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Guidance on the Export Control Act for academics and researchers in the UK

Contents

Overview

The Government is committed to ensuring that UK science and technology is not exploited by WMD proliferators or terrorists. Controls on the communication of sensitive technology are an important part of counter-proliferation strategy. This guidance aims to help the scientific and academic communities understand the potential impact of the controls contained in the export control legislation. **In certain circumstances you may need an export licence from the DTI to carry out an activity, and failure to obtain one could result in a criminal offence being committed**.

The proliferation of weapons of mass destruction (WMD) and missiles for their delivery poses a threat both to regional and world stability. The UK and its international partners are committed to countering this threat. The Government recognises that the UK is a world-class scientific nation with frequent contact with scientists in other countries, and does not want to prevent this from continuing. **The Government is not seeking to restrict or vet publication of scientific papers or research, but to prevent misuse**.

Export controls apply to the academic community in the same way as to any other person or entity involved in activities subject to the controls. They are part of a wider national and international regulatory framework relating to proliferation and terrorism (e.g. the Anti-Terrorism, Crime and Security Act 2001, the Biological Weapons Act 1974 and the Chemical Weapons Act 1996). However, many activities taking place within the academic community relate to public domain information or basic scientific research. Such activities are exempt under some of the controls.

Many goods designed for legitimate civil purposes can also contribute to the development of Weapons of Mass Destruction (WMD) and the missiles used to deliver them. One of the major objectives of export controls is to prevent such sensitive technology from falling into the wrong hands. For many years export controls have applied to the export outside the EC of

"dual-use" items, that are designed for civil use but which can also be used for military purposes such as WMD.

However, it would be unduly burdensome to introduce specific controls on all items of potential utility. A balance therefore has been reached, whereby those items most critical to WMD programmes are specifically controlled whilst others, which could make a contribution to such programmes but also have many legitimate uses, are only controlled in certain narrow circumstances; i.e. when their end-use is linked to WMD.

From 1 May 2004 the controls have been extended to include transfers related to a WMD end-use (i) made by any means; (including face-to-face discussions and demonstration); (ii) made within the UK or by UK persons outside the EC (where the end-use is outside the EC); and (iii) technical assistance to a WMD programme outside the EC.

The additional provisions aim to ensure that export controls are comprehensive. They are not aimed specifically at the scientific or academic communities but do have potential application in those sectors; for example, in terms of relevant teaching or research activities. Therefore this guidance provides:

- A broad summary of UK export controls in relation to academia;
- An explanation of where the various exemptions apply;
- A discussion of what this means in practice for academics.
- Case studies to help illustrate these points.

For more detailed guidance and copies of the actual legislation you should refer to the ECO website (www.dti.gov.uk/export.control).

Summary of UK export controls

Controls can apply to the physical export, electronic transfer or transfer by any means of goods, software or technology in the following ways;

either

(i) the item is listed on a "**control list"**;

or

(ii) under an **"end-use control"**.

Academics must first consider whether they are exporting or transferring items on a control list, and if not then consider whether the circumstances fall under any end-use control. A licence will be required if either of the controls apply.

i- Control lists

The relevant lists are contained within Schedules 1 and 2 of the Export of Goods, Transfer of Technology and Provision of Technical Assistance (Control) Order 2003 ('the Order') and the annex to the Council Regulation (EC) No. 1334/2000 of 22 June 2000 on the control of exports of dual-use items and technology ('the Regulation'). Some examples for illustration are included below, but you should consult the full Lists:

Military List examples -

- Phased-array radar antenna and weapon-locating system;
- Thermal imaging devices;
- Target acquisition and tracking systems.

Regulation Annex examples -

- Nuclear (e.g. certain zirconium metal tubes specially designed for use in a nuclear reactor);
- Chemicals (e.g. precursors for toxic chemical agents such as Potassium Cyanide 150-50-8);
- Microorganisms & toxins (e.g. Lassa fever virus in the form of isolated live cultures, apart from vaccines);
- Navigation and avionics (e.g. continuous output accelerometers specified to function at acceleration levels exceeding 100g);

Any person wishing to export controlled goods or technology on a control list by physical or electronic means will need an export licence to be able to do so.

ii- End-use controls:

A licence may still be required where goods or technology are not on the control lists but are intended for WMD-related purposes below (hereafter 'end-use controls'). End-use controls apply where the goods or technology is intended for "any relevant use" outside the EC.

