

Health and Safety Executive for Northern Ireland

Carcinogens and Mutagens – Revision of limit values in EH40/2005 "Workplace Exposure Limits" and amendments to Mines Regulations (Northern Ireland) 2016

Consultative Document

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THE CONSULTATION DOCUMENT

This Consultation Document (CD) is issued by the Health and Safety Executive for Northern Ireland (HSENI). HSENI is undertaking this consultation in compliance with its duty to consult under section 46(3) of the Health and Safety at Work (Northern Ireland) Order 1978.

The CD is closely based on the Great Britain consultations: -

- 1. <u>"CD287 Carcinogens and Mutagens Revision of limit values in EH40/2005</u> "Workplace Exposure Limits""; and
- 2. "Amendments to the Mines Regulations 2014".

Both of the Great Britain consultations are issued by the Health and Safety Executive (HSE), whose assistance is gratefully acknowledged.

If you would prefer a printed version of this CD, it can be obtained on request. Furthermore, if you require a more accessible format, executive summaries are available in Braille or large print, on disc or audio-cassette, or in Irish, Ulster Scots and other languages of the minority ethnic communities in Northern Ireland. To obtain a summary in one of these formats, please contact Philip Bryson at the address shown at paragraph 44.

INTRODUCTION

- 1. This consultation seeks views on proposals by HSENI relating to the implementation of Directive (EU) 2017/2398 (see **Appendix 1**) which amends the Carcinogens and Mutagens Directive (CMD) 2004/37/EC. The Directive sets 11 new and binding occupational exposure limits values (OELV's) and amends 2 existing OELV's for carcinogenic substances to help protect workers from the ill-health effects of exposure to these substances in the workplace.
- 2. The Directive also classifies Respirable Crystalline Silica (RCS) as a carcinogen where it is generated as a result of a work process. Skin notations for four substances are also added.
- 3. Directive (EU) 2017/2398 came into force on 17 January 2018 and EU Member States have until 17 January 2020 to transpose its requirements into their national legislation.
- 4. The CD is in two Parts
 - i. PART 1 sets out proposals for establishing Workplace Exposure Limits (WELs) for the substances listed in the Directive; and
 - ii. PART 2 sets out proposals for amendments to the Mines Regulations (Northern Ireland) 2016.
- 5. All proposals are subject to the ongoing negotiations on the UK's relationship with the European Union.

PART 1 – Carcinogens and Mutagens – Revision of limit values in EH40/2005 "Workplace Exposure Limits"

SUMMARY OF PROPOSALS

- 6. This Part will focus on the initial limits which come into effect in January 2020. Directive 2017/2398 also includes extended transition periods for further lower limits for hardwood dust and chromium (VI) (see Table A). HSENI will carry out a further consultation on these limits at a later stage.
- 7. The proposals are summarised in the table below:

Phase 1 CMD proposals – Table A:

Substance	Existing UK Workplace Exposure Limit and notation	New OELV (8-hour Time Waited Average) and notation	HSENI proposal
Respirable Crystalline Silica – (RCS)	0.1mg/m ³	0.1mg/m ³	Retain existing WEL and introduce carcinogen notation

			for RCS generated as a result of a work process
Hardwood dusts	5mg/m ³	3mg/m ³ */**	Adopt CMD 8-hour TWA limit and reduce existing WEL
Chromium (VI) Compounds	0.05mg/m ³	0.010 mg/m³*** (non-process generated) 0.025mg/m³*** (process generated)****	Adopt CMD 8-hour TWA limits and reduce existing WEL
Hydrazine	0.03mg/m ³ and skin notation	0.013mg/m³ and skin notation*****	Adopt CMD 8-hour TWA limit and reduce existing WEL
Acrylamide	0.3mg/m³ and Skin notation	0.1mg/m³ and skin notation	Adopt CMD 8-hour TWA limit and reduce existing WEL
Refractory Ceramic Fibres	1f/ml	0.3f/ml	Adopt CMD 8-hour TWA limit and reduce existing WEL
Vinyl Chloride Monomer	7.8mg/m ³	2.6mg/m ³	Adopt CMD 8-hour TWA limit and reduce existing WEL
O-Toluidine	0.89mg/m³ and skin notation	0.5mg/m³ and skin notation	Adopt CMD 8-hour TWA limit and reduce existing WEL
1,3 Butadiene	22mg/m ³	2.2mg/m ³	Adopt CMD 8-hour TWA limit and reduce existing WEL
Bromoethylene (vinyl bromide)	None	4.4mg/m ³	Adopt CMD 8-hour TWA limit and introduce WEL
Ethylene Oxide	9.2mg/m ³	1.8mg/m³ and skin notation	Adopt CMD 8-hour TWA limit and reduce existing WEL. Introduce skin notation
1,2 Epoxypropane (propylene oxide)	12mg/m ³	2.4mg/m³	Adopt CMD 8-hour TWA limit and reduce existing WEL
2-Nitropropane	19mg/m ³	18mg/m ³	Adopt CMD 8-hour TWA limit and reduce existing WEL

^{*} If hardwood dust is mixed with other wood dust the limit will apply to all wood dusts present in that mixture.

** The Directive includes a transitional period ending on 17 January 2023, after which a lower limit of 2mg/m³ applies for hardwood dust. HSENI will consult separately on this at a later date.

^{***} The Directive includes a transitional period ending on 17 January 2025, after which a lower limit of 0.005mg/m3 applies for Chromium (VI) compounds. HSENI will consult separately on this at a later date. **** 'Process generated' refers to exposures to Chromium (VI) and its compound generated as a result of a work process, such as in fumes from welding.

^{******}A skin notation assigned to a substance identifies the possibility of significant exposure through the skin which contributes to the total body burden of exposure and consequently to possible health effects.

BACKGROUND

- 8. OELVs are set to help protect workers from the ill-health effects of exposure to hazardous substances. In the case of CMD this is in relation to substances that are carcinogens or mutagens. The CMD amending directive (2017/2398) adds 11 and amends 2 existing OELVs in the original CMD. It requires Member States to establish, or amend, their national exposure limits to match those in the Directive.
- 9. The original CMD contained binding OELVs for 3 carcinogenic substances (Hardwood dust, Benzene and Vinyl Chloride Monomer). In the UK these limit values are transposed as Workplace Exposure Limits (WELs) in the Health and Safety Executive (HSE) publication EH40/2005, which has been approved for use in Northern Ireland.
- 10. The EU Commission has embarked on a programme to add OELVs for other carcinogens and mutagens to the original CMD through a series of amending Directives. This Part relates to the first of these amendments.
- 11. The OELVs listed in the amending Directive have been discussed by the Working Party on Chemicals (WPC), a sub-group of the EU's tripartite Advisory Committee on Safety and Heath at Work (ACSH). The WPC opinions on appropriate exposure limit values for these substances were subsequently endorsed by the ACSH.
- 12. HSE officials consulted UK industry stakeholders as part of the WPC discussions on the OELVs.
- 13. The final OELVs in the Directive were agreed by the European Council and European Parliament.

THE OCCUPATIONAL EXPOSURE LIMIT SYSTEM

- 14. In 2005, HSENI, in line with the then Health and Safety Commission in Great Britain, introduced a new framework for setting occupational exposure limits (OELV's) following an amendment to the Control of Substances Hazardous to Health Regulations (Northern Ireland) 2003 (S.R. 2003 No. 34) (the COSHH Regulations). The new system dispensed with the previous system of Maximum Exposure Limits (MELs) and Occupational Exposure Standards (OESs) and replaced both with a single type of limit, the WEL.
- 15. The requirements for compliance with WELs are set out in regulation 7(7) of the COSHH Regulations as amended by the Control of Substances Hazardous to Health (Amendment) Regulations (Northern Ireland) 2005 (S.R. 2005 No. 165). For substances identified as carcinogens or mutagens regulation 7(7) requires that exposures must also be reduced to as low as is reasonably practicable.
- 16. It is a legal requirement that the WEL should not be exceeded. A WEL is defined as the concentration of a hazardous substance in the air that people

breathe, averaged over a specified reference period referred to as a timeweighted average (TWA). Two periods are used: long-term exposure limit (8 hours) and short-term exposure limit (STEL) (15 minutes). All of the OELVs in this consultation relate to the long-term exposure limit (8 hours).

- 17. OELVs are published as WELs in the HSE publication EH40 Workplace Exposure Limits which has been approved for use in Northern Ireland. This is available on the HSENI website at https://www.hseni.gov.uk/publications/eh402005-workplace-exposure-limits.
- 18. For more information on employers' duties under COSHH you should refer to HSENI's booklet "COSHH NI: A brief guide to the Regulations" available on the HSENI website at https://www.hseni.gov.uk/publications/coshh-ni-brief-guide-control-substances-hazardous-health-regulations-2003 and HSE's booklet "Working with Substances Hazardous to Health" INDG136 (rev4), available on the HSE website at http://www.hse.gov.uk/pubns/indg136.pdf.

WHAT ARE OELVs?

19. OELVs are European limit values that are set to protect the health of workers in the European Union from the ill-health effects of hazardous substances in the workplace. Their legal status derives from the CMD 2004/37/EC. In relation to occupational exposure, article 2(c) of that Directive states that 'limit value' "means, unless otherwise specified, the limit of the time-weighted average of the concentration for a 'carcinogen or mutagen' in the air within the breathing zone of a worker in relation to a specified reference period as set out in Annex III to this Directive".

CURRENT LEGISLATIVE PROVISIONS FOR OELVS IN THE UK

20. OELVs, including those for carcinogens and mutagens, are implemented in the UK by updating the HSE publication EH40/2005 (approved for use in Northern Ireland). Table 1 of EH40/2005 lists current workplace exposure limits and has special legal status under the COSHH Regulations.

TRANSPOSITION APPROACH

- 21. In Great Britain HSE plan to transpose the Directive by amending the statutory table within HSE publication: EH40/2005. HSENI plans to approve the amended EH40/2005 for use in Northern Ireland. This transposition approach takes account of existing policy on transposing EU Directives and a commitment not to go beyond the minimum requirements of the Directive. It also implements the Directive in a way that is proportionate to the risks and takes into account existing controls and therefore minimises the impact on businesses. The new OELVs will be transposed on the latest possible transposition date.
- 22. The Directive recognises that there may be technological challenges and associated costs for the woodworking and welding industries across Europe in complying with the proposed lower limit values for Hardwood dust and Chromium (VI) Compounds. In recognition of the challenges in these industries

the Directive includes extended transitional periods until January 2023 (Hardwood dust) and January 2025 (Chromium (VI) (where process generated) during which Member States must apply the initial OELVs for these substances (see Table A). A further consultation for the lower limit values will be undertaken at a later stage, ahead of the implementation dates.

Part 2: Amendments to the Mines Regulations (Northern Ireland) 2016 to implement the new binding limit for exposure to respirable crystalline silica below ground in coal mines

SUMMARY OF PROPOSALS

23. This Part proposes changes to the Mines Regulations (Northern Ireland) 2016 (MR2016) to apply a new binding limit for Respirable Crystalline Silica (RCS) of 0.1mg/m³ below ground in coal mines.

BACKGROUND

- 24. It should be noted that currently there are no coal mines in operation in Northern Ireland. However, in the event of any future activity MR2016 imposes duties on mine operators to protect persons at work from the risks to their health arising from exposure to inhalable and respirable dust and RCS below ground in coal mines. Directive (EU) 2017/2398 amends the Carcinogens and Mutagens Directive (2004/37/EC) (CMD) and sets down new OELVs for a number of carcinogens or mutagens. Importantly, it includes a new binding limit for exposure to RCS of 0.1mg/m³. As previously stated, OELVs are implemented into NI law by the COSHH Regulations, in particular, the approved WELs set down in the EH40/2005 publication.
- 25. Northern Ireland already has an established WEL for RCS of 0.1mg/m³, identical to the new EU limit, but that WEL is disapplied below ground in coal mines by MR2016. Since 2007 an RCS concentration of up to 0.3mg/m³ of RCS has been permitted below ground in coal mines, with MR2016 requiring remedial action to be taken at or above this level. Following the introduction of MR2016 all other COSHH requirements now apply below ground at coal mines. The current RCS WEL, and therefore the new EU limit, of 0.1mg/m³ already applies above ground at coal mines and at all other mines.
- 26. The establishment of the new binding EU OELV for RCS means that it is no longer possible to apply the higher limit of 0.3mg/m³ below ground in coal mines. MR2016 must be amended before the transposition deadline of 17 January 2020.

TRANSPOSITION APPROACH

27. HSENI therefore proposes to make amendments to MR2016 to remove the disapplication of the WEL for RCS below ground in coal mines (regulation 44). HSENI also proposes to amend regulation 45 of MR2016 to remove all references to RCS to simplify the regulatory framework by avoiding duplication. Regulation 10 of the NI COSHH regulations requires that exposure to hazardous substances is monitored in accordance with a suitable procedure, which may include appropriate arrangements for sampling RCS. This will ensure the safety standards in relation to limiting the exposure to RCS are maintained. The draft regulations can be found at **Appendix 4**.

- 28. As mentioned at paragraph 21, HSE publication: EH40/2005, which sets down WELs, is being amended to transpose CMD and this will reflect the proposed amendments to MR2016.
- 29. The HSE publication "The Mines Regulations 2014: Guidance on Regulations (L149)", which can be read across to MR2016, will also be updated to reflect corresponding amendments to the Great Britain Mines Regulations 2014.

RELATIONSHIP WITH GREAT BRITAIN

30. The proposals set out in this CD do not differ in any significant way from the proposals on the corresponding GB consultations (see the acknowledgement on page 2 of this CD). Such differences that do occur relate only to Northern Ireland legislation and institutions. As the GB and Northern Ireland proposals, taken together, are intended to implement a European Directive, it is essential that the same requirements apply throughout the United Kingdom.

COSTS AND BENEFITS

Great Britain

31. Draft Impact Assessments (GB IA's) have been prepared for the corresponding GB consultations are attached at **Appendices 2 and 3**.

Revision of limit values in EH40/2005 "Workplace Exposure Limits

- 32. HSE does not expect significant additional costs from the implementation of the 2020 WELs. Exposures to the 13 substances are or should already be below the new WELs, either because: there is little or no use in GB; the new WEL is equal or similar to the current WEL; or the current requirements under the COSHH Regulations to reduce exposures to as low as reasonably practicable mean that industry should already have the necessary controls in place to meet the new WELs.
- 33. The 11 substances with new binding OELVs and 2 substances with amended OELVs are known to be harmful to health and have the potential to cause occupational cancer. The potential benefits are a reduction in occupational cancer cases plus other occupational ill health arising from the same exposures. Any reduction in new cases of occupational cancer would be realised over several decades, due to the long latency between exposures to carcinogens and any development of cancer.

Amendments to the Mines Regulations

34. HSE does not expect significant additional costs from the implementation of the RCS WEL below ground in coal mines. No additional costs are anticipated to those currently in place to control and monitor RCS exposure in coal mines below ground.

35. RCS is known to be harmful to health and have the potential to cause occupational cancer. The Directive also classifies RCS as a carcinogen where it is generated as a result of a work process. The potential benefits are a reduction in occupational cancer cases plus other occupational ill health arising from the same exposures. Any reduction in new cases of occupational cancer would be realised over several decades, due to the long latency between exposures to carcinogens and any development of cancer.

Northern Ireland

- 36. HSENI is of the opinion that the analysis and considerations as set out in the GB IA for the "Revision of limit values in EH40/2005 "Workplace Exposure Limits" can be applied to Northern Ireland on a proportionate basis where appropriate. In particular, no significant additional costs are expected in Northern Ireland.
- 37. Currently there are no coal mines in operation in Northern Ireland and consequently there will be no additional costs or benefits from the implementation of the RCS WEL below ground in coal mines.
- 38. Before finalising its proposals HSENI will take into account any further evidence provided from the consultation process and the conclusions reached in the GB Final Stage Impact Assessments.

