

# Chemical biological and radiological training—preparing for the unthinkable

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## 1. The early days

Chemical Biological and Radiological (CBR) training is a fundamental element in the development of a CBR capability. The tragedy of the 1995 Tokyo Sarin gas incident demonstrated the potential for mass casualties when CBR materials are effectively disseminated.

In Australia, the Sydney 2000 Olympic Games provided the impetus for the development of training for emergency services to respond to deliberate Chemical Biological and Radiological incidents.

In 1997, a small working group, including representatives from police, fire, ambulance, and health organisations were sponsored by EMA to review CBR training requirements and to develop a package that could be delivered to 'First Response' agencies. It was evident from the beginning that the training required a multi-agency focus. Training materials were taken from a number of sources including the United States Domestic Preparedness Program and the Australian Defence Force.

The possibility of a deliberate incident involving CBR materials during the 2000 Olympics could not be ruled out. The development of capacity to effectively respond to such incidents grew in the years leading up to the Games. This included the need to train a large number of emergency service personnel who would be

the 'first responders' to a deliberate CBR incident.

The requirement initially was to train up to 300 first responder personnel for the Games. A four day course was initially developed with six courses delivered at the Army's School of Military Engineering at Casula in western Sydney.

While the focus was clearly on Sydney, other Olympic venue cities included Brisbane, Melbourne, Canberra and Adelaide. These cities were involved in improving their CBR response arrangements.

Demand for the courses continued to grow and in early 2000, CBR training was moved to EMA's training facility at Mount Macedon, Victoria. Courses were open to all States and Territories with the priority on Olympic venue states.

## The present

Following the 2000 Olympic Games the frequency of CBR training was reduced to one course each year, however this quickly changed following the events of 11 September 2001. CBR training returned and continues to be in high demand.

The main course is *Management of CBR Incidents and Emergencies* and is for middle management personnel who could find themselves supervising the response to a CBR incident. The four and half day course has a very full program with the first day and a half devoted to theory. The third day takes a more practical, hands on

approach with participants donning protective clothing, undergoing a mask confidence test and then experiencing a decontamination through a decontamination facility provided by the ADF's Incident Response Regiment. The final day and a half focuses on decision exercises and syndicate discussions to consolidate each participant's knowledge.

Additional courses have been developed for Health Aspect of CBR, CBR Crime Scene Investigation, and Radiation Detection Instruments. Students are provided with a comprehensive package of training materials including video, publications and CDs enabling them to further develop CBR packages for their particular agency.

Training has also been conducted on equipment provide through the Australian Government sponsored *CBR Enhancement Program*.

## The future

States and Territories are now in a better position to develop their own training packages to meet their specific requirements. It is envisaged that States and Territories will deliver CBR training in their own jurisdiction from mid 2005.

EMA has commenced integration of CBR material into Emergency Planning and Emergency Operation Centre courses delivered at Mount Macedon as well as extension courses in the States and Territories.



*CBR Incidents and Emergencies – Casualty evacuation is hard work when wearing protective clothing*

CBR training continues to evolve as new techniques are developed and new challenges emerge. Some may argue that a CBR incident may never occur. Let's hope it never does, but if it does, we must be prepared—*training is the key.*

## 2. Equipping the 'First Responder'

First responders at the scene of deliberate CBR incidents are confronted with a number of life threatening challenges requiring quick assessment to save lives and relieve suffering. Unless properly equipped they may find themselves part of the problem.

Responders require a range of specialised equipment to enable them to carry out their tasks. The need for specialised equipment was considered in detail immediately following 11 September 2001, when it was decided Australia needed to equip

its first responders to effectively respond to a CBR incident.

Following agreement by the Australian Federal Cabinet, EMA developed the CBR Enhancement Program (CBREP) with funding of \$17.8 million over a four year term. The CBREP is designed to provide a basic CBR response capability for each of Australia's capital cities with equipment being sourced and delivered to the State and Territories.