"Any relevant use" is defined in the Regulation (the definition is repeated in the Order) as: -

> *"use in connection with the development, production, handling, operation, maintenance, storage, detection, identification or dissemination of chemical, biological or nuclear weapons or other nuclear explosive devices, or the development, production, maintenance or storage of missiles capable of delivery such weapons".*

The Order provides for end-use controls under five separate articles (4, 7, 8, 9 and 10, described below). Each article has a specific application, controlling different activities and modes of transfer, and its own specific test for triggering the WMD end-use control. However, they are all focused on the same narrow circumstances (i.e. 'any relevant use' outside the EC).

The following is written only as a guide to the application of these Articles and you should consult the Order[1].

Article 4: Physical export of goods, technology or software from the UK to a destination outside the EC.
Article 7: Electronic transfer[2] of technology or software from the UK to a destination outside the EC.

These articles apply where the transferor:

- knows that the software or technology is intended, in its entirety or in part, for 'any relevant use' outside the EC; or
- is informed by Government that the software or technology is or may be intended, in its entirety or in part, for 'any relevant use' outside the EC; or
- has grounds for suspecting that the software or technology is or may be intended, in its entirety or in part, for 'any relevant use'; unless the exporter has made all reasonable enquiries as to its proposed use, and is satisfied that it will not be used for 'any relevant use'.

Article 8: Electronic transfer of software or technology to a person or place within the UK or by a UK person located outside the EC.
Article 9: Non-electronic transfer of technology or software to a person or place within the UK or by a UK person located outside the EC (e.g. face-to-face discussions or demonstration, passing course notes hand-to-hand, etc).

These articles apply where the transferor:

- is aware that the software or technology is intended, in its entirety or in part, for 'any relevant use', **and** has reason to believe that the software or technology may be used outside the EC; or
- is informed by Government that the software or technology is or may be intended, in its entirety or in part, for 'any relevant use' **and** has reason to believe that the software or technology may be used outside the EC;
- Unless the software or technology is in the public domain.

Article 10: Provision of Technical assistance directly or indirectly to a person or place outside the EC (e.g. related to repairs, development, manufacture, assembly, testing, use, maintenance or any other technical service), either from the UK or from a place outside the EC.

This article applies where the person providing technical assistance:

- is aware that the subject of this technical assistance is intended, in its entirety or in part, for 'any relevant use'; or
- is informed by Government that the subject of this technical assistance is or may be intended, in its entirety or in part, for 'any relevant use'.

  - For example, the electronic transfer of listed dual-use navigation technology within the UK falls outside the application of both the Dual-Use Control List and the WMD end-use control in article 7. This means that it would only be controlled under the WMD end-use controls in article 8, if the transferor knows that the technology is intended for 'any relevant use' outside the EC or was informed by Government that it may be so intended (e.g. a US cruise missile programme).

[1] See Annex 1 for the full texts of articles 4, 7, 8, 9 and 10, and Annex 2 for explanatory remarks by Lord Sainsbury during a House of Lords debate of 16 December 2003.
[2] Including by facsimile, e-mail or telephone, except that oral transmission of technology by telephone is included only where the relevant part of a document containing technology is read out over the telephone or described in such a way as to achieve substantially the same result.

Are there any exemptions?[3]

Articles 4 and 7 directly implement the requirement for WMD end-use control contained in the EC Regulation, on exports or electronic transfers to a destination outside the EC. The UK is only permitted to act in this area insofar as the EC Regulation permits, and therefore these end-use controls have no exemptions. This means that the end-use controls contained in Articles 4 and 7 apply to technology or software "in the public domain" or that is part of "basic scientific research" (terms defined below).

However, the dual-use control list (i.e. the annex to the EC Regulation) excludes any technology or software in the public domain or for basic scientific research. This means that, for exports or electronic transfers to a destination outside the EC, software or technology in the public domain or for basic scientific research are only controlled where there are specific end-use concerns.