EQUALITY IMPACT

39. The proposals to implement the Directive have been screened for any possible impact on equality of opportunity affecting the groups listed in section 75 of the Northern Ireland Act 1998 and no adverse or, with the exception of age, differential impacts were identified. As the proposals relate primarily to workplaces they will have a justified differential impact on those of a working age. There is no evidence to suggest that the proposals will impact disproportionately on any other Section 75 group. A copy of the screening document is at **Appendix 5**.

HUMAN RIGHTS

40. The Department has considered the matter of Convention rights and is satisfied that there are no matters of concern.

RURAL PROOFING

41. Rural proofing is the process by which policies, strategies and plans are assessed to determine whether they have a differential impact on rural areas and, where appropriate, adjustments are made to take account of particular rural circumstances, ensuring the fair and equitable treatment of rural communities.

42. HSENI has considered this matter as part of the development of these proposals and concludes that they will not impact differentially on the needs of people in rural areas of Northern Ireland.

INVITATION TO COMMENT

- 43. HSENI would welcome your comments on the proposals in this CD. In particular, comments are invited on:
 - the assumption relating to costs relevant to Northern Ireland;
 - the proposed transposition approaches; and
 - the conclusion that the proposals would have no adverse effect on any section 75 groups or people living in rural areas of Northern Ireland.
- 44. Comments should be sent to: -

CMDPhase1Consultation@hseni.gov.uk

or by post to:-

Philip Bryson Health and Safety Executive for Northern Ireland 83 Ladas Drive, Belfast, BT6 9FR Tel: (028) 90 546840;

so as to arrive no later than noon on 3 December 2019

- 45. HSENI tries to make its consultation procedures as thorough and open as possible. A summary of responses to this CD will be made available on the consultation webpage after the close of the consultation period where they can be viewed by members of the public.
- 46. Information provided in response to this consultation may also be subject to publication or disclosure in accordance with the following access to information regimes: the Freedom of Information Act 2000 (FOIA), the Data Protection Act 2018, General Data Protection Regulations (GDPR) and the Environmental Information Regulations 2004 (EIR). Statutory Codes of Practice under the FOIA and EIR also deal with confidentiality obligations, amongst other things.
- 47. If you would like us to treat any of the information you provide 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.

48.	HSENI will process all personal data collected as part of this consultation in accordance with the General Data Protection Regulations. HSENI's Privacy
	Policy Notice and Privacy Policy Statement is available on the HSENI website at https://www.hseni.gov.uk/hseni-privacy-notice .

5 November 2019

Health and Safety Executive for Northern Ireland

DIRECTIVE (EU) 2017/2398 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 12 December 2017

amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular point (b) of Article 153(2), in conjunction with point (a) of Article 153(1) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee (1),

After consulting the Committee of the Regions,

Acting in accordance with the ordinary legislative procedure (2),

Whereas:

- (1) Directive 2004/37/EC of the European Parliament and of the Council (3) aims to protect workers against risks to their health and safety from exposure to carcinogens or mutagens at the workplace. A consistent level of protection from the risks related to carcinogens and mutagens is provided for in that Directive by a framework of general principles to enable Member States to ensure the consistent application of the minimum requirements. Binding occupational exposure limit values established on the basis of available information, including scientific and technical data, economic feasibility, a thorough assessment of the socioeconomic impact and availability of exposure measurement protocols and techniques at the workplace, are important components of the general arrangements for the protection of workers established by that Directive. The minimum requirements provided for in that Directive aim to protect workers at Union level. More stringent binding occupational exposure limit values can be set by Member States.
- (2) Occupational exposure limit values are part of risk management under Directive 2004/37/EC. Compliance with those limit values is without prejudice to other obligations on employers pursuant to that Directive, in particular the reduction of the use of carcinogens and mutagens at the workplace, the prevention or reduction of workers' exposure to carcinogens or mutagens and the measures which should be implemented to that effect. Those measures should include, in so far as is technically possible, the replacement of the carcinogen or mutagen by a substance, mixture or process which is not dangerous or is less dangerous to workers' health, the use of a closed system or other measures aiming to reduce the level of workers' exposure. In that context, it is essential to take the precautionary principle into account where there are uncertainties.
- (3) For most carcinogens and mutagens, it is not scientifically possible to identify levels below which exposure would not lead to adverse effects. While setting the limit values at the workplace in relation to carcinogens and mutagens pursuant to this Directive does not completely eliminate risks to the health and safety of workers arising from exposure at work (residual risk), it nonetheless contributes to a significant reduction of risks arising from such exposure in the stepwise and goal-setting approach pursuant to Directive 2004/37/EC. For other carcinogens and mutagens, it is scientifically possible to identify levels below which exposure is not expected to lead to adverse effects.

⁽¹⁾ OJ C 487, 28.12.2016, p. 113.

⁽²⁾ Position of the European Parliament of 25 October 2017 (not yet published in the Official Journal) and decision of the Council of 7 December 2017.

⁽³⁾ Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (Sixth individual Directive within the meaning of Article 16(1) of Council Directive 89/391/EEC) (OJ L 158, 30.4.2004, p. 50).

EN

- (4) Maximum levels for the exposure of workers to some carcinogens or mutagens are established by values which, pursuant to Directive 2004/37/EC, must not be exceeded. Those limit values should be revised and limit values should be set for additional carcinogens and mutagens.
- (5) On the basis of the implementation reports submitted by Member States every five years pursuant to Article 17a of Council Directive 89/391/EEC (¹), the Commission is to evaluate the implementation of the occupational safety and health legal framework, including Directive 2004/37/EC, and, where necessary, to inform the relevant institutions and the Advisory Committee on Safety and Health at Work (ACSH) of initiatives to improve the operation of that framework, including, where necessary, appropriate legislative proposals.
- (6) The limit values set out in this Directive should be revised where necessary in the light of available information, including new scientific and technical data and evidence-based best practices, techniques and protocols for exposure level measurement at the workplace. That information should, if possible, include data on residual risks to the health of workers and opinions of the Scientific Committee on Occupational Exposure Limits (SCOEL) and of the ACSH. Information related to residual risk, made publicly available at Union level, is valuable for future work to limit risks from occupational exposure to carcinogens and mutagens, including by revising the limit values set out in this Directive. Transparency of such information should be further encouraged.
- (7) Due to the lack of consistent data on substance exposure, it is necessary to protect exposed workers or workers who are at risk of exposure by enforcing relevant health surveillance. It should therefore be possible for appropriate health surveillance of workers, for whom the results of the assessment referred to in Article 3(2) of Directive 2004/37/EC reveal a risk to health or safety, to continue after the end of exposure following an indication by the doctor or authority responsible for the health surveillance. Such surveillance should be carried out in accordance with the national law or practice of the Member States. Article 14 of Directive 2004/37/EC should therefore be amended to ensure such health surveillance for all workers concerned.
- (8) Appropriate and consistent data collection by Member States from employers is necessary to ensure the safety and proper care of workers. The Member States are to provide the Commission with information for the purposes of its reports on the implementation of Directive 2004/37/EC. The Commission already supports best practices with regard to data collection in Member States and should propose, as appropriate, further improvements to the data collection required pursuant to Directive 2004/37/EC.
- (9) Directive 2004/37/EC requires employers to use existing appropriate procedures for the measurement of exposure levels to carcinogens and mutagens at the workplace, in consideration of the fact that SCOEL notes in its recommendations the feasibility of monitoring exposure at any recommended occupational exposure limit value and biological limit values. The improvement of the equivalence of methodologies for measurement of the concentration in the air of carcinogens and mutagens in relation to limit values set out in Directive 2004/37/EC is important in order to reinforce the obligations provided for therein and ensure a similar and a high-level of health protection for workers and a level playing field across the Union.
- (10) Amendments to Annex III to Directive 2004/37/EC provided for in this Directive are the first step in a longer term process to update it. As the next step in that process, the Commission has submitted a proposal for the establishment of limit values and skin notations with regard to seven additional carcinogens. Moreover, the Commission stated in its Communication of 10 January 2017, 'Safer and Healthier Work for All Modernisation of the EU Occupational Safety and Health Legislation and Policy', that there are to be further amendments to Directive 2004/37/EC. The Commission should, on an ongoing basis, continue its work on updates of Annex III to Directive 2004/37/EC, in line with Article 16 thereof and established practice. That work should result, where appropriate, in proposals for future revisions of the limit values set out in Directive 2004/37/EC and in this Directive, as well as proposals for additional limit values.

⁽¹⁾ Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work (OJ L 183, 29.6.1989, p. 1).



- (11) It is necessary to consider other absorption pathways of all carcinogens and mutagens, including the possibility of uptake through the skin, in order to ensure the best possible level of protection.
- (12) SCOEL assists the Commission, in particular in identifying, evaluating and analysing in detail the latest available scientific data, and in proposing occupational exposure limit values for the protection of workers from chemical risks, which are to be set at Union level pursuant to Council Directive 98/24/EC (¹) and Directive 2004/37/EC. As regards the chemical agents o-toluidine and 2-nitropropane, there were no SCOEL recommendations available in 2016 and therefore other sources of scientific information, adequately robust and in the public domain, have been considered.
- (13) The limit values for vinyl chloride monomer and hardwood dusts set out in Annex III to Directive 2004/37/EC should be revised in the light of more recent scientific and technical data. The distinction between hardwood and softwood dust should be further assessed as regards the limit value set out in that Annex, as recommended by SCOEL and the International Agency for Research on Cancer.
- (14) Mixed exposure to more than one species of wood is very common, which complicates the exposure assessment of different species of wood. Exposure to dust from softwood and hardwood is common among workers in the Union and may cause respiratory symptoms and diseases, with the most serious health effect being the risk of nasal and sinonasal cancers. It is therefore appropriate to establish that if hardwood dusts are mixed with other wood dusts, the limit value set out in the Annex for hardwood dust should apply to all wood dusts present in that mixture
- (15) Certain chromium (VI) compounds meet the criteria for classification as carcinogenic (category 1A or 1B) in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council (²) and are therefore carcinogens within the meaning of Directive 2004/37/EC. It is possible, on the basis of the available information, including scientific and technical data, to set a limit value for chromium (VI) compounds that are carcinogens within the meaning of Directive 2004/37/EC. It is therefore appropriate to establish a limit value for those chromium (VI) compounds.
- (16) With regard to chromium VI, a limit value of 0,005 mg/m³ may not be appropriate and, in some sectors, may be difficult to achieve in the short term. A transitional period should therefore be introduced during which the limit value of 0,010 mg/m³ should apply. For the specific situation where the work activity concerns work involving welding or plasma cutting processes or similar such processes that generate fume, a limit value of 0,025 mg/m³ should apply during that transitional period, after which the generally applicable limit value of 0,005 mg/m³ should apply.
- (17) Certain refractory ceramic fibres meet the criteria for classification as carcinogenic (category 1B) in accordance with Regulation (EC) No 1272/2008 and are therefore carcinogens within the meaning of Directive 2004/37/EC. It is possible, on the basis of the available information, including scientific and technical data, to set a limit value for refractory ceramic fibres that are carcinogens within the meaning of Directive 2004/37/EC. It is therefore appropriate to establish a limit value for those refractory ceramic fibres.
- (18) There is sufficient evidence of the carcinogenicity of respirable crystalline silica dust. On the basis of available information, including scientific and technical data, a limit value for respirable crystalline silica dust should be established. Respirable crystalline silica dust generated by a work process is not subject to classification in accordance with Regulation (EC) No 1272/2008. It is therefore appropriate to include work involving exposure to respirable crystalline silica dust generated by a work process in Annex I to Directive 2004/37/EC and to establish a limit value for respirable crystalline silica dust ('respirable fraction') that should be subject to review, in particular in light of the number of workers exposed.

⁽¹⁾ Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) (OJ L 131, 5.5.1998, p. 11).

⁽²⁾ Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1).

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- (19) Guides and examples of good practices produced by the Commission, the Member States or the social partners, or other initiatives, such as the Social Dialogue 'Agreement on Workers' Health Protection Through the Good Handling and Use of Crystalline Silica and Products Containing it' (NEPSi) are valuable and necessary instruments to complement regulatory measures and in particular to support the effective implementation of limit values, and should therefore be given serious consideration. They include measures to prevent or minimise exposure such as water-assisted suppression to prevent dust from becoming airborne in the case of respirable crystalline silica.
- (20) Ethylene oxide meets the criteria for classification as carcinogenic (category 1B) in accordance with Regulation (EC) No 1272/2008 and is therefore a carcinogen within the meaning of Directive 2004/37/EC. It is possible, on the basis of the available information, including scientific and technical data, to set a limit value for that carcinogen. SCOEL has identified, for ethylene oxide, the possibility of significant uptake through the skin. It is therefore appropriate to establish a limit value for ethylene oxide and to assign to it a notation indicating the possibility of significant uptake through the skin.
- (21) 1,2-Epoxypropane meets the criteria for classification as carcinogenic (category 1B) in accordance with Regulation (EC) No 1272/2008 and is therefore a carcinogen within the meaning of Directive 2004/37/EC. It is possible, on the basis of the available information, including scientific and technical data, to identify an exposure level below which exposure to that carcinogen is not expected to lead to adverse effects. It is therefore appropriate to establish a limit value for 1,2-epoxypropane.
- (22) Acrylamide meets the criteria for classification as carcinogenic (category 1B) in accordance with Regulation (EC) No 1272/2008 and is therefore a carcinogen within the meaning of Directive 2004/37/EC. It is possible, on the basis of the available information, including scientific and technical data, to set a limit value for that carcinogen. SCOEL has identified, for acrylamide, the possibility of significant uptake through the skin. It is therefore appropriate to establish a limit value for acrylamide and to assign to it a notation indicating the possibility of significant uptake through the skin.
- 2-Nitropropane meets the criteria for classification as carcinogenic (category 1B) in accordance with Regulation (EC) No 1272/2008 and is therefore a carcinogen within the meaning of Directive 2004/37/EC. It is possible, on the basis of the available information, including scientific and technical data, to set a limit value for that carcinogen. It is therefore appropriate to establish a limit value for 2-nitropropane.
- o-Toluidine meets the criteria for classification as carcinogenic (category 1B) in accordance with Regulation (EC) No 1272/2008 and is therefore a carcinogen within the meaning of Directive 2004/37/EC. It is possible, on the basis of the available information, including scientific and technical data, to set a limit value for that carcinogen. It is therefore appropriate to establish a limit value for o-toluidine and to assign to it a notation indicating the possibility of significant uptake through the skin.
- 1,3-Butadiene meets the criteria for classification as carcinogenic (category 1A) in accordance with Regulation (EC) No 1272/2008 and is therefore a carcinogen within the meaning of Directive 2004/37/EC. It is possible, on the basis of the available information, including scientific and technical data, to set a limit value for that carcinogen. It is therefore appropriate to establish a limit value for 1,3-butadiene.
- (26) Hydrazine meets the criteria for classification as carcinogenic (category 1B) in accordance with Regulation (EC) No 1272/2008 and is therefore a carcinogen within the meaning of Directive 2004/37/EC. It is possible, on the basis of available information, including scientific and technical data, to set a limit value for that carcinogen. SCOEL has identified, for hydrazine, the possibility of significant uptake through the skin. It is therefore appropriate to establish a limit value for hydrazine and to assign to it a notation indicating the possibility of significant uptake through the skin.
- Bromoethylene meets the criteria for classification as carcinogenic (category 1B) in accordance with Regulation (EC) No 1272/2008 and is therefore a carcinogen within the meaning of Directive 2004/37/EC. It is possible, on the basis of available information, including scientific and technical data, to set a limit value for that carcinogen. It is therefore appropriate to establish a limit value for bromoethylene.



