

**ACCEPTANCE OF OVERSEAS CENTRES SUPPLYING NON-HUMAN
PRIMATES TO UK LABORATORIES: A REPORT BY THE PRIMATES
SUB-COMMITTEE OF THE ANIMALS PROCEDURES COMMITTEE**

FEBRUARY 2006

Acceptance of overseas centres supplying non-human primates to UK laboratories: A report by the Primates Sub-Committee of the Animals Procedures Committee

Executive summary

This report presents the APC Primates Sub-Committee's (PSC) recent work on the acquisition and supply of non-human primates¹ for use in research and testing under the Animals (Scientific Procedures) Act 1986. The objective of this part of the Sub-Committee's work programme has been to review and where necessary make recommendations that will improve the process for acceptance of overseas centres which supply primates to UK laboratories.

The Home Office Inspectorate and the PSC both have a responsibility to provide advice to the Home Office on the acceptability of centres as a source of primates, and the proposals in the report are intended to help both bodies give better informed advice in this respect. The report provides the basis for the development of a more structured system of assessment and acceptance of breeding and supplying centres, so that there is a clear audit trail of the decisions made in each case.

A second and equally important objective is to update current UK processes with regard to the breeding and supply of primates. Although the PSC and Home Office cannot actually set standards for the centres, we hope that the important processes will help reduce the negative impact on primate welfare of the whole process of acquisition.

Lastly, the report contributes to greater transparency by setting out more detail about the way that overseas centres supplying primates to the UK are assessed by the Home Office and how advice from the Home Office Inspectorate and the PSC is formulated.

The PSC has been pleased to note progress made over the years. For example, there have been improvements made in husbandry and care after visits to centres, both by the Home Office Inspectorate and clients. The visits have provided a visible presence and helped press for, and encourage, improvements in animal welfare, with advice and support being offered. It is important to ensure that this type of progress continues.

The main focus is on macaque species but the principles within the document are applicable to marmosets and other species of non-human primate supplied to the UK.

Summary of recommendations

The PSC has already amended its own procedures and expectations as described within the report. In addition the report contains a series of recommendations to the Home Office which are summarised below.

The PSC recommends that:

- 1. The criteria for assessing centres together with information on the process used by the Home Office and the PSC to assess centres, should be made widely available so that everyone is aware of the standards that the facilities are working

¹ Non-human primates are hereinafter referred to as primates

to. In the interests of transparency, the criteria should be published as an annex to the Annual Report of the APC, and on the Home Office and APC web-sites

- 2. It should be a formal requirement that all applications should be passed to the PSC for discussion and formulation of advice. Discussions with the Inspector/s responsible for visiting the centres is extremely helpful and should remain an essential part of this process
- 3. The criteria set out in section 6 of this report should be used by the Home Office as a basis for assessment of the acceptability of suppliers of primates. The PSC will use these in the formulation of its independent advice to the Home Office
- 4. All overseas centres should have a clear strategy designed to help them to achieve the required minimum standards set out in this report within a reasonable timeframe. The Sub-Committee and the Home Office Inspectorate should regularly monitor progress towards this goal.
- 5. All *new* centres should be visited by a Home Office Inspector *prior* to consideration of the centre's details by the Sub-Committee. Staff from research establishments applying to source primates from a new centre should also be encouraged to visit the facilities, but this should be as well as, not instead of, the Inspectorate. If an urgent and legitimate need arises for animals to be obtained from an overseas breeding centre, and the animals in question cannot be obtained from one that is already accepted by the Home Office, then a decision to accept a new centre may be based on the revised application form and accompanying information alone. However, this would be on a 'one-off' basis, with a visit necessitated if further animals were requested.
- 6. Once a centre has been accepted, it should be revisited by the Home Office Inspectorate at two-yearly intervals prior to re-acceptance, in order to continue to promote and monitor improvements in standards. Additional visits may be necessary where there are specific issues that need to be addressed.
- 7. The Home Office Inspectorate should maintain a user-friendly database or spreadsheet for those importing primates that will allow easy identification and comparison of standards at all overseas centres supplying primates to the UK. Resources should be made available to facilitate this if necessary.
- 8. The Home Office, in conjunction with the PSC, should review the criteria for acceptance of centres (and the process if appropriate) at three-yearly intervals, or earlier if this becomes necessary.

1. The APC Primates Sub-Committee and its remit

The APC has had a specific Working Group on primates since 1992. In 1994, the Group provided a set of recommendations to the Secretary of State concerning the acquisition and use of non-human primates. These were implemented by the Home Office in 1996. In the same year, the status of the Working Group was changed and it became the Primates Sub-Committee.

In 1997, the APC conducted a review of the Animals (Scientific Procedures) Act 1986 (ASPA). One of the conclusions of that review was that the Primates Sub-Committee should take on a more strategic role, particularly given the current concern about the

arrangements for transporting primates to the UK, and the fact that the European Commission had turned its attention to all aspects of the use of primates in scientific procedures. It was agreed that the Sub-Committee would lead on issues such as:

- (i) how to minimise, and eventually eliminate, primate use and suffering;
- (ii) acquisition of primates (availability of animals in the UK, the suitability of overseas sources and transport arrangements);
- (iii) housing and care;
- (iv) the use of wild-caught primates (should this be allowed at all and, if so, what should constitute the specific and exceptional justification needed if such use is to be authorised); and
- (v) the use of primates in regulatory toxicology.

