



**Prison
Service
Order**

Zoonotic Infections (Zoonoses).

**ORDER
NUMBER**

3805

INTRODUCTION FROM THE DIRECTOR OF REGIMES

1. This Prison Service Order (PSO) is being issued to instruct the service about sections of the *Health & Safety at Work Act (1974)* and the *Control of Substances Hazardous to Health Regulations (1999)* covering **Zoonotic Infections (ZONNOSES)**.
2. Zoonoses are animal diseases which can be transmitted to humans. Although Home Office Notice 163/1991 (Weil's Disease), Health and Safety Notice 65/1997 and internal Regime Services Technical Notes 7 and 20/1998 have been circulated on this subject, no Prison Service instruction has previously been issued.

Performance Standard

3. This PSO will fall under the Performance Standard on Occupational Health and Safety.

Implementation

4. This PSO comes into effect on 1 June 2000.

Impact and Resource

5. The Order will ensure that those line managers with responsibility for work areas in which risk could occur, have clear instructions on the necessary control measures which must be put in to place.

Mandatory Action

6. *Governors of establishments and line managers with responsibility for staff and prisoners in risk areas must ensure that all necessary precautions are taken to minimise the risks of contamination/infection.*
7. *All persons at possible risk must be made aware of risk factors, through the provision of appropriate training, and the effective communication of all relevant information, safety guidance and legislative requirements.*

Audit and Monitoring

8. Monitoring is the responsibility of the operational line, and will be carried out at local level. Specialist advice and support is available from the relevant Headquarters Groups.

Contact

9. The primary source for advice is Mary Evans at the Health and Safety Policy Unit. Directorate of Personnel, Room 824, Cleland House. Tel.No 020 7217 6751/6810. Details of specialist contact points within Headquarters are detailed at Appendix 1 of the PSO.

KEN SUTTON
Director of Regimes

NOTE FOR ESTABLISHMENT LIAISON OFFICERS

*ELOs must record the receipt of the Prison Service Order - **ZOONOTIC INFECTIONS, ZOONOSES** in their registers as issue **87** as set out below. The PSO must be placed with those sets of orders mandatorily required in Chapter 4 of PSO 0001..*

Issue no.	Date	Order no.	Title and / or description	Date entered in set	ELO signature
87	10/05/00	3805	ZOONOTIC INFECTIONS, ZOONOSES		

CONTENTS

1. Introduction

2. Aims

3. Mandatory Action

4. Resource Implications

5. Monitoring

6. Training

7. Advice and Information

Appendix 1: Contact points: Technical and Health Care Support.

Appendix 2: Main hazard groups - Supporting information.

Appendix 3: Supporting information which must be read in conjunction with the mandatory requirements of the PSO.

Introduction

- 1.1 Zoonoses are infections that are transmitted naturally from animals to humans. Appendix 1 of this Order provides information on the most significant infections which occur in the United Kingdom. It details the main symptoms, preventative measures and recommended treatment.
- 1.2 Although information on this subject has been circulated previously : Home Office Notice 163/1991 (Weil's Disease) and Health and Safety Notice 65/1997, no Prison Service wide written procedures on necessary control measures - other than Technical Notes 7/1998 and 20/1998 issued by Enterprise & Supply Services - have been issued.
- 1.3 *The Health & Safety at Work Act 1974* places a duty on employers " to minimise, as far as reasonably practicable, the risk to employees' health arising from these activities".
- 1.4 This Order sets out the mandatory requirements to ensure compliance in accordance with *The Health and Safety at Work Act* and supporting regulations.
- 1.5 For the purposes of the Order " those at risk " are defined as:-
 - (a) Staff and prisoners who work on farm (agribusiness) sewage systems, construction and maintenance, food preparation and those involved in the control of feral pigeons and other vermin. It also applies to those involved in outdoor pursuits and countryside activities, dog handlers and kennel staff;
 - (b) families of staff who use dogs as part of their duties;
 - (c) external visitors, such as school children and their teachers, to prison farms (including rare breed projects within prisons), must also be considered to be at risk ;
 - (d) In some instances, there is also a particular risk to pregnant women.
- 1.6 *The Control of Substances Hazardous to Health Regulations (COSHH) 1999* require employers to make an assessment of the risk from hazardous substances, including biological agents, and to introduce adequate control measures before any work is carried out.
- 1.7 Factors which have to be considered when undertaking assessments are:
 - (i) The type of substances to which employees are liable to be exposed.
 - (ii) The likely effects of these substances on the body.
 - (iii) Where the substances are likely to be present and in what form.
 - (iv) How employees or others could be exposed to risk, should any control measures fail, or not be complied with.
- 1.8 Individual assessment will be required for persons with conditions which are known to possibly affect a response to the substance, such as pregnancy or persons with an allergy status.
- 1.9 Information on the special provisions for the deliberate use of biological agents, which include zoonoses, is provided in Schedule 3 of the COSHH regulations. These provisions require employers to classify biological agents into individual groups as follows :