Articles 8, 9 and 10 of the Order implement an EU Council Joint Action[4] (not contained in the EC Regulation) on technical assistance including oral transfers of technology. Therefore Articles 8, 9 and 10 do not apply to information in the public domain, which is exempted from controls on transfers within the UK or by UK persons outside the EC. This public domain exemption is appropriate given the wide range of routine activities that are potentially caught by these controls. However, the end-use controls in these articles do apply to technology or software for basic scientific research (but only where the technology or software is outside the public domain).

"In the public domain" is defined in the Order to mean "*available without restriction upon further dissemination (no account being taken of restrictions arising solely from copyright*)". Essentially for something to be in the public domain it has to be freely available, e.g. in a book, on a website, at an exhibition etc. It is not in the public domain if for example it needs to be bought from a supplier who controls the supply, or registered for, or where access is restricted to certain persons, or where it is subject to MoD or Government security classifications (e.g. commercially confidential information, Official Secrets Act, etc). Material placed in the public domain in contravention of a statutory prohibition (e.g. classified material) it is unlikely to be considered to be available without further restriction upon its dissemination.

"Basic scientific research" is defined as "*research undertaken principally to acquire knowledge of the fundamental principles or phenomena or observable facts, not primarily directed towards a specific practical aim or objective*".

- For example, software specially designed for certain frequency-hopping techniques falls under a definition in Category 5 of the dual-use control list, and would usually require a licence for export or transfer beyond the EC. However, if this software had been made freely available, e.g. posted on a website which is generally accessible, it would be in the public domain and no export licence would be required. In addition articles 8, 9, and 10 (transfers within the UK and technical assistance) would not apply.

- However, such electronic transfers could still be subject to the article 4 WMD end-use controls, on physical exports or electronic transfer from the UK to an overseas destination. This would apply if the transferor knows, is informed by Government or suspects that the software is intended for 'any relevant use' outside the EC (e.g. as part of a WMD delivery system using remotely operated aerial drones).

[3] See Annex 3 for a short commentary on Section 8 of the Export Control Act 2002, 'Protection of Certain Freedoms'.
[4] Council Joint Action of 22 June 2000 concerning the control of technical assistance related to certain military end-uses (2000/401/CFSP).

What does this mean in practice for researchers and scientists?

A researcher or academic who is involved in exporting (by physical or electronic means) goods, software or technology to a destination outside the EC, where these items fall under a control list definition or are controlled on end-use grounds, will need a licence like any other exporter[5]. This has been the case for many years.

The *new* dimension from 1 May 2004 most likely to affect researchers and academics relates to the controls in articles 8 and 9 of the Order, i.e. transfers by any means within the UK, which could apply within an academic context, for example in the tutor/student relationship. The important point to grasp is that the controls only apply either where you have been *informed* by the Government (usually, but not necessarily, the DTI) that the transfer is intended for a relevant WMD-related use, or where you are *aware* that it is so intended, and you have reason to believe it may be used outside the EC.

Informed: End-use controls operate independently from other Government schemes, and it is important to realise that compliance with one scheme will not necessarily fulfill other statutory requirements. For example, an academic working with pathogens in compliance with Health and Safety regulations is not therefore exempt from end-use controls under Articles 8 and 9. Academics are encouraged to take advantage of all available sources of Government advice to resolve any uncertainties they may have regarding their statutory requirements.

- The Government currently operates a Voluntary Vetting Scheme that invites universities and colleges to seek the Government's view on whether a student and their chosen course of study would pose a proliferation concern. If a student has been vetted under the Government's Voluntary Vetting scheme (or any successor scheme to it), this is an indicator that in the existing circumstances the Government will not subsequently inform the transferor that a licence is required under WMD end-use controls in articles 8 or 9. However, the Government maintains the right to do so if new information came to light, such as if a student applied to change their course of study to a more sensitive subject. Similarly if the transferor (e.g. a tutor) became aware of an intended WMD use, despite a student having been vetted, he should apply for a licence.

Aware: No licence would be required simply by virtue of the subject being studied, the nationality of the recipient of the information, nor any combination of these generic issues – the new end-use controls are only triggered by specific reasons to believe, that the software or technology being transferred is intended for 'any relevant use' outside the EC.