The terms of reference for the Sub-Committee are:

“Advising the Animal Procedures Committee on issues relating to the acquisition, housing, care and use of non-human primates in regulated procedures.”

2. Objectives of the report

This report presents the APC Primates Sub-Committee’s (PSC) recent work on primate acquisition and supply. The objective of this part of the PSC’s work programme has been to review, and where necessary make recommendations that will improve, the process for acceptance of overseas centres which supply non-human primates² to UK laboratories. The report provides the basis for the development of a more structured system for assessing and accepting such centres, so that there is a clear audit trail of the decisions made in this respect.

The PSC has been pleased to note progress made over the years. For example, there have been improvements made in husbandry and care after visits to centres, both by the Home Office Inspectorate and clients. The visits have provided a visible presence and helped press for, and encourage, improvements in animal welfare, with advice and support being offered. It is important to ensure that this type of progress continues.

The Home Office Inspectorate and the PSC both have a responsibility to provide advice to the Home Office on the acceptability of centres as a source of primates, and the proposals in the report are intended to help both bodies give better informed advice in each case. The proposals in the report therefore include the production of an updated form, with accompanying guidance notes for supplying centres on the information required to complete it.

A second and equally important objective is to update current UK processes with regard to the breeding and supply of primates. Although the PSC and Home Office cannot actually set standards for the centres, we hope that the important processes will help reduce the negative impact on primate welfare of the whole process of acquisition. The main focus is on macaque species but the principles within the document are applicable to marmosets and other species of non-human primate supplied to the UK.

Lastly, the report contributes to greater transparency by setting out more detail about the current process of acquisition of primates for research purposes.

² Non-human primates are hereinafter referred to as primates

3. Background to the review

Aspects of the current procedure for evaluating overseas centres as sources of primates for the UK, were criticised by the RSPCA in its 2001 report on the primate trade (Prescott, 2001) and the PSC were asked by the Minister at the time to consider the concerns and recommendations in that report. The current system for acceptance of centres (see section 4. below) had been in place since 1996 and the PSC itself already had some concerns about its operation. Issues and concerns relating to the supply of primates to Europe from third countries had also been raised by the EU Scientific Committee on Animal Health and Welfare (SCAHAW, 2002), and within the Technical Expert Working Group set up to advise the EC on the revision of Directive 86/609.

The PSC and the Animals Scientific Procedures Inspectorate observers from the Home Office, therefore agreed that it would be both timely and beneficial to review how well the system is operating in practice taking into account the issues and concerns highlighted by the various bodies, and to explore whether improvements could be made. The PSC therefore addressed the following issues: (i) the *process* of how overseas centres are assessed and accepted (see section 4 and 5); (ii) the *criteria* to be used for assessment of centres (see section 6); and (iii) how these criteria should be *used in practice* (see section 7). A summary of the PSC's recommendations is included in section 8.

The PSC felt that establishments importing and using primates would be able to contribute useful information to our review. In particular, the Sub-Committee believed information on future needs and any difficulties experienced in accessing animals and/or with respect to animal welfare would be helpful. The PSC had a useful liaison meeting with CRO staff and incorporated many of their suggested amendments into the final report.

The report has taken several years to complete during which time the PSC has 'tested' aspects of the updated process and standards described here in its assessment of a number of overseas centres. This has contributed to the development of our thinking on this issue and has also demonstrated that the system works well in practice.

4. The current process of acceptance of breeding and supplying centres

Project licences, which require the use of primates, are subject to a series of conditions on the licence which require *authorisation of each consignment of animals from a centre considered acceptable to the Home Office*³. An overseas primate breeding and supplying centre cannot be a 'designated establishment', in the same way as they would be in the UK, because they are outside the UK's jurisdiction. Therefore, each consignment of primates to be acquired from an overseas source requires separate authorisation prior to their acquisition, and this is given only if the conditions at the breeding or supplying centre are acceptable to the Home Office. If a centre is not considered acceptable, then the Home Office can refuse to allow it to be used as a source of animals.

³ In a written answer to a parliamentary question on 1 March 1995 the Home Secretary set out a raft of administrative measures to implement recommendations from the Animal Procedures Committee concerning the acquisition and use of non-human primates. Those requirements were embodied in a series of Additional Conditions, which are applied to project licences authorising the use of non-human primates

4.1 Criteria for assessment of overseas centres

Broad criteria for the acceptance of overseas centres were established by the Home Office in 1996. These included: requirements for group housing and the provision of adequate space; protection from adverse environmental conditions; weaning at not less than six months of age (unless with specific justification); and restriction of the period of confinement for conditioning purposes (where relevant) to a minimum and for individual cages to be of adequate size. Acceptable standards of management, staffing, veterinary care, health status and reproductive productivity were also required. These standards were applied at least in respect of all animals destined for use in the UK, although it was hoped that they would apply for all the primates at each centre.

General (although not necessarily specific) compliance with the Home Office *Code of Practice for the Housing and Care of Animals in Designated Breeding and Supplying Establishments* (1995) has also been expected, although it is recognised that conditions in overseas centres may be very different from those in a UK establishment.

