

BIS | Department for Business
Innovation & Skills

**EXPORT CONTROL
ORGANISATION**

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

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1. Introduction

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 ECO 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 European Union (EU) 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.

On 1 May 2004 the controls were extended to cover:

- (i) transfers related to WMD end-use made by any means (including face-to-face discussions and demonstration) and not just physical exports and electronic transfers as previously;
- (ii) transfers related to a WMD end-use made within the UK or by UK persons outside the EU (where the end-use is outside the EU) and not just transfers from the UK to an overseas destination as previously; and
- (iii) technical assistance to a WMD programme outside the EC.

The additional provisions aimed to ensure that export controls were comprehensive and they have been maintained in the Export Control Order 2008 ('the 2008 Order'). 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 ([Annex A](#)).

More detailed guidance, including copies of the actual legislation is available on the export control pages of the Businesslink website at <http://www.businesslink.gov.uk/exportcontrol>¹.

2. 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

¹ See also Annex B1 for explanatory remarks by Lord Sainsbury during a House of Lords debate of 16 December 2003 – these concern the provisions from which articles 10 and 19 of the 2008 Order derive.

circumstances fall under any end-use control. A licence will be required if either type of control applies.

2.1 Control Lists

The relevant lists are contained within Schedules 2 and 3 to the 2008 Order and Annex I to Council Regulation (EC) No. 428/2009, on the control of exports of dual-use items and technology ('the Regulation').

Some examples are included for illustration 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.

EU Dual-Use List examples (i.e. some items listed in the Annex I to the Regulation) :

- 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);
- Micro-organisms & 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 physically export goods, software or technology on a control list or to transfer it by electronic means² will need an export licence to be able to do so. In the case of the Military List, the controls apply to exports or transfers out of the UK. In the case of the EC Dual-Use List, the controls usually apply just to exports or transfers out of the EU, but there are some exceptions.³

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.

³ Only a few of the more sensitive dual-use items require a licence for export within the EU – see Annex IV of the Regulation for a list of the relevant items. This includes nuclear reactor related items and certain rocket motors, for example.

2.2 End-Use Control

A licence may still be required where goods or technology are not on the control lists but are intended for WMD-related purposes. End-use controls apply where the goods or technology are or may be intended, in their entirety or in part, for “WMD purposes”, that is to say:

“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 key end-use control is in the Regulation (Article 4(1), (4)) but this is supplemented by a number of provisions of the 2008 Order (articles 6, 7, 8, 10, 11, 12 and 19).

Each of the different provisions 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. sending goods, software or technology directly or indirectly out of the EU where they are intended for ‘WMD purposes’).

The following is written only as a guide to the application of the relevant provisions and you should consult the Regulation and the 2008 Order.

- **Regulation, Article 4(1), (4): Physical export and electronic transfer** of goods, technology or software from the EU to a destination outside the EU where you are aware or have been informed by Government (for people operating in the UK, this is usually the Department for Business (BIS) but can be another Government Department or an overseas Government) that there is a WMD end-use risk.
- **2008 Order, article 6: Physical export and electronic transfer** of goods, technology or software from the UK to a destination outside the EU where you have grounds to suspect that there is a WMD end-use risk (unless, having made all reasonable enquiries, you are satisfied there will be no WMD end-use).
- **2008 Order, article 7: Physical export and electronic transfer** of goods, technology or software from the UK to a destination within the EU where you are aware or have been informed by Government that there is a WMD end-use risk and you know the final destination is outside the EU.