- For example, Articles 8 and 9 would not be triggered simply due to a student being from a country of proliferation concern. However, they could apply if a tutor came to be aware, through specific evidence, that one of their students intended to make use of their studies for a WMD programme outside the EC – regardless of the their nationality. Suspicion alone would not trigger an obligation under the Article 8 and 9 controls.

- Nor would Articles 8 and 9 be triggered simply due to the subject of research being of potential utility in the development of chemical weapon precursors. However, the new controls would apply if a researcher came to be aware that their international collaborators intended to use their joint findings for a WMD programme outside the EC.

Public domain: Articles 8 and 9 do not apply to information in the public domain. While it is not possible to generalise and every case will need be judged on its individual circumstances, a transfer of WMD-related technology to a foreign student attending a first degree course in

[5] Only a few of the more sensitive dual-use items require a licence for export within the EC (e.g. nuclear reactor related items, certain rocket motors). These items are specified in Annex IV of The Dual-Use Items (Export Control) Regulations 2000 as amended.

the UK is unlikely to require a licence, insofar as the subject matter is more likely to be in the public domain. Greater care might however be needed in the case of certain post-graduate research, for example, which might well involve the transfer of technology or software which is not in the public domain and therefore is not exempt under the new controls.

- The intention to publish a paper does not in itself place that information in the public domain, so any sharing of this software or technology prior to its being placed in the public domain may require a licence under Articles 8 and 9. For example, there are additional procedures operated by academia before publication of research, such as prior/peer review of the findings, which may place it outside the public domain due to restrictions on further dissemination.

Nationality: The new controls do not necessarily work in the same way as similar-sounding 'technology transfer' controls operated by other countries, such as the USA, which automatically control the transfer of relevant technology from their citizens to all foreign nationals ("deemed exports") and which apply regardless of potential end-use. Under UK legislation, export controls are based on specific end-use rather than nationality.

- For example, a UK researcher travels to Hong Kong for a closed symposium on predicting the next SARs outbreak. Regardless of the nationality of the fellow delegates, the new WMD end-use controls could apply to the researcher as a UK person acting outside the EC – but only if they knew or were informed by Government that one of the delegates intended to put their contribution for 'any relevant use' outside the EC.

How to assess whether transfers are licensable:

To enable academics to assess whether their activities might be caught by these controls, the following questions are proposed as an initial checklist:

1. Are the academics working in any of the disciplines that could be targeted by would-be proliferators?
2. Is the technology or software in the public domain?

   (If the technology or software is in the public domain the only check that needs to be made is against the WMD end-use controls under Articles 4 and 7; these controls only apply to physical or electronic means of transfer from the UK to an overseas destination)
3. Does the technology or software fall under a definition given in one of the control lists (e.g. UK Military List or EC Dual-Use List)?
4. Could the technology or software be put to "any relevant use"?
5. Is the academic aware that the recipient of the technology or software intend to put it to "any relevant use"?
   a. Article 4 and 7 (export or electronic transfer to a person or place outside the EC) – triggered if know, informed or suspect;
   b. Articles 8, 9 and 10 (transfer by any means in UK or technical assistance outside EC) – triggered if know or informed.
6. Does the academic have reason to believe that recipient intends to use the information outside the EC?

PLEASE NOTE: Whilst every effort has been made to ensure the information in this guidance is accurate, it does not in any way take precedence over the actual legislation. If you are concerned about the operation of the legislation in a specific case, you are invited to contact ECO, or to seek your own legal advice.

Case Studies

The commentary on these case studies is intended to illustrate the principles involved in export controls, and does not represent an authoritative interpretation of the legislation – only a court of law can do this. The commentary aims to explain, as far as possible on the basis of the information provided, the relevant controls that should be considered. In several cases the details of the scenarios concerned are not sufficient to be absolutely certain whether that software or technology falls under control; for example, whether certain advanced flight control systems are licensable under the Dual-Use control list.

1 A student from a Middle-Eastern country would like to study Medicine, including core subjects such as microbiology, in the UK. Would the fact that the core elements of the course are capable of misuse in a chemical and biological weapons programme mean that the tutor would need to seek an export licence?

