

Short impact assessment template

Description of the intervention:

Publication of an 'Occupational hygiene standard of good working practice to reduce the risk of respiratory disease on poultry farms'.

Background:

Respiratory disease is a major occupational health risk for those working in agriculture with the incidence of occupational asthma recorded as several times the national average (HSE 2006). Research suggests that working in poultry houses is associated with higher exposures to organic dusts than for cattle or swine housing and prevalence of symptoms among poultry workers is also high (HSL 2007). A review of published research by the Institute of Occupational Medicine reported a high prevalence of respiratory symptoms in poultry workers including a 15% prevalence of chronic bronchitis (Cowie et al 2005).

Recent studies have demonstrated that poultry farm workers' exposure to organic dust can be substantial (Crook et al 2008).

Poultry dust can be a complex mixture containing a number of constituents capable of causing or exacerbating respiratory symptoms.

Objectives:

The new guidance is intended to provide poultry farmers with practical advice on how to control dust exposures when carrying out a range of common tasks in line with the new benchmark standard. The benchmark standard has been developed by a joint HSE/Industry Working Group.

Calculation of costs:

The guidance will be freely available on the HSE website and will not impose any new requirements on the poultry industry in terms of managing health and safety beyond those already detailed in existing regulations e.g. the COSHH Regulations 2002 (as amended).

Information on the number of farms/workers is based on data¹ from Defra for Great Britain and from the industry itself. The costs of implementing control measures, including compliance estimates, are based on industry specific knowledge. All estimates of costs and benefits have been rounded.

See Appendix 1 for estimation of the costs.

¹ Defra Farm Census 2007 – www.defra.gov.uk

Impact on industry (including any effect on the Admin Burdens Baseline):

The costs outlined above would fall on the industry. The guidance is expected to reduce the administrative burden. The guidance is simple, straight-forward and easy to understand. It sets down a clear standard for the industry to follow. There is not expected to be any impact on competition.

Benefits (quantified where possible):

The aim of the publication is to raise awareness and to reduce the incidence and prevalence of work-related respiratory disease in the poultry farming industry. It is difficult to predict the level of reduction that may arise as a direct result of the publication but it is anticipated that reading this guidance will result in some positive outcomes.

See Appendix 2 for estimation of the benefits.

Consultation:

This approach has been discussed with HSE's Chief Economist and the Better Regulation Team.

Chief Economist's comments:

Recommendation:

That based on proportionality, a full impact assessment is not produced.

Signed:.....
HSE's Chief Economist

Date:

TRIM: 2007/250964

¹ Defra Farm Census 2007 – www.defra.gov.uk

Appendix 1

Costs

Reading Guidance

There are a total of 3,000 farms in scope of the intervention, including 1,100 broiler farms, 1,700 laying farms (including 250 rearing farms) and 200 duck and turkey farms.

It is assumed that the new guidance will be read by the farm manager at an economic cost of £19 ph (ASHE).

75% of farm managers are expected to read the guidance, which takes ¼ hour.

Cost of Reading Guidance (one off cost)

$$3,000 * 75\% * £19 * \frac{1}{4} \text{ hr} = £11,000$$

Cost of Additional Burdens by task

Laying down litter

There are currently 459 (full time equivalent) workers employed in laying down litter in poultry farms. Of these, 20% (92) lay down litter by hand, the remaining 80% (367) use a machine.

By Hand

50% of the 92 workers that lay litter by hand are expected to take the additional safety measure of wearing a new FFP2 disposable respirator per day where previously they wore no breathing apparatus.

Each FFP2 mask costs £2. There are 260 working days in a year.

Cost of Masks (per annum)

$$92 * 50\% * £2 * 260 = £24,000$$

With Machine

There are 367 workers laying litter with a machine. There are thought to be as many machines as workers. 90% of the machines (330) are expected to be upgraded to improve their driver protection.

The main upgrade measure is to fit an enclosed cab with a filtered air intake. Each upgrade costs £2,800. This cost is expected to be spread over 5 years as upgrades will be made to newly purchased vehicles, which have an average life span of 5 years. Upgrades can not be reused on other vehicles.

