

## Revocation of The Anthrax Prevention Order 1971

### ◆SIM 03/2005/04

#### Target Audience:

FOD Divisional Directors  
FOD Heads of Operations  
Health Unit  
Local Authority Unit  
CACTUS  
HTPD1 – Biological Agents and GMOs  
HSL SC14 – Microbiology

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## SUMMARY

This SIM provides guidance to inspectors on the application of COSHH to the use, handling and storage of imported goat hair and wool products potentially infected with anthrax

## BACKGROUND

1 The Manufacturing (Textiles) Sector has for many years administered the Anthrax Prevention Order (APO) to regulate the import of goat hair (including cashmere and mohair) and certain wool products, potentially infected with anthrax.

2 The implementation of the Biological Agents Directive in the Control of Substances Hazardous to Health Regulations (COSHH) 1999 provided a more comprehensive legislative framework for dealing with the risk of anthrax infection. However, the industry sought to retain the APO and continued to use it as the main instrument of control. Their resistance to revocation has now been largely overturned, helped by new European-led import controls that take precedence over the APO and by changes in the nature of the industry.

3 The Regulations revoking the APO will take effect on 6 April 2005.

## RISK OF ANTHRAX

4 The risk of anthrax infection to persons handling imported goat hair and wool has reduced substantially over the years and there have only been two confirmed cases of anthrax involving textile workers in the last 15 years. These were infected with cutaneous anthrax which accounts for 95% of cases and is readily treatable. The last death in the UK from anthrax was in 1974 and this was not thought to have been occupationally acquired.

5 After revocation, importation of goat hair and wool will be solely regulated by DEFRA-led legislation. This requires that goods come from animals not showing clinical signs of disease, that they are securely packaged and dry, and are sent directly to a technical plant or intermediate storage in conditions to prevent spread of any pathogenic agents. There is no requirement for disinfection. However, this will still be enforced where necessary using COSHH.

6 The majority of goat hair and wool entering Great Britain is sourced from anthrax-free regions. However, some will come from countries such as Iran, or Sudan where anthrax is endemic and unless reliably certified as anthrax-free, will need to be disinfected before importation.

7 The disinfection process is not always 100% effective so precautions during handling need to be maintained to minimise the risk of infection. Also, there can be localised outbreaks in otherwise disease-free countries or material can be cross-contaminated so regardless of origin, all companies handling goat hair and wool need to maintain a precautionary regime.

8 The risk varies according to how the material is handled; it is greater in the early stages of treatment, i.e. during sorting, blending, carding or combing.

9 In addition to textile workers, others who may be exposed include HMC&E rummage crews, port health authority employees, goods handlers at ports of entry, and those involved in transporting or warehousing the goods.

#### TRANSITION TO A COSHH-BASED REGIME FOR CONTROLLING RISK OF ANTHRAX

10 As part of the agreement to support revocation of the APO, the Sector committed to working with the Confederation of British Wool Textiles (CBWT) to produce additional guidance and a model risk-assessment for the importation, handling and use of goat hair and wool products from countries where anthrax may be present in the animal population. This is attached at Annex 1 and is intended to supplement the guidance in HSG 174 'Anthrax – safe working and the prevention of infection'. The model risk assessment will be maintained by the CBWT and will be made available on their website at [www.cbwt.co.uk](http://www.cbwt.co.uk) or from CBWT, Merrydale House, Roysdale Way, Bradford BD 4 6SB. Tel 01274 652207.

11 The main change resulting from revocation is that there will no longer be a prescribed list of countries where anthrax is, or is not, considered a hazard. The onus will be on the importer/employer to determine this from the disease status of the country of origin – this is available from the World Health Organisation Collaborating Centre on <http://www.vetmed.lsu.edu/whocc/index.htm>. Further information on cases of anthrax in animals and human for individual countries may be found on <http://www.oie.int/hs2/report.asp>.

