under radar.h |
| | 1415 | into the cab to call for a service truck. Then he realised the fire wasn't | <u>tml</u> |
| | | out and disconnected the trailer. The shipment came from Cameco's | |
| | | refinery in Port Hope, Ontario. | |
| 2013 | Northern | Sierra Club Canada produced a detailed report in September 2013 on | Cameco's |
| Sept. | Saskatch | Cameco's uranium operations in Northern Saskatchewan. It details | Uranium Mines: |
| | ewan | systemic corporate failure by Cameco as well as systemic regulatory | Trouble Both |
| | | failure. It should be considered in detail by the WA Government and | Near & Far |
| | | relevant WA assessment / regulatory agencies. A few short excerpts | Sierra Club |
| | | from the report: | Canada's |
| | | "Where there are standards, we show Cameco is not required to | Submission to |
| | \$26 (m) | report about them all, including those for uranium, mercury, | CNSC |
| | | cadmium and lead in particular. And where there is reporting and | Cameco's |
| | | despite crazy numbers above the limits, regulators turn a blind eye. | proposed |
| | | This is a story about the failure to regulate despite the Canadian | expansion of the |
| | | public interest and international commitments otherwise | world's largest |
| | | "Even where there are standards, Cameco is not required to report | Uranium mines |
| | | airborne mercury emissions and waterborne mercury, uranium and | and mills in |
| | | cadmium release are merely identified as an "effluent | Northern |
| | | characterization" not subject to specific limits. There is no limit for | Saskatchewan |
| | | uranium in groundwater. Despite limits were they exist, Cameco is | 4 Sept 2013 |
| | | allowed to wildly exceed them without consequence | www.sierraclub. |
| | | "As of 2010, water releases from Deilmann Tailings in cadmium | <u>ca/sites/sierraclu</u> |
| | | exceed the Saskatchewan standard by an extraordinary 5,782 | b.ca/files/submis |



| 2013 Dec. | Key Lake | percent. Uranium concentrations were above the standard on average 1,323 percent and at the high level value by 10,153 percent! Radium 226 and lead 210 concentrations on average exceed the standard by 1,481 and 140 percent respectively "At the McArthur River site, concentrations of arsenic, selenium, and uranium in water effluent have exceeded the standards by 54 percent for arsenic, 700 percent for selenium and an astronomical 1,230 percent for uranium. There is no reporting done on mercury. Blueberries and fish are contaminated with uranium." License violations and reportable events at Key Lake. Dec. 2, 2013: approx. 200 cubic metres of treated Reverse Osmosis (RO) permeate water with pH >9.5 was released to Horsefly Lake over a period of | www.wise- uranium.org/u mopcdn.html |
|--------------|--------------|---|---|
| | | approximately one hour. | Cameco, Key Lake Environmental Incidents, www.cameco.co m/mining/key l ake/environmen t and safety/re portable enrivo nmental incide nts/ |
| 2014 Jan. | Port Hope | Port Hope properties tested for radiation. About 450 Port Hope homeowners have had their soil sampled and properties tested in the first phase of the biggest radioactive cleanup in Canadian history. Some 1.2 million cubic metres of contaminated soil will be entombed in a storage facility. A waste-water treatment plant at the site is close to completion, said Judy Herod of Port Hope Area Initiative, the agency in charge of the cleanup. The 450-plus homeowners whose properties were tested have yet to receive the results. Radon gas levels were measured inside their homes while bore hole drilling outside yielded soil samples. More than 5,000 private and public properties will undergo such testing to identify places which need remediation. Port Hope, 110 kilometres east of Toronto, is riddled with low-level radioactive waste, a product of radium and uranium refining at the Cameco refinery, the former Eldorado Nuclear Ltd. Crown corporation, from the 1930s to the 1980s. Contaminated soil used as fill was identified as a health hazard in the '70s but it took decades to find a long-term solution. The waste, from all over the town, will be dug up and trucked to the storage facility north of town, where it will be sealed and monitored. When Ottawa approved the cleanup 13 years ago, the cost was | www.thestar.co m/news/ontario/ 2014/01/13/port hope properties tested for radi ation.html www.wise- uranium.org/ep cdnph.html |



