

Proposals on revised Control of Asbestos Regulations

This consultative document is issued by the Health and Safety Executive in compliance with its duty to consult under section 50(3) of the Health and Safety at Work etc Act 1974.

Comments should be sent to:

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to reach there no later than 4 November 2011

The Executive tries to make its consultation procedure as thorough and open as possible. Responses to this consultation document will be lodged in the Health and Safety Executive's Knowledge Centre after the close of the consultation period where they can be inspected by members of the public.

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004 (EIR)). Statutory Codes of Practice under the FOIA and EIR also deal with confidentiality obligations, among other things.

If you would like us to treat any of the information you provide, including personal information, as confidential, please explain your reasons for this in your response. If we receive a request under FOIA or EIR for the information you have provided, we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will be disregarded for these purposes. Requests for confidentiality should be made explicit within the body of the response.

HSE will process all personal data in accordance with the DPA. This means that personal data will not normally be disclosed to third parties and any such disclosures will only be made in accordance with the Act.

Consultative Document

Proposed revised Control of Asbestos Regulations

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Consultation by the Health and Safety Executive

The Health and Safety Executive has a statutory duty to consult stakeholders to seek their views on its proposals. It believes that public consultation provides an open and transparent approach to decision-making. Following consultation, the Health and Safety Executive will make a recommendation to the Secretary of State on the best way forward.

How to Respond

A summary of the proposal and the questionnaire can be found at www.hse.gov.uk/condocs. You do not have to use this questionnaire, and you are welcome to comment on any issue raised by this document.

You can:

Complete the online questionnaire; or

Respond by email – to asbestosconsultation@hse.gsi.gov.uk ; or

Respond on paper – you can do this either by:

- Printing the online questionnaire; or
- Making a written response in whatever format you wish.

Send your completed response to:

Susan Polak
Health and Safety Executive
5.S.1 Redgrave Court
Merton Road
Bootle
Merseyside L20 7HS

We would be grateful if you could send an email address when you provide your response, so that we inform you of when the HSE intends to publish information concerning consultation responses on the HSE website

Responses must be received by 4 November 2011.

What happens next?

We will acknowledge all responses and give full consideration to the substance of arguments in the proposals; we may contact you again if, for example we have a query in respect of your response.

We will tell you when the HSE will publish information concerning the consultation responses. We will provide a summary of those who responded to this consultation and we will produce a summary of the views expressed to each question; this information will be placed on the HSE's website.

Code of Practice on Consultation

We are committed to best practice in consultation and to the Government's Code of Practice on consultation. The Code of Practice sets out seven criteria for consultation. These are:

- When to consult - Formal consultation should take place at a stage when there is scope to influence the policy outcome.
- Duration - Consultations should normally last for at least 12 weeks with consideration given to longer timescales where feasible and sensible.
- Clarity of scope and impact - Consultation documents should be clear about the consultation process, what is being proposed, the scope to influence and the expected costs and benefits of the proposals.
- Accessibility - Consultation exercises should be designed to be accessible to, and clearly targeted at, those people the exercise is intended to reach.
- The burden of consultation - Keeping the burden of the consultation to a minimum is essential if consultations are to be effective and if consultees' buy-in to the process is to be obtained.
- Responsiveness of consultation exercises - Consultation responses should be analysed carefully and clear feedback should be provided to participants following the consultation.
- Capacity to consult - Officials running consultations should seek guidance in how to run an effective consultation exercise and share what they have learned from the experience.

How your responses will be handled

We will acknowledge all responses and give full consideration to the substance of arguments in the development of proposals. The Health and Safety Executive will then decide on how best to take the regulations forward based on an interpretation and analysis of the consultation responses.

Queries and complaints

If you do not believe that this document or the consultation on these proposals meet the criteria on consultations set out above, or if you are not satisfied with the way this consultation exercise has been conducted, please either write to:

Teresa Farnan at:

Health and Safety Executive
6th Floor, Sanctuary Buildings
20 Great Smith Street
London
SW1P 3BT

Or send an email to teresa.farnan@hse.gsi.gov.uk

We aim to reply to all complaints within 10 working days. If you are not satisfied with the outcome, you can raise the matter with HSE's chief executive, Geoffrey Podger, at Health and Safety Executive, Redgrave Court, Merton Road, Bootle, Merseyside, L20 7HS. You can also write and ask your MP to take up your case with us or with Ministers. Your MP may also ask the independent Parliamentary Commissioner for Administration (the Ombudsman) to review your complaint.

Summary

1. The Health and Safety Executive (HSE) is proposing to introduce revised Control of Asbestos Regulations to implement the legislative changes required to comply with the European Commission's (EC) reasoned opinion on the UK Government's transposition of Directive 83/477/EEC as amended by 2003/18/EC on the protection of workers from the risks to exposure to asbestos at work. The reasoned opinion confirms the EC's view that the UK has not fully implemented Article 3(3) of the Directive which provides the possibility for an exemption from three requirements set out in the Directive.

2. It is important to comply with the reasoned opinion as soon as possible. This consultation is therefore limited to issues arising from the changes needed to comply with the reasoned opinion and will be conducted for a 9 week period.

3. In addition the revised regulations will reflect the amendments which have already been made by the REACH¹ Enforcement Regulations, SI 2852: 2008². Minor amendments will also be made in order to adopt gender neutral drafting and update the language of the regulations where possible.

4. The questions in this document are divided into three parts:

- 1) The legal changes required to comply with the reasoned opinion and necessary consequential amendments;
- 2) The guidance to be produced to explain how the changes will work in practice; and
- 3) The impact on business of making the required changes.

Background

5. Directive 2003/18/EC was adopted in March 2003 and Member States had to implement its provisions by April 2006. The Directive amended the earlier Directive 83/477/EEC on the protection of workers from the risks related to exposure to asbestos at work. Directive 2003/18/EC introduced a number of measures to further strengthen the control of exposure to asbestos and to provide greater protection for building maintenance workers and trades people.

6. Directive 2003/18/EC was implemented in Great Britain by the Control of Asbestos Regulations 2006 (CAR06), with corresponding legislation in Northern Ireland, Gibraltar and on ships and fishing vessels.

7. Following a complaint made in 2006 alleging under implementation of Directive 2003/18/EC, the EC began an investigation into the way the UK had implemented the requirements of the Directive. On 16 February 2011 the EC

¹ The Registration, Evaluation, Authorisation and Restriction of Chemicals EC1907/2006

² The REACH Enforcement Regulations <http://www.legislation.gov.uk/uksi/2008/2852/contents/made>

issued a reasoned opinion that the omission in CAR06 of two terms, '*non-friable*' and '*without deterioration of non-degraded material*' from Article 3(3) (a) and (b) respectively of the Directive meant that, in its view, the UK had not fully implemented the Directive.

8. Article 3(3) of the Directive provides for the exemption of some types of lower risk work with asbestos from three requirements of the Directive. The three requirements from which work may be exempt are: notification of work, medical examinations and record keeping. In the EC's view the omission of the two terms in CAR06 has the effect of widening the scope of the exemption allowing more types of work to be exempt from the three requirements than was intended.

9. The Government has accepted the reasoned opinion and that UK legislation must be changed to include the two omitted terms. Rather than use amending regulations to make the necessary changes it has been decided to revoke the existing CAR06 regulations in their entirety and issue a single set of revised regulations.

Proposed revised regulations and points for consultation

The current position

10. Article 3(3) is implemented by regulation 3(2) of CAR06. Regulation 3(2) of CAR06 currently exempts certain lower risk work with asbestos from the requirements as set out in the Directive to:

- notify work with asbestos to the relevant enforcing authority;
- carry out medical examinations;
- maintain a register for each worker of the type and duration of work done with asbestos (known as health records in CAR06);

11. In addition, regulation 3(2) of CAR06 also exempts the same types of lower risk work with asbestos from the additional requirements in CAR06 to:-

- hold a licence;
- have arrangements to deal with accidents, incidents and emergencies; and
- designate asbestos areas;

12. Work is exempt from these requirements where:

[Extract from CAR06 regulation 3(2)]

- a) *the exposure of employees to asbestos is sporadic and of low intensity;*
- b) *it is clear from the risk assessment that the exposure of any employee to asbestos will not exceed the control limit; and*
- c) *the work involves:*
 - i) *short, non-continuous maintenance activities,*
 - ii) *removal of materials in which the asbestos fibres are firmly linked in a matrix,*
 - iii) *encapsulation or sealing of asbestos-containing materials which are in good condition, or*
 - iv) *air monitoring and control, and the collection and analysis of samples to ascertain whether a specific material contains asbestos.*

13. This means in practice the application of regulation 3(2) of CAR06 creates two categories of work with asbestos: a) licensed work, which is not exempt from any of the requirements, and b) non-licensed work which is exempt from all the requirements described above.

The proposed changes

Part 1. Legal changes required to include the omitted terms of the Directive in the revised regulations and necessary consequential amendments

(NB: The proposed changes are summarised in the Diagram on page 13).

14. The two omitted terms of the Directive, '*non-friable*' and '*without deterioration of non-degraded*' materials, will be included in the revised regulation 3(2) by means of 'copy out' using the exact words of the Directive. This approach is necessary to comply with the reasoned opinion.

15. The inclusion of the two terms in the revised regulation 3(2) has the effect of reducing the types of lower risk work with asbestos which are exempt from the requirements described in paragraphs 10 and 11.

16. Because of the current wording of regulation 3(2) of CAR06, revising the wording to simply include the two omitted terms without making additional amendments could have the unintended consequence of extending the requirement to hold a licence to include some types of lower risk work. In the absence of new risk-based evidence which challenges the established regulatory arrangements HSE's view is that there is no justification to do this.

17. Therefore, in order to avoid extending the licensing requirements, it is necessary to de-couple the application of licensing (and related requirements for emergency arrangements and designating asbestos areas) from the exemptions in regulation 3(2) and to separately define the work for which a licence is required. This means in future under the revised regulations there will effectively be three categories of work with asbestos: -

a) licensed, to which all requirements apply, and for which there is no change;

b) non-licensed, which is exempt, as now, from the requirements to:-

- notify work with asbestos to the relevant enforcing authority;
- carry out medical examinations;
- maintain registers of work (health records);
- hold a licence;
- have arrangements to deal with accidents, incidents and emergencies; and
- designate asbestos areas; and

c) a new category of non-licensed work, which will be **exempt** from the requirements to: -

- hold a licence;
- have arrangements to deal with accidents, incidents and emergencies; and
- designate asbestos areas.

But for which employers will be **required to**:-

- notify work with asbestos to the relevant enforcing authority;
- carry out medical examinations; and
- maintain registers of work (health records).

18. For clarity, this new category of work will be referred to as '**Notifiable Non-Licensed Work**' (NNLW).

19. The proposed revised regulation 3(2) will be drafted as follows (changes highlighted in **bold**):

(2) Regulations 9 (notification of work with asbestos) and 22 (health records and medical surveillance) do not apply where-

- a) *the exposure of employees to asbestos is sporadic and of low intensity; **and***
- b) *it is clear from the risk assessment that the exposure of any employee to asbestos will not exceed the control limit; and*
- c) *the work involves:*
 - i) *short, non-continuous maintenance activities **in which only non-friable materials are handled, or***
 - ii) *removal **without deterioration of non-degraded** materials in which the asbestos fibres are firmly linked in a matrix, **or***
 - iii) *encapsulation or sealing of asbestos-containing materials which are in good condition, or*
 - iv) *air monitoring and control, and the collection and analysis of samples to ascertain whether a specific material contains asbestos.*

20. It is not proposed to define the terms '*non-friable*' or '*without deterioration of non-degraded*' materials in the revised regulations. Guidance will be developed before the revised regulations come into force to help duty holders understand how the changes will work in practice. See Part 2 of this document, page 15, for further details.

