

South Australia's Environment Protection Authority

Regulating uranium

The EPA and the community

Presentation to the
NSW Legislative Council State Development Committee
August 2019

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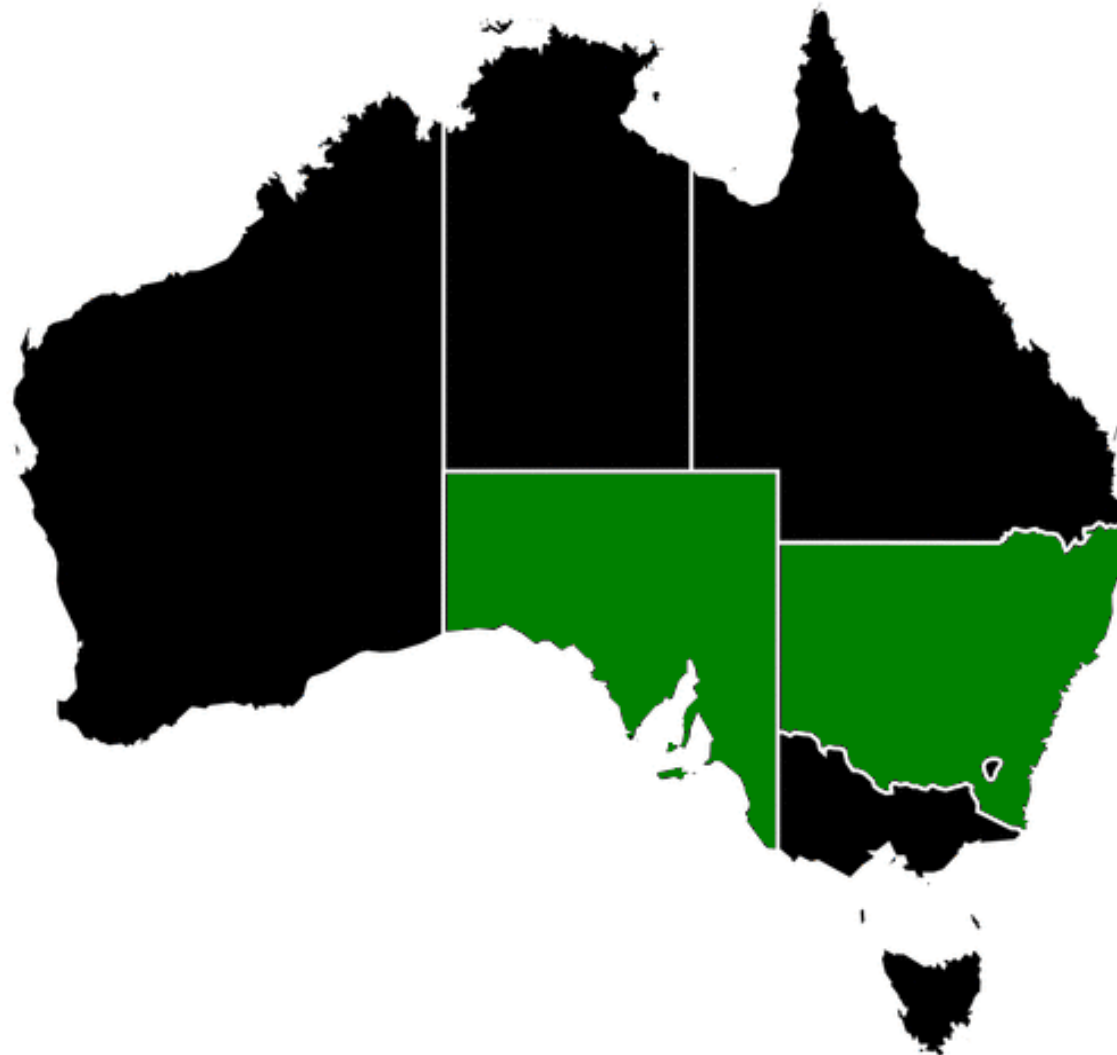
About me

Amongst other things...

- Windscale Pile reactor decommissioning (where the British weapons grade plutonium was made)
- Maralinga nuclear weapons test site remediation
- Regulation of the legacy sites at Radium Hill and Maralinga



Who regulates radiation?