As a matter of policy, the Home Office had decided at the outset not to accept animals bred in a semi-natural environment such as an island or equivalent bounded free-range park or reserve⁴. Finally, centres *were expected to have* a policy of producing increasing numbers of F2 (or beyond) animals to reduce dependence on the trapping of feral or wild animals for breeding

4.2 Method of assessment

Centres are currently assessed on the basis of a Home Office form in which the breeding or supplying centre sets out details appropriate to the criteria in 4.1 above, together with any other relevant information from the centre, any brokers involved, the prospective users, and other sources. Additional information is gathered from visits to centres by the Inspectorate and user-establishment staff.

The information is scrutinised by at least two members of the Home Office Inspectorate and a recommendation made to the Animals Scientific Procedures Division (ASPD). If ASPD consider that further consultation is advisable, the opinion of the PSC "*may be sought*", although in practice the PSC is asked for a view on all applications. ASPD can choose not to accept the advice of the PSC and has done so on occasion.

All centres are informed of the Home Office decision on whether and on what terms they have been accepted. If judged to meet the expected standards, a centre will be accepted typically for periods of 2 years. If not, it is advised of the action necessary to achieve acceptance with re-consideration being conditional on appropriate action being taken. Current and prospective customers are informed of the decision promptly in any event.

4.3 Difficulties encountered with the current assessment process

For some centres, the above procedure allows relatively easy assessment by both the Home Office and the PSC. The form, however, is brief, as are the answers that the questions usually stimulate. There are sometimes problems for the centres in interpreting the questions, and for the Home Office Inspectorate and the PSC in interpreting the answers, partly because of language difficulties. It is thus possible for the centre to answer all of the questions on the form, without enabling the reader to

⁴ Note, the PSC may consider this issue in relation to the merits and limitations of multi-troop breeding systems such as islands and corrals at a later date.

gain a comprehensive and accurate understanding of the facilities provided for the animals, and of how well the centre is operated.

Furthermore, all centres applying to act as a source are required to sign a declaration stating that they meet the International Primate Society *Guidelines for the Acquisition, Care and Breeding of Non-human Primates* (IPS, 1993). They readily sign this, though their answers to the questions on the application form show their declaration is not always correct. For example, the *IPS Guidelines, Code of Practice 1* recommends that young monkeys should not be separated from their mothers at an early age (3 to 6 months) but should remain in contact for one year to 18 months in most species; yet some centres supplying the UK wean at 6 months (and sometimes younger for other destinations).

There is an additional problem in that 'adequate space', 'minimum' period of conditioning, and 'acceptable standards' are not actually defined for all of the criteria listed in 4.1 above.

5. Proposed amended procedure

Thus there are three potential problems that the PSC believes need to be addressed: (a) insufficient (or incorrect) information is elicited by the application form; (b) the expected standards against which to assess centres are not clearly defined; and (c) as a result, centres are reviewed by the PSC without a clear frame of reference. This latter point is a particularly important issue for the PSC in its capacity as a provider of independent advice to the Home Secretary.

In order to address these concerns, the PSC believes it is essential to:

- clarify the criteria used to assess centres and apply these consistently (5.1);
- improve the quality of information supplied for this purpose (5.2);
- provide a reference system for comparing standards between centres (5.3);
- ensure that overseas centres are monitored at appropriate intervals by the Home Office Inspectorate (5.4); and
- make the criteria and the process for authorisation more transparent, with a clear definition of the separate roles and responsibilities of the Home Office and the PSC (5.5).

These points are addressed below.

5.1 Clarifying the criteria for assessment

The criteria originally established for use by both the Home Office and PSC are described in section 4.1. above. In recent years, the Home Office Inspectorate has undertaken more visits to centres and has made much more first hand information available to the PSC on the standards of husbandry and care. This has been of great help to the PSC in developing not only its advice on individual centres, but also the criteria which it applies in making its own decisions, and the standards it expects to see.

The criteria which the PSC believes should be used are set out in section 6 of this document. ***The PSC recommends that*** the Home Office use these same criteria as a basis for decision making. Note that the Sub-Committee has used these as a guide in formulating its advice to the Home Office regarding centres that have applied for acceptance in the last year, and intends to continue to do so. The Sub-Committee is of

course mindful that in so doing it is required to “*have regard both to the legitimate requirements of science and industry and to the protection of animals against avoidable suffering*”.

5.2 Improving the quality of information supplied by centres

The PSC believes it would be of benefit to develop a more informative and ‘user friendly’ form requiring the provision of quality information on the standards of housing, husbandry and care, including ‘conditioning’ cages if used (see section 6), and including properly representative photographic material as appropriate. This report should provide the basis for the development of a revised form.

Asking for additional information will not only facilitate a better assessment of overseas centres, but will also illustrate the significance awarded to animal welfare by UK regulatory authorities and scientists. It should therefore help stimulate further improvements in standards. Information should not be difficult or arduous to supply, since in many cases it is not any different from the literature (e.g. promotional literature, colony records, and published papers) already produced by some centres.

Since thinking and policy on acceptable standards of husbandry and care for animals continues to develop, and the supply and use of primates is a particular public concern, ***the PSC recommends*** that the Home Office, in conjunction with the PSC, should review the criteria for acceptance of centres (and the process if appropriate) at three yearly intervals, or earlier if this becomes necessary

5.3 Provision of a reference system for comparing individual centres

It would be advantageous when considering a centre for acceptance, to be able to readily compare its standards with those in other centres both overseas and in the UK. An easily updatable reference system to help compare and assess centres, would also help in monitoring standards, and in responding to enquiries (e.g. parliamentary questions) in a time efficient and consistent manner.