12 The Sector will be contacting all importers, handling agents, and processors of goat hair products to ensure that they understand the changes and have suitable up-to-date risk assessments in place.

#### ACTION REQUIRED

13 Inspectors should be aware of a potential anthrax hazard when routinely visiting premises handling imported goat hair and wool and where appropriate, ensure that the controls set out in Annex 1 are being applied.

14 A list of companies to whom the APO applied is attached at Annex 2 – a note has also been entered on FOCUS. In addition, there is a list of the ports routinely handling animal hair products.

#### SECTOR CONTACT

15 Contact Maureen Kingman on VPN 513 2872

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## ANNEX 1

### GUIDANCE ON OCCUPATIONALLY ACQUIRED ANTHRAX INFECTION IN THE TEXTILES INDUSTRY

#### **Who is this guidance for?**

This guidance is for employers and employees of companies who import, transport, store, and process textile materials such as goat hair and wool originating from countries where anthrax is present in the animal population.

The purpose of the guidance is to help employers comply with their duties under the Control of Substances Hazardous to Health (COSHH) Regulations 2002 (as amended by the 2004 Regulations) to control the risk to their workers from anthrax infection.

#### What is 'anthrax' and how is it spread to humans?

Anthrax is a disease caused by the bacterium *Bacillus anthracis* and affects (mostly) herbivorous animals. When secretions such as blood and faeces from infected animals come in contact with air, the bacteria forms spores that can live for many years.

Humans can be infected with anthrax through contact with diseased animals or contaminated animal hair and wool, hides and other products.

#### **Anthrax spores can enter the body through:**

- Openings in the skin, e.g. cuts, abrasions or puncture wounds
- Breathing in the spores
- Eating meat from infected animals

The most common type of infection (95%) affects the skin (cutaneous) and is readily treatable. Other types, inhalation (pulmonary) and ingestion (intestinal) anthrax are rare but more serious.

#### **How common is anthrax in humans?**

Human cases of anthrax are now very rare in Great Britain. There have been no recorded deaths from anthrax since 1974 (and this was not thought to have been work related) and between 1981 and 2003 there were 20 human cases, only 2 of whom worked in the textiles industry.

#### **How infectious is anthrax?**

Infectivity from anthrax is thought to be low. Not all exposures will result in infection but there have been cases of infection where workers have had minimal exposure.

## What are the symptoms of anthrax?

In cutaneous anthrax, the infection starts with a small pimple or painless swelling on the skin, followed 3 or 4 days later by a ring of blisters and more swelling. After 5 to 7 days this ulcerates to form a characteristic black-centred pustule or spot and the swelling will extend some way from the original point of infection. After 10 days the pustule will start to heal and will clear up completely in 6 weeks.

With early diagnosis and prompt treatment with penicillin, individuals make a quick recovery.

Without treatment, in a small proportion of people, the infection can spread to the bloodstream and become more serious.

## Who is at risk in the textiles industry?

In the textiles industry, anthrax is a hazard for those handling contaminated goat hair and wool from countries where anthrax is present in the animal population. These would include people involved in purchasing in the country of origin, transporting bales, providing warehousing and storage, opening and sorting the bales, scouring and processing (carding and spinning).

The risk of actually becoming infected will depend on:

- how often and how long people are exposed,
- the level of contamination they are exposed to, and
- how effective the control measures are to prevent infection

## Assessing the risk

Employers have a duty under COSHH to assess the risk to their employees from biological agents, such as anthrax. They then have to put measures in place to control that risk and to make sure that they are used. Workers have to be informed about the risk and trained to use the controls.

The model risk assessment attached will help employers to assess the risk to their employees and to put appropriate controls and procedures in place to deal with that risk.

If the control measures described are put in place, the risk to textile workers of becoming infected with anthrax is **minimal**.

## Further advice

Further advice on conducting a risk assessment and measures for controlling infection at work may be found at <http://www.hse.gov.uk/pubns/infection.pdf>.