Hazard Group 1 - unlikely to cause human disease.

Hazard Group 2 - can cause human disease and may be a hazard to employees, however unlikely to spread to the community; effective preventive treatment usually available.

Hazard Group 3 - can cause severe human disease, and presents a serious hazard to employees; it may spread to the community: effective prophylaxis or treatment is usually available

Hazard Group 4 - causes severe human disease and is a serious hazard to employees and likely to spread to the community, usually no effective prophylaxis or treatment is available.

A list of the main zoonoses and the Hazard Groups to which they each belong is provided at Appendix 1.

1.10 Schedule 3 of the COSHH regulations also requires employers to substitute, where possible, a less hazardous agent. Where this is not practicable, it will be necessary to take the following actions: [In considering these, it is necessary to balance the importance of the requirement against the possible risks involved, which in the main will be those of an incidental exposure rather than deliberate use].

Keep the number of persons exposed, or likely to be exposed, as low as practicable.

Design work processes to prevent, or minimise the release of agents.

Agree action plans to deal with any accidents.

Specify and publicise appropriate decontamination and disinfecting processes.

Establish means/systems of safe collection, storage and disposal of contaminated waste.

Make arrangements for the safe handling and transport of agents, or materials which may contain agents.

Specify and publicise procedures for taking, handling and processing samples which contain agents.

Provide appropriate protective clothing, where exposure cannot be controlled by other means.

Provide vaccines where appropriate.

Provide adequate hygiene facilities.

Prohibit eating, drinking, smoking or application of cosmetics where there is a risk of contamination.

1.11 Additional control measures may be required in health and veterinary care areas. In particular, where human or animal patients are known, or suspected to be infected with a Hazard Group 3 or 4 biological agent.

1.12 In order to minimise the risk of transmitting zoonotic infections, it is vital that the activities of livestock production are segregated, as far as practicably possible, from other human activities. In particular from food preparation, eating and drinking. By taking the following sensible precautions the risk of cross contamination will be considerably reduced:

Maintaining a high standard of personal and kitchen hygiene.

Using protective clothing and gloves.

Avoiding contact with infected animals.

Covering all cuts and abrasions.

Ensuring good animal husbandry and welfare.

Seeking veterinary advice for any animal showing signs of transmittable infections.

- 1.13 Many zoonoses begin with flu like symptoms which could include fever, headaches, diarrhoea and vomiting. Such symptoms **must not** be ignored by those who work in risk areas .
- 1.14 *In the first instance of contracting such symptoms , the effected person must consult their own physician/medical officer, stating that their work involves:*

contact with animals/livestock

contact with effluent disposal systems

participation in outdoor pursuits/countryside activities

or in the case of visitors, that they have recently visited a farm, or rare breed project/ children's farm.

2. Aims

- 2.1 This Order is intended to ensure that the observance of current legislation is, through the introduction of comprehensive risk assessments and consequent adequate control measures, in place and implemented.