- **2008 Order, article 8: This only applies to physical exports passing, “in transit”, through the UK** and imposes similar controls to those imposed by Article 4 of the Regulation on general exports.
- **2008 Order, article 10: Electronic transfer or non-electronic transfer** (e.g. face-to-face discussions or demonstration, passing course notes hand-to-hand, etc) of software or technology within the UK where you are aware or have been informed by Government that there is a WMD end-use risk and that the final destination is outside the EU. This does not apply to software or technology in the public domain.
- **2008 Order, article 11: Electronic transfer or non-electronic transfer** of software or technology by a UK person located outside the EU where the person is aware or has been informed by Government that there is a WMD end-use risk. This only applies where the transfer is to a destination outside the EC or, broadly, where the transferor knows or has been informed by Government that the final destination is outside the EU. It does not apply to software or technology in the public domain.
- **2008 Order, article 12: Non-electronic transfer** of software or technology from the UK where you are aware or have been informed by Government that there is a WMD end-use risk and either the immediate destination is outside the EU or you know the final destination is outside the EU. This does not apply to software or technology in the public domain.
- **2008 Order, article 19: Provision of technical assistance** directly or indirectly to a person or place outside the EU (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 EU. 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 ‘WMD purposes’; or
 - is informed by Government that the subject of this technical assistance is or may be intended, in its entirety or in part, for ‘WMD purposes’.

For example, the electronic transfer of listed dual-use navigation technology within the UK could only be controlled under the provision relating to transfers within the UK (article 10 of the 2008 Order). This only applies if the transferor is aware or has been informed by Government that there is a WMD end-use risk and that the final destination is outside the EU (e.g. a in the case of a US cruise missile programme).

3. Are there any exemptions?

See Annex [B2](#) for a short commentary on Section 8 of the Export Control Act 2002, 'Protection of Certain Freedoms'.

- **Article 4 of the Regulation**, and articles 6 to 8 of the 2008 Order which are closely related to it, have no exemptions based on technology or software being "in the public domain" or a transfer being part of "basic scientific research" (terms defined below). Because the Regulation is directly applicable (i.e. it takes effect as UK law without any implementing measures), our scope for adding exemptions is limited.
- However, the EU Dual-Use List provides that its controls do not apply to technology or software in the public domain or basic scientific research. This means that, for exports or electronic transfers to a destination outside the EU, listed software or technology in the public domain or for basic scientific research is only controlled where there are specific end-use concerns.
- **Articles 10, 11 and 12** of the 2008 Order implement an EU Council Joint Action ⁴ (i.e. these provisions do not derive from the Regulation) on technical assistance including oral transfers of technology. These provisions do not apply to information in the public domain. This public domain exemption is appropriate given the wide range of routine activities that are potentially caught by these controls on electronic transfers within the UK and by UK persons outside the EU and on non-electronic transfers. 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 2008 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

⁴ Council Joint Action of 22 June 2000 (2000/401/CFSP) concerning the control of technical assistance related to certain military end-uses.

(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 *“experimental or theoretical work undertaken principally to acquire knowledge of the fundamental principles or phenomena or observable facts and not primarily directed towards a specific practical aim or objective”*.
- For example, software specially designed for certain frequency-hopping techniques falls under an entry in Category 5 of the EU Dual-Use List, and would usually require a licence for export or transfer beyond the EU. 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 10, 11, and 12 (electronic transfers within the UK and by UK persons outside the EU and non-electronic transfers) could not apply because of the public domain exemption there.
- However, export or transfer could still be subject to the WMD end-use controls, in Article 4 of the Regulation or article 6, 7 or 8 of the 2008 Order, on physical exports or electronic transfer from the UK to an overseas destination. A possible WMD end-use might be as part of a WMD delivery system using remotely operated aerial drones. One of the controls would apply if the exporter or transferor knew, had been informed by Government or had grounds for suspecting that the software was intended for ‘WMD purposes’ and was going directly to a destination outside the EC. Alternatively, if the software was going to a destination in the EC, but the exporter or transferor knew it was on its way out, the export or transfer would be controlled if the transferor knew about or had been informed by Government of the WMD end-use.).