-  Environment
-  Health

It's not the numbers

20 millisieverts all good



0.01 millisieverts hmm not sure



Why the public doesn't trust us



Other sectors



The trust gap is quickly filled



5G - The Facts
@5GTheFacts

Home About Articles Reference Z5G OC Contact

There is No Safe Level of 5G Microwave Radiation for People, Animals, and Nature.


HAS ANYONE NOTICED THAT THE SAME MILLIMETER WAVELENGTHS THE MILITARY IS WEAPONIZING

IS THE SAME MILLIMETER WAVELENGTHS 5G WILL BE USING

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A climate of fear

The Prime Minister was quick to blame the drought on man-made global warming but the figures show we are on average getting more rain and growth than in the past century.



The drought in NSW has been terrible, and here they come — flap, flap, flap — the global-warming vultures to feed on the disaster. Sadly, the chief vulture is our Prime Minister, frightening farmers with wild cries that this drought is just the start of the global-warming hell to come. "I think everyone agrees that we're seeing rainfall that is, if you like, more erratic, droughts that are more frequent," Malcolm Turnbull warned on Monday. Flapping behind him was Kevin Rudd, who seemed upset that Turnbull was first to this feast. "So Turnbull recognises the drought is influenced by climate change. Hold the phone!" screeched Rudd, who'd as a Labor prime minister...

Turnbull, Kevin Rudd and Tim Flannery are just spreading needless fear, guided more by their warming faith than by science. (Aren't the Liberals embarrassed to have Turnbull, their leader, perched on the same branch as Rudd and Flannery?) Those of you interested in science and evidence should check the records of NSW rainfall over the past century on the Bureau of Meteorology's website. As you'll see, the first half of the century had many more dry spells than now. There is no evidence of global warming giving us more droughts. In fact, look at the bureau's record of rainfall in Australia generally. It seems we are getting more rain, not less, in complete contradiction to what Flannery once predicted. Indeed, the bureau last year agreed that "nationally averaged rainfall was

Australia ... up to around 2030, natural variability is expected to dominate over any (rainfall) trend due to global warming". In other words, before this drought, even the usual global-warming suspects wouldn't claim you could see evidence of global warming in NSW's rainfall. Yet now Turnbull can see it in a single drought. And a further thing. Yes, this drought in NSW and parts of Queensland has hit Australia's total grain harvest over the past year. But our wheat harvests over the past decade have been consistently well above the average for the past 60 years. If there is man-made global warming, it is giving us more rain, not less, and bigger harvests, not smaller. What's true of Australia seems also true of the world. World grain crops have set new records over the past decade, and the most recent summary

The extent of the 2009 Olympic Dam radioactive laced dust storm



What are the features of a regulator that might build trust?