- (28) This Directive strengthens the protection of workers' health and safety at their workplace. Member States should transpose this Directive into their national law. They should ensure that competent authorities have a sufficient number of trained staff and other resources necessary to carry out their tasks related to the proper and effective implementation of this Directive, in accordance with national law or practice. Application of this Directive by employers would be facilitated if they had guidance, where relevant, to identify better ways to achieve compliance with this Directive.
- (29) The Commission has consulted the ACSH. It has also carried out a two-stage consultation of management and labour at Union level in accordance with Article 154 of the Treaty on the Functioning of the European Union.
- (30) In its opinions, the ACSH has referred to a review period for binding occupational exposure limit values for several substances, such as respirable crystalline silica dust, acrylamide and 1,3-butadiene. The Commission is to take into account those opinions when prioritising substances for scientific evaluation.
- (31) In its opinion on refractory ceramic fibres, the ACSH agreed that a binding occupational exposure limit value is necessary but failed to reach a common position on a threshold. The Commission should therefore encourage the ACSH to submit an up-to-date opinion on refractory ceramic fibres with a view to reaching a common position on the limit value for that substance, without prejudice to the working methods of the ACSH and the autonomy of the social partners.
- (32) At the workplace, men and women are often exposed to a cocktail of substances, which can increase health risks and cause adverse effects, inter alia, on their reproductive systems, including impaired fertility or infertility, and have a negative impact on foetal development and lactation. Substances which are toxic to reproduction are subject to Union measures providing for minimum requirements of the protection of health and safety of workers, in particular those provided for in Directive 98/24/EC and Council Directive 92/85/EEC (¹). Reprotoxic substances that are also carcinogens or mutagens are subject to the provisions of Directive 2004/37/EC. The Commission should evaluate the need to extend the application of the measures for the protection of health and safety of workers provided for in Directive 2004/37/EC to all reprotoxic substances.
- (33) This Directive respects fundamental rights and observes the principles enshrined in the Charter of Fundamental Rights of the European Union, in particular the right to life and the right to fair and just working conditions provided for, respectively, in Articles 2 and 31 thereof.
- (34) The limit values set out in this Directive will be kept under review in the light of the implementation of Regulation (EC) No 1907/2006 of the European Parliament and of the Council (²), in particular to take account of the interaction between limit values set out under Directive 2004/37/EC and derived no effect levels for hazardous chemicals under that Regulation in order to protect workers effectively.
- (35) Since the objectives of this Directive, which are to improve working conditions and to protect the health of workers from the specific risks arising from exposure to carcinogens and mutagens, cannot be sufficiently achieved by the Member States, but can rather, by reason of its scale and effects, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.
- (36) Given that this Directive concerns the protection of the health and safety of workers at their workplace, it should be transposed within two years of the date of its entry into force.
- (37) Directive 2004/37/EC should therefore be amended accordingly,

(¹) Council Directive 92/85/EEC of 19 October 1992 on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding (tenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) (OJ L 348, 28.11.1992, p. 1).

(2) Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ L 396, 30.12.2006, p. 1).

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Directive 2004/37/EC is amended as follows:

(1) in Article 6, the following paragraph is added:

'The Member States shall take into account the information under points (a) to (g) of the first paragraph of this Article in their reports submitted to the Commission under Article 17a of Directive 89/391/EEC.';

- (2) Article 14 is amended as follows:
 - (a) paragraph 1 is replaced by the following:
 - '1. The Member States shall establish, in accordance with national law or practice, arrangements for carrying out relevant health surveillance of workers for whom the results of the assessment referred to in Article 3(2) reveal a risk to health or safety. The doctor or authority responsible for the health surveillance of workers may indicate that health surveillance must continue after the end of exposure for as long as they consider it to be necessary to safeguard the health of the worker concerned.';
 - (b) paragraph 8 is replaced by the following:
 - '8. All cases of cancer identified in accordance with national law or practice as resulting from occupational exposure to a carcinogen or mutagen shall be notified to the competent authority.

The Member States shall take into account the information under this paragraph in their reports submitted to the Commission under Article 17a of Directive 89/391/EEC.';

(3) the following Article is inserted:

'Article 18a

Evaluation

The Commission shall, as part of the next evaluation of the implementation of this Directive in the context of the evaluation referred to in Article 17a of Directive 89/391/EEC, also evaluate the need to modify the limit value for respirable crystalline silica dust. The Commission shall propose, where appropriate, necessary amendments and modifications related to that substance.

No later than in the first quarter of 2019, the Commission shall, taking into account the latest developments in scientific knowledge, assess the option of amending the scope of this Directive to include reprotoxic substances. On that basis, the Commission shall present, if appropriate, and after consulting management and labour, a legislative proposal.';

- (4) in Annex I, the following point is added:
 - '6. Work involving exposure to respirable crystalline silica dust generated by a work process';
- (5) Annex III is replaced by the text in the Annex to this Directive.

Article 2

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 17 January 2020. They shall immediately inform the Commission of the text of those measures.

When Member States adopt those measures, they shall contain a reference to this Directive or shall be accompanied by such a reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

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2. Member States shall communicate to the Commission the text of the measures of national law which they adopt in the field covered by this Directive.

Article 3

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

Article 4

This Directive is addressed to the Member States.

Done at Strasbourg, 12 December 2017.

For the European Parliament The President A. TAJANI For the Council The President M. MAASIKAS EN

ANNEX

'ANNEX III

Limit values and other directly related provisions (Article 16)

A. LIMIT VALUES FOR OCCUPATIONAL EXPOSURE

				Limit values (3)			:
Name of agent	EC No (¹)	CAS No (²)	mg/m ³ (4)	(⁵) mqq	f/ml (6)	Notation	Transitional measures
Hardwood dusts		_	2 (7)				Limit value 3 mg/m ³ until 17 January 2023
Chromium (VI) compounds which are carcinogens within the meaning of point (i) of	I	1	0,005	I	1	I	Limit value 0,010 mg/m ³ until 17 January 2025
Article 2(a) (as chromium)							Limit value: 0,025 mg/m³ for welding or plasma cutting processes or similar work processes that generate fume until 17 January 2025
Refractory ceramic fibres	_	_	-		0,3	_	
which are carcinogens within the meaning of point (i) of Article 2(a)							
Respirable crystalline silica dust			0,1 (8)				
Benzene	200-753-7	71-43-2	3,25	1	_	skin (9)	
Vinyl chloride monomer	200-831-0	75-01-4	2,6	1			
Ethylene oxide	200-849-9	75-21-8	1,8	1	_	skin (⁹)	
1,2-Epoxypropane	200-879-2	6-95-57	2,4	1	_		
Acrylamide	201-173-7	79-06-1	0,1		_	skin (9)	
2-Nitropropane	201-209-1	79-46-9	18	5	_	_	
o-Toluidine	202-429-0	95-53-4	0,5	0,1	_	skin (9)	

				Limit values (3)			
Name of agent	EC No (¹)	CAS No (²)	mg/m³ (4)	(¿) mdd	f/ml (⁶)	Notation	Transitional measures
1,3-Butadiene	203-450-8	106-99-0	2,2	1			
Hydrazine	206-114-9	302-01-2	0,013	0,01		skin (9)	
Bromoethylene	209-800-6	593-60-2 4,4	4,4	1			
CONSTRUCTION IN THE PROPERTY OF THE PROPERTY O							

EC No, i.e. Einecs, ELINCS or NLP, is the official number of the substance within the European Union, as defined in Section 1.1.1.2 in Annex VI, Part 1, to Regulation (EC) No 1272/2008. CAS No: Chemical Abstract Service Registry Number.

Measured or calculated in relation to a reference period of eight hours. $mg/m^3 = milligrams$ per cubic metre of air at 20° C and 101,3 kPa (760 mm mercury pressure). ppm = parts per million by volume in air (ml/m^3). f/ml = fibres per millilitre.

Inhalable fraction: if hardwood dusts are mixed with other wood dusts, the limit value shall apply to all wood dusts present in that mixture.

Respirable fraction.

Substantial contribution to the total body burden via dermal exposure possible.

ECCECEE

B. OTHER DIRECTLY RELATED PROVISIONS

p.m.'

Title: Implementation of the amended Carcinogens and Mutagens

Directive

IA No:

RPC Reference No:

Lead department or agency:

Health and Safety Executive

Other departments or agencies:

Impact Assessment (IA)

Date:

Stage: Consultation

Source of intervention: EU

Type of measure: Secondary Legislatio

Contact for enquiries:

Anne Strype Mike Zand

Summary: Intervention and Options

RPC Opinion: N/A

	Cost of Pref	erred (or more likely) Op	otion	
Total Net Present Value	Business Net Present Value	Net cost to business per year	One-In, Three- Out	Business Impact Target Status
Nil	Nil	Nil	Nil	Out of Scope

What is the problem under consideration? Why is government intervention necessary?

HSE estimates that every year around 3,500 people in the UK die from occupational cancer caused by exposure to carcinogenic chemicals, so it is important to control exposure to these substances.

The Carcinogens and Mutagens Directive provides the regulatory framework in the EU to help protect workers from risks related to exposure to Carcinogens and Mutagens at work.

The amended Carcinogens and Mutagens Directive was adopted on 27 December 2017 and published in the official journal of the European Union on 17 January 2018. The Directive sets 11 new occupational exposure limit values (OELVs) and amends 2 existing limit values for carcinogenic substances.

This impact assessment and consultation will focus on the initial limits to be introduced in January 2020. We will conduct a further impact assessment and consultation on the substances with an extended transposition date closer to the implementation dates of 2023 and 2025.

What are the policy objectives and the intended effects?

- To improve worker protection from carcinogenic substances.
- To ensure, where possible, consistency of application with other Government Departments.
- To ensure a level playing field across Member States.
- To fulfil the UK's obligations under EU law.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

The options considered are i) do nothing or ii) transpose the OELVs in EH40/2005, which is the preferred option. The requirements of the Carcinogens and Mutagens Directive are transposed in Great Britain via domestic legislation through the Control of Substances Hazardous to Health Regulations 2002 (COSHH) by amending the statutory table in the HSE publication EH40 Workplace Exposure Limits. Additional GB legislation is not required as the rest of the requirements of CMD are already covered by the COSHH Regulations. Equivalent measures will need to be taken in Northern Ireland and Gibraltar. Separate action will be required to amend the Mines Regulations 2014.

Will the policy be reviewed? It will be not be reviewed. If applicable, set review date:

Does implementation go beyond minimum EU requirements?		No		
Is this measurement likely to impact on trade and investment?		Yes / No /	N/A	
Does this measure comply with our international trade and investment oblincluding those arising under WTO agreement, UK free trade agreements Investment Treaties?		Yes/No/	N/A	
Are any of these organisations in scope?	Micro Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)		Traded: N/A	Non-t N/A	raded:

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

Date:

Summary: Analysis & Evidence

Policy Option 1

Description: Do Minimum – update table 1 of the HSE publication EH40 and amend COSHH Regulations FULL ECONOMIC ASSESSMENT

Price Base	PV Base	Time Period	Net	Benefit (Present Valu	ue (PV)) (£m)
Year N/A	Year N/A	Years N/A	Low: Nil	High: Nil	Best Estimate: Nil

COSTS (£m)	Total Tra (Constant Price)	ansition Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Nil		Nil	Nil
High	Nil	Nil	Nil	Nil
Best Estimate	Nil		Nil	Nil

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

As there are no significant additional costs to business estimated, this assessment is below the £5 million EANDCB de minimus limit. See 'Key assumptions/sensitivities/risks' below for further information.

Other key non-monetised costs by 'main affected groups' N/A

BENEFITS (£m)	Total Tra (Constant Price)	ansition Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Nil		Nil	Nil
High	Nil		Nil	Nil
Best Estimate	Nil	Nil	Nil	Nil

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

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

We do not expect significant health benefits from implementation of the 2020 limits, given that businesses complying with current requirements should not need to make changes to controls and, by consequence, exposure levels, if they are meeting current requirements. Health benefits may arise where implementation raises compliance with the requirements but these are not additional and are extremely difficult to quantify, so are not included in this assessment.

Key assumptions/sensitivities/risks

Discount rate (%)

This assessment estimates that there should not be significant additional costs to businesses from introducing the limits with a transposition date of 2020, given existing patterns of use, control or the current level of requirements in GB. There may be some impacts in practice in certain construction and manufacturing sectors, where it is possible that the new limits go beyond what is currently required, but these are not expected to exceed the de minimis limit of £5 million EANDCB. Our understanding of current use and control in GB will be tested during consultation.

There is potential for higher costs to these sectors in the future if the lower limits for Hardwood Dust and Chromium (VI) are transposed in January 2023 and 2025 respectively. The transitional periods are intended to negate some of the impact by providing time for industry to phase-in improvements in controls and working practices to achieve compliance with the lower OELVs. These will be subject to a separate consultation and assessment in the future, prior to implementation.

BUSINESS ASSESSMENT (Option 1)

Direct impact on	business (Equivalent Ann	ual) £m:	Score for Business Impact Target (qualifying
		provisions only) £m:	
Costs: Nil	Benefits: Nil	Net: Nil	N/A

1 Problem under consideration

1.1 Carcinogens and Mutagens Directive 2017/2398

- 1. On 13 May 2016 the European Commission, advised by SCOEL (Scientific Committee on Occupational Exposure Limits), published a proposal for an amendment to the Carcinogens and Mutagens Directive (CMD) 2017/2398 setting eleven new binding occupational exposure limit values (OELVs) and amending two existing values for carcinogenic substances. The Amending Directive was adopted on 27 December 2017 and must be transposed into UK law by 17 January 2020, with transitional arrangements for implementation of lower limits for Hardwood Dust (17 January 2023) and Chromium (VI) Compounds (17 January 2025).
- 2. OELVs are concentration limits for hazardous substances present in a workplace atmosphere where ill-health effects are likely to occur. Exposure to hazardous substances can have a wide range of damaging effects on human health, including developing cancer. There are many ways that humans can be exposed to these carcinogenic substances at work, which are influenced by the physical form of the substances, whether they readily evaporate or create dust, how they are used, and a number of other factors.
- 3. OELVs introduced by European Union (EU) Directives are transposed in Great Britain (GB) as Workplace Exposure Limits (WELs) via amendment to statutory table 1 in the Health and Safety Executive (HSE) publication EH40/2005.
- 4. During development of the Directive, the OELVs were discussed by the Working Party on Chemicals (WPC), a sub-group of the EU's tripartite Advisory Committee on Safety and Health at Work (ACSH), on which the UK is one of only four governments represented. The WPC opinions on appropriate exposure limit values for these substances were subsequently endorsed by the ACSH, which provides opinion on the recommendation to the European Commission.

1.2 Current GB regulatory framework

- 5. Great Britain and the rest of the United Kingdom has a well-established regulatory environment for the control of workplace risks associated with use of carcinogens and mutagens in the system of WELs and the COSHH Regulations.
- 6. With the development of the COSHH/WEL system, GB policy shifted from domestic limit setting to the adoption of European limits. This reflected the increasing efforts at a European level to develop and apply similar levels of control across the EU, avoided duplication of risk assessment work at the domestic level, and helps ensure that British business benefits from a level playing field with other EU Member States.

- 7. Under the existing GB regulatory framework, an employer's first objective must be to prevent exposure to carcinogens or mutagens. Carcinogenic or mutagenic substances should not be used, or processes carried on, if the employer can use a suitable non-hazardous or less hazardous substitute. If it is not reasonably practicable to prevent exposure to a carcinogen or mutagen, the employer must put into place all the measures and appropriate controls to reduce exposure to as low as is reasonably practicable.
- 8. Given the existing requirement to reduce exposures to as low as reasonably practicable, along with other factors such as customer pressure, developing technologies, and shifting market forces as well as a general drive on the part of industry to move away from use of hazardous substances HSE does not expect that implementation of the initial 2020 limits will result in significant additional costs to business. This is discussed further in Section 5.