21. The core requirements of the regulations to identify asbestos, carry out a risk assessment, have in place suitable measures to control exposure and provide appropriate training will continue to apply to all work with asbestos and are not affected by the changes required to comply with the reasoned opinion. The revised regulations will also continue to apply to the self-employed.

Definition of work for which a licence will be required

22. As explained in paragraphs 16 and 17, in order to avoid extending the requirement to hold a licence it is necessary to define separately the work for which a licence is required in the revised regulations. It is therefore proposed to include the following definition in regulation 8(2) of the revised regulations:-

(2) *Licensable work with asbestos is—*

- (a) *work where the exposure of employees to asbestos is not sporadic and of low intensity; or*
- (b) *work for which the risk assessment demonstrates that the control limit will be or is liable to be exceeded; or*
- (c) *work on asbestos coating; or*
- (d) *work on asbestos insulating board or asbestos insulation for which the risk assessment demonstrates that the work—*
 - (i) *is not sporadic and of low intensity; or*
 - (ii) *will be or is liable to exceed the control limit; or*
 - (iii) *is not short duration work.*

23. The terms *asbestos coating*, *textured decorative coatings*, *asbestos insulating board*, *asbestos insulation*, *asbestos cement* and *short duration work* will be defined similarly to the definitions as set out in the current Approved Code of Practice and guidance³. As follows:

'asbestos coating' means a surface coating containing asbestos for fire protective purposes or as both heat and sound insulation. *'Asbestos coating'* does not include textured decorative coatings.

'textured decorative coatings' means thin decorative and textured finishes, such as paints and ceiling plasters used to produce visual effects and which contain under 6% asbestos.

'asbestos insulating board' (AIB) means any flat sheet, tile or building board consisting of a mixture of asbestos and other material except –

- (a) asbestos cement; or
- (b) any article of bitumen, plastic, resin or rubber which contains asbestos, and the thermal or acoustic properties of which are incidental to its main purpose.

'asbestos insulation' means any material containing asbestos and used for thermal, acoustic or other insulation purposes (including fire protection) except –

- (a) asbestos cement or asbestos insulating board; or

³ Work with materials containing asbestos – Control of Asbestos Regulations 2006, Approved Code Practice and guidance, L143, ISBN 0-7176-6206-3

(b) any article of bitumen, plastic, resin or rubber which contains asbestos and the thermal and acoustic properties of which are incidental to its main purpose.

'*asbestos cement*' means a material which is predominantly a mixture of cement and chrysotile and which when in a dry state absorbs less than 30% water by weight

'*short duration work*' means work carried out by any one person for less than one hour in a seven-day period. The total time spent by all workers on the work in a seven-day period should not exceed a total of two hours including ancillary work liable to disturb asbestos.

Requirements in relation to Notifiable Non-Licensed Work (NNLW)

24. Where the requirements to notify work, carry out medical examinations maintain registers of work (health records) apply to NNLW the requirements of the relevant clauses of the Directive will be used in the revised regulations. This approach is being taken to ensure the requirements placed on business are the minimum necessary to fully implement the Directive. This means for NNLW the requirements will apply as follows: -

- i) Notification of work with asbestos to be made to the relevant enforcing authority **before** work is commenced.
- ii) Medical examinations to assess each worker's state of health to be carried out before exposure to asbestos begins and then **at least every 3 years**;
- iii) A register of work (health record) to be kept by the employer for each employee exposed to asbestos.

25. Taking each requirement in turn;

i) Notification - To fulfil the requirements of the Directive the notification of NNLW work must include the following details:-

- name and address/phone number of notifier
- a brief description of:-
 - location of the work site
 - type and quantities of asbestos handled
 - activities and processes involved
 - number of workers involved
 - start date and duration of work
 - measures to limit exposure

Although no method of notification will be specified in the regulations HSE intends it should be by completion of an online form, similar to the existing ASB5 used by licensed contractors. Guidance will be provided to clarify

where it is acceptable to provide a single notification to cover a number of similar jobs being undertaken as part of the same contract or project.

ii) Medical examinations - must include an examination of the chest and be carried out by a registered medical practitioner who holds a licence to practice as specified in the revised regulations.

iii) Registers of work (health records) - must contain details of the individual worker; the nature and duration of work with asbestos and exposure; and dates of the worker's medical examinations. More detailed medical records will be kept by the doctor. Registers of work (health records) must be kept for 40 years.

Transition period for medical examinations and use of appointed doctors and employment medical advisors

26. To enable workers to continue to carry out NNLW when the revised regulations come into force a three year transition period is proposed before the requirement for an employee to have a medical examination prior to starting work with asbestos comes into force.

27. CAR06 requires that medical examinations must be carried out by a doctor appointed by HSE. The Directive does not specify the type of medical practitioner who should carry out the examination. In view of the increased need for medical examinations resulting from the changes required by the reasoned opinion and with a view to minimising costs and increasing access to medical examination services, the use of other medical practitioners to conduct the required medical examinations for NNLW is being explored.

28. In the limited time available it has not been possible to develop the detail of possible options. It is therefore proposed to draft the revised regulations more flexibly to allow medical examinations for workers undertaking NNLW to be carried out, either by an appointed doctor, an employment medical adviser or other registered medical practitioners. Guidance will be provided to explain how these arrangements will work in practice.

Requirements in relation to licensed work

29. The existing requirements to notify work, carry out medical examinations and maintain registers of work (health records) for work which requires a licence will not change. This means for licensed work notification to the relevant enforcing authority will continue to be 14 days in advance. Medical examinations will continue to be required at least every two years carried out by an appointed doctor or employment medical advisor, given the more intensive contact with asbestos and higher risk nature of the work.

Diagram summarising the proposed changes to the Control of Asbestos Regulations

Current position in CAR06

<p style="text-align: center;">Non-licensed work requires:</p> <ul style="list-style-type: none"> - compliance with risk assessment, control of exposure and training requirements 	<p style="text-align: center;">Licensed Work requires:</p> <ul style="list-style-type: none"> - licensing - notification 14 days in advance - emergency arrangements - designation asbestos areas - medical examinations every 2 years - health records - compliance with risk assessment, control of exposure and training requirements
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Lower risk →-----→ Higher Risk

Proposed Revised Regulations

<p style="text-align: center;">Non-licensed work requires:</p> <ul style="list-style-type: none"> - compliance with risk assessment, control of exposure and training requirements 	<p style="text-align: center;">NNLW work requires:</p> <ul style="list-style-type: none"> - notification before work starts - medical examinations every 3 years - health records - compliance with risk assessment, control of exposure and training requirements 	<p style="text-align: center;">Licensed Work requires:</p> <ul style="list-style-type: none"> - licensing - notification 14 days in advance - emergency arrangements - designation asbestos areas - medical examination every 2 years - health records - compliance with risk assessment, control of exposure and training requirements
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Part 1 - Consultation Questions

Q1.1 Do you agree with the proposed definition of work for which a licence will be required?

If you disagree please explain why.

Q1.2 Do you agree the definitions proposed for the following terms:

- i) asbestos coating
- ii) textured decorative coatings
- iii) asbestos insulating board
- iv) asbestos insulation
- v) asbestos cement
- vi) short duration work

If you disagree please explain why.

Q1.3 Do you support the proposal to have a 3 year transition period before the requirement for workers to have a medical examination prior to carrying out NNLW with asbestos comes into force?

If not please suggest alternatives.

Q1.4 Do you agree that for NNLW the requirement to have medical examinations carried out by an appointed doctor or an employment medical advisor should be extended to include other registered medical practitioners?

If you disagree please explain why.

Part 2. Proposed guidance to explain how the changes will work in practice

30. Guidance will be developed before the revised regulations come into force to describe the types of work and materials which will normally fall into the category of Notifiable Non-licensed Work (NNLW) and those which will remain non-licensed work. Although the detail of this guidance will be consulted on separately, HSE would welcome views on the initial proposals set out below. Please note the lists of work given are examples and are not exhaustive.

31. It is not proposed to define the terms '*non-friable*' or '*without deterioration of non-degraded*' materials in the revised regulations because they are not defined in the Directive. HSE however is taking the view that the term '*non-friable*' includes materials which are not only '*firmly linked in a matrix*' (eg asbestos cement, bitumen, resins etc) but also includes other materials where the bonding matrix is sufficient to ensure the general integrity of the product (eg asbestos insulating board (AIB)). Therefore AIB in good condition should normally be regarded as '*non-friable*' as it is compressed board held in a bonding matrix.

32. To be either NNLW or non-licensed work exposure of employees to asbestos carrying out the work must be *sporadic and of low intensity*, guidance on the interpretation of this term will remain unchanged. It must also be clear from the risk assessment that the exposure of any employee will not exceed the control limit, 0.1f/cm^3 in air averaged over a continuous period of 4 hours.

33. In considering the types of work that might fall into the NNLW category, rather than the non-licensed work category, it is important to recognise the distinction made between; a) short, non-continuous maintenance activities which are qualified only by the term '*non-friable*'; and b) removal work which is qualified by the terms '*without deterioration of non-degraded*' materials **and** in which asbestos fibres are '*firmly linked in a matrix*'.

34. Taking these criteria into account HSE's initial view is that NNLW will normally include, (assuming in all cases exposure is *sporadic and of low intensity* and will not exceed the control limit):-

- minor maintenance work involving asbestos insulation where the work to be done meets the definition of '*short duration work*', ie. work which does **not** require a licence. For example, repairing minor damage to a small section of pipe insulation where the exterior coating has been broken or damaged.
- minor removal work involving AIB where the work to be done meets the definition of '*short duration work*', ie. work which does **not** require a licence. For example, removing AIB panels fixed with nails or screws. (Note: the definition '*short duration work*' will only apply to asbestos insulation and AIB).

- removal work involving textured decorative coatings where the method of removal requires *deterioration* of the material. For example, where the material is treated by steam, hydrating gel etc and scraped off the underlying surface.
- removal of asbestos paper and cardboard products if not firmly bonded in a matrix.
- maintenance work on asbestos cement (AC) which cannot be described as short and non-continuous, but which does **not** require a licence because exposure is *sporadic and of low intensity* and will not exceed the control limit.
- removal of AC which is substantially *degraded* eg. badly fire damaged material, or where significant breakage (*deterioration*) is unavoidable to achieve removal, but which does **not** require a licence because exposure is *sporadic and of low intensity* and will not exceed the control limit.

35. NNLW will **not** normally include the following, which will continue to be categorised as **non-licensed work**, (assuming in all cases exposure is *sporadic and of low intensity* and will not exceed the control limit) :-

- short, non-continuous maintenance work involving AIB which is in good condition. For example, drilling holes in AIB to attach fittings or to pass through cables/pipes, cleaning light fittings attached to AIB, repairing very minor damage, eg a single broken corner, lifting ceiling tiles for inspection or access purposes.
- short, non-continuous maintenance work on AC.
- removal of AC. Weathered AC is likely to be able to retain the vast majority of fibres in its matrix and so should not normally be regarded as *degraded*. Most AC can be removed whole and the inadvertent breakage of the occasional piece during manual removal will not attract NNLW requirements.
- short, non-continuous maintenance work on textured decorative coatings. For example, drilling holes, inserting screws.
- removal of textured decorative coatings when this can be achieved without deterioration of the material eg. by careful cutting around backing sheets to achieve removal intact.
- removal, for example, of gaskets or asbestos rope cords from heating appliances which can be left in situ for disposal or can be lifted out virtually intact, without substantial breakage.