¹ Defra Farm Census 2007 – www.defra.gov.uk

Cost of Upgrades (per annum)

$$330 * £2,800 * 1/5 = £185,000$$

There will also be an annual maintenance charge for air- conditioning system of £100 per machine per annum

Maintenance cost (per annum)

$$330 * £100 = £33,000$$

Total cost of cabs (per annum)

$$£ 185,000 + £33,000 = £218,000$$

It is estimated that 75% of drivers currently wear RPE (FFP2), which will no longer be required in upgraded cabs. This provides a saving

Saving from not providing RPE (per annum)

$$330 * 75% * 260 * £2 = £129,000$$

Net cost of cabs (per annum)

$$£218,000 - £129,000 = £89,000$$

Populating Houses with Poultry

There are 270 (full time equivalent) workers employed in populating houses with poultry.

90% of the 270 workers that populate houses with poultry are expected to take the additional safety measure of wearing a new FFP2 disposable respirator per day where previously they wore no breathing apparatus.

Each FFP2 mask costs £2. There are 260 working days in a year.

Cost of Masks (per annum)

$$270 * 90% * £2 * 260 = £126,000$$

Routine Flock and House Maintenance

There are 11,000 (full time equivalent) workers employed in routine flock and house maintenance.

25% of these 11,000 workers are expected to take the additional safety measure of wearing a new FFP2 disposable respirator per day where previously they wore no breathing apparatus.

¹ Defra Farm Census 2007 – www.defra.gov.uk

Each FFP2 mask costs £2. There are 260 working days in a year.

Cost of Masks (per annum)

$$11,000 * 25% * £2 * 260 = £1,430,000$$

Depopulating (Catching)

There are 600 (full time equivalent) workers employed in depopulating

50% of these 600 workers are expected to take the additional safety measure of wearing a new FFP2 disposable respirator per day where previously they wore no breathing apparatus.

Each FFP2 mask costs £2. There are 260 working days in a year.

Cost of Masks (per annum)

$$600 * 50% * £2 * 260 = £156,000$$

Litter/Manure Removal

There are 660 workers employed in litter removal, all using a machine. There are thought to be as many machines as workers. The machines are different to the ones used to lay litter. 90% of the machines (594) are expected to be upgraded to improve their driver protection.

The main upgrade measure is to fit an enclosed cab with a filtered air intake. Each upgrade costs £2,800. This cost is expected to be spread over 5 years.

Cost of Upgrades (per annum)

$$594 * £2,800 * 1/5 = £330,000$$

There will also be an annual maintenance charge for air- conditioning system of £100 per machine per annum

Maintenance cost (per annum)

$$594 * £100 = £59,000$$

Total cost of cabs (per annum)

$$£ 330,000 + £59,000 = £389,000$$

It is estimated that 75% of drivers currently wear RPE (FFP2), which will no longer be required in upgraded cabs. This provides a saving

Saving from not providing RPE (per annum)

¹ Defra Farm Census 2007 – www.defra.gov.uk

594 * 75% * 260 x £2 = £232,000

Net cost of cabs (per annum)

£389,000 – £232,000 = £157,000

Summary of Costs

One Off Cost

Reading Guidance £11,000

Annual Cost

Laying Litter by Hand	£24,000
Laying Litter by Machine	£89,000
Populating Houses	£126,000
Routine Maintenance	£1,430,000
Depopulating	£156,000
Litter Removal	£157,000

Total Cost per Annum £1,982,000

The intervention is therefore expected to create costs to the poultry industry of approximately £2m.

Appendix 2

Benefits

There are an estimated 13,000 full time equivalent workers employed in the poultry industry in the UK.

From amongst these workers, there are an estimated 200 new cases of bronchitis per year thought to be caused by working conditions.

Total Baseline cost

Each case of bronchitis is valued at £8,900 (average case of ill health).

$200 * £8,900 = £1.78m$ (per annum)

Impact of Intervention

It is expected that the intervention will cause the number of bronchitis cases in the poultry industry to fall by 10-30%.

If cases fall by 10%, the benefit will be

$200 * £8,900 * 10\% = £178,000$ (per annum)

If cases fall by 30%, the benefit will be

$200 * £8,900 * 30\% = £534,000$ (per annum)

Total Benefit

The total benefit of the intervention is expected to be between £178k and £534k (per annum).

¹ Defra Farm Census 2007 – www.defra.gov.uk