<b>MODEL RISK ASSESSMENT</b>		<b>Notes</b>
<b>For handling goat hair and wool potentially infected with anthrax</b>		
<b>Determine anthrax status of country of origin</b>	<p>Information on the anthrax status of a country may be obtained from the World Health Organisation Collaborating Centre on <a href="http://www.vetmed.lsu.edu/whocc/index.htm">http://www.vetmed.lsu.edu/whocc/index.htm</a></p> <p>Goat hair and wool from countries where anthrax is:</p> <p>'hyper endemic' or 'endemic' should be treated as <b>high hazard</b>.  'sporadic' should be treated as <b>medium hazard</b>.  'free' may be treated as <b>negligible hazard</b>.</p> <p>Where information indicates a localised outbreak of anthrax in an area where material is sourced, it would be prudent to treat the material as high hazard.</p>	Goat hair includes goods containing goat hair, such as tops and yarns,
<b>Assess anthrax hazard of actual goods</b>	<p>Goods from non-anthrax free countries that have a veterinary certificate or other reliable documentation attesting that the animals or area from which the goods have come is free from anthrax may be considered medium hazard.</p>	If there is any reason to doubt the reliability of the documentation the goods should either be sampled and tested to confirm the absence of anthrax or treated as high hazard.
<b>High hazard goods</b>	<p>High hazard goods must be disinfected before importation into Great Britain.</p> <p>Importers should obtain documentation from a reliable source certifying that the goods have been disinfected and sampled to confirm the absence of anthrax.</p> <p>Where sampling results are not available, the goods should be sampled and tested for anthrax. Samples should be taken from 10% of bales, with a minimum of 2 being sampled. (If there is only one bale then 1 sample is enough.) Until sampling results are obtained, the goods should be segregated from other commodities, or sealed in plastic film. (See control measures for taking samples.)</p> <p>On receipt of negative results, the goods may be released for processing.</p> <p>If a positive result is found the whole batch or consignment should be kept segregated and either be despatched for disinfection or returned to the consignor as soon as possible. Further advice should be sought from HSE and from HMC&amp;E.</p> <p><b>Disinfection is not guaranteed to be 100% reliable so disinfected material should be treated as medium hazard.</b></p>	There is currently no active disinfection facility in Great Britain.

<b>Medium hazard goods</b>	Goods that are not disinfected should be detergent scoured to reduce risk in subsequent processing. Information on whether imported goat hair in top, noil or yarn form has been scoured will be needed in order to assess the risk.						Detergent scouring significantly reduces contaminant bacteria
<b>Assessment of risk</b>	It is assumed that all material entering Great Britain will be of medium or negligible hazard.						
	<b>Hazard</b>	<b>Transport of bales – by road/air/sea</b>	<b>Warehousing and storage</b>	<b>Opening and manual sorting</b>	<b>Scouring</b>	<b>Processing – carding, spinning,</b>	
	Medium	Low	Low	Medium	Low	Low	
	(Buyers travelling to counties where anthrax is endemic are likely to be exposed to higher risks.)						