- Short, non-continuous maintenance work on clutch discs, brakes, friction products etc unless significant damage (deterioration) is required eg. by power tools.
- work to enclose or seal asbestos materials which are in good condition (and which does not require a licence).
- air monitoring and control, and the collection and analysis of samples.

Part 2 – Views on the proposed guidance

To help inform the development of guidance, views are invited on the types of asbestos-containing materials and work activities that should normally be categorised as Notifiable Non-Licensed Work (NNLW).

Part 3 - Impact on Business

36. It is Government policy to use an Impact Assessment (IA) to assess and understand the impact, both costs and benefits, of all new regulations. An important part of the IA is the cost-benefit analysis which identifies the costs and benefits of a proposal and quantifies, in monetary terms, as many of them as is feasible. The initial IA for the proposed revised Control of Asbestos Regulations is attached at annex A to this Consultative Document. Because the legislative changes required by the EC's reasoned opinion have the effect of creating a new category work, NNLW, in a number of areas very limited data is available to help estimate how much work with asbestos and how many employees are likely to be affected by the changes and, consequently, what the level of costs and benefits is likely to be.

HSE is therefore seeking information to help improve the information on which the cost-benefit analysis in the IA is based.

Q3.1 Has HSE identified the occupations affected by the changes correctly?
See Annex 2, Table 2 of the Impact Assessment, reproduced below, for details.

Please provide details of any occupations you think are missing from the list.

SOC Code	Occupation	Number of Jobs (thousands) 2009-10 GB	Percentage of workers affected (lower limit)	Percentage of workers affected (best estimate)	Percentage of workers affected (upper limit)	Number of workers affected (lower limit)	Number of workers affected (best estimate)	Number of workers affected (upper limit)
5216	Pipe fitters	15,317	54%	60%	66%	8,271	9,190	10,109
5223	Metal working & production maintenance fitters	217,595	18%	20%	22%	39,167	43,519	47,871
5241	Electricians, electrical fitters	231,683	18%	20%	22%	41,703	46,337	50,970
5242	Telecommunications engineers	41,835	54%	60%	66%	22,591	25,101	27,611
5244	TV, video & audio engineers	10,375	18%	20%	22%	1,868	2,075	2,283
5245	Computer engineers, installation & maintenance	39,827	5%	5%	6%	1,792	1,991	2,190
5249	Electrical/electronics engineers n.e.c.	79,211	18%	20%	22%	14,258	15,842	17,426
5314	Plumbers, heating & ventilating engineers	189,849	63%	70%	77%	119,605	132,894	146,184
5315	Carpenters & joiners	237,889	63%	70%	77%	149,870	166,522	183,175
5316	Glaziers, window fabricators & fitters	42,807	30%	33%	36%	12,714	14,126	15,539
5319	Construction trades n.e.c.	220,756	18%	20%	22%	39,736	44,151	48,566
5321	Plasterers	49,560	27%	30%	33%	13,381	14,868	16,355
5322	Floorers & wall tilers	38,488	9%	10%	11%	3,464	3,849	4,234
5323	Painters & decorators	137,812	27%	30%	33%	37,209	41,344	45,478
6232	Caretakers	83,604	45%	50%	55%	37,622	41,802	45,982

8149	Construction operatives n.e.c.	79,439	18%	20%	22%	14,299	15,888	17,477
9121	Labourers in building & woodworking trades	169,056	18%	20%	22%	30,430	33,811	37,192
9129	Labourers in other construction trades n.e.c.	34,134	18%	20%	22%	6,144	6,827	7,509
5242	Telecommunications engineers	41,835	54%	60%	66%	22,591	25,101	27,611
Total		1,919,237				594,124	660,138	726,151

Q3.2 Do you believe the estimates of the percentage of workers affected in each occupation in the above table from the Impact Assessment are realistic?

Q3.3 Is the estimated cost of a typical medical examination per worker reasonable? (between £85 and £120 per worker).

Q3.4 Do you think the time required for a typical medical examination (2 hours on average, including travel time) to be realistic? If not please provide your estimate with justification.

Q3.5 HSE has assumed that between 20% and 40% of workers will have medical examinations (30% compliance is our best estimate). Do you consider this a realistic estimate?

Q3.6 Is HSE's estimate of the time taken to notify per job reasonable? (5 to 10 minutes per job for a format similar to but shorter than the ASB5 used by licensed contractors <https://www.hse.gov.uk/forms/notification/fodasb5.pdf>)

Q3.7 How many notifications for NNLW do you estimate you would need to make in a typical year?

Q3.8 If you are an employer:

(a) How many of your employees in total are likely to be involved in NNLW?

(b) How many jobs that fall within the NNLW category do you expect each of your employees to undertake per year?

Q3.9 HSE has assumed that between 30% and 50% of employers (includes the self employed) will notify. 40% is our best estimate. How realistic is our assumption?

Q3.10 HSE has assumed that record keeping will take 5 minutes per job on average and that 40% of duty holders will comply. Are these assumptions a reasonable estimate?

Q3.11 We have assumed that the cost of retrieving asbestos records would be negligible because we believe they are rarely requested eg by employees. Do you agree/disagree?

Q3.12 Do you believe the assumption that approximately 30% of workers will familiarise themselves with the new guidance to be realistic?

Q3.13 Is HSE's estimate of the time taken for a worker to familiarise themselves with the guidance and their duties reasonable? (30 minutes per worker on average)

Q3.14 What is the likelihood that business will pass any increased costs incurred as a result of changes to CAR06 onto clients in the form of higher prices?

Q3.15 Do you think that the new requirements will result in a smaller pool of people who will carry out work in the NNLW category? Explain what impact the change is likely to have in your view.

Annex A

Title: Control of Asbestos Regulations Lead department or agency: Health and Safety Executive - Other departments or agencies: DCLG via Local Government	Impact Assessment (IA)
	IA No:
	Date: 16/07/2011
	Stage: Consultation
	Source of intervention: EU
	Type of measure: Secondary legislation
Contact for enquiries: asbestosconsultation@hse.gsi.gov.uk 0151 951 4092	

Summary: Intervention and Options

What is the problem under consideration? Why is government intervention necessary? Following a complaint alleging under implementation of Article 3(3) of Directive 2003/18/EC (amending the Asbestos Worker Protection Directive) the European Commission (EC) has issued a reasoned opinion confirming its view that the omission of two terms from the Control of Asbestos Regulations 2006 (CAR06) means the UK has failed to fully implement the Directive. The UK government has agreed to comply with the reasoned opinion and has confirmed to the EC that the necessary legislative changes will be made within 12 months, by April 2012.	
What are the policy objectives and the intended effects? 1. To correct the under implementation by making the legislative changes to copy-out the omitted terms of the Directive. 2. To revoke CAR06 in their entirety and issue revised regulations to avoid the need to add an amending Statutory Instrument. 3. To ameliorate the impact of the required legislative change on business by providing guidance on the application of the new requirements	
What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base) The wording of the reasoned opinion and the Directive leaves no discretion to implement other than by regulation. Other options for change were considered in the context of a review of how the regulations were implemented in 2006 but after extended discussions the present option to make the changes necessary to comply with the reasoned opinion is the only one proposed. Option 1 - To comply with the reasoned opinion by revoking CAR06 and re-enacting revised regulations which 'copy-out' the currently omitted terms of the Directive.	
Will the policy be reviewed? It will be reviewed. If applicable, set review date: October/2017 What is the basis for this review? PIR. If applicable, set sunset clause date: Month/Year	
Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?	<input checked="" type="checkbox"/> Yes

SELECT SIGNATORY Sign-off For consultation stage Impact Assessments:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible **SELECT SIGNATORY**: _____ Date: _____

Summary: Analysis and Evidence

Policy Option 1

Description:

Price Base Year 2011	PV Base Year 2011	Time Period Years 50	Net Benefit (Present Value (PV)) (£m)		
			Low: -135.0	High -424.4	Best Estimate -

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	1.4	1	2.7	135.0
High	2.9		8.5	424.4
Best Estimate	2.1		5.1	257.0

Description and scale of key monetised costs by 'main affected groups'

The bulk of the costs which can be monetised at this stage relate to medical examinations, estimated to cost business £256.5 million (range £135.0 million to £424.4 million) over 50 years. In addition there are much smaller familiarisation costs to business (one-off and on-going) and to HSE/Local Authorities. In advance of the consultation it has not been possible to monetise the costs of notifications or of record-keeping; therefore the cost figures presented here are minimum estimates.

Other key non-monetised costs by 'main affected groups'

There will be additional costs relating to notification and record keeping for businesses working with asbestos under the new notifiable non licensed work (NNLW) category. There will also be costs to HSE and Local Authorities for handling notifications.

It has not yet been possible to monetise these costs.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	n/a		n/a	n/a
High	n/a		n/a	n/a
Best Estimate	n/a		n/a	n/a

Description and scale of key monetised benefits by 'main affected groups'

Benefits of making the changes required by the EC are impossible to isolate definitively because the amendments contribute to an existing package of mutually reinforcing interventions. HSE's view, based on the available evidence, is that the proposed changes by themselves do not bring measurably greater health benefits to workers than those already being achieved.

Other key non-monetised benefits by 'main affected groups'

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

At this stage (pre-consultation), several uncertainties remain in our estimates. They concern estimates of familiarisation time, the level of compliance, time taken to notify etc. These uncertainties will be addressed through consultation and continued analysis of available information. A considerable gap in the current analysis arises from the fact that we have no evidence to indicate how many NNLW jobs workers will be conducted per year, because the definition of NNLW work is new and still being refined. Any attempt to place a best estimate or even upper limit on this would be speculative; therefore we consider that it is better to seek to quantify the cost once we have consulted dutyholders. This means that costs are underestimates at this stage. We intend to improve this for the final IA.

Direct impact on business (Equivalent Annual) £m):			In scope of OIOO?	Measure qualifies as
Costs: 10.49	Benefits:	Net: -	No	NA

Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	Great Britain				
From what date will the policy be implemented?	01/04/2012				
Which organisation(s) will enforce the policy?	HSE & Local Government				
What is the annual change in enforcement cost (£m)?	Minimal				
Does enforcement comply with Hampton principles?	Yes				
Does implementation go beyond minimum EU requirements?	No				
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)	Traded: n/a		Non-traded: n/a		
Does the proposal have an impact on competition?	Yes				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	Costs: n/a		Benefits: n/a		
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price)	Micro Not yet known	< 20 Not yet known	Small Not yet known	Medium Not yet known	Large Not yet known
Are any of these organisations exempt?	No	No	No	No	No

Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on...?	Impact	Page ref within IA
Statutory equality duties ⁴ Statutory Equality Duties Impact Test guidance	No	18
Economic impacts		
Competition Competition Assessment Impact Test guidance	Yes	19
Small firms Small Firms Impact Test guidance	Yes	19
Environmental impacts		
Greenhouse gas assessment Greenhouse Gas Assessment Impact Test guidance	No	19
Wider environmental issues Wider Environmental Issues Impact Test guidance	No	19
Social impacts		
Health and well-being Health and Well-being Impact Test guidance	Yes	19
Human rights Human Rights Impact Test guidance	No	19
Justice system Justice Impact Test guidance	No	20
Rural proofing Rural Proofing Impact Test guidance	No	20
Sustainable development Sustainable Development Impact Test guidance	No	20

⁴ Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. It is intended to extend this consideration requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain only). The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

Evidence Base (for summary sheets) – Notes

Use this space to set out the relevant references, evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Please fill in **References** section.