The PSC and the Home Office Inspectorate have already produced extremely useful draft comparative spreadsheets developed from data available within the Home Office, and submitted to the Sub-Committee for advice. However, the information needs to be maintained and updated as necessary. Therefore, ***the PSC recommends*** that an easy to use comparative reference system is maintained within the Home Office and, if necessary, resources should be made available to the Home Office Inspectorate to enable them to regularly update this.

Where appropriate and not subject to confidentiality restrictions, information obtained from key staff at receiving establishments could usefully input to this with respect to the condition and welfare of the animals on arrival. Again, subject to any confidentiality restrictions, such a reference system could be made available to users by the Home Office to help them decide on the most appropriate source of animals.

5.4 Visits and inspections

Visits to centres, both by the Inspectorate and clients, are particularly valuable because this allows observation of animal behaviour and assessment of animal welfare, observation of housing and procedures (e.g. feeding and cleaning practices, interactions with animals, trapping methods), information gathering from access to all areas of the establishment, examination of records, face-to-face discussion with senior and junior staff, and gauging of attitudes. It also gives the Home Office Inspectorate

and clients a visible presence and helps them press for, and encourage, improvements in animal welfare, and to offer advice and support in this regard. This latter purpose is especially important and has already had positive results in terms of improvements in husbandry and care.

The PSC finds information from Inspectorate visits an invaluable aid to decision making. Indeed the PSC believes that it would be irresponsible for it to make a decision on any centre without the benefit of this input, except in very exceptional circumstances. Other information is considered when appropriate. ***The PSC therefore recommends that:***

- All *new* centres should be visited by a Home Office Inspector *prior* to consideration the centre's details by the Sub-Committee. Staff from research establishments applying to source primates from a new centre should also be encouraged to visit the facilities, but this should be as well as, not instead of, the Inspectorate. If an urgent and legitimate need arises for animals to be obtained from an overseas breeding centre, and the animals in question cannot be obtained from one that is already accepted by the Home Office, then a decision to accept a new centre may be based on the submitted details alone. However, this would be on a 'one-off' basis, with a visit necessitated if further animals were requested.
- Once a centre has been accepted, it should be revisited by the Inspectorate at two yearly intervals prior to re-acceptance, in order to continue to promote and monitor improvements in standards. Additional visits may be necessary where there are specific issues that need to be addressed.

5.5 Role of the PSC

Currently, the opinion of the PSC on all applications from overseas centres to supply animals to the UK '*may be sought*'. In practice the PSC does see and advise on all such applications. However, ***the PSC recommends that*** this should become a formal requirement and that all applications, together with the supporting evidence, should as a matter of course, be passed to the PSC for discussion and formulation of advice. Discussions with the Inspector/s responsible for visiting the centres are extremely helpful and should remain an essential part of this process.

5.6 Dissemination of information and improving transparency

Those carrying out procedures on primates need to be aware of how overseas centres are assessed and of the standards expected in order to make informed choices about the suppliers they use. However, others directly or indirectly involved with primate use (e.g. those funding, reviewing and reporting use of primates under the ASPA) also have a responsibility to recognise the welfare issues associated with sourcing primates and to be aware of the standards required.

The PSC therefore recommends that information on the criteria and process used by the Home Office and the PSC to assess centres should be made widely available so that everyone is aware of the standards that the facilities are working to. This should be particularly useful for local ethical review processes. In the interests of transparency, the criteria should be published as an annex to the Annual Report of the APC, and on the Home Office and APC web-sites.

6. Criteria for acceptance of centres

This section of the document sets out the PSC recommendations for the principles on which the criteria for assessing overseas centres should be based, taking into account (but not duplicating) all relevant information, including existing UK and International guidelines such as:

- the Home Office *Code of Practice for the Housing and Care of Animals in Designated Breeding and Supplying Establishments* (Home Office, 1995);
- International Primate Society *Guidelines for the Acquisition, Care and Breeding of Non-human Primates* (IPS, 1993);
- proposed standards under the revised *Appendix A of Convention ETS 123* (Council of Europe, 1986, 2004); and
- revised *Directive 86/609* (European Commission, 1986 and in preparation).

It is recommended that section 6.1 below should be published as a 'set of standards' that should be satisfied before a centre can be accepted, together with accompanying explanatory guidance where necessary.

The PSC would prefer that all primates in overseas centres should benefit from the standards expected, and centres should be encouraged to achieve this ideal. However, the criteria must, at the least, be satisfied for all primates as soon as they can be identified as destined for transport to the UK. The PSC hopes that multi-national companies importing to their British sites would request that the same standards are also met for the primates sourced by their laboratories in other countries.

Sufficient information will need to be obtained to enable both the Home Office Inspectorate and the PSC to assess whether any applying centre satisfies the conditions and complies with the European Convention, Directive, and Home Office Code of Practice, and whether the animals have a satisfactory quality of life. A revised form with accompanying guidance notes to send to, and use in the assessment of, centres will need to be developed by the Home Office Inspectorate with input from the PSC and consultation with users, breeders and others, as appropriate (see earlier recommendation in 5.2).

6.1 The 'set of standards' expected

The PSC believes that any centre (whether in the UK or overseas) supplying primates to UK laboratories should, in the interests of good animal welfare, operate to the following standards. Since good welfare is necessary for good science the PSC believes that these standards will also be of benefit to science and industry.

