Senate Standing Committee on Economics
ANSWERS TO QUESTIONS ON NOTICE
Department of Industry, Science, Energy and Resources
National Radioactive Waste Management Amendment (Site Specification, Community Fund and Other Measures) Bill 2020 [Provisions]
30 June 2020

AGENCY/DEPARTMENT: DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY AND RESOURCES

TOPIC: ARPANSA

REFERENCE: Question on Notice, Written - Committee

QUESTION No.: 4

1. It is understood that the Department is anticipating 45 FTE's being employed at the selected site (including in the local township). Is this correct?
2. What are the expected local (to the facility) annual staffing costs?
3. Please provide a breakdown of the numbers and functions and those that would be considered essential to meet ARPANSA licensing conditions?
4. Noting the answer to ARPANSA's question on notice number 1 and 2:
   a. Has the Department ever considered an substantially unmanned facility?
   b. If so, please provide any documentation in respect of that consideration.
   c. If not, why not?
5. When did the Government first consider the establishment of an Australian Radioactive Waste Agency?
6. When was the Agency concept approved?
7. Who approved it (e.g a Minister or Cabinet?)
8. Will the Agency be established by statute, or just an Agency within the Department?
9. What is the Agency's anticipated annual budget?
10. It is understood that the Department is anticipating 35 FTE's being employed at the Agency. Is this correct?
11. Please provide a breakdown of staff numbers and functions?

ANSWER

1. Yes. The National Radioactive Waste Management Facility will directly create 45 local jobs, and the Government has committed that these will not be fly-in-fly-out jobs.
2. In July 2018, Cadence Economics estimated that the 45 full-time equivalent workers would earn, in total, a combined $4.7 million in salary per annum. The Full Cadence Economics Report is published at https://www.industry.gov.au/sites/default/files/2019-07/nrwmf-economic-impact-assessment-report-kimba.pdf.

3. Details of the structure and functions are outlined in the 'Jobs at the National Radioactive Waste Management Facility' fact sheet published at https://www.industry.gov.au/sites/default/files/nrwmf-infopack/nrwmf-jobs-at-the-facility.pdf and attached.

   While prescriptive staffing numbers and functions are not imposed by the relevant regulators, 39 of the 45 identified positions directly relate to safety, security and operational functions, which will form part of the safety case and supporting safety strategy that will be developed to meet regulators' performance-based protective requirements.

4.

   a. No.

   b. N/A

   c. The department based the concept design for the Facility on similar facilities overseas. There are no known unmanned operational radioactive waste management facilities internationally.

5–7. The need to identify a responsible entity to operate the facility and undertake a range of other radioactive waste management functions was first considered by Government in the process of settling the Australian Radioactive Waste Management Framework, published in July 2018 at https://www.industry.gov.au/data-and-publications/australian-radioactive-waste-management-framework.

   The option of meeting these needs through a single new agency — Australian Radioactive Waste Agency (ARWA) — was first considered by the former Minister for Resources and Northern Australia in December 2019.

   It is a longstanding practice not to disclose information about the operation and business of the Cabinet, including if or when a matter went to Cabinet, as to do so could potentially reveal the deliberations of the Cabinet, which are confidential.

8. ARWA has initially been established as a distinct function within the Department of Industry, Science, Energy and Resources and will transition to a non-corporate Commonwealth entity, subject to the passage of legislation.