Independent

*Represent
the
community*

Accountable

Transparent

*World's
highest
standards*

Expert

*Competent
response*

*Involve the
community*

Leadership

Time

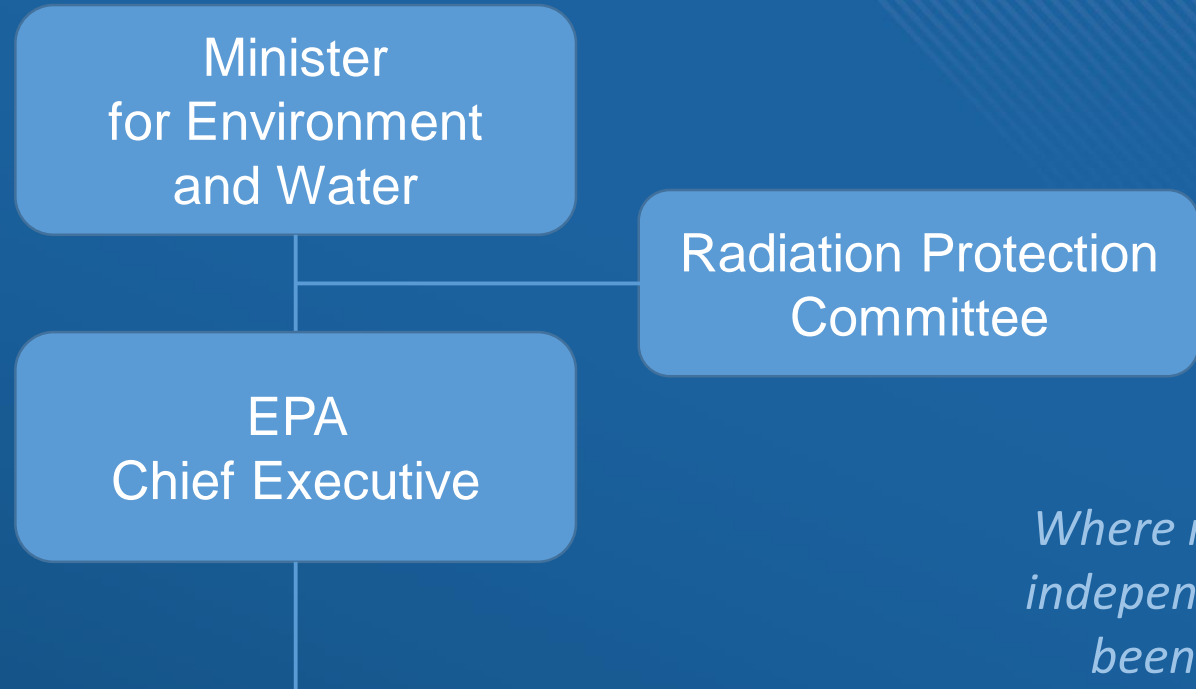
Independence



Environment



Radiation



Where regulatory independence has been criticised: Fukushima, BP Gulf of Mexico

Legislation that is in the public interest

The objectives of a regulatory framework and the regulator should have the interests of the public as its principle focus

South Australian Environment Protection Act 1993

that the use, development and protection of the environment should be managed in a way, and at a rate, that will enable people and communities to provide for their economic, social and physical well-being and for their health and safety

that proper weight should be given to both long and short term economic, environmental, social and equity considerations

that all reasonable and practicable measures are taken to protect, restore and enhance the quality of the environment

South Australian Radiation Protection and Control Act 1982

The Minister ... must, in exercising and discharging powers, functions and duties under this Act ... endeavour to ensure that exposure of persons to ionising radiation is kept as low as reasonably achievable ...

When the interests of the public was not put first: Maralinga nuclear weapons testing