References

Include the links to relevant legislation and publications, such as public impact assessments of earlier stages (e.g. Consultation, Final, Enactment) and those of the matching IN or OUTs measures.

No.	Legislation or publication
1	http://www.legislation.gov.uk/ukxi/2006/2739/contents/made (outgoing measure)
2	http://www.hse.gov.uk/consult/condocs/cd205.pdf (outgoing measure ConDoc)
3	http://www.hse.gov.uk/pubns/priced/l143.pdf (present guidance)
4	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:330:0028:0036:EN:PDF (Consolidated version of Asbestos Directives)

+ Add another row

Evidence Base

Ensure that the information in this section provides clear evidence of the information provided in the summary pages of this form (recommended maximum of 30 pages). Complete the **Annual profile of monetised costs and benefits** (transition and recurring) below over the life of the preferred policy (use the spreadsheet attached if the period is longer than 10 years).

The spreadsheet also contains an emission changes table that you will need to fill in if your measure has an impact on greenhouse gas emissions.

Annual profile of monetised costs and benefits* - (£m) constant prices

	Y ₀	Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈	Y ₉
Transition costs	2.1									
Annual recurring cost	8.8	11.3	11.1	10.8	10.6	10.4	10.2	10.0	9.8	9.6
Total annual costs	10.9	11.3	11.1	10.8	10.6	10.4	10.2	10.0	9.8	9.6
Transition benefits										
Annual recurring benefits										
Total annual benefits										

* For non-monetised benefits please see summary pages and main evidence base section

Evidence Base (for summary sheets)

1. Introduction – Problem under consideration

Background

- 1.1 Directive 2003/18/EC amended Directive 83/477/EEC on the protection of workers from the risks related to exposure to asbestos at work. Directive 2003/18/EC introduced a number of measures to further strengthen the control of exposure to asbestos and to provide greater protection for building maintenance workers and tradesmen, e.g. plumbers, electricians and joiners. These workers, who routinely disturb the fabric of buildings, are the group now most at risk of exposure to asbestos due to the legacy of asbestos-containing materials (ACMs) that remains in the UK's building stock. Asbestos-related disease is the single greatest cause of occupational deaths in Great Britain, estimated to cause over 4000 deaths pa.
- 1.2 Directive 2003/18/EC was implemented by the Control of Asbestos Regulations 2006 (CAR06). CAR06 repealed three previous sets of asbestos regulations and consolidated the requirements for the control of exposure to asbestos at work, licensing of high risk work and the prohibitions on marketing, supply and use of ACMs into a single set of regulations.

European Commission's reasoned opinion on Article 3(3) of Directive 2003/18/EC

- 1.3 In 2006 a complaint was made to the European Commission (EC) alleging under implementation of Article 3(3) of Directive 2003/18/EC. As a result of its investigation, in February 2011 the EC issued a reasoned opinion confirming its view that the omission of two terms from CAR06 means the UK has failed to fully implement the Directive.
- 1.4 The reasoned opinion relates to the omission of the terms '*non-friable*' and '*without deterioration of non-degraded material*' from Regulation 3 of CAR06, which, as provided for in the Directive, exempts 'low risk' maintenance and repair work with ACMs from certain duties in the regulations. When the Directive was originally implemented the Health and Safety Executive (HSE) took the decision to omit these terms. The UK's approach took into account that the Directive had not defined these terms and that there may be a lack of legal certainty which would cause confusion for duty holders and make enforcement more difficult. Instead a short-term peak exposure limit of airborne fibre was set which cannot be exceeded if the exemptions are to apply.

Effect of complying with the reasoned opinion

- 1.5 The inclusion of the omitted terms in the regulations to comply with the reasoned opinion will have the effect of narrowing the types of work to which the exemptions apply. Consequently, in future employers (which includes the self employed) carrying out some types of low risk short-duration maintenance and repair work on ACMs will be newly required to: -
 - i) notify the work to the relevant enforcing authority;
 - ii) obtain medical examinations for workers; and
 - iii) maintain a register for each worker of the type and duration of work done with asbestos.

2. Rationale for intervention and timetable

- 2.1 The Government has accepted the reasoned opinion and that UK legislation needs to be changed to include the omitted terms. Instead of issuing amending regulations to bring

UK legislation into line with the Directive it has been decided revoke the existing regulations CAR06 in their entirety and issue revised regulations containing the omitted terms. This decision has been taken in order to ensure that there is only one set of regulations rather than two.

- 2.2 The EC's reasoned opinion states that measures to comply should be taken within two months. However, in practice the EC may allow a longer period. Following Home Affairs and Reducing Regulation Committee clearance a response was sent to the EC on 15 April 2011 confirming the UK Government's intention to comply by copying-out the omitted terms of the Directive, but that to do this would take 12 months to complete. This timetable has been discussed with the Director-General for Employment, Social Affairs and Inclusion who was generally receptive to it.

3. Policy Objectives

- 3.1 The objective is to make the minimum legal changes necessary by copy-out to comply with the reasoned opinion and to ameliorate the impact on business by providing guidance on the scope of application. The aim is to simplify the regulations, whilst continuing to ensure the protection of workers' health. Within this objective is the desire to avoid an additional statutory instrument and achieve one set of regulations.

4. Description of Policy Option

- 4.1 In accordance with BIS guidance⁵, when considering the transposition of legislation agreed at an EU level, the policy options do not include formal consideration of a "do nothing" option (i.e. not implementing the Directive). Instead, as the UK has decided to comply, only options which would satisfy the Commission are presented and assessed against a baseline. To measure the incremental costs and benefits of each option, we apply a baseline in which it is assumed that a) current regulations and guidance remain unchanged, and b) the reasoned opinion and the need to review aspects of the regulations has not been proposed, therefore there are no infraction costs.

Option Proposed

- 4.2 **Option 1** – To comply with the reasoned opinion by revoking CAR06 and issuing revised regulations which 'copy-out' the currently omitted terms, Article 3 (3) (a) & (b), of the Directive.

Explanation of Option 1

- 4.3 Revoking CAR06 in their entirety and issuing revised regulations avoids the need to add an amending Statutory Instrument.

Creation of a new category of work

- 4.4 CAR06 set out the established licensing requirements and require any business carrying out high risk work with ACMs to hold a licence before they can undertake such work. Currently, the exemption from the need to hold a licence is aligned with the other exemptions in the regulations. This effectively creates two categories of work: a) licensed to which all the requirements of CAR06 apply; and, b) non-licensed work which is exempt from certain requirements including, i) notification, ii) medical examinations and iii) registers of work (also known as health records).

⁵Impact assessment toolkit. See link: <http://www.bis.gov.uk/assets/biscore/better-regulation/docs/i/11-518-impact-assessment-toolkit.pdf>

4.5 To make the changes required to comply with the reasoned opinion, but to avoid extending the requirement to hold a licence to carry out short term low risk work, it is necessary to decouple the exemption for licensing from the other exemptions and separately define the work for which a licence is required. The definition will be drafted to reflect the current risk-based approach and would not propose any change to the application of the licensing requirements, for that reason it is expected to be readily understood by industry.

4.6 This means in future there will be three categories of work:

a) licensed, to which all requirements apply;

b) non-licensed, which is exempt, as now, from the requirements to i) notify, ii) carry out medical examinations, and iii) keep registers of work; and

c) non-licensed, a new category, where in future the requirements i) to iii) above will apply. For ease to be referred to hereafter as 'notifiable non- licensed work' (NNLW).

Details of the requirements for new category of work - NNLW

4.7 Where the requirements i) to iii) now apply to notifiable non-licensed work, NNLW, the detail of the relevant clauses of the Directive will be included in the revised regulations. This means for NNLW the requirements will apply as follows: -

i) Notification of specified particulars, as described in the Directive, to the relevant enforcing authority *before* work starts;

ii) A medical examination to be carried out before an employee starts NNLW, and then at least every 3 years as long as work with asbestos continues; and

iii) A register of work with asbestos to be kept by the employer for each employee.

It is estimated that approximately 660,000 workers (including the self-employed) currently carry out NNLW work.

4.8 Notification (written or web-based) may be made at any time before work starts. As specified in the Directive the notification must include details of the; location, type and quantity of asbestos handled; activity or process; numbers of workers involved; start date and duration; and, control measures to be taken. Re-notification is required if changes to the work mean exposures are likely to increase.

4.9 Medical examinations will be carried out by a doctor appointed by HSE and chiefly consist of taking a history, including respiratory conditions, smoking habit, exposure to any dusts, a competent clinical examination looking for asbestos-related signs and measurement of lung function. HSE will provide further guidance. Appointed Doctors are free to set their own fees with reference to British Medical Association (BMA) guidelines. The revised regulations will be worded to allow alternative arrangements to improve accessibility to suitably trained doctors which are being explored; however it is likely that the fees would remain similar to those in the available BMA guidelines. A three year transition period is proposed to enable suitable arrangements to be established to cope with the additional demand for medical examinations. There is no requirement on employers to continue medical examinations after work with asbestos ceases.

4.10 Registers of work can be in any suitable form provided they contain details of the nature and duration of work done and an estimate of exposure. Registers of work and details of health assessments have to be retained by the employer for 40 years following the end of a worker's exposure to asbestos.

- 4.11 HSE will provide guidance to clarify the range of ACMs and tasks brought into the NNLW category with the aim of ensuring the scope of application is clear. Practical approaches to both record-keeping and notification will be adopted with the aim of reducing cost to business.

Licensed work

- 4.12 No changes to the current requirements for those 555 businesses currently doing licensed work are proposed. This means notification of licensed work will continue to be required 14 days in advance. This period is to ensure the employer allows sufficient time to properly plan the work. The interval between health assessments for them has been reviewed (see paragraph 4.15) and will remain at 'at least every two years'.