9. Budget allocations will be announced by the Government in due course.

10. Yes, by 2022–23 ARWA is expected to have a workforce comprising of approximately 35 full-time equivalent employees.

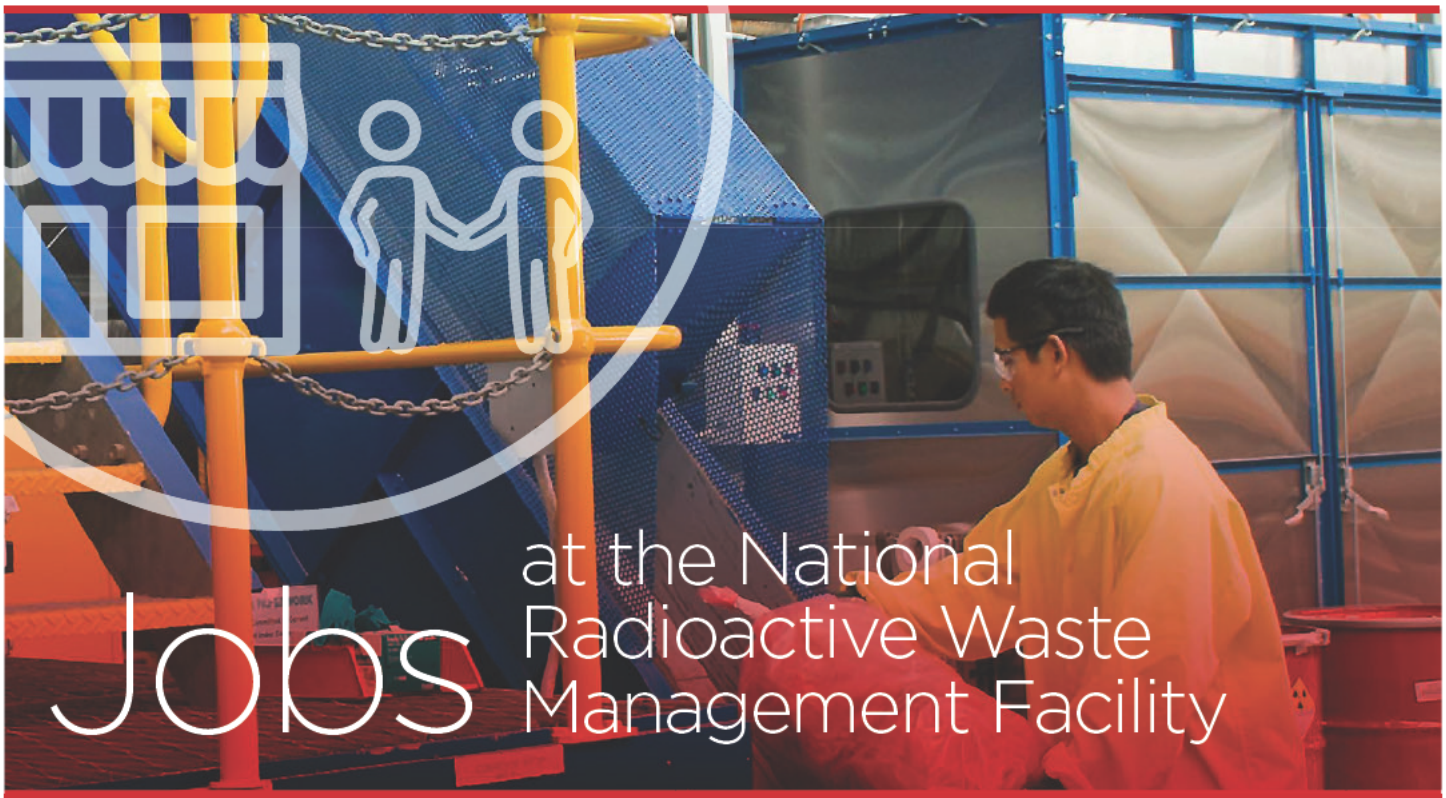
11. It is anticipated that by 2022–23 ARWA will be headed by a CEO supported by an executive assistant and three branches:

    - The Safety and Technical branch will comprise of 16 full time equivalent staff.
    - The Corporate and Governance branch will comprise of 10 full time equivalent staff.
    - The Construction and Operations branch will comprise of 7 full time equivalent staff.

Australian Government
Department of Industry, Science, Energy and Resources

National Radioactive Waste Management Facility

OCTOBER 2019



Jobs at the National Radioactive Waste Management Facility

Release of new organisational structure for the Facility

The Australian Nuclear Science and Technology Organisation (ANSTO), which runs scientific and waste storage facilities at Sydney's Lucas Heights, has completed its full proposed workforce design for the National Radioactive Waste Management Facility.

In addition to the 15 operational jobs already confirmed, the structure now includes roles for community liaison, management, tourism, environmental monitoring, security, health and safety: a total of 45 staff.

The advice from the nuclear experts is that, based on their 60 years' experience, and staffing levels in similar facilities elsewhere, the National Radioactive Waste Management Facility will need to have a staffing of:

- **14** new security and safeguard jobs
- **13** new roles in waste operations and technicians
- **8** new roles in site management and community outreach
- **5** new jobs in environmental protection and quality control
- **5** new jobs in safety and radiation protection

TOTAL: 45 new jobs.