2 Rationale for intervention

- 9. The UK is legally obliged to transpose the Directive and OELVs for thirteen substances into UK law by the transposition deadline of 17th January 2020.
- 10. The rationale for the approach to transposition follows the UK Government's Guiding Principles for EU Legislation. Whilst ensuring that standards are maintained, we will ensure that the UK does not go beyond the minimum requirements of the Directive.
- 11. Where possible, the UK will use copy-out from the Directive, except where doing so would adversely affect UK interests. In this case, the revised OELVs from the Annex to the Directive will be implemented as WELs in EH40/2005.
- 12. Effective implementation as proposed above will ensure the UK avoids infraction proceedings and associated costs for failure to fully implement the Directive.

2.1 Implementation date and scope of this impact assessment

- 13. Member states are required to transpose the Directive by 17 January 2020. There is an extended transitional period for the lower limits for Hardwood Dust (17 January 2023) and Chromium (VI) Compounds (17 January 2025). This extended period is granted in recognition of the particular technological challenges faced by these industries.
- 14. This impact assessment (IA) and the consultation will focus on the initial 2020 limits only (i.e. those set out in Table 1 Summary of existing and proposed limits by substance). A further impact assessment and consultation will be undertaken at a later stage, ahead of the 2023/2025 implementation dates.

3 Policy objectives

- 15. In considering the most appropriate method to transpose the requirements of the Directive, the policy objectives are:
 - To improve worker protection from carcinogens and mutagens.
 - To ensure, where possible, consistency of application with other UK Government Departments and Agencies.
 - To ensure a level playing field across Member States.
 - To bring the UK regime in line with the latest recommendations from SCOEL and to fulfil the UK's obligations under EU law.

4 Description of options considered

4.1 Do nothing

16. When considering options for transposition of the Directive within the IA, the 'do nothing' option was not considered viable as it would not deliver the policy objective and the UK's obligations under EU law. Therefore, the 'do nothing' or status quo option has not been analysed further in this IA, in accordance with Better Regulation guidance on IAs. It appears in this IA only as the notional baseline against which the other options are assessed.

4.2 Option 1: Do minimum – update table 1 of the HSE publication EH40

- 17. Option 1 is presented as the 'do minimum' option, which assesses the costs and benefits of implementing the Directive in a way that does not introduce new requirements which go beyond the scope of the Directive. In this option, HSE would implement the Directive by updating statutory table 1 of the HSE publication EH40/2005 Workplace Exposure Limits, which supports the requirements of the Control of Substances Hazardous to Health Regulations.
- 18. Separate action will be required to amend the Mines Regulations 2014.
- 19. Implementing the Directive in this way would minimise changes to existing arrangements, so this option is the least burdensome to duty holders who are already familiar with current requirements and the legislative framework. This option meets the requirement to implement the Directive and is achievable within the implementation timescale.
- 20. This 'do minimum' option will fully implement the Directive and limits burdens on businesses. It also maintains current standards, and in some cases offers additional protection for workers.

4.3 HSE's preferred Option

21. Option 1 is HSE's preferred option, as it implements the requirements of the Directive and places the minimum burden on UK business. It also minimises Ministerial and Parliamentary time and resource and helps keep the Regulations future-proof.

4.4 Summary of Proposed changes to substances

22. The amended Directive establishes OELVs for 11 substances and amends 2 existing values, which are summarised in Table 1 below. In the UK OELVs are transposed as Workplace Exposure Limits (WELs) and Short-Term Exposure Limits (STELs).¹

Table 1 - Summary of existing and proposed limits by substance

Substance	Current WEL	New WEL	Transposition date
Respirable Crystalline	0.1mg/m^3	0.1mg/m^3	17 January 2020
Silica – (RCS)			
Hardwood Dusts (inc	5mg/m ³	3mg/m ³	17 January 2020
mix)		$2mg/m^3*$	January 2023*
Chromium (VI)	0.05mg/m^3	0.010 mg/m ³ (non-	17 January 2020
Compounds		process-generated)	
		0.025mg/m ³ (process-	17 January 2020
		generated)	
		0.005mg/m^{3*} (for all)	17 January 2025*
Hydrazine	0.03mg/m^3	0.013mg/m ³ and skin**	17 January 2020
Acrylamide	0.3mg/m^3	0.1mg/m ³ and skin	17 January 2020
Refractory Ceramic	1f/ml	0.3f/ml	17 January 2020
Fibres			
Vinyl Chloride	7.8mg/m ³	2.6mg/m ³	17 January 2020
Monomer			
O-Toluidine	0.89mg/m^3	0.5mg/m ³ and skin	17 January 2020
1,3 Butadiene	22mg/m ³	2.2mg/m ³	17 January 2020
Bromoethylene (vinyl	None	4.4mg/m ³	17 January 2020
bromide)			
Ethylene Oxide	9.2mg/m ³	1.8mg/m ³ and skin	17 January 2020
1,2 Epoxypropane	12mg/m ³	2.4mg/m^3	17 January 2020
(propylene oxide)			
2-Nitropropane	19mg/m ³	18mg/m^3	17 January 2020

^{*} Indicates that these limits are out of scope of this assessment. See Section 2.1.

^{**} A skin notation assigned to a substance identifies the possibility of significant exposure through the skin which contributes to the total body burden of exposure and consequently to possible health effects.

¹ A WEL is defined as the concentration of a hazardous substance in the air that people breathe, averaged over a specified reference period referred to as a time-weighted average (TWA). Two periods are used: long-term exposure limit (8 hours) and short-term exposure limit (STEL) (15 minutes).

5 Monetised and non-monetised costs and benefits of each option (including administrative burden)

5.1 Baseline

23. Better Regulation Principles are that an IA should only capture those costs which are in addition to the current regulatory framework and any IA should assume 100% compliance with the proposed changes for any costs and benefits estimates, unless there is evidence to the contrary². So, it is assumed that industry is compliant with the current legislative requirements of COSHH under the existing legislative and only costs directly related to the additional requirements stemming from implementing the revised Directive will be considered in this assessment.

5.2 Research already undertaken

- 24. During the development and negotiation of the Directive, details of manufacturers, importers, formulators, and other users for all substances in question were obtained by relevant trade associations, literature and internet sources. HSE contacted the relevant organisations to gather information regarding potential impacts and ensured that, where possible, their views were taken into account at an early stage.
- 25. In addition, during the SCOEL process the draft recommendations underwent a stakeholder consultation to allow interested parties to submit health-based scientific comments and further data, and the European Commission (EC) also provided an IA on each of the substances. The information we have taken from these consultations has helped HSE understand the potential impacts of the proposed limits.
- 26. Based on this information, HSE prioritised substances based on the potential for significant costs to business in preparation for the present assessment. This process identified three substances: Chromium (VI) Compounds, Hardwood Dusts, and (to a lesser extent) 1,3 Butadiene. Further research effort has been focussed on these substances.
- 27. The evidence gathering undertaken to inform the present assessment is summarised below:
 - High-quality measurements of Hardwood Dust exposure and controls in woodworking sites, undertaken by HSE scientists, 'Updating the HSE evidence base on wood dust exposure risks in woodworking industries' (to be published).
 - On-line questionnaire. Hardwood Dust was identified in the EU IA as having the
 potential to incur costs for GB industry. A questionnaire targeted the wood-working
 industry was distributed through the Wood Safety Group (WSG) which is a group

- of trade associations which represent the sector. It received over 300 responses from businesses.
- Telephone interviews with trade associations for Chromium (VI) Compounds and Hardwood Dusts.
- Discussions with HSE occupational hygiene specialists and inspectors about current exposures and current legal requirements under the COSHH Regulations.
- Discussions with HSE 'Registration, Evaluation, Authorisation and Restriction of Chemicals' (REACH) specialists about restrictions for substances under REACH and the use of these substances in GB.
- Engagement via email with representative trade associations to validate use and current exposure levels on all substances.
- 28. In addition, we emailed key chemical industry associations to validate the assessment of 'no additional costs to business' arising from a change in the WEL for those substances indicated in Table 2 Overview of expected impact by substance. Throughout these activities, we also took the opportunity to gather early evidence on the impacts of lower limits for Chromium (VI) Compounds and Hardwood Dusts, in preparation for a future assessment and consultation.

5.3 Costs - Do nothing

29. Whilst this is not a valid option, as this proposal relates to the transposition of a European Directive, do nothing is used as the notional baseline.

5.4 Costs - Option 1: implement the Directive by establishing the new/revised OELV as a WEL in EH40/2005

- 30. Option 1 satisfies the requirement that new legally binding WELs be introduced into UK law to reflect those listed in the CMD.
- 31. An assessment of whether each new WEL would impose costs is presented below. Each assessment of cost is based on evidence provided by industry (through early initial consultation by SCOEL and the EU Commission) and HSE's occupational hygienists, economists and social researchers. The information presented reflects our best estimates given available information and will be subject to further revision following the formal consultation. Table 2 below provides a summary of the expected impact of implementing the revised WELs for 13 substances for ease of reference. Further detail substantiating the assessment is provided in the following sections.

Table 2 – Overview of expected impact by substance

Substance	No additional impact	Potential for some additional impact	Reason (see explanation below 1,2,3,4)
Respirable Crystalline Silica Dust - (RCS)	X		2
Hardwood Dusts (inc mix)		X	4
Chromium (VI) Compounds		X	4
Hydrazine	X		3
Acrylamide	X		3
Refractory Ceramic Fibres	X		3
Vinyl Chloride Monomer	X		3
O-Toluidine	X		3
1,3 Butadiene		X	4
Bromoethylene (vinyl bromide)	X		1
Ethylene Oxide	X		3
1,2 Epoxypropane (propylene oxide)	X		1
2-Nitropropane	X		2

Notes:

- Reason 1 There is very little/no manufacture or use in GB
- Reason 2 The new EU OELV is at or is very close to the current GB WEL
- Reason 3 Current practices already lead to compliance with the new WELs (e.g. because
 the substance is already used within closed systems) or is only used as an intermediate where
 there are already very high standards of control
- Reason 4 Known use in several sectors in GB and potential impact highlighted during negotiation phase of Directive

5.4.1 WELs with no additional impact

32. For all 10 substances listed in Table 1 under 'No Potential Impact', information was gathered from HSE specialists and industry stakeholders indicate that no additional costs are expected. The basis for this is summarised in Table 2 and discussed further below. The formal consultation period will be used to gather further evidence and information to confirm this assessment.

Substances with no/little manufacture or use in GB

- Bromoethylene: There is no current WEL set in GB for Bromoethylene, as there is no
 use of this substance in the GB. Therefore, there will be no additional costs for GB
 industry meeting the new WEL.
- 1,2 Epoxypropane: 1,2 Epoxypropane is used mainly in the manufacture of
 polyurethane and the production of propylene glycol. There are only a small number
 of workers exposed; the EC IA estimates between 35 to 75 workers are exposed during
 its manufacture across the EU. There are no known sites in the UK manufacturing 1,2
 Epoxypropane and it is only use is as an intermediate to manufacture other chemicals

and plastic products. Where being used as an intermediate, processing is usually in closed or automated systems where exposure levels are already tightly controlled. No issues or costs were raised during the validation exercise with the Chemical Industries Association (CIA).

Substances where the new EU OELV is at or very close to the current GB WEL

- 2-Nitroropane: 2-Nitropropane is used in the manufacture of chemicals, manufacture of aircraft and spacecraft. The current WEL in GB is 19 mg/m³ and the new WEL will be 18 mg/m³. As there will be no significant change, we expect that the standard of controls already in place will mean that industry will already be operating at or below the new WEL. No issues or costs were raised during the validation exercise with the CIA.
- Respirable Crystalline Silica (RCS): RCS exposure is prevalent in construction, quarrying, foundries, stoneworkers, manufacturing and mining; up to 500,000 workers in the UK may be exposed. The new EU OELV for RCS of 0.1 mg/m³ is the same as the current WEL in GB (except for mining activities see below) and so businesses would not be expected to do anything additional to what they should be doing now to reduce workers exposure to RCS.

In 2007, the WEL was disapplied for the mining sector and an action limit of 0.3 mg/m³ introduced (the level at which action must be taken to reduce exposure), due to mining operations' difficulties in meeting 0.1 mg/m³. In the development of this assessment, HSE contacted the Mining Industry Leadership Group in 2018, which advised that all except one or two of their members are now complaint with the 0.1mg/m³ WEL. One of these mines is yet to be developed and the other may be exhausted by the time the 2020 WEL comes in to force, so any potential impacts should be limited.

- 33. Substances where current practices already lead to compliance with the forthcoming WEL
 - Refractory Ceramic Fibres (RCFs): RCFs are used in manufacturing, fibre production, finishing, and installation and assembly operations. The EC IA estimates that 10,000 workers are exposed across the EU but does not provide a breakdown by country. HSE attended an industry meeting and gave a briefing on the change to the WEL in relation to RCFs. All the main associations were in attendance and no issues were raised regarding compliance costs or impacts.
 - Vinyl Chloride Monomer (VCM): VCM is mainly used in the manufacture of chemicals, and chemical products (VCM and polyvinyl chloride (PVC) production). The EC IA estimates that 15,000 workers are exposed to VCM at plants that produce VCM and/or PVC; they do not provide a breakdown by country. Informal consultation with the industry suggests that businesses have very high standards of control in place and should already be operating at or below the new WEL. The British Plastics Federation have confirmed there should be no consequences for downstream users of PVC resin. They also provided information that when PVC resin is supplied to EU markets by EU

manufacturers, businesses are already required to conform to the VCM requirements in the Food Contact Regulations 2004, where the maximum level of residual vinyl chloride should mean that any workplace exposures are below the new WEL.

- Ethylene Oxide: Ethylene Oxide is mainly used in the extraction of crude petroleum and natural gas, the manufacturing of chemicals and in the production of consumer goods. The EC IA suggest there are approximately 2,600 exposed workers in the UK, although it is unclear how they arrived at this figure. A review of the scientific literature conducted by the authors of the EC IA suggests that the current exposure levels in the EU are below the new EU OELV and therefore no additional costs or benefits are expected to industry. HSE occupational hygiene specialists agree that if GB businesses have the current control requirements in the COSHH Regulations, they will already be reducing exposure to the new WEL. In addition, its main use in GB is as an intermediate, where processing is usually in closed or automated systems where exposure levels are already tightly controlled. No issues or costs were raised during the validation exercise with the CIA.
- Acrylamide: Acrylamide is used in chemical, water treatment and manufacturing industries. 99.9% of acrylamide production is used in polyacrylamide manufacture using continuous process with good control measures already in place. The EC IA suggests there is one business that produces acrylamide in the UK but does not specify the number of businesses which use it as an intermediate. The EC IA also assumes that all workers across the EU are currently exposed to acrylamide at levels less than the new EU OELV resulting in no additional costs or benefits to industry. To validate this, HSE occupational hygiene specialists sought feedback from three companies in GB in 2012. The feedback suggests that any company that decants or repackages acrylamide or that uses it as an intermediate will not have to do anything to comply with the new WEL. There was one instance highlighted where there may be small costs³ but these would be minimal and not additional to current requirements under the COSHH Regulations.
- O-Toluidine: O-Toluidine is used in the manufacture of pigments and dyes.
 Discussions with HSE occupational hygiene specialists suggest that there is no
 manufacture of this substance in GB following a search for any users in 2011. It is
 however used in GB as an intermediate in the manufacture of other chemicals. Where
 a substance is used as an intermediate, processing is usually in closed or automated
 systems where exposure levels are already tightly controlled, resulting in exposure
 below the new WEL. No issues or costs were raised during the validation exercise with
 the CIA.
- Hydrazine: Hydrazine is mainly used in chemical, agriculture and water treatment
 industries in closed systems. The supplier imports and decants using closed systems
 and supplies in bespoke containers which connect to an enclosed system, so exposure
 is controlled to minimal levels. The new WEL is lower than the current WEL, however,
 as industry already has a very high standard of controls in place and use is in closed

³ The only type of company that could have an impact would be the manufacturer of acrylamide, of which the EC IA tells us there is only one in the UK. This manufacturer which responded to HSE were not able to estimate the costs to their own business in 2011 but were planning plant modifications, thus the costs are sunk.

systems, industry should have no problems in meeting the new WEL. Information provided by the Chemical Business Association (CBA) supports the assessment that use is in closed systems and that exposures should already be controlled to the new WEL.