6.1.1 Meeting the Home Office Code of Practice

Not all overseas centres currently accepted by the Home Office meet *all* of the standards required for UK designated breeding and supply centres under the Home Office Code of Practice for such establishments. For example, some cages fall short of the Code of Practice in terms of height. It is recognised, however, that some of the standards are now exceeded in some centres. For example, the minimum weaning age in the UK Code of Practice is 6 months, but all overseas centres meet or exceed this (at least for animals supplied to the UK), some by a further 6 months.

The Home Office *Code of Practice for the Housing and Care of Animals in Designated Breeding and Supplying Establishments* nevertheless is now quite old, and will need to

be updated once Directive 86/609 has been revised. In any case, understanding of the physical and behavioural needs of animals has moved on, and the standards only reflect the *minimum* considered to be acceptable by the group of experts that originally produced the Code of Practice in 1995.

- As a minimum requirement, all overseas centres should satisfy the conditions set out in the Home Office *Code of Practice for the Housing and Care of Animals in Designated Breeding and Supplying Establishments*. The information provided by the centre must allow whether or not it does so to be properly assessed. In addition, the principles in paragraphs 6.1.2 to 6.1.18 below apply to any centre applying for acceptance as a UK supplier.

The PSC considers that animals should not be obtained from suppliers operating to lower standards than those in the Home Office Code of Practice. However, a minor deviation from the standards in the Code of Practice may be taken into consideration, provided this does not have an adverse effect on the animals' well-being.

6.1.2 Standard Operating Procedures

- Every breeding and supplying centre should formally set out and document, for example as standard operating procedures, the required standards for all aspects of its animal care programme. These standards should be regularly reviewed, with commitment to refining housing and husbandry conditions and practices. The documents should be open to inspection and/or comment by the Home Office Inspectorate and customers. It is expected that these documents would also be made available to the PSC on request.

6.1.3 Capture from the wild

Many overseas breeding centres are not self-sustaining in breeding animals and continue to draw heavily on wild populations for replenishment and augmentation of breeding stock. Although wild-caught animals are not used in the UK, many of the primates imported for use are the first generation bred in captivity.

Capture of wild primates for use as breeding stock or for export for use in experiments has been identified as a particular cause of concern because of the additional distress caused to the animals (Prescott 2001, SCAHAW 2002). The PSC recognises that it would not be possible to immediately end trapping of wild animals without impacting on supply, and that other factors, such as journey times and husbandry programmes, must be considered alongside this activity when assessing centres. It is also recognised that the breeding and export of macaques has become an important economic factor in many source countries.

In order to help discourage the use of wild-caught animals as breeding stock, and support the effort to eliminate early weaning systems (since in general, early-weaned primates do not become competent breeders) the following is required:

- The UK should move toward a position where it will only accept as 'purpose-bred', animals of the second (F2) or subsequent generations bred in captivity. The PSC recognises that achieving the goal of defining "purpose bred" animals as F2 or subsequent generations may take time, given recent experience of how this affects breeding performances and general well-being of the colonies. The UK should require any centre that traps from the wild to have a clearly defined strategy to decrease reliance upon wild populations and move to the supply of F2 animals only (for example by gradually decreasing their trapping quota and retaining a significant

and increasing proportion of first generation offspring for breeding second-generation stock). The overall progress towards this goal for centres generally should be kept under review by the PSC. Due consideration could be given to other factors, for example, where, as part of their national authorisation to operate, breeders (at the present time) are required to trap a minimum quota of animals. The progress of individual centres should be reviewed by the PSC and the Home Office Inspectorate when assessing a centre for re-acceptance i.e. at intervals of not more than two years.

- Until such time as trapping is ended, the breeding and supplying establishment should have a clearly defined and workable mechanism to ensure that any person trapping primates is adequately trained and competent in humane methods of capture.

The PSC believes that while trapping continues national authorities in the country of origin should be encouraged to enforce humane handling procedures in both the field and holding facilities, and institute a system of licensing of trappers and exporters, with provisions for inspection of procedures and facilities, taking the IPS Guidelines as a baseline.

6.1.4 Housing and husbandry

- Every centre should have a thorough understanding of the needs of the species and individual animals it breeds and/or supplies, and document how these are provided for in the animals' environment. It should be able to reference the professional guidelines on which its standards are based.
- The centre should ensure that all primate housing is designed to meet the animals' behavioural, social and physical needs as far as possible, paying attention to the animals' use of three-dimensional space and to their vertical flight reaction.
- All structures (including walls, bars, perches, swings, shelves) should be well maintained and safe for the animals.

6.1.5 Shelter

- Shelter from adverse weather conditions (e.g. shade from the sun, protection from wind, rain and extremes of temperature) should be provided

6.1.6 Social needs

- Breeding and stock animals should be housed in harmonious social groups or pairs. Single housing should only be allowed where there is compelling justification on veterinary or welfare grounds and then only for as short a time as possible, and under close supervision. There should be a programme for managing and minimising any aggressive interactions between animals.

6.1.7 Environmental enrichment

Environmental enrichment means different things to different people, and there is a continuum of views on enrichment from enrichment as 'removing bareness' (i.e. reversing a deprivation effect) to enrichment as 'enabling animals to express and broaden their repertoire of natural behaviours' (rather than simply meeting their basic

needs). Enrichment at some breeding centres appears to be very much about the former and not the latter. This is a particular problem for breeding animals who may spend their whole lives in the caging at the centres and must be provided with an environment that enables them to have an adequate quality of life throughout this time.