Legislation that is in the public interest

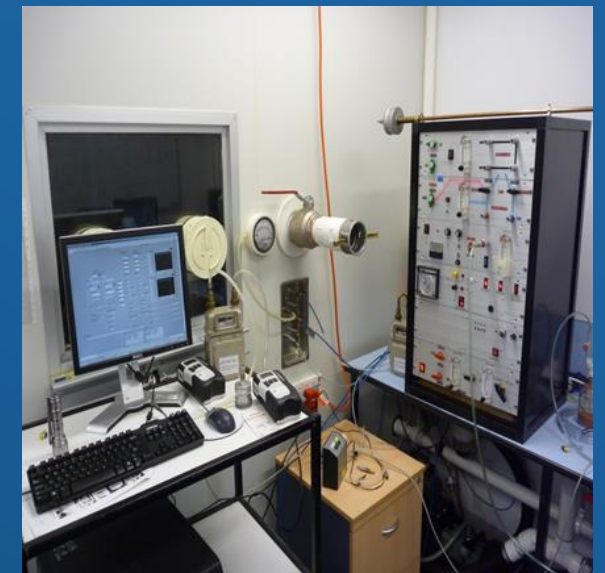
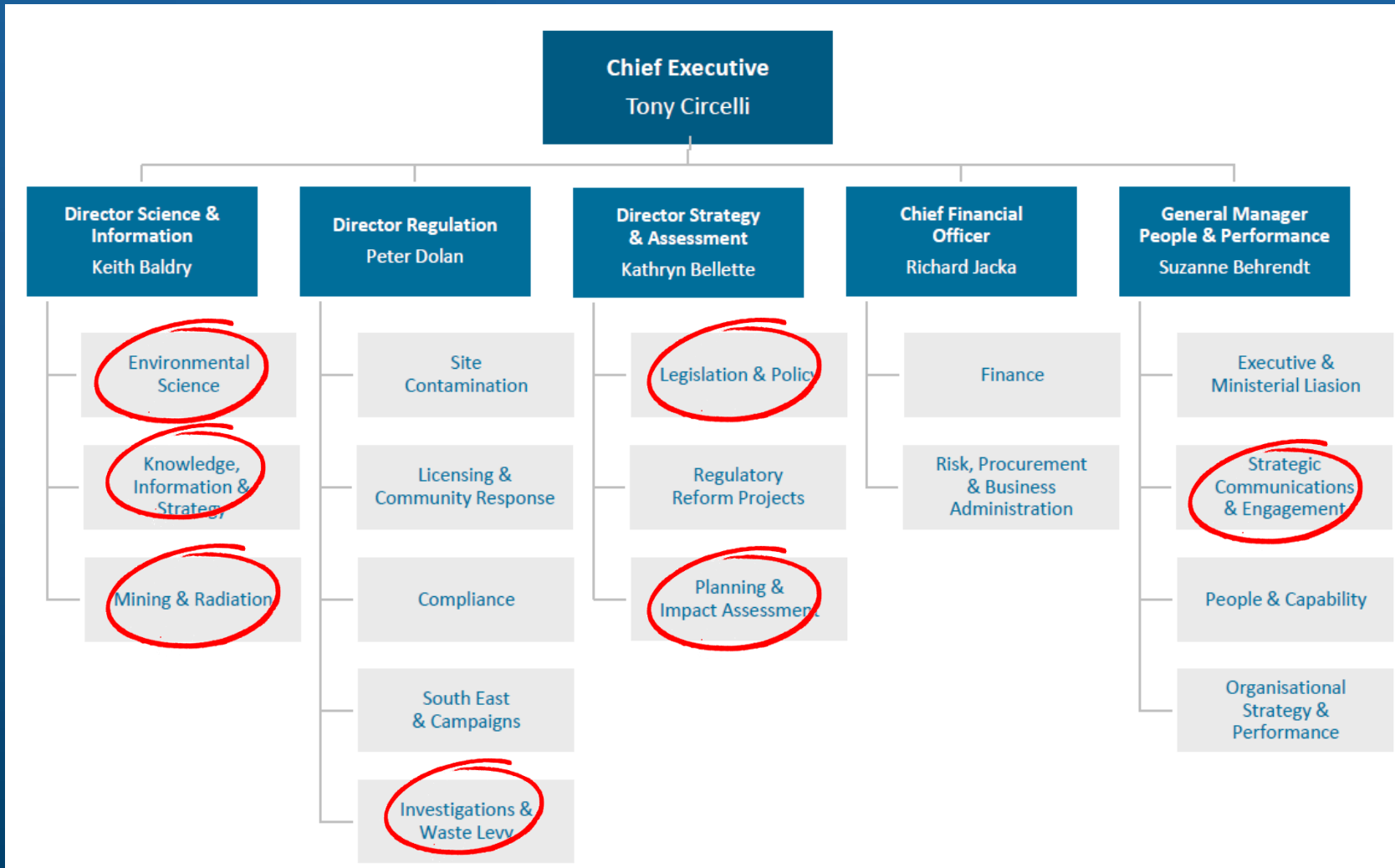
...is also in the operator's interest