34. For all the substances described above, as well as no additional cost in meeting the 2020 WELs, there should not be any additional monitoring costs because businesses should be monitoring already, to demonstrate compliance under the COSHH Regulations.

5.4.2 Potential Impact - Further information sought

- 35. For the three substances listed in Table 2 under 'Potential Impact' (Hardwood Dusts, Chromium (VI) Compounds and 1,3 Butadiene), consultations during the negotiation phase of the Directive (including those undertaken by SCOEL, the EU Commission and HSE) indicated the potential for additional costs to industry from implementation of the 2020 WELs. On this basis, further evidence gathering focused on activities where use and exposure to these substances occur (as described in Section 5.2). Following this research, we now do not expect significant additional costs to industry for these substances.
- 36. The potential impact of the 2020 WELs for these substances is discussed further below.

Hardwood Dusts

- 37. The current WEL for Hardwood Dusts (and its mixtures) is 5mg/m³. In implementing the Directive, the WEL would first be reduced in 2020 to 3mg/m³ and then to 2mg/m³ in 2023.
- 38. Occupational exposure to Hardwood Dust is prevalent in wood-working, furniture manufacturing and construction services. The wood-working industry is often described as being composed of activities related to the initial processing of wood (i.e. from raw timber, such as sawmills, planning and treatment) and further processing of wood (e.g. joinery, carpentry and wooden packages). Where Hardwood Dusts are mixed with other wood dusts, the WEL applies to all wood dusts present in that mixture.
- 39. The Inter-Departmental Business Register (IDBR) 2018⁴ suggests that around 41,000 business in GB work with Hardwood Dusts and/or mixtures⁵, and the EC IA estimates that between 350,000 and 400,000 employees may be exposed in the UK. Across the EU, the wood-working and furniture manufacturing industries are predominantly composed of small businesses (above 85%).

https://www.ons.gov.uk/business industry and trade/business/activity size and location/bulletins/ukbusiness activity size and location/2018

⁵ This is based on the three sectors outlined in the EC IA as; Manufacture of wood products (SIC:16), furniture manufacturing (SIC:31) and joinery installation (SIC:4332)

- 40. HSE exposure monitoring research on woodworking sites 'Updating the HSE evidence base on wood dust exposure risks in woodworking industries' (to be published) found that almost all businesses implementing and maintaining controls under current requirements, meet the 2020 WEL. A small percentage of exposure samples exceeded 3 mg/m³ (around 16%). Where samples were above 3 mg/m³, the report highlighted that simple and readily available improvements would see these businesses achieve adequate control under existing requirements. This study forms the basis of HSE occupational hygiene advice that businesses compliant with current requirements for adequate control should already meet the 3 mg/m³ WEL.
- 41.HSE undertook some supplementary research and consultation with the WSG (an industry group with representation from all major wood-working trade associations) via an on-line questionnaire, which received around 320 responses. The aim of the questionnaire was to gain a better understanding of the current level of controls and exposures in GB businesses. It also asked about potential compliance costs, but this focussed on moving to the 2023 WEL of 2mg/m³.
- 42. Although responses to the survey suggest that many businesses expect to incur costs in complying with 2 mg/m³ (and may do so to comply with 3 mg/m³), it demonstrates that many employers do not have the expected controls in place under current requirements and so based on HSE's research these costs are likely to reflect the implementation of adequate controls expected under current requirements. Where sample data was provided by businesses, the vast majority was below the 3mg/m³ WEL (around 75%), which supporting our assessment that businesses should already be able to achieve the 2020 WEL of 3mg/m³ with current effective controls.
- 43. Our evidence gathering is consistent with a study by the Institute of Occupational Medicine (IOM) carried out to inform the European Commission's impact assessment in 2011. They found, across the EU, average exposure to Hardwood Dusts is lower than the new 2020 WEL of 3 mg/m³.
- 44. On this basis, we conclude that there should not be any additional cost due to the 2020 WEL. Similarly, there should not be any additional monitoring costs for Hardwood Dust because businesses should be monitoring already, to demonstrate compliance under the existing COSHH Regulations.
- 45. There could be some additional costs for the lower WEL of 2 mg/m³ and work has already begun with the relevant industries to understand the potential impact. A further consultation on the lower WEL will take place at a later stage ahead of the January 2023 implementation date.

Chromium (VI) Compounds:

46. The current WEL for Chromium (VI) Compounds is 0.05 mg/m³. The WEL will first be reduced in 2020, to 0.025 mg/m³ for process-generated exposures (during welding)

and 0.010 mg/m³ for non-process-generated exposures. The latter is not considered further by this assessment because it is already well-controlled in enclosed systems or restricted by the (REACH) Regulations. The WEL for all sources of exposure will then be reduced further in 2025 to 0.005 mg/m³.

- 47. Chromium (VI) Compounds are not manufactured in GB but imported for use in metal coating, chromium production, catalyst manufacture and the manufacture of metal products. Occupational exposures take place principally in four broad sectors of the GB economy. The number of premises in GB as estimated in the 2018 Inter-Departmental Business Register are as follows:
 - Manufacture of metal structures and parts of structures: around 3,005 premises (SIC code: 2511)
 - Manufacture of steel drums and similar containers: around 30 premises (SIC code: 2591)
 - Manufacture of other fabricated metal products not elsewhere classified: around 3,390 premises (SIC code: 2599)
 - Treatment and coating of metals: around 1,295 premises (SIC code: 2561)
- 48. The activity of primary concern for exposure to Chromium (VI) Compounds is stainless steel welding. HSE analysts undertook a semi-structured telephone interview with a senior representative from The Welding Institute (TWI), an engineering institution that provides registration, certification and research of welding and joining for members across a vast range of industries. HSE estimates around 80,000 workers weld stainless steel in GB and so are exposed to Chromium (VI) Compounds, based on information provided by TWI.
- 49. Based on discussions with TWI, consideration of available controls and operational experience, HSE occupational hygienists advise that welding businesses which adopt adequate controls as per COSHH guidance, exposures should already be below the new 2020 WEL of 0.025 mg/m³. HSE will seek to validate this assessment with exposure measurement research currently being undertaken by TWI, in addition to consideration of public consultation responses.
- 50. Businesses in the treatment and coating of metals (which includes the use and removal of chromate paint) must apply under existing EU REACH regulations for authorisation from the EC to use Chromium (VI) Compounds and demonstrate a high level of control. Based on our discussions with HSE REACH specialists, we understand that these businesses are operating well within the new 2020 WEL. This is achieved through mechanical controls including isolation and automation of the coating work.

- 51. We validated this through a questionnaire sent to the members of the British Coatings Federation (BCF). The majority of BCF members who completed the questionnaire reported there would not be any additional costs because of the new 2020 WEL. One respondent indicated the potential for some additional control costs, although did not provide enough details on which to base any estimate.
- 52. With regards to businesses involved in electroplating of metals with Chromium (VI) Compounds, HSE contacted the Surface Engineering Association (SEA) to ask their members on the potential impact of the 2020 WEL. They confirmed that businesses should not incur additional costs in meeting the WEL, as they are already operating within it.
- 53. For businesses involved in the manufacture and use of chemicals with exposure to Chromium (VI) Compounds, HSE contacted the CIA to ask their members on the potential cost impact of the 2020 WEL. They only received one response, from a large chemicals manufacturer, which manufactures Chromium (VI) Compounds as a byproduct. The firm's monitoring data shows that they can already meet the new 2020 WEL without any additional cost.
- 54.On this basis, we conclude that there should not be significant additional cost to business from the new 2020 WEL of 0.025mg/m³ to industry. Similarly, there should not be any additional monitoring costs for Chromium (VI) Compounds because businesses should be monitoring already, to demonstrate compliance under the COSHH Regulations.
- 55. There is potential for significant additional costs due the lower 2025 WEL of 0.005mg/m³ and work has already begun with the relevant industries to understand the potential impact. A further consultation on the lower WEL will take place at a later stage ahead of the January 2025 implementation date.

1,3 Butadiene

- 56. The current WEL for 1,3 Butadiene is 22mg/m³. The WEL will be reduced in 2020 to 2.2mg/m³.
- 57.1,3 Butadiene is used in the manufacture of refined petroleum products and in the manufacture of rubber and neoprene products as a chemical intermediate. The EC IA estimates that 27,600 workers are potentially exposed in the EU. There are only a small number of producers and manufacturers of 1,3 Butadiene in GB, although businesses may use it in production of other chemicals. The EC IA suggests that approximately 2% of businesses across the EU will need to invest additional control measures to reduce exposure but that they would merely be bringing the investment forward. They did not provide specific figures for GB.
- 58. HSE has sought information through the CIA. One concern was raised referring to additional costs to business from a large chemicals manufacturer. However, we have

- since consulted with this business to confirm that the costs are for improvements to business operations rather than a direct impact from the lowering of the WEL.
- 59. On this basis, we do not expect significant additional cost to business from the new 2020 WEL for 1,3 Butadiene. Similarly, there should not be any additional monitoring costs for 1,3 Butadiene because businesses should be monitoring already, to demonstrate compliance under the COSHH Regulations.

5.5 Familiarisation costs

- 60. We expect familiarisation costs to be minimal. The WEL system is already well established in Great Britain and, as set out in Section 5.4, HSE does not expect that businesses complying with current requirements under COSHH will need to take additional action to comply with the new limits.
- 61. An amendment of the HSE publication EH40/Workplace Exposure Limits is normally launched with a press release, notifications to trade press and an announcement on the HSE website. If compliant with COSHH, businesses should have sufficient information about the occupational exposures their workers receive. This would mean that a brief review of the revised EH40 list would confirm they had no further action to take.
- 62. In practice, employers may decide to undertake monitoring to determine current exposures for workers. Given that COSHH already requires employers to undertake these measurements, these are not additional or attributable to the current assessment.

5.6 Summary of cost impacts

- 63. Based on HSE's informal consultations with occupational hygiene specialists, REACH colleagues, industry stakeholders and businesses, HSE does not expect significant additional costs from the implementation of the 2020 WELs. Exposures to the 13 substances are or should already be below the new WELs, either because: there is little or no use in GB; the new WEL is equal or similar to the current WEL; or the current requirements under COSHH regulations to reduce exposures to as low as reasonably practicable mean that industry should already have the necessary controls in place to meet the new WELs.
- 64. Most notably, it is unlikely that HSE will amend operational guidance on enforcement following the introduction of the 2020 WELs; that is, it is unlikely that HSE inspectors would expect to see additional controls relative to current requirements. Therefore, any costs incurred by business will reflect improved awareness of and compliance with existing requirements.

5.7 Health and Safety Benefits

- 65. The 11 substances with new binding OELVs and 2 substances with amended OELVs are known to be harmful to health and have the potential to cause occupational cancer. The potential benefits are a reduction in occupational cancer cases plus other occupational ill health arising from the same exposures.
- 66. Any reduction in new cases of occupational cancer would be realised over several decades, due to the long latency between exposures to carcinogens and any development of cancer. HSE's *Costs of Work-related Cancer* research estimates that the average case of work-related cancer results in costs to society of around £800,000, including costs to individuals, employers and government. This becomes a cost-saving for cases avoided due to improved exposure control.
- 67. The EC IA estimates potential for a reduction in 100,000 deaths over 50 years across the EU from the implementation of the Directive. Because of the level of existing requirements, HSE expects health benefits from the proposals would be much lower than indicated by a simple apportionment of the EU estimate. Given the assessment presented in Section 5.4 that, if complying with current requirements businesses should not need to take additional action to meet the new 2020 WELs, any health benefits realised in practice would reflect increased compliance with existing requirements, and so are not attributable to this assessment.

5.8 Other benefits

68. Failure to establish exposure limits in national law which take the new OELVs into account would be a breach of Treaty obligations, with the resulting likelihood of infraction proceedings being brought against the Government by the European Commission.

5.9 Proportionality of approach

- 69. This is an IA for a European Directive which must be implemented in the UK. Industry stakeholders across Europe have been widely consulted during the development of the Directive. Section 5.2 explains the considerable level of additional evidence gathering carried out by HSE to inform this assessment. Research effort was prioritised on the areas where potential costs were highlighted during the negotiation phase of the Directive (including SCOEL, the EU Commission HSE) for Chromium (VI) Compounds, Hardwood Dusts and to a lesser extent 1,3 Butadiene.
- 70. Evidence gathering has drawn on a range of sources, including the gathering of substantial primary data, such as on-site exposure measurements, bespoke questionnaire of wood-working businesses, and telephone interviews with trade associations. This has supplemented HSE's extensive operational, scientific and sector expertise to provide a sound and proportionate basis for the assessment.

71. HSE will use the formal public consultation to validate the present assessment and gather further information regarding any potential impact. Where consultation responses indicate further enquiry is necessary, HSE will undertake further, targeted evidence gathering to inform the final assessment.

5.10 Direct costs and benefits to business calculation

- 72. As there are no significant additional costs to business estimated, this assessment is below the £5 million EANDCB de minimus limit. On this basis, it is not subject to scrutiny by the Regulatory Policy Committee.
- 73. It is also not in scope of One In, Three Out or the Business Impact Target because the changes result from a European Directive and there are no areas in which the UK will go beyond the scope of the Directive.

5.11 Summary and preferred option

- 74. Option 1 is the preferred option: to implement the Directive by updating statutory table 1 of the HSE publication EH40/2005 Workplace Exposure Limits and adopting the transition periods for Hardwood Dusts and Chromium (VI) Compounds.
- 75. Implementing the Directive in this way would minimise changes to existing arrangements, so this option is the least burdensome to duty holders who are already familiar with current requirements and the legislative framework. This option meets the requirement to implement the Directive and is achievable within the implementation timescale.
- 76. This 'do minimum' option will fully implement the Directive in a way that does not introduce new requirements which go beyond the scope of the Directive and limits burdens on businesses. It also maintains current standards, and in some cases offers additional protection for workers. Given the level of existing requirements and current patters of use & control, the implementation of the 2020 WELs is not expected to result in significant additional costs to business and other employers.

Title: Amendments to the Mines Regulations 2014 for respirable	Impact Assessment (IA)	
crystalline silica (RCS) below ground in coal mines	Date: 12/06/2019	
IA No:	Stage: Consultation Source of intervention: EU	
RPC Reference No:		
Lead department or agency: Health and Safety Executive	Type of measure: Secondary legislation	
Other departments or agencies:	Contact for enquiries: Karen Daniels	
Summary: Intervention and Options	RPC Opinion: RPC Opinion status	

Cost of Preferred (or more likely) Option (in 2016 prices)				
Total Net Present Value	Business Net Present Value	Net cost to business per year	Business Impact Target Status	
			Qualifying provision	

What is the problem under consideration? Why is government intervention necessary?

Directive (EU) 2017/2398 amends the Carcinogens and Mutagens Directive (2004/37/EC) (CMD) and sets down new occupational exposure limit values (OELVs) for a number of carcinogens or mutagens. Importantly, it includes a new binding limit for exposure to RCS of 0.1mg/m³. OELVs are implemented into GB law by the Control of Substances Hazardous to Health Regulations 2002 (COSHH), in particular, the approved workplace exposure limits (WELs) set down in the EH40 publication.