Consideration of other options

- 4.13 CAR06 contains some requirements which are not explicit in the Directive. The need to revise the regulations to comply with the reasoned opinion provides an opportunity to consider whether there is a case at this stage to propose amendments to any of these requirements.
- 4.14 The requirements of CAR06 are informed by a long history of regulatory experience and are defined based on the body of evidence of risk to workers (and others) from exposure to asbestos. To justify proposing changes to the established regulatory arrangements there would need to be new risk-based evidence available sufficient to challenge the existing position. For example, CAR06 introduced changes to narrow the application of licensing based on new research evidence which showed the risks from work with asbestos-containing textured decorative coatings were much lower than previously thought. In HSE's view for the majority of the existing requirements there is no such new evidence and consequently no case to propose additional changes to the regulations.
- 4.15 Specific consideration has been given to whether the interval between medical examinations should be extended for licensed workers from the current 2 years to 3 years. Independent advice confirms that on current evidence increasing the screening interval is unlikely to have an adverse effect on the risk of disease progression. However, analysis of the cost benefits of making this change shows limited benefits, with an estimated annual cost saving to business of between £92K and £246K. There is also a significant risk that such a change would be perceived by stakeholders as a reduction in standards of health protection of workers who carry out the most hazardous work.
- 4.16 A change to the reference period for the control limit, the maximum concentration of asbestos fibres in air to which a worker can be exposed has also been considered. The Directive sets a single control limit for all types of asbestos and requires that no worker is exposed in excess of 0.1 f/cm³ airborne fibres averaged over an 8 hour period. In CAR06 the control limit is also set at 0.1 f/cm³ but is averaged over 4 hours. The 4 hour period is used in the UK to better reflect normal working patterns for licensed workers and was in use before the Directive introduced the single control limit.
- 4.17 Changing to an 8 hour reference period would have the effect of reducing the standard of control, as it allows exposure concentrations above 0.1f/ cm³ over 4 hours provided that when averaged over 8 hours the value is less than 0.1f/ cm³. For example, if only 4 hours work is done in a day an 8 hour reference period would permit an exposure level of up to 0.2 f/cm³. However, in practice a change to an 8 hour reference period should have no impact on the level of control applied as employers would still be under a duty to apply the most effective control measures to reduce exposure to the lowest level reasonably practicable. Because a change to an 8 hour reference period does in fact

reduce the standard of the control limit there is again a significant risk stakeholders will perceive this proposal as a fundamental reduction in health protection. Analysis confirms that both the costs and benefits to business of such a change are negligible.

5. Costs and benefits

- 5.1 The purpose of this cost benefit analysis is to help determine the best approach to UK implementation of the EC's reasoned opinion. However, costs should be treated as provisional figures because feedback from consultation about the definition and extent of licensing may lead to improved estimates.
- 5.2 Costs and benefits have been quantified and monetised where possible. There is inherently some level of uncertainty about the future impacts of any policy or system. Therefore it is necessary for a number of assumptions to be made. These are detailed in the sections below.

Key Considerations

- 5.3 Given the short timescale for implementation, a pragmatic approach has to be adopted as there has been insufficient time for considered research or even informal consultation on the impact of the new burdens of notification, record-keeping and medicals.
- 5.4 A considerable gap in the current analysis arises from the fact that we have no evidence to indicate how many NNLW jobs workers will conduct per year, because the definition of this category of work is entirely new and still being refined, making pre-consultation in the short timescale difficult. Any attempt to place a best estimate or even upper limit on this would be speculative; therefore we consider that it is better to seek to quantify the cost of notifications and record-keeping once we have consulted dutyholders. We are also concerned that if we present best estimates of average number of jobs per worker, they could 'lead' consultation responses. It is preferable to collect unbiased consultation responses and then formulate an estimate. This gap means we cannot currently develop costs on two (of three) key areas of the option, the cost of notification and of record-keeping. Our intention is to make sure we have this information for the final stage impact assessment.
- 5.5 To inform assumptions, HSE has utilised relevant information available from experts in the field, past research, work carried out for the 2002 Asbestos Regulations Impact Assessment and from the consolidating 2006 Regulations. However, costing the proposed changes accurately is problematic. Research by the Institute of Employment Studies⁶, has sought, but struggled to obtain information on the cost of asbestos-related building maintenance work. The research found that duty holders did not separate out asbestos work from general maintenance budgets and did not subdivide it into licensed and unlicensed work. Due to this problem, existing research on costs has not been particularly useful in reducing uncertainty around the costs of the option and the baseline.

⁶ Institute of Employment Studies (IES) research report 'Evaluation of the duty to manage asbestos', <http://www.hse.gov.uk/research/rrhtm/rr783.htm>

6. Costs

General assumptions

6.1 The following general assumptions are made:

- Costs and cost savings are discounted at 3.5% for the years 0-30 and then 3% for years 30-50, consistent with standard HMT Green Book guidance.⁷
- Price Base Year: 2010 or 2011 (dependent on the availability of data).
- Present Value (PV) Base Year: 2011 (the year in which the impacts over time are valued).
- Appraisal Period: 50 years. The appraisal period affects the total costs and benefits results. As any health benefits of the policy would not appear for at least 20 years due to the latency between exposure and onset of disease (see paragraph 11.3 for further information) it was considered appropriate at the outset to frame costs and benefits within this time period. Also, a requirement of the Directive is that businesses retain health records for employees working with asbestos for at least 40 years. We retain the 50 year appraisal period for this consultation impact assessment, but for the purpose of comparison the present value costs have also been calculated for a 10 year appraisal period and can be found in Annex 4, Table 4. This is the period recommended for use when the life of the policy is uncertain. We will re-examine the appraisal period following consultation.
- Wage data is sourced from the Annual Survey of Hours and Earnings (ASHE), 2010. It is then adjusted to represent full economic wages, by multiplying by a factor of 1.3.

Number of Workers exposed

6.2 We do not know exactly how many workers are exposed to asbestos under the NNLW category of work. This estimate of workers is critical to the costing of medical examinations, notifications and record-keeping. To construct an estimate we initially identified occupations we know might be exposed to asbestos using the Standard Occupational Code (SOC) definitions (see Annex 2, Table 2: number of workers affected for the selected occupations). We then sourced employment data (from the Labour Force Survey, 2010) for the selected occupations (including the self-employed). The final stage was to estimate what percentage of workers from the various occupations would be affected by the introduction of the NNLW category. For example, we know that not all pipe fitters will encounter asbestos in the NNLW category, some may not encounter asbestos containing materials at all. Owing to a high level of uncertainty we have introduced a range for the proportion of workers affected in each occupation. It was not possible in the time available to consult on likely uncertainty and therefore a simplified assumption of 10% plus or minus around the best estimate was made. Best estimates were supplied by HSE's asbestos policy staff experienced in the construction sector (see Annex 2, Table 2: number of workers affected). Based on the above assumptions, the total number of workers estimated to be doing NNLW is estimated to be between 594 and 726 thousand. The best estimate is 660 thousand.

7. Baseline

7.1 Under the baseline, we assume that the status quo continues and by definition costs and benefits are zero.

⁷ Source: Treasury Greenbook. See link: http://www.hm-treasury.gov.uk/data_greenbook_index.htm

8. **Option 1 – To comply with the reasoned opinion by revoking CAR06 and issuing revised regulations which ‘copy-out’ the currently omitted terms, Article 3 (3) (a) & (b), of the Directive.**

8.1 The costs of Option 1 are described fully in paragraphs 8.2 to 8.23. Table 1: Cost Breakdown, present value over 50 years. (paragraph 10.1) provides a breakdown of the costs.

Costs to business

8.2 Due to the creation of the NNLW category, under Option 1 any worker undertaking NNLW must have an initial medical examination which is then repeated at 3-yearly intervals. NNLW must now be notified to the regulator before work begins and records kept by the employer, of work locations, durations, workers involved, medicals completed etc.

8.3 NNLW is often small scale and incidental to larger jobs. This means it can be difficult to observe or predict and therefore it is problematic to accurately quantify any additional costs to business. Most costs will fall on SMEs and the self employed because they form the bulk of the population affected. Whilst costs may ultimately be passed onto consumers, for the purposes of this impact assessment we shall define them as costs to business.

Costs of Medical examinations

8.4 Medical examinations for NNLW are expected to cost between £85 and £120 per worker, per examination (this excludes the cost of their own time). The lower estimate is based on a private occupational provider’s published price for an asbestos medical.⁸ The higher estimate was provided by HSE’s Corporate Medical Unit based on their expertise. We hope to narrow the range through consultation. This will cover an appointed doctor conducting an examination for a standard asbestos medical. A typical medical examination is expected to take 2 hours of the worker’s time on average (including 1.5hrs travel). We intend to test this assumption at consultation. The hourly wage unique to each type of worker has been uprated by 30% to account for non wage costs.⁹

8.5 There is convincing evidence to suggest that compliance with medicals is likely to be low based on research on this sector’s general compliance (for a more discussion of general compliance see Annex 3, paragraph 16.3). To account for this only 30% compliance (best estimate) for all NNLW workers is assumed. A compliance range of 20% to 40% is used to calculate lower and upper cost estimates.¹⁰ We have split the costs of the 30% assumed to undergo medical examinations evenly over a 3 year period since we would not expect all workers to undergo medical examinations straight away. We have also accounted for a decline in the number of workers exposed due to the reduction of buildings containing asbestos by an average annual demolition rate of 2%.¹¹

8.6 To incorporate staff turnover we have assumed a 10% turnover rate based on HSE experts’ knowledge of the sectors involved. This will have an effect of increasing costs because we assume that these workers will have a medical immediately regardless of whether or not they are new to the industry or new to the employer. Based on the above assumptions the total cost of medicals over the 50 year appraisal period is estimated to

⁸ Source: Please contact HSE’s Economic Analysis Unit for further details.

⁹ Source: ASHE 2010. It is standard HSE practice to uprate by wages by 30%.

¹⁰ The lower limit for compliance is assumed to be 20% while the upper limit is 40%.

¹¹ Source: See Annex D (A) - A32, page 207/. <http://www.hse.gov.uk/consult/condocs/cd205.pdf>

be between £130.7 million and £415.5 million. The equivalent annual cost to business (dutyholders) is between £5.3 million and £17.0 million.¹²

- 8.7 For those carrying out licensable work there are no additional costs because there are no additional requirements.

Ongoing cost to business - notification and record-keeping

- 8.8 For the reasons described in paragraph 5.4, it is not currently possible to estimate volume of NNLW per worker year (i.e. number of jobs). This constrains what can be quantified and costed in relation to notifications and record-keeping at this stage. HSE considers it preferable to use consultation to develop this estimate. The other assumptions necessary for costing are set out below.
- 8.9 For workers estimated to be doing NNLW, we estimate 40% compliance (best estimate) with the requirements for notification and record-keeping (both of work and health related records). This low compliance rate is based on HSE's experience with smaller building maintenance trades in the construction sector which suggests that without substantial communications activity, awareness of the new requirement among many such businesses will be low and others will avoid it. To account for uncertainty in this estimate the assumed upper and lower estimates for compliance are 30% and 50% respectively. Compliance rates may very slowly increase via the influence of main contractors' and clients' procurement requirements. However, we estimate this improvement will be marginal as most work is minor, and therefore have not built in a growth in compliance within this analysis.
- 8.10 We have assumed that it takes a worker between 5 and 10 minutes to notify the regulatory authority per job on the basis that web and paper based notification take a similar amount of time to complete. We intend to consult on this assumption.
- i ÆF Dutyholders are required to keep a summary record of each worker's activity, its duration and an estimate of their exposure. These records are retained by the employer for at least 40 years. Dutyholders have flexibility in how they decide to keep records of health and work and in many cases workers, especially the self employed, do this for themselves. We assume that record-keeping will take 5 minutes per job on average. A low compliance rate is assumed on the basis that the perceived benefits of record-keeping are likely to be low. It is expected that medium or larger firms are more likely than small firms to comply because they may consider themselves more visible to the regulator and to larger clients who expect compliance. This was the general pattern found during evaluation¹³ of related asbestos matters. HSE's experience with the Construction sector suggests that without substantial communications, awareness of the new requirement will be low.

One-off costs to business of record-keeping system.

