

EDUCATION, SCIENCE AND TRAINING

SENATE LEGISLATION COMMITTEE - QUESTIONS ON NOTICE 2003-2004 ADDITIONAL ESTIMATES HEARING

DEST Question No. E1018_04

Senator Carr provided in writing.

Question:

Your security plans appear to be predicated on the premise that an attack would be mounted from outside the perimeter and that no-one would make it past perimeter security. How will such security measures stop or mitigate the effects of a semi trailer or aircraft reaching the reactor if approached at high speed in a suicide attack?

Answer:

ANSTO has provided the following response:

Security measures

Discussion of these issues has been an integral part of security planning for the replacement research reactor before and after September 2001. Preliminary work was undertaken during the construction licensing process for the reactor, and more detailed consideration has taken place, in consultation with relevant national security authorities, since that time. In licensing the construction of the reactor, the CEO of ARPANSA said:

“The blast damage to buildings and the reactor block, resulting from explosives placed external to the structure, including truck bombs, has been modelled. It was concluded that there would be only minor damage to the reactor building and the reactor block and therefore nothing to affect the safety of people or damage the environment. Other parts of the facility would not, of course, be so fortunate...

Could a commercial airliner be flown into the RRR? Possible directions and angles of attack by commercial aircraft have been examined by ANSTO, calling upon expertise in the aviation industry. ARPANSA staff reviewed this information and discussed it with the experts involved. The staff concluded that the uncertainties involved in attempting to hit the facility limit the speed, directions and angles of attack. I have also reviewed this evidence and find it convincing.

If, nonetheless, a large commercial aircraft did hit the RRR, would it penetrate the building and the reactor block? ANSTO first presented qualitative arguments extrapolated from experimental findings to show that penetration of one or two engines from the aircraft is highly unlikely (the ‘soft’ structures of the aircraft will be destroyed on impact). I found these arguments reasonable. They were followed up by recent quantitative modelling undertaken by ANSTO staff. The stated results of this figuring provides a high degree of comfort that the facility would be safe under this (what I now regard as being unlikely to be successful) form of attack. Nevertheless, I will arrange for the latest ANSTO analysis to be reviewed. I will monitor international developments in the area of calculating impacts of large aircraft on reinforced concrete structures in the next months and will require any actions arising from these developments to be undertaken.”

Further analysis undertaken since the issuing of the construction licence has confirmed the results of the initial modelling referred to by Dr Loy above. Modifications have also been made to the physical layout of the facility and its surrounds, in consultation with relevant national security agencies, in order to further reduce the likelihood of an unauthorised vehicle closely approaching the facility. The changes to the design and the analysis will be finalised and presented to ARPANSA as part of the application for an operating licence for the reactor.