| | pegged at \$260 million. It has since ballooned to \$1.28 billion. | |
|---------------|--|--|
| 2014 March | A statement endorsed by 39 medical doctors calls on Cameco to stop promoting dangerous radiation junk science: The statement reads in part: "Cameco has consistently promoted the fringe scientific view that exposure to low-level radiation is harmless. Cameco has sponsored speaking events by Canadian scientist Dr Doug Boreham, who argues that low-level radiation is actually beneficial to human health. (Dr Boreham has also travelled to Australia to promote these views in 2007 and 2010.) Those views are at odds with mainstream scientific evidence and expert assessment. It is irresponsible for Cameco to consistently promote fringe scientific views regarding the health effects of ionising radiation. Even more alarming is that Cameco has actively promoted this view through its newsletters to Aboriginal communities about the Kintyre project.) We call on Cameco to stop promoting fringe scientific views to uranium | 'CAMECO - Stop Promoting Radiation Junk Science', www.mapw.org .au/news/camec o-stop- promoting- radiation-junk- science |
| 2014 May | industry workers and to the public at large." Northerners and environmentalists criticise the ethics and practices of Cameco outside the company's headquarters during its annual general meeting. "All these years they've been causing contamination and there's a connection to every other link in the nuclear fuel chain It's having worldwide impacts," said Candyce Paul. She said collaboration agreements with her English River First Nation and the Northern Village of Pinehouse Lake are undemocratic. Those deals were negotiated by certain leaders while many people from the communities were left in the dark, she said. Critics of the agreements have said they promise jobs, business opportunities and other benefits to the communities in exchange for the people not opposing the company's activities in the region. Kirsten Scansen of the Lac La Ronge Indian Band said she is worried about the ill-effects of mining byproducts and waste on the environment in the long term. | Betty Ann Adam, 29 May 2014, 'Activists rebuke Cameco's practices', The Star Phoenix. |
| 2015 | A uranium supply contract was signed by Cameco and India's Department of Atomic Energy on April 15, 2015. Under the contract Cameco will supply 7.1 million pounds of uranium concentrate from 2015–2020, all of it sourced from Cameco's Canadian mines. The two countries signed a Nuclear Cooperation Agreement in 2010 and it entered into force in September 2013. The uranium supply contract was criticised by delegates to the World Uranium Symposium held in Quebec City from April 14–16. Shri Prakash, one of several participants from India at the Symposium, said: "India's nuclear weapons program is very active, as demonstrated by a series of nuclear test explosions. Moreover tensions between India and Pakistan, a country with its own nuclear | www.wiseinter national.org/nuc lear- monitor/802/ca meco-signs- uranium- contract-india |



| | | arsenal, are running very high. The attitude of Canada is irresponsible and alarming." | |
|---------|-----------|--|---------------------|
| | | Trevor Findlay, a senior research fellow at Harvard University's | |
| | Part Hall | Belfer Center for Science and International Affairs, and a member of | |
| | 1344.3 | the UN Secretary-General's Advisory Board on Disarmament | |
| | | Matters, said: "Normally there's some sort of tracking and | |
| | | accounting system so that Canada would be receiving information | |
| | | from India very specifically about what Canada-sourced material is | |
| | bate to | being used for. In this case, because the agreement is secret, we have | |
| | | no idea whether that's in place, and it probably isn't because the | |
| | | Indians have been pushing against that." | |
| | | Australian nuclear arms control expert Crispin Rovere noted in a | |
| | | 2014 paper: "As with the proposed Australia-India nuclear | |
| | | agreement, the text of the Canadian deal likewise abrogates the | |
| | | widely accepted principle that the nuclear recipient is accountable to | |
| | | the supplier. This is ironic given it was nuclear material diverted | |
| | | from a Canadian-supplied reactor that led to the India's break-out in | |
| 141.54 | | the first place. It would be like the citizens of Hiroshima deciding it | |
| | | would be a good idea to host American nuclear weapons within the | |
| | | city – the absurdity is quite astonishing." | |
| | P47-125 | Asked if he shares concerns about the potential for Canadian | |
| | | uranium to free up India's domestic uranium for weapons | |
| | | production, Malcolm Bernard from the Canadian Nuclear | |
| Fai His | | Association said: "Those concerns are legitimate and we share them. | |
| | | Everybody should." | |
| 2015 | | Cameco's uranium operations in Saskatchewan are facing opposition | <u>www.vancouve</u> |
| | | from the Clearwater Dene First Nation. A group called Holding the | robserver.com/n |
| | | Line Northern Trappers Alliance has been camping in the area to | ational- |
| | | block companies from further exploratory drilling in their territory. | observer/multi- |
| | | The group set up camp in November 2014 and plans to remain until | million-dollar- |
| | | mining companies leave. Spokesperson Candyce Paul said she was | tax-battle-casts- |
| | | opposed to Cameco's uranium deal with India and that "scientific | shadow-over- |
| 1000 | | evidence is building towards proving that the uranium mining | harper-modi- |
| | | industry is killing the Indigenous people of northern Saskatchewan." | <u>uranium-deal</u> |
| | Key Lake | February 16: Contractors installing piping on the fourth floor of the | www.wise- |
| 1.13 | mill, | yellowcake building reported dust in their work area on Feb. 16. The | uranium.org/u |
| 1 | Canada | dust was identified as calcined UOC. Mill operators wearing | mopcdn.html |
| | | respiratory protection subsequently cleaned the area and began the | |
| 100 | | process of locating the source. On Feb. 17, Cameco determined that | |
| | | the source of this calcined UOC was a failed weld seal connecting | |
| | | two sections of a duct. As a result of this incident, Cameco | |
| | | determined through uranium-in-urine testing that one worker had | |
| | | an intake of calcined UOC, which resulted in a weekly effective dose | |
| | | of 1.16 mSv, exceeding the weekly action level of 1 mSv. Two other | |