- 8.12 One-off costs could arise where employers need to establish a record-keeping system. There could also be recurring costs for any time spent retrieving records in the event of an investigation or worker request under the Directive. We expect one-off costs to be negligible because businesses are already likely to have means for keeping records e.g. a computer or notebook and a simple word processing document or paper based book would be adequate for record-keeping. So, no substantial amount of time should be

¹² The equivalent annual cost is calculated by dividing the net present value of the intervention by the annuity factor.

¹³ Institute of Employment Studies (IES) research report 'Evaluation of the duty to manage asbestos', <http://www.hse.gov.uk/research/rrhtm/rr783.htm>

spent on 'designing' a system. Similarly, retrieval requests are very rare. As a result, these costs are likely to be insubstantial to the analysis and are not considered further.

Familiarisation Costs

- 8.13 Familiarisation costs could arise for business owing to the time taken to understand the changes in UK policy and how that affects them. Evidence from HSE operational intelligence suggests that dutyholders will typically only read the supporting guidance. For workers in the NNLW category we estimate the time taken to familiarise with the new guidance and contextualise to be 30 minutes on average. We intend to test this assumption at consultation.
- 8.14 To calculate the familiarisation cost we have used hourly wage rates from the ASHE survey 2010. Using the selected list of occupations affected we employed their corresponding wage rates and have assumed that compliance is equal across all occupations. Our best estimate for compliance is only 40% since no proactive alert beyond the HSE website is planned and research suggests the affected occupations are not regular business web users. To account for uncertainty in this estimate the upper and lower limits for compliance are 30% and 50% respectively. We will seek to improve upon this estimate during consultation. We do not expect compliance to increase significantly over time. This is partly due to a reduction of communications campaigns in the current climate, for the foreseeable future, and difficulty in justifying any such effort by HSE given the lack of health benefits expected.
- 8.15 We have calculated two types of familiarisation cost, one-off familiarisation and ongoing familiarisation. The former applies to existing workers and the latter to new entrants. The annual number of new entrants is equivalent to the annual turnover rate (10%). We have assumed that the same proportion of new entrants will familiarise themselves with the guidance as existing workers i.e. we are not accounting for any existing knowledge of the new requirements. Applying the above assumptions the total cost of one-off familiarisation is estimated to be between £1.4 million and £2.9 million over the 50 year appraisal period. Ongoing familiarisation is estimated to be between £3.0 million and £6.0 million over the same period. The equivalent annual cost to business is between £119.4 thousand and £243.1 thousand.

Costs to HSE – changing the regulations and guidance

- 8.16 Costs incurred by HSE include the staff time required to change regulations and guidance to reflect the requirements of the Commission. It is estimated that this will require two HSE Band 3 (SEO) staff for twelve weeks and one HSE Band 2 (Grade 7) for two weeks oversight. Wages are derived from the standard estimates of HSE hourly personnel costs (Global ready Reckoner 2010 - 2011). We assume all updates are web based which results in a total cost to HSE of approximately £39 thousand.
- 8.17 Additional HSE time is required to amend the guidance for appointed doctors on the website and also to formally familiarise HSE staff with the new requirements. This is estimated to take 5 days at SEO level. This would cost approximately £1 thousand. There will also be costs to the HSE web team which we expect to be negligible.
- 8.18 The total cost to HSE related to producing and familiarising staff with new guidance is estimated to be around £40 thousand.

Costs to HSE – overseeing appointed doctors

- 8.19 According to HSE's Corporate Medical Unit the baseline cost of HSE overseeing the present Appointed Doctor system (550 appointed doctors) is approximately £250

thousand per year. There are 250 doctors appointed (not exclusively) to asbestos-related work at present.¹⁴ The new requirements for medical examinations of NNLW workers may increase the volume of work for appointed doctors. This may in turn increase the number of appointed doctors in the UK if demand cannot be managed by the existing stock of appointed doctors. If the number of appointed doctors did increase HSE costs for oversight would rise. It is unlikely that these costs would rise in proportion to the volume of work because HSE believes that some demand could be dealt with by the existing resource. Corporate Medical Unit is considering options in the light of recent oversight changes for licensed registered medical practitioners and the way forward is as yet unresolved. Alternative arrangements to improve accessibility to suitably trained doctors are also being explored; therefore we cannot quantify the cost to HSE of overseeing appointed doctors at this stage.

Costs to HSE – handling notifications

- 8.20 Costs could arise for HSE due to handling increased notifications. As explained in paragraph 5.4, we have not estimated the number of notifications HSE will receive and therefore cannot produce total costs at this stage. A web based system is expected to be available in the future to replace HSE's existing paper based licensed work notification system. For the purpose of this impact assessment (once we have developed estimates of notifications) we will base our costs on the current paper based system. We assume the time allocated to processing a notification will be based on 6 minutes of a HSE Band 6 (AO level). This is equivalent to £1.84 per notification processed.¹⁵ DWP resource in Job Centre Plus is already being allocated to receiving notifications under other HSE regulations so adding asbestos notifications to this would also be explored as an option. In the longer term HSE hopes to have access to a digital automated integrated system for phone or web. This system would not be limited to asbestos notifications.

Costs to HSE – enforcement

- 8.21 HSE regulates construction activities (i.e. demolition, renovation or refurbishment) where they are the main activity on the site. Costs may arise for HSE attributed to enforcing the new requirements. As is consistent with the established Enforcement Policy, the approach to enforcement of both LAs and HSE will be informed by the principles of proportionality in applying the law and securing compliance. In this case, this generally means relating enforcement action to the risks to health incurred by non compliance. These added costs are estimated to be minimal and will be easily absorbed into other general inspection and enforcement effort.

Costs to Local Authorities

- 8.22 Where the NNLW (or other unlicensed work) is of a minor isolated nature e.g. an electrician installing wiring and the activity takes place on a retail or office premises then the Local Authority (LA) remains the enforcing authority. The LA at present would deal reactively with any NNLW encountered. It is unlikely that the LA will encounter much of this work as it is mainly transient and of short duration. Therefore enforcement costs to LAs are expected to be insubstantial.
- 8.23 Costs could arise for LAs due to handling increased notifications. LAs already have systems for receiving notifications from licensed asbestos contractors when working in LA regulated premises. For now, NNLW notifications will need to be handled in a similar way. It is estimated that LAs will receive a similar number of notifications to HSE but

¹⁴ For all regulations there are a total of 550 Appointed Doctors excluding the Diving Regulations. The 250 doctors appointed to deal with asbestos will also cover non asbestos issues as well.

¹⁵ Hourly Wage for a Band 6 is £18.37. Source: HSE's Global Ready Reckoner 2010/11.

again the compliance rate is expected to be very low. There is also the possibility that once the HSE website notification system has been established this could be used to receive notifications for LAs at no additional cost.

- 8.24 Familiarisation costs will arise for LAs owing to the time taken to understand the new requirements. Because this cost is likely to be relatively small and extremely variable between rural and metropolitan LAs we do not intend to explore these costs any further until the opportunity afforded by consultation.

Option 1: questions for clarification at consultation

1. Has HSE identified the occupations affected by the changes correctly? See Annex 2, Table 2 for details. Please provide details of any occupations you think are missing from the list.
2. Do you believe the estimates of the percentage of workers affected in each occupation in Annex 2 Table 2 are realistic?
3. Is the estimated cost of a typical medical examination per worker reasonable? (between £85 and £120 per worker).
4. Do you think the time required for a typical medical examination (2 hours on average, including travel time) to be realistic? If not please provide your estimate with justification.
5. HSE has assumed that between 20% and 40% of workers will have medical examinations (30% compliance is our best estimate). Do you consider this a realistic estimate?
6. Is HSE's estimate of the time taken to notify per job reasonable? (5 to 10 minutes per job for a format similar to but shorter than the ASB5 used by licensed contractors <https://www.hse.gov.uk/forms/notification/fodasb5.pdf>)
7. How many notifications for NNLW do you estimate you would need to make in a typical year?
8. If you are an employer:
 - (a) How many of your employees in total are likely to be involved in NNLW?
 - (b) How many jobs that fall within the NNLW category do you expect each of your employees to undertake per year?
9. HSE has assumed that between 30% and 50% of employers (includes the self employed) will notify. 40% is our best estimate. How realistic is our assumption?
10. HSE has assumed that record keeping will take 5 minutes per job on average and that 40% of duty holders will comply. Are these assumptions a reasonable estimate?
11. We have assumed that the cost of retrieving asbestos records would be negligible because we believe they are rarely requested eg by employees. Do you agree/disagree?
12. Do you believe the assumption that approximately 30% of workers will familiarise themselves with the new guidance to be realistic?
13. Is HSE's estimate of the time taken for a worker to familiarise themselves with the guidance and their duties reasonable? (30 minutes per worker on average)
14. What is the likelihood that business will pass any increased costs incurred as a result of changes to CAR06 onto clients in the form of higher prices?

15. Do you think that the new requirements will result in a smaller pool of people who will carry out work in the NNLW category? Explain what impact the change is likely to have in your view.

9. Risks and Assumptions

- 9.1 As described in the analysis of the costs and benefits, there is uncertainty attached to a number of our assumptions and this is reflected by the range in our cost estimates. There are also gaps in our analysis, for example, the cost of notifications and record-keeping to business, etc. Until these gaps are filled it is very likely that we have underestimated the true cost of the changes and therefore our estimates should be regarded as minimum costs. We intend to reduce uncertainty and minimise gaps through consultation and continued analysis. Where, after consultation, gaps in understanding still remain, sensitivity analysis will be used in the final stage impact assessment to gauge the weight of these.
- 9.2 As discussed in paragraph 5.4, a considerable gap in the current analysis arises from the fact that we have no evidence to indicate how many NNLW jobs workers will conduct per year. Owing to a lack of evidence we have decided to quantify the cost of notifications and record-keeping once we have consulted dutyholders. We recognise that it is unlikely that we will have very reliable evidence on average jobs per worker, but have discussed this widely within HSE where the consensus is that it is preferable to compare unbiased consultation responses and then formulate a best estimate. This gap means we cannot currently develop costs on two (of three) key areas of the options, the cost of notification and of record-keeping. We intend to include these costs in the final stage impact assessment.
- 9.3 Any additional costs to HSE of increasing demand for medicals with appointed doctors also remains unknown at present. The Corporate Medical Unit is currently considering what the implications are as to whether or how it will continue its present oversight of quality following the changes. Therefore, analysis will continue as new information becomes available.
- 9.4 To address gaps in our understanding of the costs to Local Authorities e.g. for familiarisation and enforcement, we will undertake specific consultation with them but we understand there are large local variations in costs.
- 9.5 Uncertainties concerning the level of compliance, affected occupations and the extent of familiarisation will be addressed at consultation.
- 9.6 Any cost to business could potentially be passed on to clients/consumers through higher prices, the extent of which would depend on the price elasticity of demand (PED) in each sector. As the PED for industries that are inspected is unknown and likely to vary substantially between sectors, it does not seem proportionate to try and estimate the extent to which costs will be passed on.
- 9.7 Because medicals may be perceived as expensive, this may lead to some businesses deciding to avoid working with asbestos materials. We do not know to what extent this could occur, but it would change the number of workers affected and have a downward impact on our estimated costs. We have not yet factored this into our analysis but intend to consider the feasibility of doing so following consultation with dutyholders.
- 9.8 As for implementation of the proposed changes, risk would arise if we took longer than 12 months to implement because the EC might review its current position at that point which could incur a penalty fine.

