

# Regulating nuclear activities.

Nuclear activities in Australia and internationally are regulated to ensure they are safe, secure and safeguarded.

## SAFETY:

Standards in place to protect people and the environment from unintentional harm from radiation.

## SECURITY:

Standards in place to prevent the misuse of radioactive materials.

## SAFEGUARDS:

Standards in place to ensure uranium exported from Australia is used for peaceful purposes.

### The Nuclear Fuel Cycle Royal Commission found that:

1. Effective regulatory oversight of nuclear activities is required to:
  - a. protect workers, the public and the environment from the harmful effects of radiation
  - b. physically secure nuclear material against theft or unlawful use
  - c. safeguard against the proliferation of nuclear weapons
  - d. provide public confidence that the activity is properly and safely managed.
2. The existing regulatory framework at state and federal level for the purposes of radiation protection, security and non-proliferation is appropriate for the scope of nuclear activities currently undertaken in South Australia.
  - a. Uranium exploration and mining operations are currently being regulated effectively in Australia. SA hosts 25% of the world's uranium resources and 80% of Australia's uranium resources.
  - b. Nuclear medicine research and treatment such as at universities and hospitals creates waste. In South Australia, 78 different facilities around the state store radioactive waste.
  - c. Industrial manufacturing uses sealed radioactive sources for instrumentation and analysis.
3. Australia has sound non-proliferation and nuclear security credentials developed over many decades.
4. The international community places great emphasis on addressing threats to nuclear security, having created standards for that purpose and guidance for their implementation. In Australia security risks are already managed in accordance with guidance from international partners.
5. Regulatory frameworks would need to be developed for new any nuclear activities that are not presently undertaken in South Australia. Existing federal and state legislation prohibits the establishment in South Australia of further processing facilities for nuclear fuel, nuclear power plants and international nuclear waste storage and disposal facilities.
6. Any new laws and policies would require transparent and robust implementation and enforcement to encourage compliance by industry, and provide assurance to the general public that the potential hazards are being actively managed. The regulator should be free from political or economic pressures and designed to encourage scrutiny and informed debate with respect to its activities and decisions. The goal should be continuous improvement, particularly with respect to safety concerns.



**SOUTH  
AUSTRALIA'S  
CURRENT  
POSITION**

**WORLD URANIUM  
RESOURCE  
25%**

**AUSTRALIAN URANIUM  
RESOURCE  
80%**

**RADIOACTIVE STORAGE  
LOCATIONS  
78**

## State and federal laws.

Current nuclear activities, and the associated transport of radioactive materials, are subject to federal and state laws.

### These include the following federal laws:

- The Environment Protection and Biodiversity Conservation Act 1999, requires the federal Minister for the Environment to approve in advance certain 'nuclear actions', including uranium mining.
- The Australian Radiation Protection and Nuclear Safety Act 1998 (ARPANS Act) establishes ARPANSA, which develops the national codes of practice for protection from the harmful effects of radiation based on international requirements and promotes their uniform application by state and territory regulators.

- The Nuclear Non-Proliferation (Safeguards) Act 1987, which creates a regulatory regime of permits for the possession and transport of nuclear materials, and the establishment of nuclear facilities, to ensure that appropriate measures for the safeguarding and security of nuclear materials can be put in place.

### At the state level, of importance is:

- The Radiation Protection and Control Act 1982 (SA), and the associated Radiation Protection and Control (Transport of Radioactive Substances) Regulations 2003 (SA). It is administered by a special team in the South Australian Environment Protection Authority (EPA). It applies consistently with the ARPANS Act to ensure that people and the environment are protected from the harmful effects of radiation, and the exposure of persons to radiation is kept to as low as reasonably achievable.

## Roles of regulators and international agencies.

### Environmental Protection Authority (EPA).

Regulates the use, handling and transport of radioactive substances (including waste) in SA.



### The Australian Safeguards and Non-proliferation Office (ASNO).

ASNO, part of the Department of Foreign Affairs and Trade (DFAT), works to enhance Australian and international security by activities to prevent the proliferation of nuclear and chemical weapons, and ensuring nuclear material exported from Australia is used for peaceful purposes.



Australian Government  
Australian Safeguards and Non-Proliferation Office

### The United Nations World Health Organisation (WHO).

WHO manages the International Health Regulations across 196 signatory countries (incl. Australia) which includes nuclear safety issues such as radiation.



World Health Organization

### Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

ARPANSA independently regulates the use of radiation by Commonwealth entities and their contractors including Australian Nuclear Science and Technology Organisation (ANSTO) and the Commonwealth Science and Industry Research Organisation (CSIRO).



Australian Government  
Australian Radiation Protection and Nuclear Safety Agency

### The United Nations International Atomic Energy Agency (IAEA).

IAEA is responsible for developing nuclear safety standards and protection of human health and the environment. IAEA inspection programs verify that countries comply with their commitments, under the non-proliferation treaties and agreements, use nuclear material and facilities only for peaceful purposes.



IAEA  
International Atomic Energy Agency

*Every South Australian has an opportunity to learn more about the nuclear fuel cycle by discovering the facts, understanding the choices, and providing their views on the Royal Commission's Report. This is a discussion about the state's future that all South Australians can have, and will help guide SA Government's decision making on the next steps.*

Visit [nuclear.sa.gov.au](http://nuclear.sa.gov.au) to find out more.



Government  
of South Australia