3. Mandatory action

- 3.1 Local management **must** :

- a) Advise anyone likely to be at risk of the possible hazards, and of the necessary precautions to be taken. Any necessary formal training must be provided.
- b) Provide suitable protective waterproof dressings for open wounds, and ensure that these are regularly checked and replaced.
- c) Any person with an open wound, which can not be protected, must be removed from the workplace. Where doubt exists, medical advice must be sought.
- d) Provide personal protective clothing/equipment, and ensure that it is cleaned and maintained in accordance with the supplier's recommendations.
- e) Provide separate storage (for protective clothing also), away from the workplace, and separate food and rest areas.
- f) Ensure that where reasonably practicable, good personal cleanliness and hygiene standards are maintained. Protective clothing and equipment must be removed before entering any food or rest areas.
- g) Use the services of specialist vermin control officers, or outside contractors, for the clearance of rat infestations and feral pigeons.
- h) Ensure that protective clothing is worn when handling sick, or possibly infected , animals.
- i) Undertake a risk assessment before handling dead stock awaiting disposal.
- ii) Ensure that access is restricted to only essential personnel.
- j) Undertake a risk assessment prior to any visit being made by external persons or organisations to risk sites. For example, by school parties to prison farms

(including rare breed projects within prisons). Ensure that washing facilities and protective clothing are provided when required.

- k) Ensure that all visitors are made aware of the risks, and provide adequate supervision during the visit.
 - l) Consider the option of immunisation. Due regard must be given to the willingness of those involved and to situations where the vaccine has not activated a response.
 - m) Those at risk must be advised of the importance of early detection, and the need to identify and alert line managers of any signs of illness. This will ensure, as far as possible, early diagnosis and treatment.
 - n) Undertake a risk assessment into the collection and disposal of dog faeces, and where necessary provide suitable facilities and equipment for this purpose.
- 3.2 Additional information on preventative measures is provided at [Appendix 2](#).
These must be read in conjunction with these mandatory requirements.

4. Resource implications

- 4.1 None, other than local consultation and liaison with specialist areas as required.
- 4.2 Some cost will be incurred should immunisation be required. Staff will be re-imbursed for the cost of this treatment, in line with existing arrangements covering tetanus. Such costs are not expected to be significant and can be contained within existing budgets.
- 4.3 It may be necessary to purchase protective work wear, and to provide additional laundry provision/ facilities. These costs are not considered to be excessive.
- 4.4 Some additional costs may be necessary to meet specific training needs. It is expected that such needs can be provided from existing local resources, with the support from specialist areas. Should there be a need for external training, these costs would not be expected to be prohibitive and can be contained within local budgets.
- 4.5 Costs for the purchase, collection and disposal of animal faeces bags, if not already available, may be required. Such costs are not expected to be significant, and can be contained within existing budgets.

5. Monitoring

- 5.1 Will be undertaken at local level.
- 5.2 Technical and Health care support will be available from the contact points listed at Appendix 1.

6. Training

- 6.1 Some training will be required as appropriate at each establishment to meet local needs and to ensure compliance with the *(COSSH) Control of Substances Hazardous to Health Regulations*.
- 6.2 Local training in food hygiene may also be required in some establishments.

7. Advice and Information

7.1 Further information and guidance may be sought from the following documents :

The Health and Safety at Work Act 1974. (HMSO)

The Control of Substances Hazardous to Health Regulations 1999 ISBN and the Approved Code of Practice 0-7176-1670-3 (£8.50 HMSO).

The Zoonoses Order 1989. ISBN 0 - 11- 096285-0 (HMSO)

The Health & Safety Executive : *The Occupational Zoonoses 1993* ISBN 0-11-88637-5 (£5.00 HSE Books P.O Box 1919 Sudbury Suffolk) .

Health & Safety Executive : *Common Zoonoses in Agriculture 1996.* Information Sheet No.2. (HSE Books P.O Box 1919 Sudbury Suffolk)

The Health & Safety Executive Agricultural Information Sheet No.23/ 1998 "*Avoiding Ill Health at Open Farms*" Advice to farmers and teachers supplement. (HSE Books P.O Box 1919 Sudbury Suffolk)

Health and Safety Commission. *Farmwise 3/1998: Your Essential Guide to Health and Safety in Agriculture* (FREE).

The Health & Safety Executive "*Working with Sewage : The Health Hazards*" 1999 - Employer & Employee Guides. (HSE Books P.O Box 1919 Sudbury Suffolk)

Home Office Notice 163/1991 "*Communicable Diseases*".