9.9 Other risks include confusion giving rise to increased non compliance by virtue of the creation of a second class of unlicensed work. There is a risk that unscrupulous businesses could use confusion as an opportunity to artificially raise prices or to charge for unnecessary over compliance. Guidance will of course clarify the range of materials and tasks brought into the new category.

10. Summary of the costs

10.1 Table 1 summarises the costs of Option 1

Table 1: Cost Breakdown, present value over 50 years.¹⁶

	Best Estimate (£ millions)	Range (£ millions)	
		low	high
Costs (one-off)			
Total cost to dutyholders of one off familiarisation.	2.08	1.40	2.85
Total costs to HSE of producing new guidance.	0.04	0.04	0.04
Costs (ongoing)			
Total cost to dutyholders of ongoing familiarisation.	4.33	2.92	5.95
Total cost to dutyholders of notifications.	**	**	**
Total cost to dutyholders of record keeping.	**	**	**
Total cost to dutyholders of medical surveillance for NNL workers.	250.54	130.68	415.50
Total costs to HSE of handling notifications.	**	**	**
Total cost to Local Authorities.	**	**	**
Total Costs	256.99	135.04	424.35

** We do not have the required information to quantify these costs.

NB: Due to rounding, figures in the total rows may not sum exactly.

11. Benefits

11.1 This section of the cost benefit analysis assesses the health and safety benefits of option 1.

General assumptions

11.2 The following general assumptions are made:

- Health benefits have been discounted at a rate of 1.5%.¹⁷
- The potential benefits from introducing the regulatory amendments are considered over a 50-year appraisal period as explained in paragraph 6.1.

11.3 Exposure to asbestos typically occurs when persons disturb the fabric of a building either internally or externally or who are near such work and inhale carcinogenic asbestos fibres. There are four main diseases associated with inhalation of asbestos fibres. These are asbestosis (a scarring of the lung tissue caused by asbestos), two kinds of cancer (mesothelioma and asbestos-related lung cancer), and diffuse pleural thickening (a non-

¹⁶ For the purpose of comparison the present value costs have also been calculated for a 10 year appraisal period and can be found in Annex 4, Table 4.

¹⁷ Health benefits are uprated by 2% from 3.5% a year to allow for the highly plausible assumption that individuals' valuations of improvements in health do not decline with increasing income (as would be implied if the an unadjusted 3.5% discount rate were applied to these benefits).

malignant disease affecting the lung lining). It can take 20 to 40 years before the effects of this exposure become apparent. This means that asbestos-related deaths occurring now each year are attributable to past exposures. The number of future deaths from current exposures are expected to be lower because current asbestos exposure is falling. Asbestos is now a banned material and extensive regulatory controls exist to reduce exposure. However, it is impossible to estimate accurately the exact decline in asbestos-related fatalities or ill health and furthermore to attribute this reduction in exposure solely to specific HSE activities.

Baseline

Health Benefits

11.4 There are no additional benefits associated with the baseline.

12. Option 1 - Comply with the reasoned opinion by revoking CAR06 and issuing revised regulations which 'copy-out' the currently omitted terms, Article 3 (3) (a) & (b), of the Directive.

Health Benefits

- 12.1 HSE is sceptical that the introduction of the NNLW changes will have anything but a marginal impact in preventing damage to health, because the new requirements are mainly administrative. The pre-notification of work does not imply that it will be performed competently, and the quality of records kept after the event is likewise incidental to prevention of risk to health. Medical examinations are designed to detect disease early, to allow removal from further harm and stimulate scrutiny of co-workers health. This approach is of limited practical value in relation to asbestos because of the 20 - 40 year delay before disease onset. There is actually no evidence that medical surveillance for asbestos-related cancer (the main present day risk) is a valid screening tool. Asbestosis is a fibrosis of the lungs rather than a cancer, and any cases presenting now are associated with past cumulative causative higher exposure levels rather than the lower levels of recent decades. For asbestosis there is some evidence that early detection does not confer long term benefit.¹⁸ Nevertheless HSE would expect an individual who has been advised that they have asbestosis to be excluded from further work with asbestos as a precaution.
- 12.2 Health benefits, in terms of reduced risk of future fatalities, could arise where the potential effect of the new NNLW requirements is to further educate workers in the risks involved so they are more careful when working with asbestos in the future. However for this to happen they first have to recognise they are at risk and it is unlikely without a media campaign that many will. If they came forward for medicals for example, workers will be advised of the synergistic effects of smoking in causing asbestos-related cancer. However, all such workers who are likely to come forward are likely to have already have been trained under Regulation 10 of CAR06 so this additional effect is likely to be very small. In addition, to quantify this type of indirect impact, research would have to be done on the potential impact of medicals on general awareness and behavioural change with respect to handling asbestos and smoking behaviour. It has not been possible to do this.
- 12.3 If the notification requirement is complied with, it may encourage safer working routines owing to potential for the work to be inspected. Quantifying this impact is not possible because of the huge impracticalities of separating the influences of the existing

¹⁸ Coutts II, Gilson JC, Ker IH, Parkes WR, Turner-Warwick M. Progression of intrapulmonary fibrosis caused by asbestos. Proceedings of the British Thoracic Society Spring Meeting. Thorax 1981;35:221-236

regulations from those introduced by the present amendments. Theoretically, the additional intelligence the regulator gathers from notifications could highlight individuals repeatedly claiming to do short duration maintenance work with asbestos far too often for it to be properly classed as such. This could lead to the regulator influencing these workers. An unknown but small proportion of those who comply with the notification requirement could benefit from less risk of disease if the regulator intervened. The effectiveness of intervention on short duration jobs would be limited.

- 12.4 The generally accepted view (shared by HSE) is that optimal risk control can only be achieved through the full package of measures within the Asbestos Regulations. However, the degree to which the new notification, medical and records requirements brings further risk reductions for workers is questionable. The duty to manage asbestos in commercial properties should already mean that many workers will, once informed of the presence of a substantial asbestos hazard, simply avoid the work. Others may continue to do the work (providing it is non-licensable) but will presumably take greater precautions. Furthermore, employers were already required by law to reduce exposure to the lowest level reasonably practicable. The application of simple precautions lowers exposures to well below the control limit in the great majority of cases.
- 12.5 If the increased requirements result in a smaller group working in NNLW, the regulator might find it easier to influence them. An attempt to gauge if industry believes this may happen will be made at consultation.

Benefits to indirectly exposed people:

- 12.6 As a result of better control and knowledge by workers newly engaged by the NNLW requirements, the level of indirect and domestic exposure to asbestos may fractionally reduce and may similarly reduce future disease in non workers. The number of prevented fatalities or cases of ill health is impossible to estimate.

13. Health and safety benefits summary

- 13.1 The contribution that a particular part of the Asbestos Regulations will have on reducing risk beyond what has already been achieved since 2000 is impossible to isolate because the amendments contribute to an existing package of mutually reinforcing interventions. Furthermore the workers concerned are hard to reach. Past non regulatory interventions included awareness campaigns via press and via radio proven to better reach these workers. The present proposal does not include such a campaign and awareness is likely to remain low. HSE's view, based on the available evidence, is that the proposed changes by themselves, do not bring measurable greater health benefits to workers than those already being achieved.
- 13.2 Based on our best estimate of the cost for option 1 (£256.99 million over 50 years), in order for the benefits to equal the costs, the proposed changes would have to result in a reduction of 10 fatalities per year (beginning in year 21 to account for the long latency of asbestos diseases).¹⁹ At best HSE experts estimate that the changes required by the EC interpretation may result in very minimal or negligible decreases in risk to workers. Based on these expert views, it is thought that the changes are very unlikely to reduce fatalities by anything like 10 fatalities per year.

¹⁹ To calculate the number of prevented fatalities, we have used the EAU appraisal value of £1.5 million for a fatality. See: <http://www.hse.gov.uk/economics/eauappraisal.htm>

14. Wider Impacts

Statutory equality duties impact test

- 14.1 A separate equalities impact assessment is to be conducted prior to implementation. However, early consideration has not identified any potential areas for concern. The workforce is predominantly male, and self employed or small medium enterprises (SME's) but apart from that has no other common features. This is a mandatory EC measure for protection which will not discriminate against any individual or group.

Economic Impact

Competition

- 14.2 We have considered the four key questions identified by the Office of Fair Trading (OFT) in its guidance, namely, whether in any affected market the proposals would:
- Directly limit the number or range of suppliers
 - Indirectly limit the number or range of suppliers
 - Limit the ability of suppliers to compete
 - Reduce suppliers' incentives to compete vigorously
- 14.3 On indirect limits on numbers of suppliers, paragraph 12.5 raises the possibility that the introduction of the NNLW category of work and associated costs to business could result in a smaller group remaining in NNLW. Where the cost of compliance is small and affects all suppliers equally, there is likely to be little effect on competition. Where the cost is significant, suppliers may choose to exit the market if profitability is adversely affected.
- 14.4 This is most likely where incentives to comply are strong *and* compliance costs are high. Competitiveness effects could for example emerge between compliant and non compliant suppliers under high cost and lower than full compliance rates.
- 14.5 It is hoped that consultation will provide views on the costs of compliance along with the expected level of compliance. The post consultation impact assessment will consider any competitiveness effects in light of consultation.

Small Firms Impact Test

- 14.6 As costs resulting from the proposed changes are minimal e.g. medical fee of £85 every 3 years) compared with other commercial expenditure, it is not expected to have a significant impact on small firms.
- 14.7 More SMEs and micro businesses will be affected than larger companies. Their time and resource available for other work will be affected by attending medicals, notifications and keeping records (if they comply).

Greenhouse Gas Assessment Impact Test

- 14.8 There are no implications for greenhouse gas emissions from the proposal other than increased use of phones to notify jobs and paper or computer records of work and medicals.

Wider Environmental Issues Impact Test

- 14.9 There will be no wider environmental impacts resulting from the proposed changes.

Health and Well-being Impact Test

- 14.10 Health impacts are discussed in the main body of the evidence base (see benefits section).

Human Rights Impact Test

- 14.11 The proposal will not have any implications for human rights.

Justice Impact Test

- 14.12 There will be little or no justice implications because of the proposal. The existing regulations will be replaced with virtually identical regulations except for the Reasoned Opinion changes to Regulation 3 so the net effect in terms of increased cases for the courts is negligible as mentioned in 8.21 above. HSE is working with the MoJ criminal offences gateway and will progress the regulations through them.

Rural Proofing Impact Test

- 14.13 There are no specific impacts on rural communities as a result of the proposal.

Sustainable Development Impact Test

- 14.14 There is no impact on sustainable development from the proposal.

15. Summary and preferred option with description of implementation plan.

- 15.1 As indicated there is only one option flowing from the UK's decision to accept the EC's reasoned opinion. Correcting the under implementation by copy out of the missing terms of the directive heavily influences the final implementation. HSE and Local Government will use the usual channels, mainly the internet, to publicise the changes ahead of April 2012, and will work to find ways of minimising burdens as far as possible whilst preserving any benefits which are gained. Written guidance will also be issued. The potential demand for medical examination requires further work to increase flexibility in the current system should it be needed. This is likely to be the most significant implementation challenge. The proposal to modify the definition of appointed doctor to allow an expansion of the pool of medical practitioners is designed to meet the challenge and discussions with representatives of the medical profession will be pursued. Final implementation will be heavily influenced by the outcome of these discussions.
- 15.2 The aim is to have regulations and guidance in place ready for commencement in April 2012.