A small project team was established to facilitate delivery of the equipment following the principles:

- equipment was to be standardised nationally, facilitating interoperability;
- equipment was to be commercial off the shelf;
- States and Territories were provided with generally the same amount of equipment; and
- where possible, equipment should also be similar to that

used by the Australian Defence Force.

The acquisition program covered six key equipment areas:

- Detection Equipment
- Personal Protective Equipment
- Mass Decontamination
- Casualty Extraction
- Medical Pharmaceutical
- CBR Support

Funds were also set aside to assist the States and Territories with equipment maintenance and for CBR training.

Equipment deliveries were largely completed in November 2004 with the majority of the equipment being centralised for use in capital cities. States and Territories have completed training on the use of equipment and are now refining their operational procedures for its use in conjunction with their CBR plans. The CBREP builds



*Radiation Instruments Training – Students practice area survey methods using CDV radiation instruments*

upon existing State/Territory arrangements to respond to deliberate CBR incidents and is seen as a significant boost to Australia's overall CBR response capability.

### **3. The National Chemical Biological and Radiological Working Group**

The Tokyo Sarin incident of March 1995 was a wake up call to emergency managers around the globe. What had been considered a remote possibility was now a chilling reality. The deliberate use of highly toxic chemical materials on an unsuspecting population was a new issue that now confronted emergency planners.

In Australia, following a workshop held at the Emergency Management Australia Institute at Mt Macedon in August 1995, a working party was established to examine the issue in more detail and make recommendations on what measures should be taken to improve the national preparedness for similar incidents.

The Olympic Games provided additional impetus to improve preparedness to respond to chemical, biological and radiological (CBR) incidents.

A CBR sub-working party was established as part of the Olympic security framework to develop capabilities to respond to CBR incidents that could occur during the Games. The main focus was on developing CBR response capabilities in Sydney, including other Olympic venues. During the lead up to the Games a number of measures were implemented that improved the capacity to respond.

Following the Games, it was decided that a national CBR forum should be established to build on the work done for the Games. The National CBR Working Group sponsored by EMA was established and held its first meeting on 6–7 August 2001.

The working group membership comprised the chairs of the respective State and Territory CBR committees, as well as Australian agencies that have a key role to play during a CBR incident. The working group reports to the Australian Emergency Management Committee. The terms of reference

of the national CBR working group include:

- *Purpose:* To co-ordinate development of national CBR capabilities in Australia.
- *Objectives* are to:
  - Develop procedures and arrangements for dealing with a CBR incident.
  - Provide guidance on the acquisition of CBR related equipment.
  - Provide guidance on the development of CBR training and exercises.
  - Co-ordinate State and Territory initiatives relating to CBR.

The working group represents the interests of a number of committees and working groups that also have interests in CBR, as shown by the diagram in Figure 1.

The working group normally meets twice each year and has focused on the development of State and Territory CBR capabilities including CBR plans, arrangements and training. Most States and Territories have developed state level CBR plans and CBR training is provided to emergency services personnel at EMA, at Mount Macedon, Victoria.