*Social licence
Global reputation
Keeping corner-cutters out of the market*

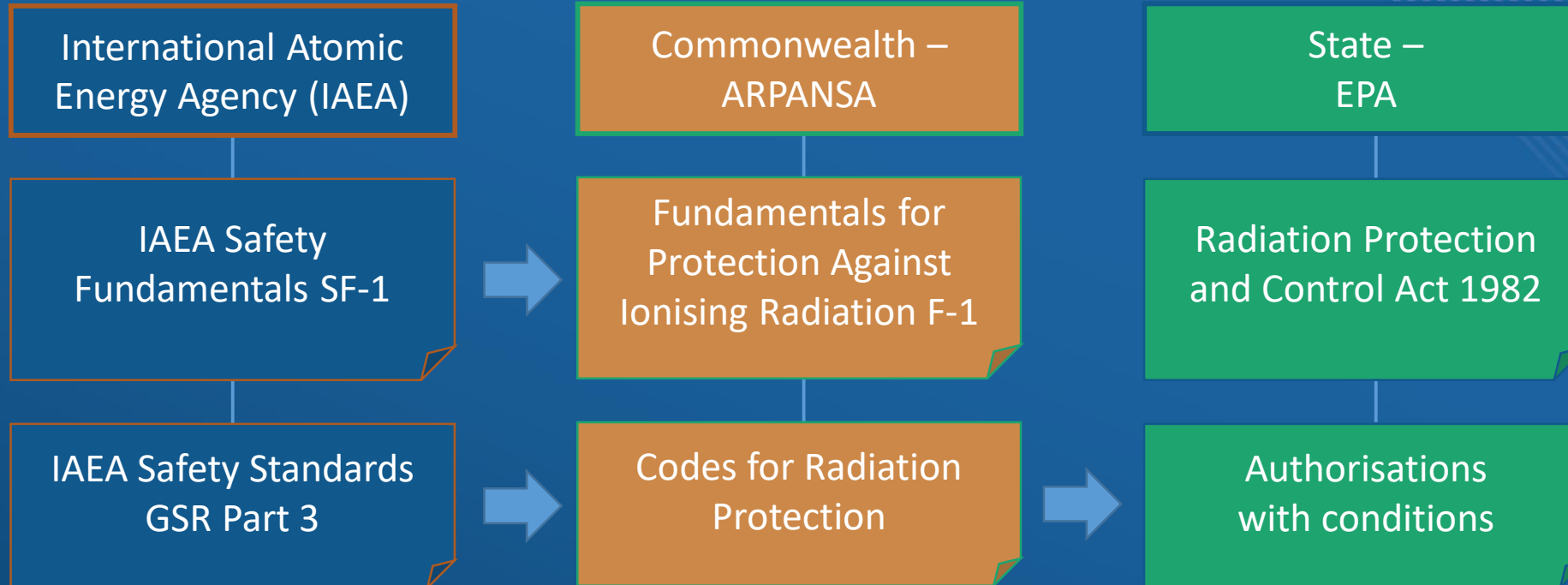
The public demands and deserves:

- Approvals and hold points
- Industry best practice benchmarking
- Strong enforcement options with significant penalties
- Transparent reporting – routine and incidents
- Financial assurances or bonds

