

**2008 Meeting
Geneva, 1-5 December 2008**

**Meeting of Experts
Geneva, 18-22 August 2008**
Item 5 of the provisional agenda
**Consideration of national, regional and
international measures to improve biosafety
and biosecurity, including laboratory safety
and security of pathogens and toxins**

IMPLEMENTATION OF THE UK ANTI-TERRORISM, CRIME AND SECURITY ACT (ATCSA) 2001: BIOSECURITY ASPECTS¹

Submitted by the United Kingdom of Great Britain and Northern Ireland

Introduction

1. At the 2003 MXP, the UK delegation explained the purpose of the ATCSA as it applied to the security of pathogens and toxins.² One of the Act's objectives is to improve the security of dangerous substances that may be targeted/used by terrorists. To this end the ATCSA provides the police with powers to require security measures at laboratories in the UK that hold specified pathogens and toxins (as listed in Schedule 5 of the Act). There are just over 100 pathogens and toxins caught by Part 7 and Schedule 5 of ATCSA. Approximately 450 laboratories in the UK are required to register under this legislation. University and hospital laboratories are also included, but not necessarily diagnostic laboratories. Clinical specimens for diagnostic purposes are currently exempt under Statutory Instrument 1281 of 2002³, as are some other substances meeting specified conditions, e.g. as medicinal or immunological products. Since 2003 the Act has been amended with the addition of further pathogens and toxins; it has also been extended to

¹ In UK thinking in the context of BTWC deliberations on these issues "Biosafety" is a term used to refer to the appropriate containment of pathogens in the laboratory environment, both to prevent exposure of workers within the laboratory, and exposure of people, animals and other vulnerable organisms in the external environment. "Biosecurity" in this context is used to refer to the secure storage and use of dangerous pathogens and toxins to reduce the risk of malicious use.

² See BWC/MSP.2002/MX/WP.7/Rev.1 dated 15 July 2003 The Design of National Mechanisms to Maintain the Security and Oversight of Pathogenic Microorganisms and Toxins, annex page 4, paragraph 2; and also BWC Meeting of Experts (18-29 August 2003) Collation of Contributions 19 August: Prohibitions.

³ The Security of Pathogens and Toxins (Exceptions to Dangerous Substances) Regulations 2002 see <http://www.opsi.gov.uk/si/si2002/20021281.htm>.

include animal pathogens.⁴ This paper describes the steps taken to implement the biosecurity aspects of the Act through the role played by police force Counter Terrorism Security Advisors (CTSAs), co-ordinated and directed by the National Counter Terrorism Security Office.⁵

Responsibilities of laboratories

2. Laboratories are required to register with the Home Office their holdings of Schedule 5 substances. Failure to do so is an offence under the Act and may result in prosecution. They must ensure that Schedule 5 substances, and the premises in which they are kept, stored, worked on and disposed of, are secure and that access to them is authorised and controlled. They must provide information to the police on the security measures in place and, under certain conditions, the personnel with access to Schedule 5 substances. The laboratories are legally bound to comply with advice given by the police to secure premises.

Physical security measures

3. The security procedures required for individual laboratories depend upon the nature of the organism being handled. Containment Level 4 (CL 4) laboratories are subject to the most extensive security measures with extremely limited access. All staff granted access must be security cleared. Such laboratories will be dealt with by specialist staff from NaCTSO. CL3 and CL2 laboratories will be inspected and advised by their local CTSA. CL3 laboratories are subject to security measures required by ATCSA and receive bespoke advice regarding staff security checking. Access to pathogens is restricted. CL 2 laboratories are provided with bespoke advice regarding physical and personnel security. CTSAs are available to provide additional help and more detailed advice on standards and security matters and take into account the individual circumstances of the site.

4. The basis of good physical security is founded on the “3D principle” – Deter, Detect and Delay:

- (i) Deter – the overt physical and electronic security measures that may provide a serious deterrent to a would-be intruder;
- (ii) Detect – alarm systems and cameras to detect the presence of an intruder; and,
- (iii) Delay – physical security measures that delay the intruder for a sufficient period to allow a response force to attend.

⁴ Statutory Instrument. 2007 No. 929 The Schedule 5 to the Anti-Terrorism, Crime and Security Act 2001 (Amendment) Order 2007 see http://www.opsi.gov.uk/si/si2007/pdf/uksi_20070929_en.pdf for details; and Statutory Instrument 2007 No. 926 The Part 7 of the Anti-terrorism, Crime and Security Act 2001 (Extension to Animal Pathogens) Order 2007 see http://www.opsi.gov.uk/si/si2007/pdf/uksi_20070926_en.pdf for details.

⁵ There are 52 police forces in the UK, each one regionally based e.g. Thames Valley Police and Strathclyde Police. The National Counter Terrorism Security Office (NaCTSO) is responsible for the training of the CTSAs. See <http://www.nactso.gov.uk/> for details of NaCTSO's role.

5. In addressing physical security, laboratories are advised to have a full list of all the Schedule 5 substances they possess, where they are located and who has access to them. The critical area where the substances are used, stored, transported or destroyed should be of robust construction and capable of withstanding an attack.

