

Impact Assessment on the proposal for new Regulations on health and safety in mines IA No: HSE0089 Lead department or agency: Health and Safety Executive (HSE) Other departments or agencies:	Impact Assessment (IA)		
	Date: August 2014		
	Stage: Validation		
	Source of intervention: Domestic		
	Type of measure: Secondary legislation		
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Summary: Intervention and Options			RPC Validation: Awaiting scrutiny

Cost of Preferred (or more likely) Option			
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Two-Out? Measure qualifies as
£4.09m	£2.05m	-£0.19m	Yes OUT

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

As part of his independent review into health and safety legislation, Professor Ragnar Löfstedt recommended that this suite of legislation should be consolidated. Government intend to do this by repealing/revoking the majority of the current regulations and carrying forward those provisions that deliver necessary safety controls into a new single set of simpler, shorter Regulations. The unique nature of underground mining and the related hazards has resulted in 47 specific pieces of mining health and safety legislation which have been introduced over time, mainly in response to incidents and other concerns.

What are the policy objectives and the intended effects?

HSE proposes to replace the existing law with a single, modern set of Regulations that retain necessary protection for workers and others and clearly place the duties to ensure health and safety on the mine operator. HSE would take the opportunity to remove outdated and redundant legislation, prescription and duplication. The intention is to neither reduce nor add to those existing substantive duties which are vital to mine safety. It is also an opportunity to replace the accompanying Approved Codes of Practice (ACOPs) that support the legislative framework.

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 the preferred option as it would not deliver the savings and simplifications of Option 2, nor deliver on Professor Löfstedt's recommendations.

Option 2 – Replace existing volumes of health and safety mining legislation with a single set of Regulations that retain controls over specific mining hazards but without the extensive prescription, while ensuring continued implementation of the Extractive Industries Directive. This is the preferred option, as it would deliver, within the timescale set by Government in its response to Professor Löfstedt's report, a simpler and more modern regime with emphasis on assessing and managing risk.

A more radical approach developing a legal framework introducing a permissioning regime, similar to the other HSE regulated major hazards, was considered, but rejected as it is not practical in the timescale.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: December 2019

Does implementation go beyond minimum EU requirements?			Yes		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	Micro Yes	< 20 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-traded: N/a

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

Signed by the responsible SELECT SIGNATORY: _____ Date: _____

Summary: Analysis & Evidence

Policy Option 1

Description: To do nothing i.e. maintain the status quo

FULL ECONOMIC ASSESSMENT

Price Base Year 2013	PV Base Year 2014	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: Nil	High: Nil	Best Estimate: Nil

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Nil	1	Nil	Nil
High	Nil		Nil	Nil
Best Estimate	Nil		Nil	Nil

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

There are no costs associated with this option, being the baseline.

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

There would be reputational costs to HSE in not delivering on the stated commitment to implementing Professor Löfstedt's recommendations.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Nil	1	Nil	Nil
High	Nil		Nil	Nil
Best Estimate	Nil		Nil	Nil

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

There are no benefits associated with this option, being the baseline case

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

There are no non-monetised benefits

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

Not applicable to this option, being the baseline case

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: Nil	Benefits: Nil	Net: Nil	N/a	N/a

Summary: Analysis & Evidence

Policy Option 2

Description: To repackage all relevant and necessary provisions into shorter, contemporary regulations

FULL ECONOMIC ASSESSMENT

Price Base Year 2013	PV Base Year 2014	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: 3.36	High: 4.81	Best Estimate: 4.09

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.2	1	0.0	0.2
High	0.3		0.0	0.3
Best Estimate	0.2		0.0	0.2

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

There are one-off costs to the industry of familiarisation of around £242 thousand.

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

There are no non-monetised costs.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	0.0	1	0.4	3.7
High	0.0		0.6	5.0
Best Estimate	0.0		0.5	4.3

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

The estimates of monetised benefits are based on time savings predominantly achieved from a reduction in applications for exemptions and notifications. The total cost savings to industry are estimated to be around £2.3m in present value over ten years. The cost savings to HSE are estimated to be around £2.0m in present value over ten years, including savings from no longer issuing certificates of attestation of qualifications held.

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

There could be health and safety benefits from the new legislation providing legal clarity and focusing operators' efforts on becoming better at major hazard management, but these potential savings are not possible to quantify. The removal of the requirement for coal mines to belong to a Secretary of State-approved rescue scheme would allow mines to seek greater flexibility in their rescue provision. HSE is unable to quantify these impacts, which would be permissive changes.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5
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We have assumed there would not be any significant extra compliance costs because of the proposed changes, as the Regulations contain no requirement above those the mine operator is already obliged to meet. Although the formalisation of duties on the mine operator rather than the mine manager is a notable change it does not represent a change to enforcement as the mine operator/employer are responsible under the Health and Safety at Work etc. Act 1974 (HSWA). Assumptions about the number of mines operating over time are uncertain, particularly due to the decline in coal mining. Although the analysis takes account of known imminent closures, the best estimate it is able to make further into the future is a steady state.