GB already has an established WEL for respirable crystalline silica (RCS) of 0.1mg/m³, identical to the new EU limit, but that WEL is disapplied below ground in coal mines by the Mines Regulations 2014 (MR2014). Since 2007 HSE has permitted a concentration of up to 0.3mg/m³ of RCS below ground in coal mines, with MR2014 requiring remedial action to be taken at or above this level. Following the introduction of MR2014 all other COSHH requirements now apply below ground at coal mines. The current RCS WEL, and therefore the new EU limit, of 0.1mg/m³ already applies above ground at coal mines, and at all other mines.

The establishment of the new binding OELV for RCS means that we can no longer apply the higher limit of 0.3mg/m³ to coal mines below ground. MR2014 must be amended before the transposition deadline of 17 January 2020.

What are the policy objectives and the intended effects?

HSE proposes to make amendments to MR2014 to ensure the EU OELV for RCS of 0.1mg/m³ is applied below ground in coal mines. This will fulfil UK's obligations under EU law by transposing the full requirements of transposition of Directive (EU) 2017/2398.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Option 1 -The 'do nothing' option is the baseline. It is not a valid option as this proposal relates to the transposition of a European Directive.

Option 2 – Amend MR2014 to remove the disapplication of the COSHH WEL for RCS below ground in coal mines and other relevant changes in relation to the sampling of RCS. This is the preferred option to fully implement the requirements of the Directive.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: April/2025

Does implementation go beyond minimum EU requirements?	No				
Is this measurement likely to impact on trade and investment?	No				
Does this measure comply with our international trade and investment obligations, including those arising under WTO agreement, UK free trade agreements, and UK Investment Treaties?					
Are any of these organisations in scope? Micro Yes			Med Yes	dium	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)				Non-ti	raded:

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: Shaun Donaghy	Date :	12 June 2019
Shann D.	nechy	
	/]	

Summary: Analysis & Evidence

Policy Option 2

FULL ECONOMIC ASSESSMENT

Price Base	PV Base	Time Period	Net	Net Benefit (Present Value (PV)) (£m)	
Year: 2019	Year: 2019	Years: 10	Low: tbc	High: tbc	Best Estimate: tbc

COSTS (£m)	Total Tra (Constant Price)	nsition Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	tbc		tbc	tbc
High	tbc		tbc	tbc
Best Estimate	tbc		tbc	tbc

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

We do not expect there to be any additional costs to comply with the changes. The new EU OELV for RCS of 0.1 mg/m³ is the same as the current WEL in GB and so businesses would not be expected to do anything additional to what they should be doing now to reduce workers exposure to RCS.

We expect there to be some familiarisation costs, although these are estimated to be minimal. The WEL system is already well established in Great Britain. HSE does not expect that businesses complying with current requirements will need to take additional action to comply with the new limits in COSHH.

Given that there are so few mines not currently compliant with the new WEL and the 0.1mg/m³ WEL is already well established, we expect the total costs of the changes to be small, and below the de minimis.

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

BENEFITS (£m)	Total Tra (Constant Price)		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	nil		tbc	tbc
High	nil	nil	tbc	tbc
Best Estimate	nil		tbc	tbc

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

There are no estimated benefits to the industry.

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

For those mines that are not currently compliant with the 0.1mg/m³ WEL, we expect there to be some health and safety benefits as it offered additional protection to workers.

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

The key assumption in the IA is that all mines except one or two are already compliant and working to the 0.1mg/m³ WEL. This assumption has been tested informally with the Mining Industry Leadership Group, and although we will test this in consultation, we expect that this assumption will be correct.

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying
Costs: tbc	Benefits: tbc	Net: tbc	provisions only) £m: de minimis

Evidence Base (for summary sheets)

Carcinogens and Mutagens Directive 2017/2398

- On 13 May 2016 the European Commission, advised by SCOEL (Scientific Committee on Occupational Exposure Limits), published a proposal for an amendment to the Carcinogens and Mutagens Directive (CMD) 2017/2398 setting eleven new binding occupational exposure limit values (OELVs) and amending two existing values for carcinogenic substances. The Amending Directive was adopted on 27 December 2017 and must be transposed into UK law by 17 January 2020.
- 2. OELVs are concentration limits for hazardous substances present in a workplace atmosphere where ill-health effects are likely to occur. Exposure to hazardous substances can have a wide range of damaging effects on human health, including developing cancer. There are many ways that humans can be exposed to these carcinogenic substances at work, which are influenced by the physical form of the substances, whether they readily evaporate or create dust, how they are used, and a number of other factors.
- 3. OELVs introduced by European Union (EU) Directives are transposed in Great Britain (GB) as Workplace Exposure Limits (WELs) via amendment to statutory table 1 in the Health and Safety Executive (HSE) publication EH40/2005.
- 4. During development of the Directive, the OELVs were discussed by the Working Party on Chemicals (WPC), a sub-group of the EU's tripartite Advisory Committee on Safety and Health at Work (ACSH), on which the UK is one of only four governments represented. The WPC opinions on appropriate exposure limit values for these substances were subsequently endorsed by the ACSH, which provides opinion on the recommendation to the European Commission.
- 5. The Directive also classifies RCS as a carcinogen where it is generated as a result of a work process.
- 6. HSE has prepared a separate Impact Assessment (IA) for the implementation of the full eleven substances 'Implementation of the amended Carcinogens and Mutagens Directive'.. HSE's consultation on this closed 7 June 2019. A summary of responses to this consultation will be made available on the consultation webpage where they can be viewed by members of the public.
- 7. This IA is only in relation to implementing the EU OELV for RCS of 0.1mg/m3 below ground in coal mines.

Current GB regulatory framework

- 8. Great Britain and the rest of the United Kingdom has a well-established regulatory environment for the control of workplace risks associated with use of carcinogens and mutagens in the system of WELs and the COSHH Regulations.
- 9. Under the existing GB regulatory framework, an employer's first objective must be to prevent exposure to carcinogens or mutagens. If it is not reasonably practicable to prevent exposure to a carcinogen or mutagen, the employer must put into place measures and appropriate controls to ensure any WEL is not exceeded.
- 10. GB already has an established WEL for RCS of 0.1mg/m³, identical to the new EU limit, but that WEL is disapplied below ground in coal mines by the Mines Regulations 2014 (MR2014). Since 2007 HSE has permitted a concentration of up to 0.3mg/m³ of RCS below ground in coal mines, with MR2014 requiring remedial action to be taken at or above this level. Following the introduction of MR2014 all other COSHH requirements now apply below ground at coal mines. The current RCS WEL, and therefore the new EU limit, of 0.1mg/m³ already applies above ground at coal mines, and at all other mines.

- 11. The establishment of the new binding OELV for RCS means that we can no longer apply the higher limit of 0.3mg/m3 to coal mines below ground. MR2014 must be amended before the transposition deadline of 17 January 2020. The Directive also classifies RCS as a carcinogen where it is generated as a result of a work process.
- 12. HSE does not expect that implementation of the limit for RCS in coal mines below ground will result in significant additional costs to business.

Rationale for intervention

- 13. The UK is legally obliged to transpose the Directive and OELVs for RCS into UK law by the transposition deadline of 17th January 2020.
- 14. The rationale for the approach to transposition follows the UK Government's Guiding Principles for EU Legislation. Whilst ensuring that standards are maintained, we will ensure that the UK does not go beyond the minimum requirements of the Directive.

Implementation date and scope of this impact assessment

- 15. This impact assessment (IA) and the consultation will focus on the EU OELV of RCS and the effect on coal mines below ground only.
- 16. Effective implementation as proposed above will ensure the UK avoids infraction proceedings and associated costs for failure to fully implement the Directive.
- 17. We aim to gather evidence through a light and proportionate approach. Given the limited impact of the amendments, it has been decided that a consultation letter and questionnaire to coal mine operators who may be affected by the change is the most practical and efficient way of gathering information.
- 18. The evidence sought will determine whether the lowering of the RCS limit below ground at coal mines will be burdensome and if there will be difficulties with compliance.

Policy objectives

- 15. In considering the most appropriate method to transpose the requirements of the Directive, the policy objectives are:
 - To amend the MR2014 to remove the disapplication of the COSHH WEL for RCS below ground in coal mines and other relevant changes in relation to the sampling of RCS. This is the preferred option in order to fully implement the requirements of the Directive.
 - To bring the UK regime in line with the latest recommendations from SCOEL and to fulfil the UK's obligations under EU law.

Description of options considered

Option 1: Do nothing

16. When considering options for transposition of the Directive within the IA, the 'do nothing' option was not considered viable as it would not deliver the policy objective and the UK's obligations under EU law. Therefore, the 'do nothing' or status quo option has not been analysed further in this IA, in accordance with Better Regulation guidance on IAs. It appears in this IA only as the notional baseline against which the other options are assessed.

Option 2: Do minimum – Implement the Directive by amending MR2014

- 17. Option 2 is presented as the 'do minimum' option, which assesses the costs and benefits of implementing the Directive in a way that does not introduce new requirements which go beyond the scope of the Directive.
- 18. In this option, HSE would implement the Directive by amending MR2014 to ensure the requirements of the RCS WEL of 0.1mg/m³ and relevant duties in COSHH apply to coal mines below ground.

- 19. Implementing the Directive in this way would minimise changes to existing arrangements, so this option is the least burdensome to duty holders who are already familiar with RCS limit requirements and the legislative framework. This option meets the requirement to implement the Directive and is achievable within the implementation timescale.
- 20. This 'do minimum' option will fully implement the Directive and limits burdens on businesses. It also maintains current standards, and in some cases offers additional protection for workers.

HSE's preferred Option

21. Option 2 is HSE's preferred option, as it implements the requirements of the Directive and places the minimum burden on UK business. HSE are working with Maritime and Coastguard Agency (MCA) to have the amendments to MR2014 included in an amending SI to the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Carcinogens and Mutagens) Regulations 2007. This minimises Ministerial and Parliamentary time and resource.

Summary of Proposed changes to MR2014

- 22. The disapplication of the COSHH WEL for RCS below ground in coal mines in regulation 44 will be revoked. This will ensure the EU OELV for RCS of 0.1mg/m³ is applied below ground in coal mines. The reference to the RCS 'action level' of 0.3mg/m³ in regulation 2 will also be revoked.
- 23. Regulation 45 will be amended to remove all references to RCS. We are confident that the duties for monitoring of exposure in COSHH regulation 10 is sufficient to retain health and safety standards. The requirement for exposure to be 'monitored in accordance with a suitable procedure' based on the risk assessment may include suitable arrangement for the sampling of RCS. This will avoid duplication of duties.

Monetised and non-monetised costs and benefits of each option (including administrative burden)

Baseline

24. Better Regulation Principles are that an IA should only capture those costs which are in addition to the current regulatory framework and any IA should assume 100% compliance with the proposed changes for any costs and benefits estimates, unless there is evidence to the contrary. So, it is assumed that industry is compliant with the current legislative requirements of MR2014 and only costs directly related to the additional requirements stemming from implementing the amendments will be considered in this assessment.

Research already undertaken

- 25. During the development and negotiation of the amending Directive, details of manufacturers, importers, formulators, and other users for all substances in question were obtained by relevant trade associations, literature and internet sources. HSE contacted the relevant organisations to gather information regarding potential impacts and ensured that, where possible, their views were taken into account at an early stage.
- 26. In addition, during the SCOEL process the draft recommendations underwent a stakeholder consultation to allow interested parties to submit health-based scientific comments and further data, and the European Commission (EC) also provided an IA on each of the substances. The information we have taken from these consultations has helped HSE understand the potential impacts of the proposed limits. The evidence gathering undertaken to inform the present

- assessment is summarised in the consultation IA prepared for the 'Implementation of the amended Carcinogens and Mutagens Directive' contained in Consultation Document CD287.
- 27. The change of EU OELV for RCS in coal mines below ground may affect 8 operating coal mines below ground and an additional two mines in care and maintenance. plus any others that may be developed in the future (2 mines in the early stages of planning). HSE Mines Inspectorate have undertaken occupational health interventions at three of the coal mines all three mines had a respirable quartz (or RCS) concentration <0.01mg/m³, ie one-tenth of the new binding limit. Where mine operators already meet the existing WEL, we do not expect that businesses will need to alter significantly what they do now.

Costs - Option 1: Do nothing

28. Whilst this is not a valid option, as this proposal relates to the transposition of a European Directive, do nothing is used as the notional baseline.

Costs - Option 2: Do minimum - Implement the Directive by amending MR2014

- 29. Option 2 satisfies the requirement that the EU OELV for RCS as listed in the CMD will also apply to coal mines below ground.
- 30. The Directive also classifies RCS as a carcinogen where it is generated as a result of a work process. RCS exposure through a work process is present in mines; up to 80 workers in the UK may be exposed. The new EU OELV for RCS of 0.1 mg/m³ is the same as the current WEL in GB (except for mining activities as mentioned earlier) and so businesses would not be expected to do anything additional to what they should be doing now to reduce workers exposure to RCS.
- 31. In 2007, the WEL was disapplied for the mining sector and an action limit of 0.3 mg/m³ introduced (the level at which action must be taken to reduce exposure), due to mining operations' difficulties in meeting 0.1 mg/m³. In the development of this assessment, HSE contacted the Mining Industry Leadership Group in 2018, which advised that all except one or two of their members are now compliant with the 0.1mg/m³ WEL.
- 32. The consultation will seek to confirm our understanding that the mining industry, with the exception of one or two mines, are already compliant with the proposed new limit of 0.1mg/ m³.

Familiarisation costs

- 33. We expect familiarisation costs to be minimal. The WEL system is already well established in Great Britain. HSE does not expect that businesses complying with current requirements will need to take additional action to comply with the new limits in COSHH.
- 34. An amendment of the HSE publication EH40/Workplace Exposure Limits is normally launched with a press release, notifications to trade press and an announcement on the HSE website. If compliant with COSHH, businesses should have sufficient information about the occupational exposures their workers receive.
- 35. In practice, employers may decide to undertake sample monitoring to determine current exposures for workers. Given that MR2014 already requires employers to undertake these sampling duties, these are not additional or attributable to the current assessment.

Summary of cost impacts

- 36. Based on HSE's informal consultations with occupational hygiene specialists, REACH colleagues, industry stakeholders and businesses as gathered for the 'Implementation of the amended Carcinogens and Mutagens Directive', HSE does not expect significant additional costs from the implementation of the RCS WEL below ground in coal mines.
- 37. No additional costs are anticipated to those currently in place to control and monitor RCS exposure in coal mines below ground.

Health and Safety Benefits

- 38. RCS is known to be harmful to health and have the potential to cause occupational cancer. The Directive also classifies RCS as a carcinogen where it is generated as a result of a work process. The potential benefits are a reduction in occupational cancer cases plus other occupational ill health arising from the same exposures.
- 39. Any reduction in new cases of occupational cancer would be realised over several decades, due to the long latency between exposures to carcinogens and any development of cancer. HSE's Costs of Work-related Cancer research estimates that the average case of work-related cancer results in costs to society of around £800,000, including costs to individuals, employers and government. This becomes a cost-saving for cases avoided due to improved exposure control.

Other benefits

40. Failure to establish exposure limits in national law which take the new OELVs into account would be a breach of Treaty obligations, with the resulting likelihood of infraction proceedings being brought against the Government by the European Commission.

Proportionality of approach

- 41. This is an IA for the implementation of the EU OELV of 0.1mg/m³ for RCS as it applies below ground in coal mines which will ensure the UK's full implementation of a European Directive.
- 42. HSE will use the formal public consultation to validate the present assessment and gather further information regarding any potential impact. Where consultation responses indicate further enquiry is necessary, HSE will undertake further, targeted evidence gathering to inform the final assessment.