6. NaCTSO provides guidance and best practice on security standards for laboratories, including on the location of laboratories and electronic measures for deterring intruders. When new build laboratories are being considered, physical protection measures should be built in from the beginning. Laboratories moving to new premises are advised to seek advice from their CTSA at an early stage.

Procedural measures

7. In addition to a laboratory Health and Safety Officer, security responsibilities should be designated to an appropriate person, with the duty to alert senior personnel to security concerns and their responsibilities under ATCSA. Senior managers should regularly review their safety and security measures, ensure that all staff are trained in safety and security practices and ensure that there is scrupulous adherence to the relevant procedures. Security measures should be followed for transferring Schedule 5 substances between laboratories, facilities and sites. Hard copy records, computers and the data they hold related to Schedule 5 substances must be kept securely.

Personnel security

8. A guidance document “Personnel Security Measures for Laboratories” was published by the Association of Chief Police Officers (ACPO) and the Home Office in April 2005. It has been circulated to laboratories subject to Part 7 and Schedule 5 of ATCSA. The document provides detailed personnel security advice to laboratories on new staff, existing staff, visitors and contractors. It also offers specific guidance on good practice relating to security checking of new staff, existing staff, contractors, visitors and students/short term appointments. The advice details how to check identities, references, qualifications, employment history and criminal convictions. Guidance is given on what to do if concerns arise during the process. This document was designed to deliver practical guidance without the false sense of security that can arise from a criminal records check alone. Laboratory managers are advised to maintain personnel security by way of good management and reporting, the wearing of security passes and the creation of a ‘security aware’ environment.

Inspections

9. Laboratories working with Schedule 5 agents are visited by CTSA's. These visits are used to assess physical security and make recommendations. Initially the CTSA will make contact with a laboratory and liaise with the most appropriate person. This will usually be the Biological Safety Officer or laboratory manager. It is important to have a contact with scientific knowledge. The laboratory site will then be inspected and appropriate questions asked. A written assessment will be made, including security advice, which will be served on the laboratory. If security needs to be improved, a timescale will be included in the notice, taking into account financial implications and other influencing factors. If security improvements are required, the advice given will be bespoke to that particular laboratory.

10. On many occasions the main advice will be focused on personnel and procedures. This will normally include the wearing of security badges whilst in the work environment, and the development of a 'challenge' culture, whereby persons who are not known are asked to justify their presence in or close to a laboratory environment. The 'insider' threat is considered to be the highest risk. Laboratories are therefore provided with detailed advice on how to conduct personnel checks, what to do if they are not happy with the identity or credibility of a person, and the ongoing monitoring of current staff. Police will only request the details of those with access to Schedule 5 materials in response to specific intelligence.

11. CTSAs will visit registered laboratory sites once a year. If many improvements must be made at a site, the CTSAs may visit more regularly, until security arrangements are satisfactory. In light of the recent 'Hampton Review'⁶, CTSAs will be encouraged to conduct joint visits with the Health and Safety Inspectors, in an attempt to reduce the number of disruptions a laboratory may have each year.

12. CTSAs are trained to deliver good quality, cost effective advice. To ensure that the CTSAs are able to carry out security inspections, they have to complete an initial three week course on security issues. This course is endorsed by City & Guilds⁷ and results in a vocational qualification. After this, they have to complete a two day course conducted at the UK Health and Safety Laboratory.⁸ During this course they receive instruction from NaCTSO and the Health and Safety Executive, as well as the opportunity to work under supervision in CL2 and CL3 laboratories.

13. There is no doubt that the implementation of ATCSA has improved the security of pathogens and toxins in the UK. There has been debate on whether security legislation should have been included and regulated within the existing health and safety regulations. As a consequence of implementing a separate system, the CTSAs have had to develop new areas of expertise within the life sciences, and the culture within laboratories has been changed so that scientists now view their work with security in mind, based upon a terrorist threat. Now that this has been established, all parties agree that it works effectively under current implementation policy.

14. So far, only two sites have presented any problems, both connected with a shortage of funds to improve security measures at a facility within an educational establishment. These have been resolved prior to any formal legal action being taken. Site management have proposed alternative arrangements that have been cost effective and agreeable to the local CTSA.

Conclusions

15. Since 2003 the UK experience with ATCSA suggests that it was appropriate to generate criminal legislation relating to the security of pathogens and toxins listed on Schedule 5. This has generated new understanding between police, the scientific community and other key agencies

⁶ Reducing administrative burdens: effective inspection and enforcement. March 2005 see <http://www.hm-treasury.gov.uk/media/7/F/bud05hamptonv1.pdf>.

⁷ See <http://www.cityandguilds.com> for details of City and Guilds, which offers 500 qualifications in 28 industry areas.

⁸ <http://www.hsl.gov.uk>.

such as the Health and Safety Executive, the Health Protection Agency, and the Department for Environment, Food and Rural Affairs (Defra).

16. New awareness now exists within registered laboratories on the potential for the misuse of dangerous pathogens and toxins. If scientists have concerns about the physical security of their laboratory or about an individual working there, they can now turn to a local police officer who will understand the environment and the risks involved, and take the appropriate course of action.

17. Schedule 5 of ATCSA will be reviewed every two years to ensure that it is current and includes any new or emerging disease agents, while agents that are no longer relevant are removed from the list. We will also be reviewing whether further changes are required in primary and secondary legislation.