Only articles 8 and 9 apply to teaching in the UK. The subject matter of a medical degree course is likely to be in the public domain, in which case the transfer of such technology would be exempt from these controls (i.e. articles 8 and 9 would not apply).

However, should a student engage in more advanced research not freely available, such as during an elective or a student selected component, a licence would only be required if the tutor was aware that the technology being taught was intended for a relevant use or was informed by the Government that it may be so intended, and had reason to believe it may be used outside the EC. Generalised concerns about WMD programmes in Middle Eastern countries would not be sufficient.

In addition, practical research in areas such as bacteriology and toxicology falls under strict regulatory requirements in addition to export controls, such as Health & Safety legislation and the Anti-Terrorism, Crime & Security Act 2001 (Part 6, security of pathogens).

2 A post-graduate student from Eastern Europe and a post-graduate student from South Asia both wish to study programmes on the modification of semiconductor chips, at different UK universities. Will the professor at each university need to seek a licence to teach these students?

It is important to note that different post-graduate courses contain different levels of public domain technology and software; for example, a taught Masters course is likely to use more information in the public domain than research for a PhD. Post-graduate research programmes will, by their very nature, include technology or software that is not in the public domain, and so the public domain exemptions are unlikely to apply to such teaching.

Technology or software for the development, production and modification of semi-conductor chips is likely to fall under a definition in the Dual-Use Control List (Category 3; electronics). This means that a dual-use export licence would be required under article 7 to electronically transfer course notes (not in the public domain) outside the EC.

Face-to-face teaching of students in the UK would only fall under the controls in article 9 (transferring technology by any means) if either Professor knew that their student intended to put their teaching to “any relevant use” outside the EC, or were informed by Government that this may be the case. Only then would the Professor require a licence to teach this technology or software to this student.

Similarly passing or e-mailing such licensable course notes to someone within the UK also falls under the controls in article 8 and 9; i.e. a licence is only required where you know that the software or technology is intended for ‘any relevant use’ outside the EC or are informed by Government that it may be so intended.

3 A researcher at a UK University wishes to send an email to a fellow researcher in Norway about new developments in his research on advanced flight control systems. The UK researcher knows that the Norwegian researcher is involved in collaborative research with academics in several different countries in Central and South-Eastern Asia. Would the UK researcher need an export licence to send that email?

An email would be a transfer of technology or software by electronic means out of the UK (i.e. article 7).

Technology for the development, production or use of an advanced flight control system which has been specially designed or modified for military use, falls under a definition of the UK Military List and so is licensable under Article 6 of the Order when electronically transferred to any destination – including other EC Member States. In addition, certain flight control technology falls under a definition in the Dual-Use Control List (category 7; navigation and avionics).

If the e-mail does not contain any listed dual-use software or technology, the final check on whether an export licence might be required relates to the end-use control under article 7 (electronic transfers of software and technology to a destination outside the EC). This control has no exception for public domain information. A licence would be required under these controls if the researcher knows, has been informed by Government, or suspects that the technology will be used by the recipient for "any relevant use" outside the EC. In this case, the recipient is definitely the Norwegian but could also be an academic in Central or South-Eastern Asia.

Under the end-use control in article 7, all reasonable enquiries should be made to allay any suspicions that the researcher may have about the end user and the intended end use of the technology.

ANNEX 1: Excerpt from the Export of Goods, Transfer of Technology and Provision of Technical Assistance (Control) Order 2003 – Articles 4, 7, 8, 9 and 10

Export of dual-use goods and end-use control

4. —(1) Subject to the provisions of this Order, goods of a description specified in Schedule 2 to this Order are prohibited to be exported to the destinations specified in that Schedule as being prohibited destinations in relation to those goods.

(2) Subject to the provisions of this Order—

(a) goods specified in Annex I but not in Annex IV to the Regulation;
(b) goods of a description specified in Schedule 2 to this Order; or
(c) goods not specified in Annex I to the Regulation or Schedule 2 to this Order but for the exportation of which from the European Community an authorisation is required pursuant to:
    (i) Article 4(1) of the Regulation; or
    (ii) Article 4(2), (3) or (4) of the Regulation,

are prohibited to be exported to any destination in any Member State where the exporter knows at the time of exportation that the final destination of such goods is outside the European Community and no processing or working is to be performed on those goods in any Member State to which they are to be exported.