Safety Guidance Note No 65/1997 "*Zoonoses*" issued by Home Office Health and Safety Services Corporate Support Services Unit Grenadier House.

Regime Services (Enterprise and Supply Services) Technical Note 7/1998:- "*Farm visits by external organisations*".

Regime Services (Enterprise and Supply Services) Technical Note 20/1998 "*Control of Substances Hazardous to Health:- Sheep dipping*".

Contact Points : Technical and Health Care support

Primary Advice

Health & Safety Policy Unit

Mary Evans
Head : Occupational Health and Safety
Directorate of Personnel
Room 824
Cleland House
Tel: 020 7217 6751/ 6810

Specialist Advice

Agribusiness

Hugh Johnstone/ Nick Carver
Regime Services
Enterprise and Supply Services
7th Floor (North), AMP House
Croydon.
Tel: 020 8760 1732/ 1759

Physical Education

Alex Tait
Regime Services
Education Services
8th Floor (North), AMP House
Croydon
Tel: 020 8760 1776

Catering

Area Catering Advisors
Regime Services
Catering Services
Crown House, Corby
Tel: 01536 202101 Ext.296

Works Services

Area Works Coordinator
Construction Unit
Abell House
Tel: 020 7217 + Ext

Dogs

National Dogs Support Group
Security Group
8th Floor
3 Broadway
Birmingham
Tel: 0121 678 8547/ 8538

Other dogs
(Not security)

Health & Safety Policy Unit
Cleland House
Tel: 020 7217 6751/ 6810

MAIN HAZARD GROUPS : SUPPORTING INFORMATION**INFECTION****Campylobacter**
(HazardGroup 2)

Common cause of enteritis/diarrhoea in United Kingdom. Found in faeces of most animal species, particularly birds, low infection dose for humans. Infection most commonly from poorly cooked poultry and unpasteurised milk; also from other contaminated foods and drinking water.

Cowpox/Pseudocowpox
(Hazard Group 2)

Now very rare, cause from contact with udders of infected cows.

Cryptosporidiosis (Hazard Group 2)

Found in faeces of most animal species. The main occupational hazard to humans is from calves and lambs and animal faeces. Infection by ingesting contaminated material including raw milk and drinking water contaminated with animal faeces. Outbreaks through contamination in swimming pools also possible.

Leptospirosis(Weil's Disease)
(Hazard Group 2)

Potentially life-threatening,

SYMPTOMS

Fever, abdominal pains, diarrhoea which may be blood stained. Can cause dehydration. Further complications rare.

Causes 'milkers nodules' small painful eruptions on hands and arms

Diarrhoea with vomiting, headache, abdominal pain and flu like symptoms. Potentially very serious in immuno-compromised persons e.g. AIDS patients.

High temperature and headache, may include vomiting and muscle pain. Can cause haemorrhages, pneumonia and kidney

PREVENTION & TREATMENT

Good kitchen and personal hygiene. Thorough cooking of food. Severe cases can be treated with antibiotics

Good dairy hygiene and practice. No treatment available.

Normal personal hygiene precautions important. Symptomatic treatment only.

Primary prevention is rat control (dead or alive). Avoid direct or indirect contact with infected urine e.g. contaminated water.

INFECTION

caused by sporadic bacterial disease spread by contact with infected rat urine. Also transmitted by water courses contaminated with infected rat urine. Transmission may occur through wounds, abrasions and mucous membranes, and possible by the aerosol route.

Leptospirosis (Cattle Form)
(Hazard Group 2)

Sporadic disease of varying severity spread by contact with infected animal urine, also known as 'Dairy Workers Fever'.

Listeriosis (Hazard Group 2)

Organism is widespread in the environment and may be excreted in the faeces of infested sheep, goats and cattle. Infection from soil and contaminated food, especially cheese. Human disease is relatively rare.

Lyme Disease (Hazard Group 2)

Uncommon in the UK. A tick louse infection from deer, sheep, foxes, squirrels and rodents. Located in ground vegetation in forest, woodland, moorland and heath.

SYMPTOMS

failure.