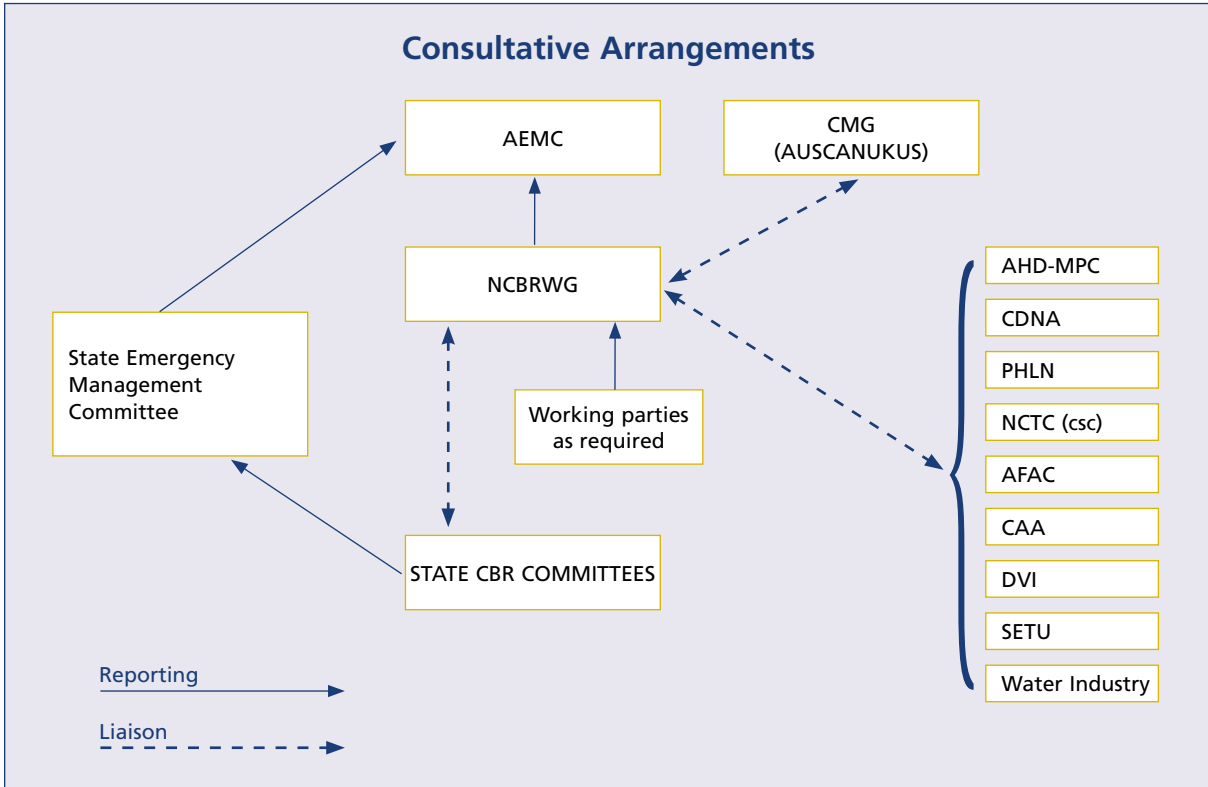


Figure 1 Notes:

AFAC	Australasian Fire Authorities Council	CDNA	Communicable Disease Network Australia
AHD-MPC	Australia Health Disaster Management Policy Committee	DVI	Disaster Victim Identification
	AUSCANUKUS Australia, Canada, United Kingdom, United States	NCTC (csc)	National Counter-Terrorism Committee (Capability Sub Committee)
CAA	Convention of Ambulance Authorities	PHLN	Public Health Laboratory Network
CMG	Consequence Management Group	SETU	Science Engineering and Technology Unit



CBR Crime Scene Investigation – Students prepare to record a contaminated crime scene



*CBR Crime Scene Investigation – Students wearing Level A protection with self contained breathing apparatus undergo decontamination.*

One of the key outcomes for the working group was the development of procedures for handling suspicious packages in 2001. The anthrax letters in the USA were the catalyst for the rash of white powder incidents in Australia that began in mid October 2001.

The procedures provided a useful basis for response agencies to further develop their protocols. White powder

incidents still occur; however, State and Territories are much better prepared, having refined their filtering and assessment procedures in determining the most appropriate response.

Development of national co-ordination arrangements for CBR incidents ranks high on the working group's agenda. Issues now facing the national working group include development of a working

group strategy that will require endorsement from all the States and Territories and continued development of CBR training and State and Territory CBR response capabilities. As concern for the potential deliberate use of CBR incidents increases, the work undertaken by the working group is growing in importance and will be of benefit to all States and Territories.