- There should be an environmental enrichment programme developed preferably in conjunction with an appropriately qualified primate ethologist. This should:
 - enable the animals to carry out a wide range of their normal behavioural repertoire and to express this behaviour in a species-typical way. It should provide them with a sense of security and a suitably complex environment to allow them to run, walk, climb and jump; high perches should be provided and in sufficient number to allow all animals to sit on them simultaneously.
 - provide the opportunity for animals to exert some degree of control over their physical and social environment. For example, they should be able to move out of sight of other primates. The provision of foraging enrichment – presenting food in such a way that allows the animals to search for, identify, procure, and process food (e.g. scatter feeding, puzzle feeders) and objects to manipulate (e.g. wooden branches or cardboard boxes that can be destroyed) can also help meet this requirement (see also diet).
 - provide sufficient novelty to maintain interest in the environment (for example, by minor changes in the conformation or arrangement of enclosure furniture) whilst not stressing the animals.

6.1.8 Diet

Primates spend a great deal of time foraging and exploring and these activities form a complex, fundamental and irreplaceable part of their natural behavioural repertoire. When the expression of certain needs or motivations are not possible, frustration, boredom and other negative states can result. Therefore assessment criteria should encompass dietary programmes.

- A varied and nutritionally appropriate diet should be provided.
- The way the diet is presented should also be varied in a manner appropriate to the species in order to provide interest and environmental enrichment. Food should be distributed around the enclosure to encourage foraging; substrate should be provided (e.g. wood chip, straw, shredded-paper, vegetation) to encourage foraging of scattered food at the floor area.
- Food, which requires manipulation, should also be provided, such as whole fruits or vegetables or foraging devices appropriate to the species.

6.1.9 Breeding

- Details of the centre's breeding programme should be available for inspection and information on numbers of animals supplied annually provided. It should be demonstrable that:
 - Selection of breeding animals is on the basis of health, behaviour, temperament, conformation, potential reproductive performance and mothering ability, and that these factors are reviewed regularly.

- There is a mechanism in place for assessing the duration of the breeding life of individual animals taking into account the condition of each animal and his or her role within the colony. This should involve consultation with the veterinarian and with the competent person charged with advisory duties in relation to the well being of the animals.
- There is a management policy for dealing with a) rejected infants to minimise suffering in these animals and b) any significant infant mortality; and ensuring that management breeding practices are re-examined and amended as appropriate should such problems occur.
- There is good communication between the breeder/supplier and user in order to match supply and demand as closely as possible and to ensure continuity of husbandry and care.

6.1.10 Weaning age⁵

The age at which young primates are taken from their mothers, and the subsequent social environment into which they are placed, can have serious repercussions for their welfare in the short and long term, and for the validity of scientific data subsequently obtained from them. Rearing juveniles in the absence of adults can result in behavioural abnormalities and poor parenting skills.

It is therefore preferable to leave young animals, and especially future breeding animals, in their natal colony until they have become independent. This is the best way to establish long-term breeding stock that will lead to self-sustaining colonies. Should young animals, for their own welfare, have to be weaned or separated earlier, it is advisable to incorporate them into a well organised group as soon as possible to avoid damage to their social development, behaviour, physiology and immune competence. At the moment there is considerable variation between centres with respect to the age at which animals are weaned e.g. from 6 to 15 months for macaques.

- The appropriate age for weaning and separation of young animals depends on the species. However, as well as the age of the animal, factors such as the weight of each individual, and their behaviour (for example, degree of independence from their mother and response to novelty in the environment), should be taken into account. The availability of companions of a similar age to form appropriate groupings is another important factor. Some degree of flexibility in precise weaning age that is sensitive to these points may be required.
- The minimum weaning age for macaques should not normally be less than 10 to 12 months of age⁶ (see IPS,1993); infants destined for breeding stock should remain with their mothers until they are at least 18 months old. The PSC and Home Office Inspectorate should review progress on this issue at two yearly intervals. when centres are assessed for re-acceptance.
- The minimum weaning age for marmosets and tamarins should be not less than 8 months. There is little information available on the minimum weaning age for

⁵ Note: the Captive Care Working Party of the Primate Society of Great Britain is currently investigating the scientific basis for weaning practices and hopes to produce a report in 2006 which will provide further information on this issue.

⁶ The IPS guidelines provide a recommendation that the young of most species should remain with the mother for one year to 18 months.

squirrel monkeys but the figure given in the revised Council of Europe Appendix A is 6 months. This should be reviewed if further information becomes available. As for macaques animals intended for breeding stock should remain with their mothers for as long as possible

6.1.11 Identification

- Animals should be uniquely identified, using the least invasive (i.e. least painful or distressing) method.

6.1.12 Animal health

- All establishments should have an appropriate health monitoring programme, with adequate provision of prophylactic and therapeutic treatment as required.
- Each primate should have an individual history file ('passport') that gives a detailed biography including for example, age, parents (F1/F2), health status, significant incidents, any abnormalities and nature of conditioning (see SCAHAW, 2002 for a full list). This file should be sent with the animal when supplied to another establishment.
- Care-staff to animal ratios should be sufficient for all animals to be observed individually twice daily for signs of illness, injury or abnormal behaviour by a person trained and competent to recognise such symptoms. The appropriate staff to animal ratio will depend on the nature of the centre and its management system.