May be asymptomatic or present as a flu like illness with fever and persistent headache, can be fatal, especially with advancing age. Has been misdiagnosed as meningitis. Enters the human body through abrasions and cuts in the skin and through linings in the nose, mouth and conjunctiva.

Causes severe disease in new-borns and can cause abortion in pregnant women. Fever, headache and vomiting - may result in meningitis, pneumonia and other complications.

Faint ring around tick bite. Ring increases in diameter over several weeks as centre clears. Fever and flu like symptoms may develop, also headache and muscle pains. Chronic complications, such as arthritis and meningitis may also occur

PREVENTION & TREATMENT

Workers at special risk should wear protective clothing. Antibiotic treatment available. Immunisation maybe an option.

Maintenance of good personal hygiene, avoid direct or indirect contact with infected urine e.g. Contaminated water. Workers at risk should wear protective clothing. Antibiotic treatment available.

Maintain good personal hygiene, proper storage of food etc. Antibiotic treatment available. Pregnant women and elderly and infirm persons should avoid consumption of unpasteurised dairy products. Pregnant women should also avoid contact with potentially infective materials, e.g. aborted foetus on farms.

Cover exposed parts of the body, particularly ankles and legs when working in possible tick infested areas. Inspect skin and clothing for ticks. Ticks that attach themselves to the body should be removed as quickly as possible. Simple blood test will confirm

INFECTION	SYMPTOMS	PREVENTION & TREATMENT
<p><u>Newcastle Disease (Hazard Group 2)</u></p> <p>Non life-threatening. Conjunctivitis caused by virus spread via aerosols from infected birds.</p>	<p>Fever and flu-like symptoms.</p>	<p>infection or antibodies. Antibiotic treatment available.</p> <p>Use protective clothing and gloves, may require use of respiratory protection. Cover all cuts and abrasions.</p>
<p><u>Orf (Hazard Group 2)</u></p> <p>Sheep and goat virus, disease which is transmitted to humans by direct skin contact with infected animals or hides and wool, also contaminated hedges and fences.</p>	<p>Painless red lesion on hands, face or arms for 6-8 weeks. May become infected with secondary bacteria.</p>	<p>Maintain personal hygiene and cover all cuts and abrasions. Avoid direct contact with lesions when handling infected animals. No specific treatment but antibiotics available for secondary infection.</p>
<p><u>Ovine Chlamydiosis (Hazard Group 2) (Enzootic Abortion)</u></p> <p>Transmitted by handling or contact with an infected afterbirth from a pregnant ewe.</p>	<p>Initial flu-like illness with fever/headache.</p>	<p>Pregnant women must avoid contact with sheep during lambing. Antibiotic treatment available.</p>
<p><u>Ringworm (Hazard Group 2)</u></p> <p>Non life-threatening fungal infection of the skin, normally transmitted by direct contact with bovine animals, or from spores from infected livestock or equipment entering the skin through cuts or abrasions. Also transmitted from contaminated hedges and fences.</p>	<p>Ring-shaped, scaly, crusty skin lesions. May become infected with secondary bacteria.</p>	<p>Maintain personal hygiene, avoid contact with infected animals unless necessary, when protective clothing overalls and gloves should be worn. Cover all breaks in skin with waterproof dressings. Treat with antibiotic or antifungal ointment.</p>

INFECTION**Salmonellosis (Hazard Group 2)**

Common cause of food poisoning from contaminated poultry, other meat, milk etc. Generally associated with inadequate cooking, poor storage.

Streptococcus suis(Group 2)

Bacterial infection acquired from pigs. Transmission usually via inoculation into a wound or contamination of abraded skin. Fairly rare infection in humans.

Tetanus (Hazard Group 2)

Infective spores found in soil and various animals' faeces which may persist for many years. Transmitted by contamination of skin wounds with soil or faeces containing spores, especially deep wounds, e.g. punctures

Toxocariasis (Hazard Group 2)

Roundworms of cats and dogs which excrete the eggs in their faeces. Infection by ingestion of contaminated soil/grass. Also from contaminated hands or contact with dogs, especially puppies. Mostly affects children.

SYMPTOMS

Watery diarrhoea with abdominal pains and low fever. Occasionally dehydration and septicaemia. Rarely fatal.