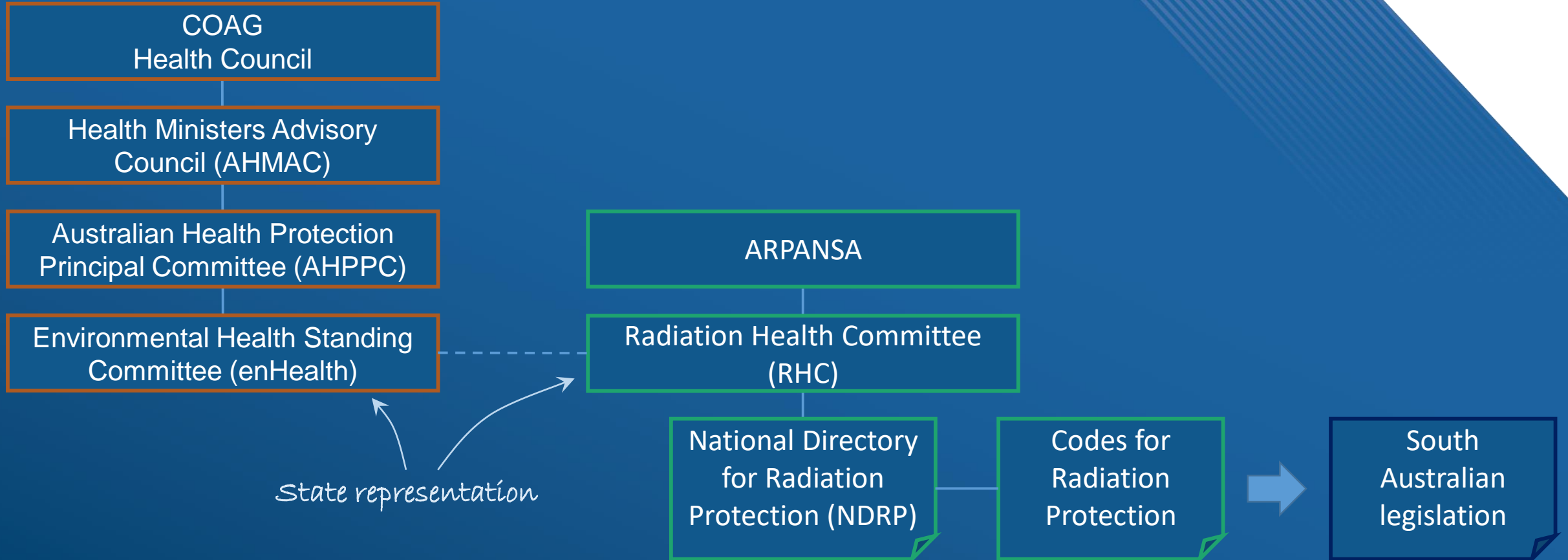
Expertise



Standards



Standards (governance)



Accountability

- The operator has the prime responsibility for safety
- Regulators must be visible and accessible
- Decisions and documents must be available for scrutiny

Transparency



Flinders Ports (Outer Harbor channel dredging)

Dredging of the Outer Harbor shipping channel has been restricted over the past few weeks due to increased turbidity, in accordance with EPA licence conditions.

On Monday 29 July 2019, the EPA advised Flinders Ports that these restrictions are no longer applicable and it can continue to apply appropriate actions (in line with the approved Dredge Management Plan) to effectively manage turbidity levels.

Please see 'Hold determinations' below for full details.

> Hold determinations

> Fact sheets

- [FAQs updated, 12 March 2019](#)
- [Outer Harbor dredging, 21 January 2019](#)
- [Outer Harbor dredging, 5 November 2018](#)

[Close](#)

> Media releases

- [7 June 2019](#) **new**
- [12 March 2019](#)
- [21 January 2019](#)
- [14 November 2018](#)

[Close](#)

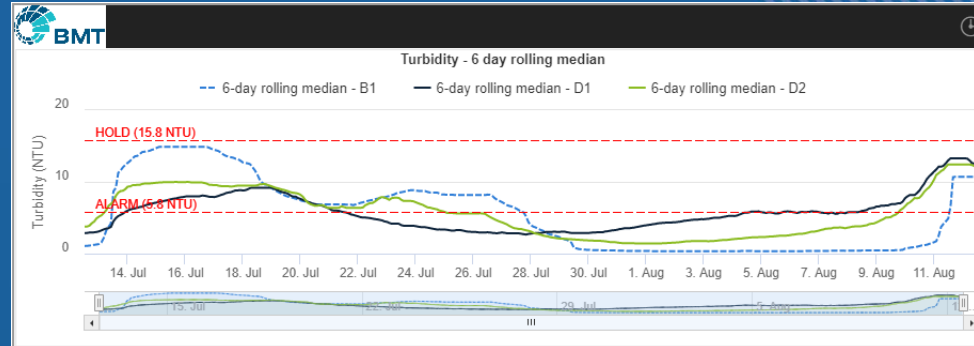
> Community engagement

The EPA commenced engagement with key stakeholders on the proposal during the State Commission Assessment Panel advice provision in 2017, and is committed to engaging with the community for the entirety of the project.

In addition, Flinders Ports is undertaking its own community engagement and the Department for Environment and Water's Native Vegetation Council has a consultation underway. Please see [further information](#) for the relevant details.

Timeline

Date	Activity



Minerals | Honeymoon | X

www.minerals.statedevelopment.sa.gov.au/mining/mines_and_quarries/honeymoon_uranium_mine/honeymoon_uranium_mine_incident

Government of South Australia
Department of State Development

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Minerals > Mining > Mines and quarries > Honeymoon Uranium Mine > [Print this page](#)

Honeymoon uranium mine incident report summary

Incidents from 2004 are reported in accordance with the Bachmann Reporting Criteria as outlined in Standard criteria and procedure for recording and reporting incidents.

Date of incident: 18 October 2012

Date reported: 18 October 2012

Quantity: 20 litres

Description of incident:
This incident occurred at 1:30 am on the 18 October 2012 in the precipitation and thickening area of the processing plant.

The spill occurred when an air valve was left in an open position feeding precipitation tank number 3. This resulted in material in the tank to foam. The control room operator ceased acidification of the precipitation tank when levels reached 95%. However, due to the release of CO₂ and air already inside the tank, a release of foam out of the vent pipe inside and outside of the concrete bund occurred. Approximately 20 litres of material (covering an area up to 16 m²) ended up outside the bund.