4. What does this mean in practice for researchers?

A researcher or academic who is involved in exporting (by physical or electronic means) goods, software or technology to a destination outside the EU, where these items fall under a control list definition or are controlled on end-use grounds, will need a licence like any other exporter. This was the case even before 1 May 2004. The element of the controls most likely to affect researchers and academics is the control on transfers by any means within the UK (now in article 10 of the 2008 Order but formerly split between articles 8 and 9 of the Export of Goods, Transfer of Technology and Provision of Technical Assistance (Control) Order 2003). This 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 Department for Business or BIS) that the transfer is intended for WMD purposes, or where you are *aware* that it is so intended, and you know or have been informed by Government that it may be or is intended to 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 fulfil 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 article 10 of the 2008 Order. 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 Foreign Office currently operates the Academic Technology Approval 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 this Government 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 article 10. 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 'WMD purposes' outside the EU. For example, article 10 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 EU – regardless of their nationality. Suspicion alone would not trigger an obligation under the article 10 controls. Nor would article 10 be triggered simply due to the subject of research being of potential utility in the development of chemical weapon precursors. However, the 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 EU.

- **Public domain**

Article 10 does 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 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 article 10 or one of the other provisions. 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 WMD end-use controls (here in article 11) could apply to the researcher as a UK person acting outside the EU – but only if they knew or were informed by Government that one of the delegates intended to use their contribution for 'WMD purposes'.

- **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 in Article 4 of the Regulation and articles 6, 7 and 8 of the 2008 Order; these controls only apply to physical or electronic 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 EU Dual-Use List)?
4. Could the technology or software be used for “WMD purposes”?
5. Is the academic aware that the recipient of the technology or software intends to use it for “WMD purposes”? Does he have suspicions? (The controls in article 6 on export and electronic transfer to a destination outside the EU are triggered by “grounds for suspecting”.)
6. Does the academic know that the recipient intends to use or send the information outside the EU?

5. Further Information

For further information on the Rating Enquiry Service and information required when applying for a licence or any other general export control related matters please contact:

ECO Helpline
Export Control Organisation
Department for Business, Innovation and Skills
3rd Floor
1 Victoria Street
SW1H 0ET
Tel: 020 7215 4594
Fax: 020 7215 2635
Email: eco.help@bis.gsi.gov.uk
Website: <http://www.bis.gov.uk/exportcontrol> or
<http://www.businesslink.gov.uk/exportcontrol>

NOTE: This document is for guidance only. It is NOT a statement of law. Before exporting you should refer to the legal provisions in force at the time.

ANNEX A – 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 EU Dual-Use List.

CASE STUDY 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 article 10 applies 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. article 10 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 WMD purposes or was informed by the Government that it may be so intended, and knew or had been informed by the Government that it may be used outside the EU. 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).

CASE STUDY 2

A post-graduate student from Eastern Europe and a postgraduate 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 an entry in the EU Dual-Use List (Category 3; electronics). This means that a dual-use export licence would be required under Article 3 of the Regulation to electronically transfer course notes (not in the public domain) outside the EU.

Face-to-face teaching of students in the UK would only fall under the controls in article 10 (transferring technology within the UK) if either Professor knew that their student intended to put their teaching to “WMD purposes” outside the EU, 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 10; i.e. a licence is only required where you know that the software or technology is intended for ‘WMD purposes’ outside the EU or are informed by Government that it may be so intended.

CASE STUDY 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.

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 an entry in the UK Military List and so its electronic transfer to any destination (including another EC Member State) is licensable under article 3 of the 2008 Order. In addition, certain flight control technology falls under an entry in the EU Dual-Use List (Category 7; navigation and avionics) and so its electronic transfer out of the EU is licensable under Article 3 of the Regulation.

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 controls under article 4 of the Regulation and article 6 of the 2008 Order (the end-use controls that operate where goods, software or technology are being exported or electronically transferred directly from the UK to a destination outside the EU).

These controls have no exception for public domain information. A licence would be required under these controls if the researcher knows, has been informed by Government, or has grounds for suspecting that the technology will be used by the recipient for "WMD purposes".

Under the end-use control in article 6 of the 2008 Order, 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 B – LEGISLATIVE BACKGROUND

ANNEX B1: Transcript of Lord Sainsbury's remarks on Articles 8, 9 and 10 of the Export of Goods, Transfer of Technology and Provision of Technical Assistance (Control) Order 2003 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 B2: 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 Control Order 2008.

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 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 question and the need to respect the freedom to carry on that activity.