Can give rise to a severe and possibly fatal meningitis.

Painful toxic contractions of deep muscles especially of the jaw 'Lockjaw'. Can be fatal

Young children show fever, bronchitis, and nausea. Older children may be affected by loss of vision.

PREVENTION & TREATMENT

Maintain good personal and kitchen hygiene. Ensure proper storage and refrigeration of all food and in particular prevent cross contamination between raw and cooked foods. Treat with fluid replacement, therapy and antibiotics in severe cases. Ensure that all food preparation areas are bird proof.

Maintain personal hygiene, cover any cut or abrasion with waterproof dressing.

Vaccination is available and is recommended. High standard of personal hygiene must be maintained. All cuts and abrasions should be covered by waterproof dressings.

Prevent access to cats and dog faeces. Teach and maintain good personal hygiene. Drug treatment available.

INFECTION**Anthrax (Hazard Group 3)**

A potentially life threatening, but now exceedingly rare bacterial infection acquired from handling infected animals, their products or contaminated soil or building materials. Infection may be acquired through broken skin, inhalation of spore-containing material and person to person infection.

Bovine Tuberculosis (Hazard Group 3)

A potentially severe chronic bacterial disease. New human infection from drinking raw milk or contact with infected animals is now very rare.

Brucellosis (Hazard Group 3)

Now eradicated from cattle in the United Kingdom, [infection from contaminated dairy products or direct contact with infected animals or their material] NB. Brucellosis now totally eradicated in UK cattle population: suggest deleting bit in square brackets.

Ornithosis/Psittacosis (Hazard Group 3)

Ornithosis is acquired by contact with infected birds such as chickens, turkeys, ducks and pigeons. Also, from dust or aerosols, from faeces or nasal discharge, from infected birds, and from bird bites. Psittacosis is also

SYMPTOMS

Cutaneous ulcers with fever, headaches, possible septicaemia, meningitis, pneumonia, acute gastro-enteritis.

Chronic progressive disease with fever and weight loss.

Fever, fatigue, joint pains, severe headaches, chills, sweats and depression.

Influenza-like symptoms and pneumonia. Possible joint and muscle pain.

PREVENTION & TREATMENT

Prohibit contact with infected animals/materials. Maintain high standards of personal hygiene. Vaccination available. Treat with antibiotics at an early stage.

Eradication of the infection in the animal population has reduced the risk. BCG inoculation is effective.

Good animal husbandry, avoid contact with infected cattle maintain personal hygiene, use protective clothing. Safe disposal of contaminated animal tissue. Treat with antibiotics.

Maintain good personal hygiene. Screening of chicks and heat treatment of feathers plus good standards of cleanliness/husbandry. Treatment by antibiotics. No immunisation available.

INFECTION

acquired from contact with birds from the parrot family. Source of infection is faeces, nasal discharges and contaminated feathers.

Q Fever (Hazard Group 3)

Rare infection in the UK of sheep and cattle. Human infection from handling infected material such as afterbirth or ingesting contaminated milk etc.

Rabies (Hazard Group 3)

Fatal disease of all warm-blooded animals and birds. Does not occur in the UK. Infection usually from bites.

Vero Cytotoxin-Producing Escherichia Coli 0157 (E Coli 0157) (Hazard Group 3)
A severe and sometimes fatal disease, particularly in infants, young children and the elderly. Infection is caused through consumption of contaminated foods. Can also be caused by direct contact with animals and person to person, and from exposure to recreational waters. Environmental transmission from farms and other contact.

SYMPTOMS

Fever with muscle pains, severe headaches, cough etc. Hepatitis may develop after a few weeks. Chronically heart and liver problems may occur after some years.

Initial symptoms include fever, anxiety, insomnia, headaches, spasms of swallowing muscles followed within a few days by convulsions leading to paralysis and death in all cases.

Diarrhoea which can be blood stained. Abdominal cramps. Generally without fever. Can result in acute renal failure, anaemia and other blood disorders.

PREVENTION & TREATMENT

Full recovery is usual after a few weeks but chronic heart disease is difficult to treat. Avoid contact with infected material and apply good hygiene practices. Treat with antibiotics.