Comments:

Mining

- Leading practice Mining Acts review
- South Australian Mining Regulatory Framework reports
- Public notices (mining)
- Mines and quarries
 - Angas Zinc Mine
 - Betana Flinders Zinc
 - Beverley and Beverley North Mines
 - Cairn Hill
 - Challenger
 - Four Mile Uranium Mine
 - Hillside Copper, Gold and Iron Ore

Community engagement

Welcome to EPA Engage

The Environment Protection Authority of South Australia invites you to engage with us about decisions that affect you. Please share your stories and ideas with us and ask any questions you may have about the process, issue and/or possible outcomes.

Current consultations



OPEN

Victoria Road Air Quality Study

08 August 2019

The Victoria Road Air Quality Study is a community co-design project being undertaken by the City of Port Adelaide Enfield and the Environment

[Read more](#)



Lonsdale and Hallett Cove

15 July 2019

On 7 December 2018, the EPA wrote to residents in portions of Hallett Cove and the Lonsdale industrial precinct to advise that it was commencing a dust study in the area. We invited residents

[Read more](#)



OPEN

Thebarton and Mile End

03 July 2019

The EPA is proposing to establish a groundwater prohibition area in portions of Thebarton and Mile End. The EPA is consulting with the local community to provide information and

[Read more](#)



Hendon and surrounding areas

09 May 2019

The EPA is proposing to establish a groundwater prohibition area in Hendon and surrounding areas. The EPA is consulting with the local

[Read more](#)



Time



Competent response capability

- ‘There’s only one in a million chance of an accident’ is no longer acceptable
- Government needs to tell the community what could go wrong, no matter how unlikely, and what the response will be
- If it does happen, we get only one go



Transport (the most important issue?)

What our regulatory framework seeks to achieve

- World's best standards for uranium transport
- Operators meet state regulatory requirements (safety, environment)
- Commonwealth requirements are met (security, exports)
- Clarity of responsibilities
- Framework can accommodate new entrants and interstate operators
- An incident can be managed
- Public has access to information
- Regulation is commensurate with risk (+10%)

Transport

South Australia

Radiation Protection and Control (Transport of Radioactive Substances) Regulations 2018

under the *Radiation Protection and Control Act 1982*

Contents

- 1 Short title
- 2 Commencement
- 3 Interpretation
- 4 Prescribed body
- 5 Responsibilities of consignors and carriers
- 6 Responsibilities of drivers and storekeepers
- 7 Interference

Schedule 1—Modifications to Transport Code and International Regulations

- 1 Modifications to Transport Code
- 2 Modifications to International Regulations

Schedule 2—Revocation of *Radiation Protection and Control (Transport of Radioactive Substances) Regulations 2003*

- 1 Revocation of Regulations

Legislative history

1—Short title

These regulations may be cited as the *Radiation Protection and Control (Transport of Radioactive Substances) Regulations 2018*.

2—Commencement

These regulations will come into operation on 1 September 2018.

3—Interpretation

- (1) In these regulations, unless the contrary intention appears—

Act means the *Radiation Protection and Control Act 1982*;

ARPANSA means the Australian Radiation Protection and Nuclear Safety Agency;

dangerous situation means a situation that is creating or is likely to create—

- (a) imminent risk to the health or safety of a person, or the safety of a person's property; or
- (b) imminent risk of environmental harm;

No.	TRANSPORT MANAGEMENT PLAN
3	Documentation (work procedures, plans, training modules, registers)
4	Key Contacts
6	Regulatory obligations, permits and approvals
7	Stakeholders (within company, Government, key third parties)
8	Company functions and responsible roles
9	Information on the materials transported
10	Risk assessment
11	Transport information
11.1	Shipment notification procedures
11.2	Pre-departure procedures
11.3	Vehicles
11.4	Loading of vehicles
11.5	Transport drivers
11.6	Unscheduled stops
11.7	Communication with owner
11.8	Delays to departure
11.9	Transport route
11.10	Alternative routes
11.11	End of transit procedures
12	Incident response – managing incidents and spills
13	Incident reporting
14	Security
15	Post shipment reporting requirement
16	Education and training
17	Public education and information / engagement
A	ASNO approved transport routes
B	Responding to a UOC incident
C	Equipment for incident response