6.1.13 Euthanasia

- Euthanasia should be by the most humane method. An overdose of anaesthetic (e.g. sodium pentobarbitone) as detailed in Schedule 1 to the UK Animals (Scientific Procedures) Act 1986, is currently considered the most appropriate and humane method. Further details are given in the EU guidelines on euthanasia (Close et al., 1997).

6.1.14 Handling and training of animals

For stock animals who are likely to be handled frequently by the user, there is benefit in habituating them to the presence and behaviour of humans during early development, as is now being done with laboratory dogs in the UK and elsewhere. Familiarity with humans serves two important functions. It makes it possible for care-staff to observe uninterrupted behavioural patterns, and it minimises the stress involved with handling. This will also facilitate restraint where this is necessary, and may reduce the need for 'cage conditioning' (see 6.1.15).

In addition, training primates to co-operate with veterinary, husbandry and scientific procedures using positive re-enforcement, can reduce the stress associated with such procedures and help enhance the care and wellbeing of the animals.

- There should be a well-designed programme for habituating primates to the presence of humans.
- Staff should be well trained and competent to approach and handle animals in a firm but sympathetic manner.
- The centre should be alert to the opportunities for positive re-enforcement training and implement training programmes where appropriate.

6.1.15 Cage conditioning

Cage conditioning, where animals are kept singly in small cages for periods from 6 to 60 days, is one of the most important assessment criteria because of the stress such confinement imposes on the animals. The term 'conditioning' was originally used to describe the process of acclimatising animals captured from the wild to cage accommodation prior to moving them to a laboratory environment. Typically, during the conditioning period animals would undergo a series of health screening procedures as well as prophylactic and therapeutic medication. Now, most overseas breeding establishments include some form of pre-export or pre-despatch health screening period in their animal health and husbandry procedures, either to meet their own national or local regulations covering animal health and human safety, or those of the receiving country. Different users in the UK, Europe and other parts of the world may themselves have a variety of specific health monitoring requirements which the breeding centres have to apply prior to the export of animals.

In some breeding establishments the prevalence of certain diseases within the breeding colony, most notably herpesvirus simiae (B-virus), may necessitate the separation of larger groups of animals into pairs to enable screening of animals and selection of seronegative pairs with sufficient confidence. Additionally, some breeding centres wish to ensure compatibility of paired animals before the start of a long distance journey.

Some health screening procedures prior to export are, in practice, unavoidable. However, the Home Office Inspectorate are already questioning, with centres and with users, the need for this to be done by housing animals individually in small cages. The PSC and Inspectorate agree that it is important to continue to question this. It is, in any case, difficult to see why 60 days are necessary when 6 is the maximum required in some centres.

The key issue is how the animals are housed in order to facilitate any *essential* health screening, and particularly, whether animals can be maintained in large groups (and by implication, large and more enriched enclosures) during this time.

- Ideally, the facilities and animals should be managed in such a way that the animals can be maintained in groups during any essential 'conditioning' period.

Centres that condition or quarantine animals in smaller cage accommodation should continuously review their policy in this respect and question whether cage conditioning is really necessary. If it is unavoidable due to health requirements the following conditions should apply:

- Animals should not be singly housed for cage conditioning but housed in compatible pairs or groups.
- The duration of the conditioning period should be minimised as far as possible, commensurate with prevailing animal health or human health and safety requirements.
- Additional resources should be targeted to the welfare and care of animals during cage-conditioning to ensure that their behavioural and physical needs are satisfied as far as possible. Cages should be as large as possible and positioned such that

animals can see other individuals. (However, note it is also important for individuals to be able to withdraw from the sight of other animals.).

6.1.16 Staff training

- Staff are expected to have a professional, compassionate and sympathetic attitude to the animals in their care. Every centre should have a comprehensive training programme for new staff and establish an adequately-funded continuing education and training programme to inform staff of novel developments or improved practices in primate care and welfare (e.g. housing, husbandry, handling, behaviour, enrichment, health). This should include some form of ongoing assessment to ensure that suitable standards and competence are attained and maintained. Written training records should be kept.
- Centres should either employ or consult a primate ethologist to advise on the welfare of their animals and to provide input into staff training.

6.1.17 Transport

Transport is not covered in detail in this document because full details are available in the revised Laboratory Animal Science Association transport guidance (LASA, 2005) and the revised European Convention on animal transport (Council of Europe, 2003). However, the following points represent the most important principles against which centres should be assessed.

- The transport arrangements should comply with the revised LASA Guidance for the Transport of Laboratory Animals.
- Primates should be transported by the most direct means possible, with the minimum number of stages between departure and arrival at the final destination. Every possible action should be taken to minimise both the duration of transport and the stress and discomfort involved.
- Importers and exporters should ensure that journeys are planned in advance and a journey plan should be produced, giving details of events at each stage of the journey and the responsibilities of the various individuals en route. The plan, held by the exporter and importer should also provide instructions for contingencies in the event of delays or emergencies and should include contact details for all those involved in the journey.
- Animals should, where possible, be transported in compatible pairs, although adult animals may need to be transported singly. They should be supervised until they are shipped and properly attended by competent persons while awaiting transfer. (Note: It is anticipated that these will all be requirements of the Codes of Conduct associated with the revised Convention on animal transport, ETS 193).
- Crate dimensions specified in the IATA Live Animals Regulations (IATA, 2003) should be consistent with the size of the animal such that all transported primates can stand and turn in a natural manner.