This document is part of a series of factsheets providing information on the process to site the National Radioactive Waste Management Facility.

For more information:

Call **13 28 46**

Email **radioactivewaste@industry.gov.au**

Visit **www.radioactivewaste.gov.au**

Organisational structure

With 45 jobs, the final workforce design and structure will be based on a number of factors including advice from security agencies, the views of the independent regulator and the details of the final business case, with inputs from across government.

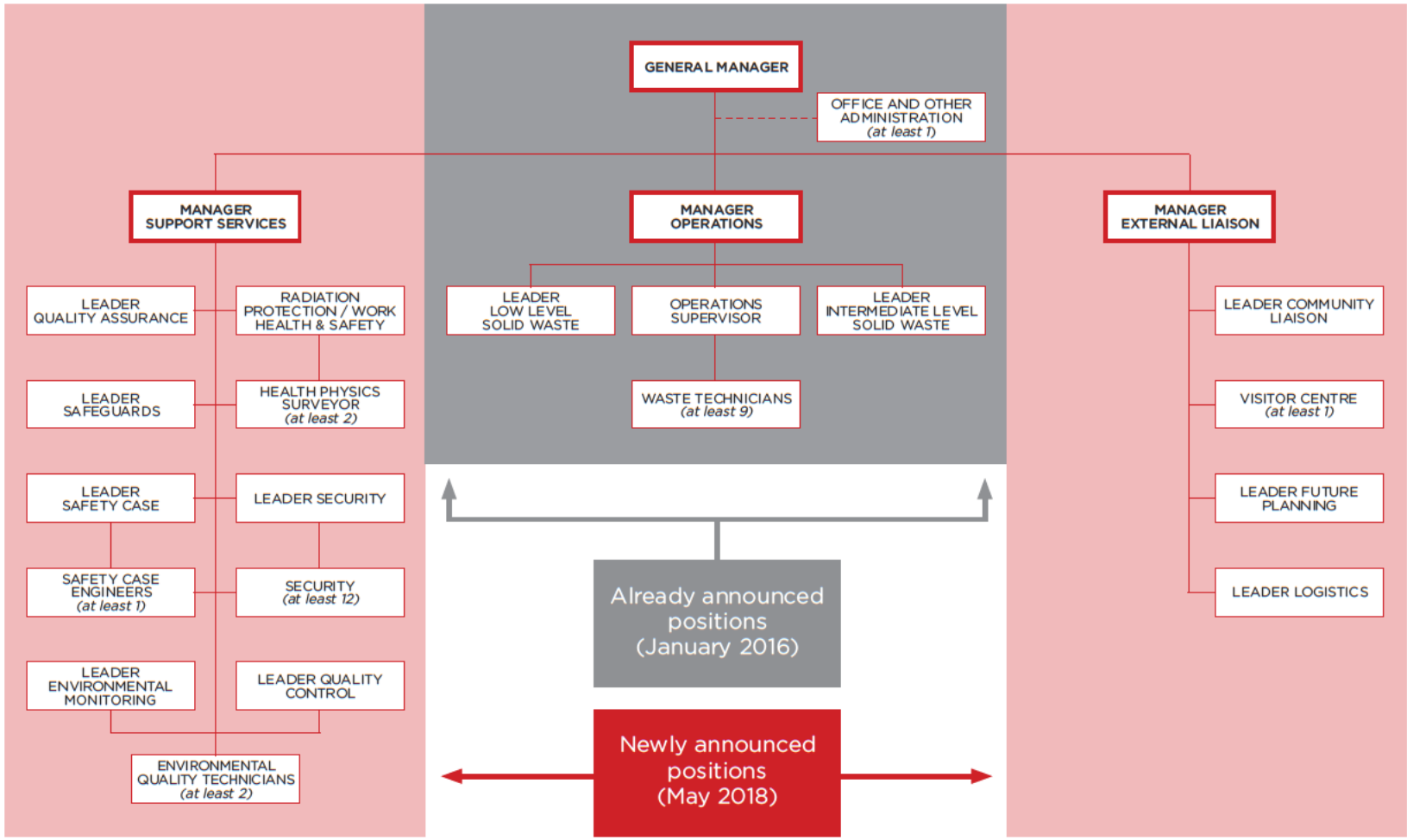
Considerations would include:

- How many staff are needed at the proposed visitor centre, guided by the type of facilities there and the number of visitors;
- How much waste is held, reflecting the fact that the Facility will be filled progressively; and
- How many people would be employed in security at the Facility, subject to further discussions with the regulator and security agencies.