In enzoonotic areas, avoid contact with wild animals. Prompt vigorous cleansing and disinfection of bite wound is vital. Pre and post exposure vaccination is essential. No treatment available once symptoms appear.

Symptomatic treatment only. Maintain good kitchen and personal hygiene and in particular prevent cross contamination between raw and cooked foods.

INFECTION

SYMPTOMS

PREVENTION & TREATMENT

FOOTNOTES

1. Newcastle Disease, Anthrax and certain forms of Borine Tuberculosis and Brucellosis are notifiable under the Animal Health Act 1981, and if these diseases are suspected in animals then they must be reported to the Police, Local Authority or the local Divisional Veterinary Manager of the Ministry of Agriculture, Fisheries and Food.
2. The following are not zoonoses' but are provided to highlight the risks of toxicity and allergenicity.

Dusts Moulds and Spores

Hay, straw, grain and similar farm materials can produce dry dust that can cause respirable problems. Mouldy hay, straw and grain can produce spores of micro organisms which can also cause respirable problems. Poultry feathers and droppings can also cause allergies. Dust in intensive livestock houses can also cause respiratory ailments. Entry to the body is by inhalation causing irritation to nose and eyes. Bronchitis, farmer lung, asthma and grain fever all can have longer term effects.

Irritation to nose and eyes. Cough with phlegm, headache, chest tightness, wheezing, aches and pains. Possible damage to the heart.

Wear suitable dust respirator and personal protective clothing. Remove and clean protective clothing at end of working day. Observe good housekeeping standards and reduce levels of dust in working environment.

3. The following are specific to staff and their families who are responsible for the care of prison dogs.

FLEAS - Small wingless jumping insect which feeds on animal blood. Can affect humans. Effective treatment available.

MANGE - Skin disease in hairy and woolly animals, caused by a parasite mite and occasionally communicated to humans. Effective treatment available.

Supporting information which MUST be read in conjunction with the mandatory requirements of the PSO

1. The majority of the risks presented by zoonotic infections can be dealt with adequately by maintaining a high standard of personal cleanliness and hygiene.
2. Before starting work, ensure that any open wounds are fully covered with a suitable waterproof plaster dressing. Dressings must be regularly checked and replaced when required.
3. The provision of protective clothing and equipment will ensure that any contact with the skin by animals is eliminated, or reduced to a minimum.
4. Whilst at work, care should be taken to avoid rubbing the nose, mouth or eyes. This can spread infection to humans by inhalation, ingestion or absorption.
5. Forearms, hands and face must be thoroughly washed with soap and water, or other suitable skin cleansing agent, prior to eating, drinking or smoking.
6. Hands must be thoroughly washed with soap and water, or other suitable skin cleansing agent, after handling animals or potentially hazardous substances or materials, such as pond water.
7. Dirty boots and clothing must always be removed before entering eating or rest areas.
8. Following use of the toilet, hands must be thoroughly washed with soap and water, or other suitable skin-cleansing agent (Notices to this effect must be prominently displayed).
9. Any carcasses awaiting disposal must be stored and accessible only to those involved with their disposal.
10. External visitors to prison farms, for example school children and teachers, must be informed of likely risks, and precautions to take before, during and after coming in to contact with farm animals.

11. All persons engaged in agricultural work and others defined as "at risk" (see paragraph 1.5), may come into contact with materials - infected substances or animals -, which are likely to contain infectious organisms. Consideration must therefore be given in these cases to recommending that appropriate immunisation is received. Advice on immunisation can be obtained:-

- For prisoners - from the Establishment Medical Officer
- For staff - from their personal health physician.

The following will also assist those staff with responsibilities for dogs :

Avoid unnecessary contact with other dogs and their owners.

Avoid excessive contact by dogs with handlers' family, in particular licking by dogs.

Ensure regular food stock rotation, provision of clean drinking water and secure, clean storage of dog biscuits.

Maintain kennels and dog exercise areas to a high standard of cleanliness. Remove all faeces on a regular basis and ensure its safe disposal.

Regular and thorough removal of animals faeces in all areas will reduce the spread of infection.