Annexes

Annex 1 should be used to set out the Post Implementation Review Plan as detailed below. Further annexes may be added where the Specific Impact Tests yield information relevant to an overall understanding of policy options.

Annex 1: Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. If the policy is subject to a sunset clause, the review should be carried out sufficiently early that any renewal or amendment to legislation can be enacted before the expiry date. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

Basis of the review: [The basis of the review could be statutory (forming part of the legislation), i.e. a sunset clause or a duty to review, or there could be a political commitment to review (PIR)];

Political commitment to review the working of these regulations. Note however, that the 'Red Tape Challenge' and Prof. Lofsted's review of health and safety legislation may also result in a requirement to review/make changes to asbestos legislation to a shorter timescale.

Review objective: [Is it intended as a proportionate check that regulation is operating as expected to tackle the problem of concern?; or as a wider exploration of the policy approach taken?; or as a link from policy objective to outcome?]

To ensure that HSE has achieved its objective that the requirements of Directive 2003/18/EC have been met in the UK.

To confirm that the requirements are operating in a proportionate manner

To confirm that the objective of the entire regulations of reducing the potential for ill health effects from exposure to asbestos in the workplace has been met, (bearing in mind long latency).

Review approach and rationale: [e.g. describe here the review approach (in-depth evaluation, scope review of monitoring data, scan of stakeholder views, etc.) and the rationale that made choosing such an approach]

Review will consider review statistical data from enforcement activities, etc. and a scan of stakeholder views in order to assess whether the aims of the regulations have been met. Information gained in the review will also inform any feedback on the implementation of the Directive to the EU Commission.

Baseline: [The current (baseline) position against which the change introduced by the legislation can be measured]

Through its normal operations, HSE collects data on its enforcement activities. HSE is, through a variety of routes, in continuous liaison with various stakeholders who have an interest in asbestos and who can be surveyed for their views.

Success criteria: [Criteria showing achievement of the policy objectives as set out in the final impact assessment; criteria for modifying or replacing the policy if it does not achieve its objectives]

That the objectives of the regulations/directive are being met in a proportionate manner. The results of current reviews of H&S legislation will inform this exercise.

(The immediate present objective to comply with the EC requirement by April 2012 will not be relevant in 2017.) This plan will be refined for the final stage impact assessment)

Monitoring information arrangements: [Provide further details of the planned/existing arrangements in place that will allow a systematic collection of monitoring information for future policy review]

HSE has access to a variety of sources of information that can be used for ongoing monitoring, in particular, enforcement activity; numbers of contractors licensed to work with asbestos; numbers of notifications received for work with asbestos.

Reasons for not planning a review: [If there is no plan to do a PIR please provide reasons here]

Annex 2: supporting calculations

16.1 This table shows the estimates made by HSE to generate the number of workers affected by the new requirements. The number of affected workers reflects those that will come under the NNLW category. Licensed workers are calculated separately.

Table 2: number of workers affected

SOC Code	Occupation	Number of Jobs (thousands) 2009-10 GB	Percentage of workers Affected (lower limit)	Percentage of workers Affected (best estimate)	Percentage of workers Affected (upper limit)	Number of workers affected (lower limit)	Number of workers affected (best estimate)	Number of workers affected (Upper limit)
5216	Pipe fitters	15,317	54%	60%	66%	8,271	9,190	10,109
5223	metal working & production maintenance fitters	217,595	18%	20%	22%	39,167	43,519	47,871
5241	Electricians, electrical fitters	231,683	18%	20%	22%	41,703	46,337	50,970
5242	Telecommunications engineers	41,835	54%	60%	66%	22,591	25,101	27,611
5244	TV, video and audio engineers	10,375	18%	20%	22%	1,868	2,075	2,283
5245	Computer engineers, installation and maintenance	39,827	5%	5%	6%	1,792	1,991	2,190
5249	Electrical/electronics engineers n.e.c.	79,211	18%	20%	22%	14,258	15,842	17,426
5314	Plumbers, heating and ventilating engineers	189,849	63%	70%	77%	119,605	132,894	146,184
5315	Carpenters and joiners	237,889	63%	70%	77%	149,870	166,522	183,175
5316	Glaziers, window fabricators and fitters	42,807	30%	33%	36%	12,714	14,126	15,539
5319	Construction trades n.e.c.	220,756	18%	20%	22%	39,736	44,151	48,566
5321	Plasterers	49,560	27%	30%	33%	13,381	14,868	16,355
5322	Floorers and wall tilers	38,488	9%	10%	11%	3,464	3,849	4,234
5323	Painters and decorators	137,812	27%	30%	33%	37,209	41,344	45,478
6232	Caretakers	83,604	45%	50%	55%	37,622	41,802	45,982
8149	Construction operatives n.e.c.	79,439	18%	20%	22%	14,299	15,888	17,477
9121	Labourers in building and woodworking trades	169,056	18%	20%	22%	30,430	33,811	37,192
9129	Labourers in other construction trades n.e.c.	34,134	18%	20%	22%	6,144	6,827	7,509
Total		1,919,237				594,124	660,138	726,151

- 16.2 The table below is an attempt to give a sense of scale based on records of initial asbestos product production figures for a snap shot 4 years (from the 2007 Impact assessment p.97.) Although the Environment Agency records of legal asbestos disposal this cannot be used to reliably estimate how much remains in buildings as not all the waste tonnage will be asbestos alone.

Table 3: Asbestos fibre use in the UK (thousands of tonnes)

	1970	1973	1976	1978
Asbestos cement products for buildings	52.5	55.6	42.9	32.9
Asbestos cement pressure pipes	Not given	9.0	8.1	Not given
Fire-resistant insulating board	18.5	22.5	14.5	11.4
Other insulation (incl. spray)	4	4	0.4	1.5
Floor tiles and coverings	20.5	16.2	15.8	12.5
Friction materials	15	17	15.7	10.6
Jointings and packings	9	11.4	10	6.6
Other textile materials	9	8.3	6.3	5.3
Fillers and reinforcements (felts, millboard, paper, underseals, mastics, adhesives)	21.5	25.7	28.4	17.2
Moulded plastics	4.5	2.8	1.2	2.0
Total	154.5	172.5	143.3	100.0

Annex 3: discussion of low compliance

- 16.3 Research conducted by the Institute of Employment Studies in 2007²⁰ found that a large number of workers appear to be oblivious to, or in denial of the fact that they are being exposed to asbestos. Some of that exposure is likely to be in the NNLW category because of the ubiquity of asbestos insulation board with which most work is likely to be within NNLW. Their report also suggested workers consistently overestimate their ability to recognise ACMs. Others may be aware and might even recognise NNLW but deliberately decide not to incur the additional overheads. Added to this is the familiar pattern of smaller businesses who dominate this sector being less well informed, resourced or organised to meet legal requirements. The level of detailed knowledge required to decide if NNLW applies will be an added filter further reducing compliance levels within the target workforce.
- 16.4 There is considerable evidence that supports an assumption that compliance will be very low. This is derived from HSE field operational experience of the smallest businesses and from research. For example, in 2009 the Institute for Employment Studies (IES) reported on a telephone survey of 1,000 duty holders, including 500 maintenance workers, in March 2008 (Evaluation of the Duty to Manage Asbestos). As an indicator, even though the duty to manage asbestos introduced in 2002 had required building owners to give information on locations of asbestos to them and asbestos training for maintenance work is mandatory, only half of maintenance workers who agreed to be questioned had heard of the duty to manage, which is exactly designed to assist them in protecting themselves and bystanders. Of those who knew about it, only a third of these had found out through some form of training, despite training being mandatory. This suggests an initial realistic assumption of no more than 50% compliance and in view of other findings, probably significantly less, given the subtler nuances of NNLW.

²⁰ Institute of Employment Studies (IES) research report 'Taking risks with asbestos – What influences the behaviour of maintenance workers?' <http://www.hse.gov.uk/research/rrpdf/rr558.pdf>

- 16.5 The IES survey reported communication problems inside businesses and along the sub contracting chain affecting compliance rates. Other problems militating against compliance included lack of commitment to achieve compliance, poor management systems, a lack of procedures, anxiety by employers either about being able to inform employees sufficiently for them to comply with procedures without raising unnecessary alarm or workers showing a casual attitude to the risk and a lack of compliance with internal procedures contributed to lower compliance rates. Maintenance workers tend not to proactively seek information about asbestos. Workers' own reports confirmed that less than one-third (29 per cent) believe that they pro-actively ask questions about asbestos. Workers consistently overestimated their ability to recognise ACMs. They tended not to question 'suspect' materials. The Asbestos Pilot Campaign Evaluation, by Continental Research/COI, in a presentation to the HSE 2008 Parkinson T, Chilvers D, confirmed inaccurate beliefs of workers including: asbestos is a thing of the past - not much risk of exposure (42 per cent); very few people die of asbestos-related diseases nowadays - not a real threat (40 per cent); taking proper precautions too expensive and time consuming (36 per cent). Barriers included the complexity of messages about asbestos, its effects and how to deal with it effectively.
- 16.6 Recent research for the HSE, the Fit3 Employer Survey (Wave 1) also asked questions about the information passed on to maintenance workers regarding asbestos.²¹ The results showed that 40 per cent of employers do not provide any information to their workers. This research again found that workers potentially underestimate levels of exposure to asbestos, as 56 per cent believed that they had not come into contact with asbestos in the past six months. This is most unlikely given the pervasiveness of asbestos in pre asbestos ban buildings. Workers who in good faith do not believe they are disturbing asbestos when in fact they are are not in a position to comply with requirements to notify etc. Research conducted by the Health and Safety Laboratory in 2003 showed that plumbers seriously underestimate their exposure to asbestos and do not take adequate precautions.²² The HSL research involved a comparison between work activity logs (in which workers note down when they believe they have come into contact with asbestos) and asbestos samplers detecting exposure. It found that even amongst plumbers who recorded (and presumably believed that they had not worked with asbestos at all, 69 per cent had in fact had some asbestos contact over the course of a sample week.

²¹ Fit 3 Wave 1 Surveys; Preliminary results, unpublished, HSE.

²² Burdett G, Bard D (2003), Pilot study on the exposure of maintenance workers (Industrial Plumbers) to asbestos, Health and Safety Laboratory MF/2003/15.

Annex 4: Costs over a 10 year appraisal period

16.7 Table 4: Cost Breakdown, 10 year appraisal period (£ Present value, millions)

	Best Estimate (£ millions)	Range (£ millions)	
		low	high
(10 year appraisal period)			
Costs (one-off)			
Total cost to dutyholders of one off familiarisation.	2.08	1.40	2.85
Total costs to HSE of producing new guidance.	0.04	0.04	0.04
Costs (ongoing)			
Total cost to dutyholders of ongoing familiarisation.	1.42	0.96	1.96
Total cost to dutyholders of notifications.	**	**	**
Total cost to dutyholders of record keeping.	**	**	**
Total cost to dutyholders of medical surveillance for NNL workers.	88.32	46.07	146.47
Total costs to HSE of handling notifications.	**	**	**
Total cost to Local Authorities.	**	**	**
Total Costs	91.86	48.47	151.32

** We do not have the required information to quantify these costs

Proposals on revised Control of Asbestos Regulations

The full text of this and other
Consultative Documents can be viewed
and downloaded from the
Health and Safety Executive web site on the
internet: www.hse.gov.uk/consult/index.htm

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