The figures, structure and roles are based on assumptions including that the Facility would include temporary storage of intermediate level waste, environmental monitoring and assessment will be conducted on site, and the community will support inclusion of a visitor centre.

Analysis of the jobs:

- ☑ Full time jobs
- ☑ Shift work jobs
- ☑ On call jobs
- ☑ About 26 jobs will be supported by on-the-job training not requiring previous expertise
- ☑ About 19 jobs will require either TAFE or University qualifications
- NO Fly-in, Fly-out jobs



What type of work will be done at the Facility?

The National Radioactive Waste Management Facility will operate on a full-time basis throughout the year. Some functions such as administration, waste storage and transfer will operate on a normal weekday basis, while others such as security would have a continuous presence.

Some jobs will require traditional working hours, others will require shift work, and some will have an on-call component. There are no fly-in, fly-out (FIFO) workers in the structure recommended by ANSTO. Of the Facility's 45 staff, it is expected that up to 33 would be present on-site at any one time.

Many of the roles will not require initial formal qualifications or experience, and will be supported through ongoing on-the-job training. Other roles will require qualifications through TAFE or university, and some staff may need to obtain security clearances.

Younger members of the community will be provided opportunities through cadetships that could connect to ANSTO's facilities. ANSTO already has successful apprenticeship and cadetship programs that can be built upon. On average, ANSTO has three traineeships offered at a time, and up to four new apprenticeships are offered per year.

In addition, the Government has already made the commitment that there will be a minimum number of Aboriginal jobs, which will be provided for within the structure.

Importantly, staff who work at the Facility will have the opportunity to obtain a number of transferrable skills, including truck and forklift licenses, and certificates in Workplace Health and Safety and technical qualifications. These would be highly valued and regarded by other organisations should a person ever decide to move on to new opportunities.

Snapshot of the type of jobs

When ANSTO designed the new organisational structure, they took into account existing roles held at similar facilities, both at ANSTO in Sydney and overseas. Here are some examples of people who have roles similar to the ones that will be created at the National Radioactive Waste Management Facility.

Different roles will require different levels of qualification:

On-the-job training provided

Additional qualifications would be required

Administration roles:

Rita Fatale

Executive Assistant, Department of Industry, Innovation and Science

Just like at any workplace, administration staff will keep the National Radioactive Waste Management Facility running, overseeing invoices, accounts, diary management, answering the phone and filing. The Taskforce in the Department of Industry, Innovation and Science, which is charged with siting the Facility, has several administration staff who fulfil this important function.

"It seems like a long time ago now that I did a secretarial course through TAFE and went to work for the Government. I have been with the Department for 11 years now. The people and content are so different and diverse, and you never know what's going to happen each day. My job includes running an office, managing diaries, managing travel, finance and invoicing," Rita said.

"I didn't ever think that I would end up in a job talking about radioactive waste and other resources, but here I am, and I've got to say that I love it. It's just so interesting attending or organising all of the meetings, and talking about something that is such an important issue for the community and country."

Waste Technicians

Mitchell Timpano

Waste Technician at ANSTO's Lucas Heights campus

As at the beginning of 2018, Australia has 4,975m^3 of low level waste and 1,771m^3 of intermediate level waste, spread over more than 100 locations including ANSTO, the CSIRO, the Department of Defence, hospitals and universities. Mitchell Timpano, who works for ANSTO, is one of the people with the job of ensuring the radioactive waste is properly managed.

"I started here 12 years ago, back when I was 22, and walked in with no qualifications, but a willingness to learn," Mitchell said.

"The best thing about working in a facility like this is the training. ANSTO has provided me with qualifications in radiation protection and health and safety, and helped me to get a whole bunch of tickets including to drive forklifts and trucks, and to work in confined spaces.