| | workers who were potentially exposed did not receive a discernable | |
|---------|--|-----------------------|
| | dose from the incident. Operations were halted at the Key Lake mill | |
| | to repair the duct. In accordance with the corrective action process, | |
| | Cameco initiated an investigation and developed a plan to safely | |
| | repair the duct. This has been implemented. | |
| | January 14: Cameco personnel identified the presence of calcined | |
| 126.00 | UOC within an area of the yellowcake building. After the UOC was | |
| | identified, Cameco had all personnel removed from the area. Access | |
| | to the affected area was restricted and clean-up work was | |
| | undertaken by employees using personal protective equipment. As | |
| | reported to the Canadian Nuclear Safety Commission on Feb. 4, | |
| | | |
| | 2015, Cameco did uranium in urine sampling of the potentially | |
| | affected workers. This resulted in a calculation that five workers had | |
| 50.400 | received doses exceeding the weekly action level of 1 mSv with the | |
| | highest exposure calculated at 1.8 mSv. These levels are well below | |
| | regulatory dose limits of 50 mSv per year. Cameco identified the | |
| | source of the UOC as coming from a small hole that had developed | |
| | in a steel heat exchange pipe located within the calciner unit at the | |
| | mill. Repairs were safely completed allowing for the mill to be | |
| 2011 | restarted Jan. 22, 2015. | |
| 2016 | Martu Traditional Owners led a 140 km, week-long walk to protest | www.walkingfo |
| June | against Cameco's proposed uranium mine at Kintyre in Western | rcountry.com/ka |
| | Australia. Kintyre was excised from Karlamilyi National Park – | <u>rlamalyi-walk/</u> |
| | WA's biggest National Park – in 1994. | |
| | Aboriginal Traditional Owners are concerned the project will affect | www.ccwa.org. |
| | their water supplies as well as 28 threatened species in the | <u>au/kintyre</u> |
| | Karlamilyi National Park. Nola Taylor said the mine represented a | |
| | threat to the health of people in her community. "It's too close to | |
| | where we live, it's going to contaminate our waterways, we've got | |
| | our biggest river that runs right past our community," she said. | |
| | Joining the walk was Anohni, the Academy Award-nominated | |
| | musician from Antony and the Johnsons. She said: "It's really hard to | |
| 123-643 | put a finger on it but there's a sense of presence and integrity and | |
| | patience, dignity and perseverance and intense intuitive wisdom | |
| | that this particular community of people have. There is almost an | |
| | unbroken connection to the land – they haven't been radically | |
| | disrupted. They are very impressive people – it's humbling to be | |
| | around these women. In many regards, I think the guys who run | |
| | Cameco are desolate souls, desolate souls with no home, with no | |
| | connection to land, with no connection to country." | |
| 2016 | Cameco's share price has dropped 70% between 2011 and 2015.[1] | [1] Sarfaraz A. |
| | Cameco announced on April 21, 2016 that is suspending production | Khan, 30 Sept |
| | at Rabbit Lake and reducing production at McArthur River / Key | 2015, 'Whatever |
| | Lake in Canada. Cameco is also curtailing production at its two U.S. | Happened To |



uranium mines, both in-situ leach mines – Crow Butte in Nebraska and Smith Ranch-Highland in Wyoming. About 500 jobs will be lost at Rabbit Lake and 85 at the U.S. mines. Cameco now expects its total production in 2016 will be 25.7 million pounds of U3O8 (about 15% of global demand), down from its earlier forecast of 30 million pounds.[2]

Uranium's Recovery?', http://seekingal pha.com/article/ 3543176whateverhappened-touraniumsrecovery [2] 'Uranium on the rocks; nuclear power PR blunders', www.wiseinter national.org/nuc learmonitor/823/ura nium-rocksnuclear-powerpr-blunders