



Australian Government



Nuclear-based science benefiting all Australians

17 December 2008

Submission Number: 04
Date Received: 17/12/08

A

Mr Justin Baker
Committee Secretary
Standing Committee on Education and Training
PO Box 6021
House of Representatives
Parliament House
CANBERRA ACT 2600

Dear Mr Baker

Re: House of Representatives Standing Committee on Education and Training inquiry into and report on the Department of Education, Science and Training Annual Report 2006-2007 – Questions on Notice

I refer to the appearance of Dr Goodwin and me at the above inquiry on Friday, 14 November 2008 on behalf of the Australian Nuclear Science and Technology Organisation (ANSTO).

During the course of our appearance, we took a number of questions on notice. Below is a summary of the questions and our corresponding answers for the Committee's information.

At page 59, there was some discussion regarding the recruitment of technicians and trades based workers and the type of apprentices ANSTO recruits. At present, ANSTO does not have any difficulties recruiting suitably qualified technicians and trades based workers. ANSTO recruits electrical, mechanical and sheet metal apprentices. At present, ANSTO has a total of 11 apprentices, of whom five are employed by ANSTO and six are engaged through a recruitment agency, the Shire Group Training.

At pages 62-63, there were some questions raised regarding the professional development of schoolteachers, the resources available to teachers Australia-wide and the connections ANSTO has with science teachers' associations in Australia. In terms of professional development for science teachers, a series of Professional Development Days usually occurs annually. These days are organised in conjunction with the NSW Department of Education and Training to ensure they meet the needs of the teachers. A meeting between the NSW Department of Education and Training and ANSTO is scheduled for early February 2009 to discuss plans for the Professional Development Days in 2009. The Professional Development Days consist of an educational tour of the OPAL research reactor and other facilities at ANSTO. During the tour, various scientists explain their fields of expertise and the applications of that particular field, and answer any questions the teachers may ask.

In terms of the resources and professional development ANSTO makes available to teachers across Australia, staff from ANSTO recently attended the conferences of the Science Teachers Association of Victoria (27-28 November 2008) and the Science Teachers Association of New South Wales (28-29 November 2008). ANSTO also participated in the Conference of the Australian Science Teachers Association (6-9 July 2008), and is planning to attend the Conference of the Australian Science Teachers Association (4-7 July 2009).

ANSTO is on the organising committee for the 2010 Conference of the Australian Science Teachers Association, to be held in Sydney.

Our website is also an excellent resource for teachers and students, and is accessible Australia-wide. ANSTO's website provides lesson plans and workbooks for teachers and students from kindergarten to Higher School Certificate Level. The following is a list of the relevant links:

- Introduction page - http://www.ansto.gov.au/education_resources.html;
- Resource for Primary Students (K-6) - http://www.ansto.gov.au/data/assets/pdf_file/0009/37377/K-6.pdf;
- Resource for students in years 9 and 10 will be completed in early 2009;
- Resource for students studying HSC Physics (NSW) - http://www.ansto.gov.au/data/assets/pdf_file/0007/8863/PhysicsLR.pdf;
- Resource for students studying HSC Chemistry (NSW) http://www.ansto.gov.au/data/assets/pdf_file/0005/16781/Yr12_ChemwkBook_web.pdf

Finally, at page 65-66, there was some discussion regarding the shortage of skilled workers in certain fields at ANSTO. Hydrology was identified as such an area, and a question was asked regarding the qualifications of a hydrologist. The skills required in hydrology are a combination of geomorphology, mathematical modelling (at catchment scale) and isotopic properties of water and the relationship of these with origin of the water. A person qualified to work as a hydrologist at ANSTO would require a PhD and work experience in any of the above fields.

We trust the above answers the questions raised by the Committee. However, should you require any further information in relation to the above, please do not hesitate to contact me

Yours sincerely



Steven McIntosh
Senior Adviser
Government Liaison
ANSTO