"Today, my responsibilities are to look after low level solid waste at ANSTO, which includes picking radioactive waste up, storing it, and repackaging it so that it is suitable for sending to a repository in the future. The work-life balance, on-the-job training, staff activities and culture all mean that I'm very happy here, which is why I have stayed so long."

Snapshot of the type of jobs

Environmental monitoring roles:

Frank Harris
Chief Advisor to Rio Tinto in Radiation Governance

A range of measurement technologies will be installed and used to demonstrate that no risks of any kind are posed to local communities or the environment. A number of people will be charged with collecting and publishing that data. Frank Harris started his career as Environmental Radiation Officer at Olympic Dam, as a 23-year-old in 1988.

"When Olympic Dam first started, my job was to undertake the monitoring to ensure no environmental impacts from the mine. I used both fixed and portable radiation monitoring equipment, and tools that can sample airborne dust, water and gas to ensure everything is safe," Frank said.

"Day-to-day, my job was to ensure that there were no adverse impacts to flora and fauna, and that radiation levels were multitudes below background radiation that people experience every day from certain types of rocks or even the sun.

"I came into the job with a Masters in Medical Physics, but these days you would just need a science or environmental science degree to get a start in this field, and then with a combination of on-the-job training, mentoring and development, you'd quickly become able to provide the necessary monitoring services for a National Radioactive Waste Management Facility."

Waste operations roles:

James Hardiman
Leader, Waste Operations at ANSTO

James joined ANSTO through the Graduate Development Program after studying engineering at university. Since starting work at ANSTO, he has also obtained qualifications in waste management, project management, radiation protection, safety and working at heights.

"Today I manage around 20 operators, and together we are responsible for the handling, packaging, sorting, transportation, conditioning and storage of all of ANSTO's radioactive waste," James said.

"I manage the resourcing of staff and provide technical advice to waste generators, and also provide input to new plans and processes for managing waste on site. My work here is technically interesting, and requires regular problem-solving like you would find at any industrial site.

"Working at a facility like this gives you a sense of community contribution. The organisation plays such an important role in supplying medicines for diagnoses and treatment, and playing a role in helping to ensure the sustainable supply of these is both challenging and rewarding."

Snapshot of the type of jobs

Visitor Centre roles:

Marian Jones
Science Education Officer at the ANSTO Discovery Centre

Similar facilities around the world are located in highly popular tourist areas, and are a tourist drawcard in their own right. In Sydney's Lucas Heights, ANSTO welcomes more than 15,000 visitors each year, including scientists, school groups and members of the local community. The El Cabril facility in Spain was visited by more than 100,000 people between 1992 and 2014, and ANDRA in France received 14,713 visitors in 2015 alone.

"I started my career in office administration, before becoming a Science Teacher in 1986, which is a job that I enjoyed for more than two decades. After that, I wanted to try something new but continue my interest in science, which is how I ended up at ANSTO," Marian said.

"Every day I conduct different types of tours around ANSTO, showing everyone from school students through to community groups, businesses leaders, international scientists and politicians around our campus. I also develop teaching resources that are placed on our website, travel around Australia to give presentations on nuclear science, and go to a whole host of events that ANSTO sponsors.

"Nuclear science and technology is benefiting Australians every day and it's great to share that knowledge with others and get feedback from the thousands of people who visit us here. Safety is always at the heart of everything we do at ANSTO, and by allowing our visitors to see this for themselves is a real joy, and also helps to address misunderstandings about radiation."

A major construction project

The construction of a safe, state-of-the-art facility will be a major development project for whichever local community supports it. In addition to the operational jobs outlined in this factsheet, during the build there will be an influx of suppliers, transport vehicles and drivers, and a project management team to oversee the construction, most of whom would need to be based locally.

Representatives from government and the regulators would also visit regularly during construction and operation, providing an ongoing boost to the local economy for decades to come. Further, the local community would be involved in the construction activity – potentially as suppliers, as part of the construction workforce, or otherwise.

It is worth noting that once complete, the organisational structure put forward by ANSTO assumes a lot of the maintenance activities, in particular, will be provided by the local community and surrounding regions, including in relation to the site, vehicles and cranes.

Whichever community eventually hosts the National Radioactive Waste Management Facility will have the opportunity to fully harness the opportunities in the contracts, within Government procurement guidelines.