(3) Subject to the provisions of this Order, dual-use goods not listed in Annex I of the Regulation, which the exporter has grounds for suspecting are or may be intended, in their entirety or in part, for any relevant use, are prohibited to be exported to any destination outside the European Community, unless the exporter has made all reasonable enquiries as to their proposed use and is satisfied that they will not be so used.

(4) Subject to the provisions of this Order, goods of a description specified in Annex I to the Regulation, which are goods in transit, are prohibited to be exported to any destination.

(5) Subject to the provisions of this Order, paragraphs (1), (2), (3) and (4) do not prohibit the exportation of any goods in relation to which a licence in writing has been granted by the Secretary of State, provided that all conditions attaching to the licence are complied with.

….

Electronic transfer of controlled dual-use technology and software and end-use controls

7. —(1) Subject to the provisions of this Order, no person shall transfer by any electronic means any dual-use software or technology of a description specified in Schedule 2 to this Order where the transfer is to a person or place in any destination specified in that Schedule as being a prohibited destination in relation to that software or technology.

(2) Subject to the provisions of this Order, no person shall transfer by any electronic means to a person or place in any Member State any dual-use software or technology that is either—

(a) specified in Annex I but not in Annex IV to the Regulation;
(b) specified in Schedule 2 to this Order; or
(c) not specified in Annex I to the Regulation or Schedule 2 to this Order but for the transfer of which from the European Community an authorisation is required pursuant to—
    (i) Article 4(1) of the Regulation; or
    (ii) Article 4(2), (3) or (4) of the Regulation,

if he knows at the time of the transfer that such software or technology is intended for use outside the European Community and no processing or working is to be performed on that software or technology in any Member State to which it is to be transferred.

(3) Subject to the provisions of this Order, no person shall transfer by any electronic means any dual-use software or technology not listed in Annex 1 of the Regulation, to a person or place outside the European Community where he has grounds for suspecting that such software or technology is or may be intended, in its entirety or in part, for any relevant use, unless he has made all reasonable enquiries as to its proposed use and is satisfied that it will not be so used.

(4) Subject to the provisions of this Order,

(a) Article 21(1) of the Regulation and paragraphs (1), (2), and (3) of this article do not prohibit the transfer of any dual-use software or technology in relation to which a licence in writing has been granted by the Secretary of State provided that all conditions attaching to the licence are complied with; and
(b) Article 3(1) of the Regulation does not prohibit the transfer of any dual – use software or technology under the authority of the Community General Export Authorisation, or in relation to which a licence in writing has been granted by the Secretary of State or a Community Licence has been granted by any

competent authority, provided that all conditions applying to that authorisation or attaching to the licence or Community Licence are complied with.

End-Use Controls on the transfer of all software and technology by any means

Electronic transfer of all software and technology and end-use controls

8. —(1) Subject to the provisions of this Order, no person shall transfer by any electronic means any software or technology to a person or place within the United Kingdom, where—

(a) he has been informed by the Secretary of State that such software or technology is or may be intended, in its entirety or in part, for any relevant use; or

(b) he is aware that such software or technology is intended, in its entirety or in part, for any relevant use,

if he has reason to believe that such software or technology may be used outside the European Community.

(2) Subject to the provisions of this Order and where paragraph (3) applies, no United Kingdom person shall transfer by any electronic means any software or technology from any place outside the European Community to—

(a) a person or place outside the European Community; or

(b) a person or place in any Member State if he knows at the time of transfer that such software or technology is intended for use outside the European Community and no processing or working is to be performed on that software or technology in any Member State to which it is to be transferred.

(3) This paragraph applies where—

(a) the United Kingdom person has been informed by a competent authority that such software or technology is or may be intended, in its entirety or in part, for any relevant use; or

(b) the United Kingdom person is aware that such software or technology is intended, in its entirety or in part, for any relevant use.

(4) Subject to the provisions of this Order, no United Kingdom person shall transfer by any electronic means any software or technology from any place outside the European Community to a person or place within the United Kingdom where—

(a) he has been informed by a competent authority that such software or technology is or may be intended, in its entirety or in part, for any relevant use; or

(b) he is aware that such software or technology is intended, in its entirety or in part, for any relevant use,

if he has reason to believe that such software or technology may be used outside the European Community.