6.1.18 Additional information

Occasionally primate breeding and supplying centres have been shown to be engaged in additional unrelated activities that would not be considered acceptable (ethically

and/or with respect to animal welfare) within the UK, for example the extraction of bile from bears. The Home Office and PSC would want to be aware of any such activities even though these do not come within the remit of the ASPA.

- The breeding and supplying centre should provide information on all other activities involving the use of animals with which it is engaged.

7. Assessment of centres

The standards set out in section 6 are the minimum the PSC wants to see at all overseas centres supplying non-human primates to the UK. It is unlikely, however, that any of the existing centres will immediately be able to satisfy all of these requirements. This presents the PSC with somewhat of a quandary, since there is no point developing standards if these are not then applied.

The standards reflect the PSC's concern to reduce animal suffering and improve animal welfare. However, the Sub-Committee must also take account of the legitimate requirements of science and industry, and in advising the Home Office to refuse acceptance of a centre, must take account of the possibility that this would limit the supply of primates to the UK. The PSC also recognises that the Home Office Inspectorate and UK clients of centres have had a positive influence on the standards at the overseas centres they visit, and refusing acceptance may remove this opportunity for further input.

There are a number of options open to the PSC when presented with an application from a centre that does not meet all the criteria. It can recommend that the Home Office:

- refuse acceptance of the centre;
- set a time defined limit for the centre to meet the conditions; or
- prioritise certain criteria that *must* be satisfied and make a decision on this basis.

It is difficult to prioritise criteria since it is by no means clear which factors are the most significant stressors for primates. So, for example, there is concern about the welfare implications of trapping wild animals for use as breeding stock, but other practices such as weaning animals at an early age, a lack of environmental enrichment, and conditioning in small individual cages, may all have a greater impact on animal welfare. Furthermore, ruling out all centres that trap wild animals may mean that transport times for exported stock animals are 50-70 hours rather than 30 hours, but again the impact of lengthy journeys on animal welfare is not known. It is clearly going to be difficult to weigh and trade-off disparate commodities such as these when the PSC are evaluating centres.

The PSC believes that all overseas centres should have a clear strategy designed to help them to achieve the required minimum standards set out in this report within a reasonable timeframe. ***The PSC recommends*** that the Sub-Committee and the Home Office Inspectorate should monitor progress towards this goal. Until such time as all centres meet the required standards, the PSC will continue to consider each one on its individual merits, taking into account all the available information and other mitigating factors. It will then use its expert judgement to make a decision based on a 'weight of evidence', case by case, approach.

8. Summary of recommendations

In this report the PSC has provided background information on the way that overseas centres supplying primates to the UK are assessed by the Home Office and how advice from the Home Office Inspectorate and the PSC is formulated.

The PSC has also extensively reviewed the current process and amended its own procedures and expectations accordingly, as described within the text. In addition it has made a series of recommendations to the Home Office which are summarised below.

The PSC recommends that:

- 1. The criteria for assessing centres together with information on the process used by the Home Office and the PSC to assess centres, should be made widely available so that everyone is aware of the standards that the facilities are working to. In the interests of transparency, the criteria should be published as an annex to the Annual Report of the APC, and on the Home Office and APC web-sites (5.6; 6.).
- 2. It should be a formal requirement that all applications should be passed to the PSC for discussion and formulation of advice. Discussions with the Inspector/s responsible for visiting the centres is extremely helpful and should remain an essential part of this process (5.5)
- 3. The criteria set out in section 6 of this report should be used by the Home Office as a basis for assessment of the acceptability of suppliers of primates. The PSC will use these in the formulation of its independent advice to the Home Office (5.1).
- 4. All overseas centres should have a clear strategy designed to help them to achieve the required minimum standards set out in this report within a reasonable timeframe. The Sub-Committee and the Home Office Inspectorate should regularly monitor progress towards this goal (7).
- 5. All *new* centres should be visited by a Home Office Inspector *prior* to consideration of their application to supply primates to the UK. Staff from research establishments applying to source primates from a new centre should also be encouraged to visit the facilities, but this should be as well as, not instead of, the Inspectorate. If an urgent and legitimate need arises for animals to be obtained from an overseas breeding centre, and the animals in question cannot be obtained from one that is already accepted by the Home Office, then a decision to accept a new centre may be based on the revised application form and accompanying information alone. However, this would be on a 'one-off' basis, with a visit necessitated if further animals were requested (5.4).
- 6. Once a centre has been accepted, it should be revisited by the Home Office Inspectorate at two yearly intervals prior to re-acceptance, in order to continue to promote and monitor improvements in standards. Additional visits may be necessary where there are specific issues that need to be addressed (5.4).
- 7. The Home Office Inspectorate should maintain a user-friendly database or spreadsheet that will allow easy identification and comparison of standards at all overseas centres supplying primates to the UK. Resources should be made available to facilitate this if necessary (5.3).

- 8. The Home Office, in conjunction with the PSC, should review the criteria for acceptance of centres (and the process if appropriate) at three yearly intervals, or earlier if this becomes necessary (5.2).

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