

Ms Jeanette Radcliffe
Secretary, Senate Community Affairs Legislation Committee
PO Box 6100 Parliament House
CANBERRA ACT 2600

Re: Inquiry into Australian Radiation Protection and Nuclear Safety Amendment Bill 2015

Dear Ms Radcliffe,

Firstly, I would like to thank you for the opportunity to contribute to this inquiry and apologise for not being able to attend the public hearing on the 5th of August due to the work commitments overseas.

The answers to the questions that were placed on notice for me at the public hearing are provided; additionally I would like to present the comments on two of the proposed amendments. The answers and comments are provided by myself as an individual and not as a representative of any organisation.

Questions on notice

Question 1.

Do you have any concerns about standardisation of regulations between the Federal Government, State and Territory Governments and between the Private and Public sector?

Yes, I do have two concerns associated with the ARPANSA documents such as Codes of Practice and Safety Guides and their adoption into a State/Territory legislative framework:

- (a) It is understood that, for the purposes of standardisation of regulations throughout Australia it is intended that relevant ARPANSA documents are to be incorporated into the State/Territory legislation – but, to the best of my knowledge, the time frame for this process was not agreed upon. It would be of a great benefit to address this issue more formally, if possible.
- (b) The fact that the document was produced by ARPANSA does not always mean that it is of a better quality than the one produced at the State/Territory level and it also does not mean that it is always correct. I refer to the case in 2008 when a numerical error was made in the published Safety Guide RPS-2.1 for the Safe transport of radioactive material, and specific “errata” document had to be published afterwards. Some technical information provided in another ARPANSA document also may not be entirely correct: in the Safety Guide RPS-9.1 for the Monitoring, assessing and recording occupational radiation doses in mining and mineral processing.

In my opinion, this issue is most likely a result of insufficient degree of interaction between ARPANSA and interested parties in States and Territories – as documents sent for comment to Australia-wide associations and relevant State/Territory Government departments do not necessarily reach all regulatory bodies and all industries that may be affected by the adoption of a document into the State/Territory legislative framework. This results in the fact that, on some occasions, the interested party that may have provided a valuable contribution to an ARPANSA draft document only becomes aware of this document after its publication.

I will be glad to provide additional information on the points above, if required.

Question 2.

How do the proposed amendments of the ARPANS Act interact with any standing issues on standardising regulation across the sector?

I do not see the possibility for the proposed amendments having an impact on standardisation of regulations in the mining and mineral processing sector. The only possible issue is associated with the possible absence of the clear definition of what a “legacy site” actually is and the potential use of the currently suggested definition in ARPANSA documents that will be developed in the future – additional comments are presented below.

Comments

Comment 1.

Amendment 4 introduces the term of a “*prescribed legacy site*” and Amendment 11 provides the following definition:

prescribed legacy site means a place (whether enclosed or built on or not) that is prescribed by the regulations for the purposes of this definition.

In my opinion this definition may not be adequate and I would like to suggest that an additional clarification is provided. For example, the following definitions can be used for uranium legacy sites:

- (a) “*A former uranium mining/processing site developed and operated without appropriate regulatory oversight, for which the party or parties responsible cannot be found, or are financially unable to carry out the required management, remediation or mitigation measures within an acceptable time frame*”, and/or:
- (b) “*Closed mining/processing site the ownership of which has reverted to the Government, or where the owner/operator was the Government*”.

It is understood that there may not be sufficient time to discuss and develop an appropriately detailed definition for the purposes of the Act, but when the review of the Regulations in support of the Act will be carried out – additional clarifications may need to be provided.

I will appreciate the possibility to provide additional comments on this issue when required.

Comment 2.

Amendment 7 replaces “nuclear waste” with “radioactive waste” and thus the definition of nuclear installation will contain the following:

nuclear installation means any of the following:

...

- (c) *a radioactive waste storage or disposal facility with an activity that is greater than the activity level prescribed by regulations made for the purposes of this section;*

...

The following may not have been taken into account when this amendment was proposed:

Commonwealth-regulated facilities such as offshore oil/gas exploration and/or production sites and related maintenance facilities that currently fall under the jurisdiction of the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) may need to be licensed in accordance with the ARPANS Act.

The activity concentrations and activity values of Radium-226 in waste generated at oil facilities, and the activity concentrations and activity values of Polonium-210 in waste generated at gas facilities will:

- Very frequently exceed the limits specified in the Part 2 of the Schedule 2 of the current ARPANS Regulations referred to in the Act,
- Relatively often exceed the limits specified in the latest (2014) IAEA Basic Safety Standards.

The potential implication for the oil and gas is only one example – there are many situations where radioactive waste generated by processing or otherwise dealing with Naturally Occurring Radioactive Materials (NORM) could be captured under the ARPANS Act. Part 2 of the ARPANS Safety Guide RPS-15 lists 13 different industries and if any waste generated by these industries in the past (please refer to comment 1 on “legacy sites”) is currently located on the Commonwealth land – these sites will need to be identified and appropriately licensed. Additional consideration will also need to be given to hydraulic fracturing that was not considered in 2008 when the Safety Guide RPS-15 was published.

Yours sincerely,

Nick Tsurikov, Calytrix Consulting Pty Ltd
9th of August 2015, Walvis Bay, Namibia

Brief personal summary

- A specialist in radiation protection with over 30 years of experience, last 20 years in the management of naturally occurring radioactivity, registered radiation protection professional in Western Australia and Kenya.
- An international radiation protection consultant with a broad range of projects: from advice to local councils, Aboriginal Corporations, mining companies, government departments in Australia and other countries to participating in international projects.
- A Member of the Radiological Council of Western Australia and Radiation Liaison Committee between the Radiological Council and the Department of Mines and Petroleum of WA, an advisor to the several committees of the USA Conference of Radiation Control Program Directors, a member of scientific committees and a speaker at fifteen radiation protection conferences in Australia, Brazil, China, Greece, Malaysia, South Africa and Spain.
- Notable projects:
 - For the Yamatji Aboriginal Corporation: Exploration of uranium – safety and environmental factors, an investigation and report;
 - Review and update of the WA radiation protection guidelines for the Department of Mines and Petroleum;
 - Investigation of radiation exposure of workers involved in the transport of mineral concentrates containing natural radioactivity from Australia to China and Japan;
 - Contributor to the drafting and review of eight IAEA documents, participant in more than twenty technical meetings at the IAEA headquarters in Vienna;
 - Sixteen IAEA Technical cooperation and training missions to Azerbaijan, Hungary, Kazakhstan, Kyrgyzstan, Malaysia, Mongolia, Namibia, Sri Lanka, Syria, Tanzania, UAE, Ukraine and Zambia;
 - On the invitation of the Japanese industry: Review of the radiation management practices and regulatory frameworks for the oil and gas industry;
 - On the invitation of the Government of Gabon: Assessment of the potential environmental impact and the operation of the monitoring network at the remediated uranium mining and processing sites in Eastern Gabon;
 - EU Project: Support in the development of radiation protection guidelines for Polish mining industry.