<b>CONTROL MEASURES FOR REDUCING RISK OF INFECTION FROM ANTHRAX IN IMPORTED GOAT HAIR AND WOOL</b>		<b>Employee checklist</b>
<b>Transport and storage of bales</b>	<p>Medium hazard goods should preferably be transported in a dedicated container or segregated from other commodities. For air freight where segregation cannot be achieved it is recommended that bales be plastic wrapped and sealed. Manual handling of bales is not advisable; these should be handled by clamp truck or similar.</p> <p>Goods in the warehouse awaiting sampling results should be kept in a marked area separate from other goods in storage. The area should be marked to indicate the possibility of an infection risk.</p>	<ul style="list-style-type: none"> <li>• Is the extraction switched on and working properly?</li> <li>• If you find any problems, tell your supervisor. Don't just carry on working.</li> <li>• Remove your outer non-work clothes and keep them separate from your PPE.</li> <li>• Wear your PPE as directed.</li> <li>• Wash your hands, face and neck after each spell of work and before eating or drinking.</li> <li>• Do not eat or drink in the work area.</li> <li>• Inspect yourself daily for any breaks in the skin and cover them with waterproof dressings and/or gloves.</li> <li>• Report cuts or abrasions or anything unusual on the skin to your supervisor.</li> <li>• Throw away gloves after each use – do not reuse.</li> <li>• Carry an anthrax medical</li> </ul>
<b>Access to storage and process areas</b>	Restrict access to those people who need to be there.	
<b>Design and equipment</b>	<p>Enclose processes as much as possible by the use of engineering controls.</p> <p>Use mechanical lifting aids to eliminate/reduce direct handling.</p> <p>Exhaust airflows away from workers' breathing zone.</p>	
<b>Personal protective equipment</b>	<p>Provide suitable protective clothing to prevent personal contamination and ensure it is safely decontaminated or disposed of.</p> <p>Provide somewhere to store protective clothing so that it is kept apart from personal clothing.</p>	
<b>Personal hygiene</b>	<p>Instruct workers on good basic hygiene practices including regular washing of the hands, face and neck after each spell of work and before eating. Stress the importance of avoiding hand to mouth/eye etc contact.</p> <p>Train workers to cover all cuts (including shaving cuts), abrasions and other breaks in the skin with waterproof dressings and/or gloves.</p> <p>Provide separate accommodation away from the workplace for workers to take their rest breaks and to take meals and drinks.</p>	
<b>First aid</b>	Ensure that first aid boxes are kept stocked, particularly with dressings for skin breaks.	
<b>Cleaning and housekeeping</b>	Maintain a high standard of cleanliness of work areas and decontaminate work surfaces regularly.	
<b>Health surveillance</b>	Ask your workers who may come in contact with potentially infected material to check their skin daily for cuts etc and to report anything unusual. This would include forklift truck drivers, manual sorters, samplers and buyers.	
<b>Information and training</b>	<p>Give workers an anthrax medical card (e.g. MSB3 available from HSE) and ask them to carry it as a reminder of the protective measures and the disease symptoms.</p> <p>Provide training (and refresher training as necessary) in the control measures and keep a record.</p>	

<b>Supervision</b>	Supervisors should be trained in the systems of work and rules on personal hygiene and ensure that they are followed.	<p>card.</p> <ul style="list-style-type: none"> <li>• Consult a doctor immediately if you have any unexplained swellings on the skin.</li> </ul>
<b>Immunisation</b>	The need for immunisation, as a supplement to the control measures, should be determined as part of the risk assessment. Workers should not be charged for the vaccine and should be made aware of the advantages and disadvantages of immunisation and its limitations. See para's 29-31 of HSG 174 'Anthrax: Safe working and the prevention of infection'.	
<b>Taking samples</b>	<p>The sampler should wear protective gloves, respiratory protective equipment to:</p> <p>BS EN149: 2001 FFP3 standard and if contamination of clothing is possible, e.g. if entering a container, disposable coveralls. Immunisation is strongly recommended.</p> <p>Samples should be placed in sealed bags and labelled with the bale number, date and shipment details.</p> <p>Sample bags should be double bagged and packaged in strong packing and despatched to a competent laboratory offering a testing service for <i>B Anthracis</i>. (Seek advice from the testing laboratory and from Royal Mail if samples are to be sent through the post.)</p> <p>Testing for anthrax is provided by a number of bodies including, the Health Protection Agency in Leeds, and the Health and Safety Laboratory, Buxton.</p>	
<b>Further information</b>	HSG 174 'Anthrax: Safe working and the prevention of infection' available from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 6FS price £7.50	



(NB Products of animal origin may only be imported through certain ports – further advice is available on <http://www.defra.gov.uk/animalh/int-trde/prod-im/prodbips.htm>)

<sup>1</sup> Exemption 13 'Third Party's commercial confidences'