Direct costs and benefits to business calculation

- 43. As there are no significant additional costs to business estimated, this assessment is below the £5 million Equivalent Annual Net Direct Cost to Business (EANDCB) de minimis limit. On this basis, it is not subject to scrutiny by the Regulatory Policy Committee.
- 44. It is also not in scope of One In, Three Out or the Business Impact Target because the changes result from a European Directive and there are no areas in which the UK will go beyond the scope of the Directive.

Small and micro business

45. HSE intends that the proposed amendments would apply to small and micro business, as they to clarify duties that could benefit such firms. It is not thought the proposals would have a disproportionately negative impact on small firms and micro business. There would be no material change s to the standards industry are expected to comply with.

46. There are 10 known coal mines affected by the implementation of the EU OELV for RCS of 0.1mg/m³ (one medium and 9 micro business) with a total of 80 employees. If we were to exclude small and micro businesses from the legislation it would limit the effectiveness of the policy with respect to health and safety protection of those working at the mine. Cost and benefits for small and micro business are included within the estimates provided in this IA.

Summary and preferred option

47. Option 2 is the preferred option to implement the Directive by amending MR2014 and is achievable within the implementation timescale. This 'do minimum' option will fully implement the Directive in a way that does not introduce requirements which go beyond the scope of the Directive. It also offers additional protection for workers in a lowering of the exposure limit in coal mines below ground from 0.3mg/m³ to 0.1mg/m³. Where mine operators already meet the existing WEL, we do not expect that businesses will need to alter significantly what they do now.

STATUTORY RULES OF NORTHERN IRELAND

2019 No. 0000

HEALTH AND SAFETY

The Mines (Amendment) Regulations (Northern Ireland) 2019

Made - - - - ***

Coming into operation - ***

The Department for the Economy(\mathbf{a}), being the Department concerned(\mathbf{b}), makes the following Regulations in exercise of the powers conferred by Articles 2(5), 4(4) and (6), 17(1) to (6) and (8), 20(2), 40(2) and (4), 43(3), 45, 54(1) and 55(2) of, and paragraphs 1(1) to (4), 2, 3, 5 to 11, 12(1), 12(3), 13, 14(1), 15, and 17 to 20 of Schedule 3 to the Health and Safety at Work (Northern Ireland) Order 1978 ("the 1978 Order")(\mathbf{c}).

The Regulations give effect without modifications to proposals submitted to the Department by the Health and Safety Executive for Northern Ireland under Article $13(1A)(\mathbf{d})$ of the 1978 Order after consultations had been carried out in accordance with Article $46(3)(\mathbf{e})$ of the 1978 Order.

Citation and Commencement

1. These Regulations may be cited as the Mines (Amendment) Regulations (Northern Ireland) 2019 and come into operation on xxxx.

Amendment of the Mines Regulations (Northern Ireland) 2016

- **2.**—(1) The Mines Regulations (Northern Ireland) 2016(**f**) shall be amended as follows.
- (2) In regulation 2(1), for the definition of "action level" substitute—
 - ""action level" means in relation to respirable dust, a concentration in air equal to or greater than 3mg/m3 as a time-weighted average over a 40 hour period;".
- (3) Omit regulation 44.
- (4) In regulation 45—
 - (a) in paragraph (5) omit "and respirable crystalline silica"; and
 - (b) in paragraph (6) omit "or respirable crystalline silica" and "relevant".

⁽a) Formerly the Department of Enterprise, Trade and Investment; see 2016 c. 5, section 1(3); that Department was formerly the Department of Economic Development; see S.I. 1999/283 (N.I. 1), Article 3(5); that Department was formerly the Department of Manpower Services, see S.I. 1982/846 (N.I. 11), Article 3

⁽b) See Article 2(2) of S.I. 1978/1039 (N.I. 9)

⁽c) S.I. 1978/1039 (N.I. 9): the general purposes of Part II referred to in Article 17(1) were extended by S.I. 1992/1728 (N.I. 17), Articles 3(1) and 4(1). Articles 17(4) and 55(2) was amended and Article 20(2) substituted by S.I. 1998/2795 (N.I. 18), Article 6(1) and Schedule 1

⁽d) Article 13(1) was substituted by S.I. 1998/2795 (N.I. 18), Article 4

⁽e) Article 46(3) was amended by S.I. 1998/2795 (N.I. 18), Article 6(1) and Schedule 1, paragraphs 8 and 18

⁽**f**) S.R. 2016 No. 427

Sealed with the Official Seal of the Department for the Economy on ***



Colin Jack
A senior officer of the Department for the Economy

EXPLANATORY NOTE

(This note is not part of the Regulations)

HSENI EQUALITY SCREENING FORM

SECTION 75 EQUALITY OF OPPORTUNITY SCREENING TEMPLATE

This form should be completed when considering options for a new policy, service or programme, or changing an existing policy, service or programme.

Those policies identified as having significant implications for equality of opportunity must be subject to full EQIA.

The template will provide a record of the factors taken into account if a policy is screened out, or excluded for EQIA.

Please complete the Cover Sheet Table below

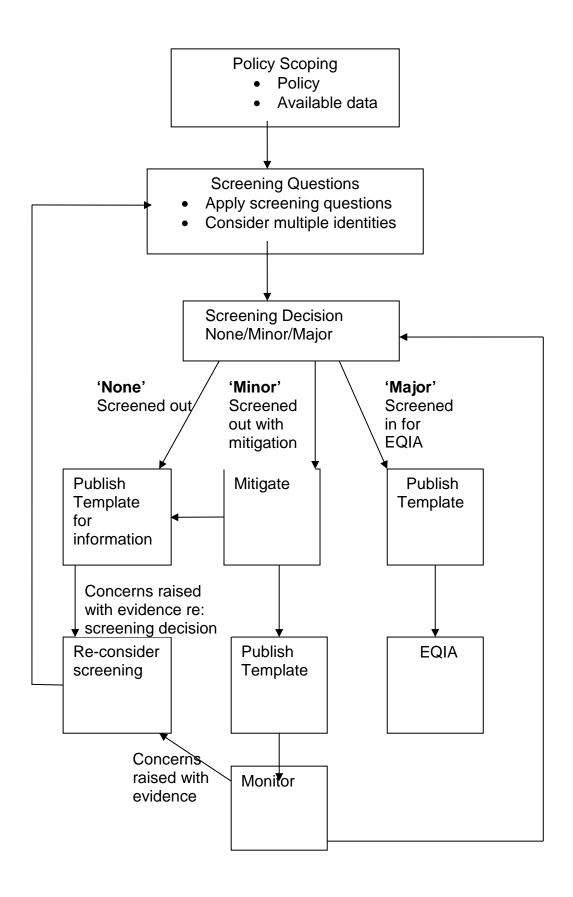
Policy Title (in full):	Carcinogens and Mutagens – Revision of limit values in EH40/2005 "Workplace Exposure Limits" and amendments to Mines Regulations (Northern Ireland) 2016
Policy Aim	The main aims of the policy are to improve worker protection from ill-health effects of exposure to carcinogens and mutagens in the workplace. The policy will fully implement, for Northern Ireland, Directive (EU) 2017/2398 which amends Directive 2004/37/EC, and will apply a new binding limit for Respirable Crystalline Silica below ground in coal mines.
Decision (delete as	The policy has been screened out without mitigation or an
appropriate)	alternative policy adopted
Business Area:	HSENI
Contact:	Philip Bryson
Date of form completion:	30 th July 2019

Screening flowchart and template (taken from Section 75 of the Northern Ireland Act 1998 – A Guide for public authorities April 2010 (Appendix 1)).

Introduction

- **Part 1. Policy scoping** asks public authorities to provide details about the policy, procedure, practice and/or decision being screened and what available evidence you have gathered to help make an assessment of the likely impact on equality of opportunity and good relations.
- **Part 2. Screening questions** asks about the extent of the likely impact of the policy on groups of people within each of the Section 75 categories. Details of the groups consulted and the level of assessment of the likely impact. This includes consideration of multiple identity and good relations issues.
- **Part 3. Screening decision** guides the public authority to reach a screening decision as to whether or not there is a need to carry out an equality impact assessment (EQIA), or to introduce measures to mitigate the likely impact, or the introduction of an alternative policy to better promote equality of opportunity and/or good relations.
- **Part 4. Monitoring** provides guidance to public authorities on monitoring for adverse impact and broader monitoring.
- **Part 5. Approval and authorisation** verifies the public authority's approval of a screening decision by a senior manager responsible for the policy.

A screening flowchart is provided below.



Part 1. Policy scoping

The first stage of the screening process involves scoping the policy under consideration. The purpose of policy scoping is to help prepare the background and context and set out the aims and objectives for the policy, being screened. At this stage, scoping the policy will help identify potential constraints as well as opportunities and will help the policy maker work through the screening process on a step by step basis.

Public authorities should remember that the Section 75 statutory duties apply to internal policies (relating to people who work for the authority), as well as external policies (relating to those who are, or could be, served by the authority).

Information about the policy

Name of the policy

Carcinogens and Mutagens – Revision of limit values in EH40/2005 "Workplace Exposure Limits" and amendments to Mines Regulations (NI) 2016

Is this an existing, revised or a new policy?

Revised policy

What is it trying to achieve? (intended aims/outcomes)

The intended aim of the policy is to implement, for Northern Ireland, Directive (EU) 2017/2398. This Directive amends Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens ("cancer forming") or mutagens ("a genetic mutating causing agent") within the workplace.

Implementation will be achieved as follows: -

- the Health and Safety Executive in Great Britain (HSE) plans to amend the statutory table in the HSE publication EH40/2005. HSENI will formally approve this document for use in Northern Ireland; and
- the Mines Regulations (Northern Ireland) 2016 will be amended to apply a new binding limit for respirable crystalline silica below ground in coal mines.

Are there any Section 75 categories which might be expected to benefit from the intended policy?

If so, explain how.

The policy is to improve worker protection from ill-health effects of exposure to carcinogens and mutagens in the workplace. The proposed measures will have a justified differential impact in respect of age as they relate primarily to workplaces and those of working age. All other Section 75 groups are expected to benefit equally from the proposed measures.

Who initiated or wrote the policy?

The policy arises as a result of Directive (EU) 2017/2398 of the European parliament and of the Council of 12 December 2017 amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.

HSENI intends to transpose the policy and the requirements of the Directive in Northern Ireland by formally approving the HSE owned publication EH40/2005, and by amending the Mines Regulations (Northern Ireland) 2016.

Who owns and who implements the policy?

Subject to approval of HSE owned publication EH40/2005 for use in Northern Ireland, the policy is owned and implemented by HSENI.

Implementation factors

Are there any factors which could contribute to/detract from the intended aim/outcome of the policy/decision?

No
If yes, are they:
□ financial
□ legislative
□ other - please specify

Main stakeholders affected

Who are the internal and external stakeholders (actual or potential) that the policy will impact upon?

- staff
- other public sector organisations
- ✓ voluntary / community/trade unions
- other please specify

Employers, employees and self employed

Other policies with a bearing on this policy

- what are they? An equivalent policy is being implemented in Great Britain.
- who owns them? HSE

Available evidence

Evidence to help inform the screening process may take many forms. Public authorities should ensure that their screening decision is informed by relevant data.

What evidence/information (both qualitative and quantitative) have you gathered to inform this policy? Specify details for each of the Section 75 categories.

Section 75 category	Details of evidence/ information
Religious belief	While there is no available data the implementation of Directive (EU) 2017/2398 will apply equally beneficially to all persons of different religious beliefs.
Political opinion	Although there is no available data the policy changes apply equally beneficially to all different political opinions.
Racial group	Although there is no available data the policy changes apply equally beneficially to all different racial groups.
Age	As the proposals relate primarily to workplaces they will have a justified differential impact on those of working age.

Marital status	Although there is no available data the policy changes apply equally beneficially irrespective of marital status.
Sexual orientation	Although there is no available data the policy changes apply equally beneficially irrespective of sexual orientation.
Men and women generally	Although there is no available data the policy changes apply equally beneficially to men and women generally.
Disability	Although there is no available data the policy changes apply equally beneficially to those with and without a disability.
Dependants	Although there is no available data the policy changes apply equally beneficially to those with and without dependants.

Needs, experiences and priorities

Taking into account the information referred to above, what are the different needs, experiences and priorities of each of the following categories, in relation to the particular policy/decision? Specify details for each of the Section 75 categories

Section 75 category	Details of needs/experiences/priorities
Religious belief	The proposals aim to ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace. Although there is no available data the policy changes apply equally beneficially to all persons with different religious beliefs.
Political opinion	Although there is no available data the policy changes apply equally beneficially to all persons with different political opinions.
Racial group	Although there is no available data the policy changes apply equally beneficially to all persons of different racial groups.
Age	As the proposals relate primarily to workplaces they will have a justified differential impact on those of working age. The main aims and objectives of the proposals are ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace.

Marital status	Although there is no available data the policy changes apply equally beneficially irrespective of marital status.
Sexual orientation	Although there is no available data the policy changes apply equally beneficially irrespective of sexual orientation.
Men and women generally	Although there is no available data the policy changes apply equally beneficially to men and women generally.
Disability	Although there is no available data the policy changes apply equally beneficially to those with and without a disability.
Dependants	Although there is no available data the policy changes apply equally beneficially to those with and without dependants.

Part 2. Screening questions

Introduction

In making a decision as to whether or not there is a need to carry out an equality impact assessment, the public authority should consider its answers to the questions 1-4 which are given on pages 10-12 of this Guide.

If the public authority's conclusion is <u>none</u> in respect of all of the Section 75 equality of opportunity and/or good relations categories, then the public authority may decide to screen the policy out. If a policy is 'screened out' as having no relevance to equality of opportunity or good relations, a public authority should give details of the reasons for the decision taken.

If the public authority's conclusion is <u>major</u> in respect of one or more of the Section 75 equality of opportunity and/or good relations categories, then consideration should be given to subjecting the policy to the equality impact assessment procedure.

If the public authority's conclusion is **minor** in respect of one or more of the Section 75 equality categories and/or good relations

categories, then consideration should still be given to proceeding with an equality impact assessment, or to:

- measures to mitigate the adverse impact; or
- the introduction of an alternative policy to better promote equality of opportunity and/or good relations.

In favour of a 'major' impact

- a) The policy is significant in terms of its strategic importance;
- b) Potential equality impacts are unknown, because, for example, there is insufficient data upon which to make an assessment or because they are complex, and it would be appropriate to conduct an equality impact assessment in order to better assess them;
- c) Potential equality and/or good relations impacts are likely to be adverse or are likely to be experienced disproportionately by groups of people including those who are marginalised or disadvantaged;
- d) Further assessment offers a valuable way to examine the evidence and develop recommendations in respect of a policy about which there are concerns amongst affected individuals and representative groups, for example in respect of multiple identities;
- e) The policy is likely to be challenged by way of judicial review;
- f) The policy is significant in terms of expenditure.

In favour of 'minor' impact

- a) The policy is not unlawfully discriminatory and any residual potential impacts on people are judged to be negligible;
- b) The policy, or certain proposals within it, are potentially unlawfully discriminatory, but this possibility can readily and easily be eliminated by making appropriate changes to the policy or by adopting appropriate mitigating measures;
- Any asymmetrical equality impacts caused by the policy are intentional because they are specifically designed to promote equality of opportunity for particular groups of disadvantaged people;

d) By amending the policy there are better opportunities to better promote equality of opportunity and/or good relations.

In favour of none

- a) The policy has no relevance to equality of opportunity or good relations.
- b) The policy is purely technical in nature and will have no bearing in terms of its likely impact on equality of opportunity or good relations for people within the equality and good relations categories.