(5) For the purposes of paragraphs (1) and (4) a person has reason to believe that software or technology may be used outside the European Community if he knows that it may be or is intended to be so used or if he has been informed by the Secretary of State that it may be or is intended to be so used.

(6) Nothing in paragraph (1), (2) or (4) shall be taken to prohibit the transfer of any software or technology in the public domain.

(7) Paragraph (1), (2) or (4) do not prohibit the transfer of any software or technology in relation to which a licence in writing has been granted by the Secretary of State, provided that all conditions attaching to the licence are complied with.

Non-electronic transfer of all software and technology and end-use controls

9. —(1) Subject to the provisions of this Order, and where paragraph (2) applies, no person ('the person concerned') shall transfer by any non-electronic means any software or technology to—

(a) a person or place outside the European Community; or

(b) a person or place in any Member State if he knows at the time of transfer that such software or technology is intended for use outside the European Community and no processing or working is to be performed on that software or technology in any Member State to which it is to be transferred.

(2) This paragraph applies where—

(a) the person concerned has been informed by the Secretary of State that such software or technology is or may be intended, in its entirety or in part, for any relevant use; or

(b) the person concerned is aware that such software or technology is intended, in its entirety or in part, for any relevant use.

(3) Subject to the provisions of this Order, no person shall transfer by any non-electronic means any software or technology to a person or place within the United Kingdom where—

(a) he has been informed by the Secretary of State that such software or technology is or may be intended, in its entirety or in part, for any relevant use; or

(b) he is aware that such software or technology is intended, in its entirety or in part, for any relevant use, if he has reason to believe that such software or technology may be used outside the European Community.

(4) Subject to the provisions of this Order and where paragraph (5) applies, no United Kingdom person shall transfer by any non-electronic means any software or technology from any place outside the European Community to—

(a) a person or place outside the European Community; or
(b) a person or place in any Member State if he knows at the time of transfer that such software or technology is intended for use outside the European Community and no processing or working is to be performed on that software or technology in any Member State to which it is to be transferred.

(5) This paragraph applies where—

(a) the United Kingdom person has been informed by a competent authority that such software or technology is or may be intended, in its entirety or in part, for any relevant use; or
(b) the United Kingdom person is aware that such software or technology is intended, in its entirety or in part, for any relevant use.

(6) For the purposes of paragraph (3) a person has reason to believe that software or technology may be used outside the European Community if he knows that it may be or is intended to be so used or if he has been informed by the Secretary of State that it may be or is intended to be so used.

(7) Nothing in paragraph (1), (3) or (4) or shall be taken to prohibit the transfer of any software or technology in the public domain.

(8) Paragraphs (1), (3) and (4) do not prohibit the transfer of any software or technology in relation to which a licence in writing has been granted by the Secretary of State, provided that all conditions attaching to the licence are complied with.

PART III

CONTROLS ON THE PROVISION OF TECHNICAL ASSISTANCE

End-use control on technical assistance

10. —(1) Subject to paragraphs (3) and (4), no person shall directly or indirectly provide to a person or place outside the European Community any technical assistance related to the supply, delivery, manufacture, maintenance or use of anything which—

(a) he has been informed by the Secretary of State is or may be intended, in its entirety or in part, for any relevant use; or
(b) he is aware is intended, in its entirety or in part, for any relevant use.

(2) Subject to paragraphs (3) and (4), no United Kingdom person shall directly or indirectly provide from a place outside the European Community to any person or place outside the European Community any technical assistance related to the supply, delivery, manufacture, maintenance or use of anything which—

(a) he has been informed by the Secretary of State is or may be intended, in its entirety or in part, for any relevant use; or
(b) he is aware is intended, in its entirety or in part, for any relevant use.

(3) For the purposes of paragraphs (1) and (2),—

(a) a person directly provides technical assistance if in particular he provides technical assistance or agrees to do so; and
(b) a person indirectly provides technical assistance if in particular he makes arrangements under which another person provides technical assistance or agrees to do so.

(4) Paragraphs (1) and (2) do not prohibit the provision of any technical assistance in relation to which a licence in writing has been granted by the Secretary of State, provided that all conditions attaching to the licence are complied with.