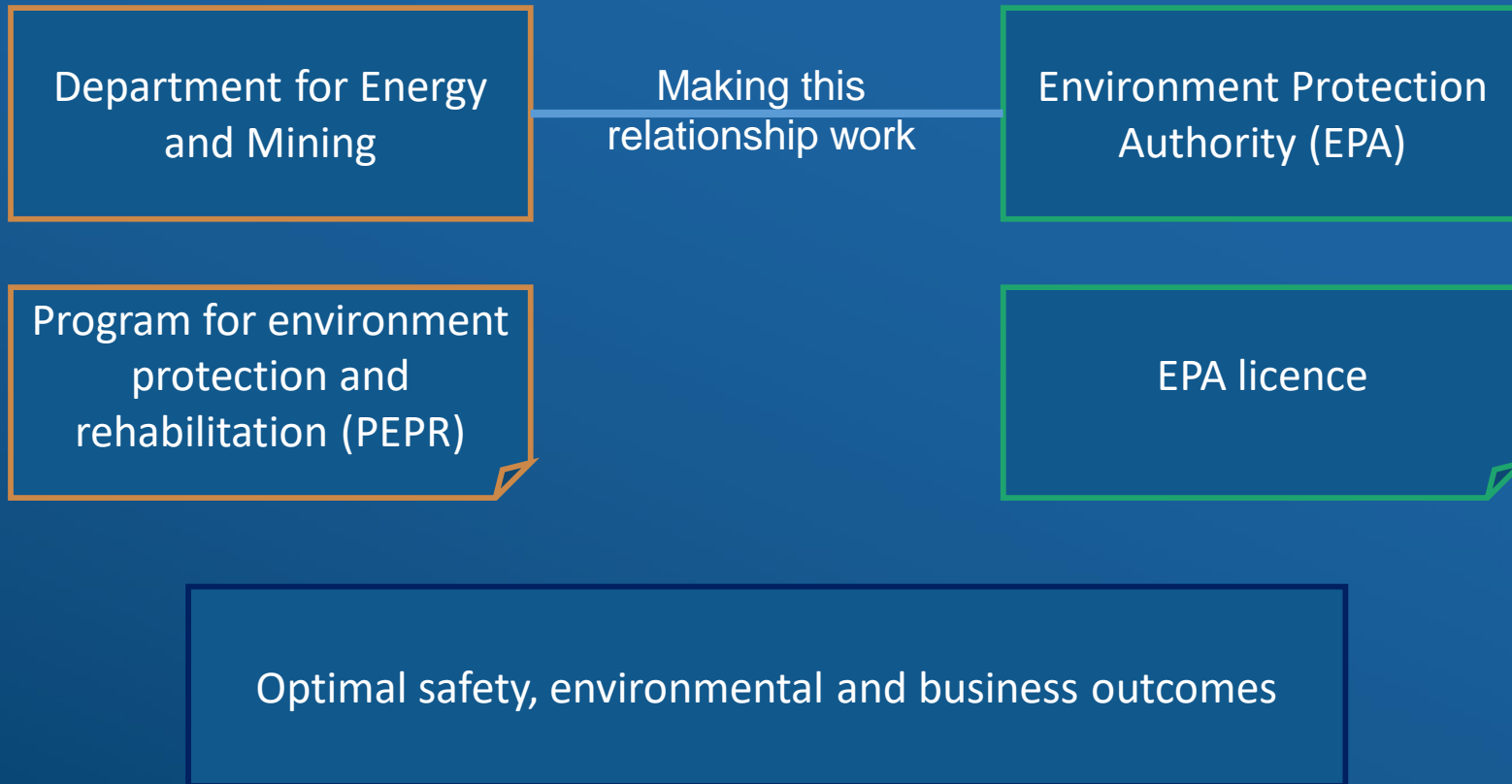
Transport review

Uranium Transport Steering Committee and working group

- EPA
 - Department for Energy and Mining
 - Premier and Cabinet
 - Country Fire Service
 - Metropolitan Fire Service
 - SA Police
 - ASNO
-
- Operators (BHP, Heathgate, Cameco)
 - WA



Leadership



Thank you