Taking into account the evidence presented above, consider and comment on the likely impact on equality of opportunity and good relations for those affected by this policy, in any way, for each of the equality and good relations categories, by applying the screening questions given overleaf and indicate the level of impact on the group i.e. minor, major or none.

Screening questions

1 What is the likely impact on equality of opportunity for those affected by this policy, for each of the Section 75 equality categories? minor/major/none		
Section 75 category	Details of policy impact	Level of impact? minor/major/none
Religious belief	The policy is technical in nature and will have no impact on equality of opportunity and good relations. The proposals aim to ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace; they therefore apply equally to all persons of different religious beliefs.	None
Political opinion	The policy is technical in nature and will have no impact on equality of opportunity and good relations. The proposals aim to ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens	None

	and mutagens in the workplace; they therefore apply equally to all persons of different political opinions.	
Racial group	The policy is technical in nature and will have no impact on equality of opportunity and good relations. The proposals aim to ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace; they therefore apply equally to all persons of different racial groups.	None
Age	The policy is technical in nature and will have no impact on equality of opportunity and good relations. The proposals aim to ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace. As the proposals relate primarily to workplaces they will have a justified differential impact on those of working age.	None
Marital status	The policy is technical in nature and will have no impact on equality of opportunity and good relations. The proposals aim to ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace; they therefore apply equally irrespective of marital status.	None
Sexual orientation	The policy is technical in nature and will have no impact on equality of opportunity and good relations. The proposals aim to ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace; they therefore apply equally irrespective of sexual orientation.	None
Men and women generally	The policy is technical in nature and will have no impact on equality of opportunity and good relations. The proposals aim to ensure that occupational exposure limit values are in place to protect workers from	None

	ill-health effects of exposure to carcinogens and mutagens in the workplace; they therefore apply equally between men and women generally.	
Disability	The policy is technical in nature and will have no impact on equality of opportunity and good relations. The proposals aim to ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace; they therefore apply equally to those with or without a disability.	None
Dependants	The policy is technical in nature and will have no impact on equality of opportunity and good relations. The proposals aim to ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace; they therefore apply equally to those persons with or without dependants.	None

2 Are there opportunities to better promote equality of opportunity for people within the Section 75 equalities categories?		
Section 75 category	If Yes , provide details	If No , provide reasons
Religious belief		No adverse impact to any of the Section 75 Groups is anticipated and the policy has no relevance to the promotion of equality of opportunity.
Political opinion		As above.
Racial group		As above.
Age		As above.
Marital status		As above.

Sexual orientation	As above.
Men and women generally	As above.
Disability	As above.
Dependants	As above.

3 To what extent is the policy likely to impact on good relations between people of different religious belief, political opinion or racial group? minor/major/none

Good relations category	Details of policy impact	Level of impact minor/major/none
Religious belief	The proposals aim to ensure that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace and will not impact on good relations.	None
Political opinion	As above.	None
Racial group	As above.	None

4 Are there opportunities to better promote good relations between people of different religious belief, political opinion or racial group?

Good relations category	If Yes , provide details	If No , provide reasons
Religious belief		The proposals will apply equally beneficially to all of the Section 75 Groups and to other groups and have no relevance to the promotion of good relations between people of different religious belief, political opinion or racial group.

Political opinion	As above.
Racial group	As above.

Additional considerations

Multiple identity

Generally speaking, people can fall into more than one Section 75 category. Taking this into consideration, are there any potential impacts of the policy/decision on people with multiple identities? (For example; disabled minority ethnic people; disabled women; young Protestant men; and young lesbians, gay and bisexual people).

Not applicable

Provide details of data on the impact of the policy on people with multiple identities. Specify relevant Section 75 categories concerned.

While there is no available data, the proposals implement in part the Directive and aim to ensure that occupational exposure limit values are in place to protect workers from chemical risk, and a new binding limit for Respirable Crystalline Silica in below ground coal mines. No adverse impact to any of the Section 75 groups is anticipated including those with multiple identities.

Part 3. Screening decision

If the decision is not to conduct an equality impact assessment, please provide details of the reasons.

The policy is designed to protect persons in the workplace from carcinogenic and mutagenic hazardous substances. The policy therefore does not fall within the remit of section 75 of the Northern Ireland Act 1998 with regards to HSENI and its functions to have due regard to the need to promote equality of opportunity.

The proposals aim to ensure that Directive (EU) 2017/2398 is implemented in Northern Ireland and that occupational exposure limit values are in place to protect workers from ill-health effects of exposure to carcinogens and mutagens in the workplace; they therefore address a need common to all the Section 75 groups.

If the decision is not to conduct an equality impact assessment the public authority should consider if the policy should be mitigated or an alternative policy be introduced.

As above. There are no grounds for mitigation or alternative policies.

If the decision is to subject the policy to an equality impact assessment, please provide details of the reasons.

Not applicable.

All public authorities' equality schemes must state the authority's arrangements for assessing and consulting on the likely impact of policies adopted or proposed to be adopted by the authority on the promotion of equality of opportunity. The Commission recommends screening and equality impact assessment as the tools to be utilised for such assessments. Further advice on equality impact assessment may be found in a separate Commission publication: Practical Guidance on Equality Impact Assessment.

Mitigation

When the public authority concludes that the likely impact is 'minor' and an equality impact assessment is not to be conducted, the public authority may consider mitigation to lessen the severity of any equality impact, or the introduction of an alternative policy to better promote equality of opportunity or good relations.

Can the policy/decision be amended or changed or an alternative policy introduced to better promote equality of opportunity and/or good relations?

If so, give the **reasons** to support your decision, together with the proposed changes/amendments or alternative policy.

NI (P II	
Not applicable.	

Timetabling and prioritising

Factors to be considered in timetabling and prioritising policies for equality impact assessment.

If the policy has been '**screened in**' for equality impact assessment, then please answer the following questions to determine its priority for timetabling the equality impact assessment.

On a scale of 1-3, with 1 being the lowest priority and 3 being the highest, assess the policy in terms of its priority for equality impact assessment.

Priority criterion	Rating (1-3)
Effect on equality of opportunity and good relations	
Social need	
Effect on people's daily lives	
Relevance to a public authority's functions	

Note: The Total Rating Score should be used to prioritise the policy in rank order with other policies screened in for equality impact assessment. This list of priorities will assist the public authority in timetabling. Details of the Public Authority's Equality Impact Assessment Timetable should be included in the quarterly Screening Report.

Is the policy affected by timetables established by other relevant public authorities?

If yes, please provide details

Part 4. Monitoring

Public authorities should consider the guidance contained in the Commission's Monitoring Guidance for Use by Public Authorities (July 2007).

The Commission recommends that where the policy has been amended or an alternative policy introduced, the public authority should monitor more broadly than for adverse impact (See Benefits, P.9-10, paras 2.13 – 2.20 of the Monitoring Guidance).

Effective monitoring will help the public authority identify any future adverse impact arising from the policy which may lead the public authority to conduct an equality impact assessment, as well as help with future planning and policy development.

Part 5 - Approval and authorisation

Vanlelliee_

Signed:

Paul Moore - Head of

Group

Division: HSENI - Services

Date: 30 July 2019

Names of Consultees

Action for Children

Action on Hearing Loss (AHL)

Action Mental Health (AMH)

Advice NI

AE Global (Allpipe Engineering Ltd.)

AES

Age NI

Age Sector Platform

Agency for the Legal Deposit Libraries

Alliance Party

An Munia Tober

Archbishop of Armagh and Primate of all Ireland

Ards Business Centre Ltd.

Argyle Business Centre Ltd.

Armagh Business Centre Ltd.

Aspergers Network NI

Attorney General (NI)

Autism NI

Ballymena Business Centre Ltd.

Banbridge Enterprise Centre

Bar Council

Barnardos

Belfast Butterfly Club

Belfast Centre for the Unemployed

Belfast City Centre Management

Belfast Harbour Commissioners

Belfast Health and Social Care Trust

Belfast Hebrew Congregation

Belfast Islamic Centre

Belfast MET

Belfast Solicitors Association

Bishop of Down and Connor

Board of Deputies of British Jews

BOC

Bombardier

British Council

British Constructional Steelwork Association (BCSA)

Bryson House

Bryson Intercultural

Buildhealth NI

Business in the Community

Calor Gas (NI) Ltd.

Cancer Focus NI

Cara Friend

Carers NI

Carrickfergus Enterprise Agency Ltd.

Catholic Bishops of Ireland

Causeway Enterprise Agency Ltd

Cedar Foundation

Chartered Institute of Environmental Health NI

Chemical Business Association

Chief Constable, PSNI

Chief Officers 3rd Sector (CO3)

Children in Northern Ireland (CINI) (inc. Participation Network)

Children's Law Centre

Chinese Chamber of Commerce

Chinese Welfare Association

Church of Ireland

Citizens Advice

Commission for Victims and Survivors

Commissioner for Older People NI

Committee on the Administration of Justice

Communication Workers Union (CWU)

Community Foundation NI

Community NI

Community Relations Council

Construction Employers' Federation (CEF)

Construction Industry Training Board NI (CITB)

Consumer Council for NI

Cookstown Enterprise Centre Ltd.

Co-Operation Ireland

Council for Catholic Maintained Schools

Council of District Judges (NI)

Countryside Services

Craigavon Industrial Development Organisation Ltd.

Creggan Enterprises Ltd.

Dalradian Gold Ltd.

Democratic Unionist Party (DUP)

Disability Action

Disability Equality NI

District Councils in NI (11)

Driver and Vehicle Testing Agency

Du Pont (UK) Industrial Ltd.

Dungannon Enterprise Centre Ltd.

East Belfast Community Development Agency

East Belfast Enterprise Park Ltd.

East Belfast Partnership Board

Education Authority

Employers for Disability NI

Energy NI

Engineering Employers' Federation NI (EEF)

Equality Coalition

Equality Commission NI

European Commission Office in NI

Evangelical Alliance

Executive Council of the Inn of Court of NI

Falls Community Council

Federation of Master Builders

Federation of Small Businesses

Fermanagh Enterprise Ltd.

Fire Brigades Union

Firmus Energy

Focus: Identity Trust

Food Standards Agency NI

Forensic Science Agency of NI

Foyle Women's Information Network

Freight Transport Association

Galantas Irish Gold Ltd.

GEDA Construction

GMB

Grand Orange Order

Gray & Adams (Ireland) Ltd

Greater Shankill Partnership

Green Party

Guide Dogs

Harland and Wolff Heavy Industries Ltd.

Health and Safety Executive

Health and Social Care Board (inc Central Services Agency)

Heron Brothers Ltd.

HM Council of County Court Judges

HM Revenue and Customers

Include Youth

Inclusive Mobility and Transport Advisory Committee (IMTAC)

INCORE Conflict Resolutions Ltd.

Indian Community Centre

Industrial Court

Industrial Tribunal & Fair Employment Tribunal (NI)

Information Commissioner's Office

Institute of Civil Engineers

Institute of Directors (NI Division)

Institute of Quarrying

Institution of Structural Engineers

InterTrade Ireland

Invest NI

Irish National Teachers' Organisation (INTO)

Irish Organic Minerals Ltd

Irish Salt Mining Company Ltd.

Kesh Development Association

Labour Relations Agency

Lagan 106 Limited

Larne Development Forum

Law Centre (NI)

Law Society of NI

Local Government Staff Commission for NI

Lonmin (NI) Ltd

Lord Chief Justice Office

Magherafelt Womens Group

Mallusk Enterprise Park

Maritime and Coastguard Agency

McClay Library, QUB

MENCAP

Mens Health Forum

MEPs for NI (3)

Methodist Church

Mindwise

Ministry of Defence

Miskelly Brothers Ltd

MPs for NI (18)

Musicians Union

Mutual Energy Ltd.

NASUWT

National Library of Ireland

Newry and Mourne Enterprise Agency

NI Assembly - Clerk of the Economy Committee

NI Assembly - Library

NI Assembly - MLAs (90)

NI Assembly - The Speaker

NI Association for the Care and Resettlement of Offenders (NIACRO)

NI Association for Mental Health (NIAMH)

NI Audit Office

NI Authority for Utility Regulation

NI Centre for Competitiveness

NI Chamber of Commerce & Industry

NI Commissioner for Children and Young People (NICCY)

NI Committee/Irish Congress of Trade Unions (NIC/ICTU)

NI Council for Voluntary Action (NICVA)

NI Court Service

NI Courts and Tribunal Service

NI Electricity

NI Environment Link

NI Executive Ministers (12) (c/o Private Offices)

NI Fire and Rescue Service (NIFRS)

NI Gay Rights Association (NIGRA)

NI Government Departments (9)

NI Housing Executive (NIHE)

NI Human Rights Commission

NI Judicial Appointments Commission

NI Law Commission

NI Local Government Association (NILGA)

NI Prison Service

NI Public Service Alliance (NIPSA)

NI Public Service Ombudsman (NIPSO)

NI Rural Womens Network

NI Safety Group (NISG)

NI Screen

NI Statistics and Research Agency (NISRA)

NI Water

NI Women's European Platform (NIWEP)

North City Business Centre Ltd.

North Down Development Organisation Ltd.

North Ridge Exploration Ltd

North / South Ministerial Council (NSMC)

North West Community Network

North West Regional College

Northern Group

Northern Health and Social Care Trust

Northern Regional College

NSPCC, Northern Ireland Regional Office

NUS/USI (NI Student Centre)

Occupational Health Service (OHS)

Organic Minerals Ireland Ltd

Orica Blast and Quarry Services Ltd

Omagh Enterprise Co. Ltd.

Omagh Minerals Ltd.

Open University

Ormeau Enterprises Ltd.

Participation and the Practice of Rights (PPR)

PCM Associates - Training & Consultancy Services

People Before Profit Alliance (PBPA)

Pharmaceutical Society of NI

Phoenix Natural Gas

POBAL

Police Federation for NI

Police Service of Northern Ireland (PSNI)

PRAXIS

Presbyterian Church

Prince's Trust

Progressive Unionist Party (PUP)

Prospect

Quarry Products Association NI

Queen's University

Rainbow Project

Relate

Roy Coulter Consulting Ltd.

Royal College of Midwives

Royal Institution of Chartered Surveyors (RICS)

Royal National Institute for the Blind (NI) (RNIB)

Royal Society of Ulster Architects (RSUA)

Rural Community Network

Rural Development Council

St. Marys University College

St. John Ambulance NI

Save the Children

Scotia Gas Networks (SGN)

Scotts Electrical

Seagate Technology (Ireland)

Sense

Services Industrial Professional Technical Union (SIPTU)

Sinn Fein (SF)

Social Democratic & Labour Party (SDLP)

South Belfast Partnership Board

South Eastern College

South Eastern Health and Social Care Trust

South West College

South West Fermanagh Development Organisation

Southern Health and Social Care Trust

Southern Regional College

SSE Airtricity Energy Supply (NI) Ltd

Strabane Industrial Properties Ltd.

Stranmillis University College

Tennants Textile Colours Ltd.

Tourism Ireland

Tourism NI

Townsend Enterprise Park Ltd.

Traditional Unionist Voice (TUV)

Training for Women Network

Trans Forum

Translink

Transport Salaried Staff Association

UK Independence Party (UKIP)

UK National Committee of UN Women

Ulster Farmers' Union (UFU)

Ulster Scots Agency

Ulster Teachers' Union

Ulster Unionist Party (UUP)

Union of Construction, Allied Trades and Technicians (UCATT)

UNISON

Unite the Union

University & College Union

University of Ulster

Visual Access NI

Volunteer Now

West Belfast Development Trust Ltd.

West Belfast Partnership Board

Western Health and Social Care Trust

Westlink Enterprise Ltd.

William Keown Trust

Women's Forum

Women's Information Group

Women's Resource and Development Agency

Women's Support Network

Women's Training, Enterprise and Childcare

Workers' Party

Workspace