ANNEX 2: Transcript of Lord Sainsbury's remarks during a House of Lords debate 16 December 2003 (Official Report, 16 Dec 2003 : Column 1089-1090)

I will now give the House a clear explanation of the Government's position in answer to questions about the drafting of Articles 8 and 9 of the order. Article 8(1) contains the prohibition on the electronic transfer of software or technology. The article prohibits the transfer without licence of software or technology to a person or place in the United Kingdom, if the transferor has been informed by the Secretary of State that such software or technology is or may be intended, in its entirety or in part, for a relevant use; or if he is aware that it is intended for a relevant use, and he has reason to believe that it may be used outside the European Community. The phrase "any relevant use" is defined in Article 2. The definition follows the definition in the EC dual-use regulation and broadly covers usage in connection with weapons of mass destruction programmes.

For the test in Article 8(1) to be satisfied, the transferor must first either be informed by the Secretary of State or be aware that the software or technology is intended for a relevant use. For the "aware" part of the test to be met, there must be a realistic prospect that the person who has the intention to use the software or technology for a relevant purpose will be in receipt of the software or technology. The possible intention of an entirely unconnected person is not relevant. That, however, is not the end of the story. The transferor must also have reason to believe that a relevant use will take place, outside the EC. That does not mean that there is a theoretical possibility that it may be used outside the EC, a condition which, of course, may logically be satisfied in every case. Rather, there must be a positive reason for the belief on the part of the transferor. Article 8(5) confirms that by stating that, for the purposes of Article 8(1), a person has reason to believe that software or technology may be used outside the EC, if he knows that it may be, or is intended to be, so used, or if he has been informed by the Secretary of State that it is intended to be so used. If the constituent parts of that test are met, the transferor must apply for a licence before the transfer is made.

Article 9(3) contains the mirror provision to Article 8(1) in respect of the non-electronic transfer of software and technology. For the avoidance of doubt, the comments that I made about the interpretation of Article 8(1) apply equally to the interpretation of Article 9(3).

The wording of Article 10 is deliberately different from that in Articles 8 and 9, but the "is aware" test is the same as for those articles. A person may be "aware" only if he knows that he has goods intended for a relevant use.

The noble Baroness also raised a constitutional point. The new controls have been carefully framed to respect activities that fall under certain protected freedoms described in Section 8 of the Export Control Act 2002; namely, communicating or making information generally available to the public and communicating information in the ordinary course of scientific research. The Secretary of State may regulate such activity, if interference is necessary and no more than necessary, as determined by her in accordance with Section 8(2), and she considers that the new controls imposed by Articles 8 and 9 of the order are necessary.

ANNEX 3: Section 8 of the Export Control Act 2002, 'Protection of Certain Freedoms'.

Section 8 of the Act places limitations on the power of the Secretary of State to make any control order which has the effect of prohibiting or regulating certain protected freedoms. Any interference in these protected freedoms must be no more than necessary.

The question of necessity shall be determined by the Secretary of State. The Secretary of State has complied with this provision in making the Export of Goods, Transfer of Technology and Provision of Technical Assistance (Control) Order 2003.

In practice, this means that the controls have been carefully framed to respect the protected freedoms. While the Secretary of State can make a control order affecting the freedom to carry on such activities if this is deemed necessary, for example due to international obligations and commitments undertaken by the United Kingdom, Section 8 also requires that any control must be no more than necessary. In order to be consistent with the requirements of Section 8, any new order made under the Export Control Act 2002 must balance the needs both to control the activity and to respect the freedom to carry on that activity.

8 Protection of Certain Freedoms

(1) The Secretary of State may not make a control order which has the effect of of prohibiting or regulating any of the following activities:

a) Communication of information in the ordinary course of scientific research;

b) The making of information generally available to the public; or

c) The communication of information that is generally available to the public;

unless the interference by the order in the freedom to carry on the activity in question is necessary (and no more than is necessary).

(2) The question whether any such interference is necessary shall be determined by the Secretary of State by reference to the circumstances prevailing at the time the order is made and having considered the reasons for seeking to control the activity in questions and the need to respect the freedom to carry on that activity.