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual, 2009 prices) £m:			In scope of OITO?	Measure qualifies as
Costs: 0.0	Benefits: 0.2	Net: 0.2	Yes	OUT

Evidence Base (for summary sheets)

Background

1. The GB mining industry is small, employing around 3,500 workers across the coal and other mineral sectors. There are presently only four large deep coal mines in production, plus a handful of smaller coal mines employing tens of workers. The non-coal mineral sector comprises a large potash/salt mine, a large salt mine, five gypsum mines, plus assorted smaller mines extracting stone and other minerals. There are also 36 tourist mines, 7 storage mines and one used for training purposes.
2. There is the potential for a small number of coal mines to start up in future, but this is not certain. There is also a proposal for a major new potash mine on the North Yorkshire coast; the earliest this would start production is 2018/19.
3. In spite of its small size, the mining industry presents the potential for catastrophic accidents and the new Regulations provide a modern framework specifically designed to provide a clear focus on identifying, assessing and controlling major accident risks.
4. Following consultation, HSE proposes that the new Regulations will, as now, apply to all categories of mine, covering active extracting mines and those now engaged in tourism, storage, etc. The requirements on the latter will be significantly lower than for the former as numerous hazards present in extracting mines do not exist in the non-extracting sector.
5. The unique nature of underground mining major hazards means that there has been a substantial suite of specific health and safety legislation relating to it for many years. Currently there are 47 pieces of legislation, including two Acts, dating from 1954 to 2007, many of which were introduced in response to accidents, incidents and other safety concerns.¹ The existing legislation is voluminous, complex, highly prescriptive and out of line with modern principles of health and safety regulation. It also places most duties on an individual employee (e.g. the mine manager) rather than the business that operates the mine.
6. In the time since much of the current mining law was introduced, legislation of general health and safety application covering a range of topics has come into force, such as The Dangerous Substances and Explosives Atmospheres Regulations 2002 (DSEAR) and The Provision and Use of Work Equipment Regulations 1998 (PUWER). This means that significant parts of the existing mines legislation are duplicated; we propose to remove the duplication.
7. European Directive 92/104/EEC² on the minimum requirements for improving the safety and health protection of workers in surface and underground mineral-extracting industries (EID) will continue to be implemented by the new Regulations.

¹ An 'accident' usually results in damage or injury; whereas an 'incident' can be an event that may not be serious at the time but may be a precursor to a more serious accident should it not be addressed.

² Council Directive 92/104/EEC of 3 December 1992 on the minimum requirements for improving the safety and health protection of workers in surface and underground mineral-extracting industries

8. HSE formally consulted³ on the proposal from April to June 2014 and received 31 responses. The formal response to the public consultation can be viewed via HSE's website.⁴

Rationale for intervention

9. Professor Löfstedt in his report 'Reclaiming health and safety for all; An independent review of health and safety legislation'⁵ recommended that legislation specific to certain sectors of industry, including mining should be consolidated. All the report's recommendations were accepted by the Government.
10. The large volume of existing legislation (45 sets of regulations plus two Acts of Parliament) which will be revoked or repealed has developed over 60 years, often in response to major accidents and was mainly aimed at a large nationalised coal industry. HSE has now developed a contemporary framework for controlling mining major hazards into the future, and addresses some fundamental issues including:
- ensuring mine operators are the dutyholders rather than individual mine managers; and
 - changing the increasingly non-viable model for ensuring coal mines have adequate rescue provision.
11. Government intervention is required in order to deliver Professor Löfstedt's recommendation and implement the improvements to the industry's legislative framework described in the previous paragraph.

Policy Objective

12. The policy objective is to:
- deliver a simplified and modern legislative package that removes outdated or irrelevant provisions (e.g. those that are no longer required because technology and/or working practices have changed) and is based on goal-setting, not prescriptive, duties, and which is clearer for the mine operator to comply with; and
 - retain necessary legal controls over mining major hazards.
13. The proposed Regulations would reduce the regulatory burden on business through clarification and simplification, as well as update requirements where necessary. The review has sought to involve all interested parties and deliver a single set of mining Regulations with practical supporting guidance.

³ <http://www.hse.gov.uk/consult/condocs/cd267.htm>

⁴ [Include link when known]

⁵ <https://www.gov.uk/government/publications/reclaiming-health-and-safety-for-all-lofstedt-report-a-review-of-progress-one-year-on>

Options considered (including do nothing)

Option 1 – Do nothing

14. This option would not deliver any improvement to the out-of-date legislative landscape that regulates the mining industry, and would fail to deliver one of Professor Löfstedt's recommendations. It is therefore not a viable policy option and so not considered further in this analysis. However, the 'do-nothing' case is the notional baseline against which other impacts are compared.
15. The reduction in the number of coal mines has already impacted upon the viability of current requirements to belong to a Secretary of State-approved mines rescue scheme. This issue would require addressing even under the 'do nothing' option.

Option 2 – Replace existing legislation into a single set of Regulations

16. HSE has analysed the existing provisions, identified those still considered relevant and necessary and repackaged them into a simpler, shorter and contemporary set of Regulations which maintain an appropriate level of control and continue to implement the requirements of the EID.
17. The proposed Regulations would be greatly reduced in volume and be easier to follow than the existing law. They would retain familiarity in that they contain controls over specific mining hazards similar to the current discrete sets of Regulations, but without the extensive prescription. Duties would be placed on the mine operator rather than an individual employee i.e. the mine manager.
18. HSE has taken the opportunity to remove outdated and redundant legislation, prescription and duplication. The result is a reduction from 45 separate statutory instruments and the relevant parts of two Acts into a single set of Regulations.
19. The Approved Codes of Practice (ACOPs) supporting the law being revoked would no longer have effect and would be replaced with new practical guidance on how to comply with the requirements of the new Regulations.
20. This is the preferred option for the implementation of Professor Löfstedt's recommendations and delivers net savings to both industry and to HSE.

Retention of provisions

21. As part of this review HSE has removed many existing domestic provisions that have been identified as going beyond the requirements of the EID and which are considered no longer necessary. However, there is a small number of provisions that have been retained in the proposed Regulations which HSE considers contain more detailed requirements than the relevant part of the EID. These are long-standing provisions that represent well-established controls and have the support of the industry and contain necessary detail to guide mine operators to comply with the requirements of the new Regulations that transpose the EID. These provisions relate to:
 - The notification of the start and cessation of certain mining operations;

- Specific requirements for ropes used in connection with winding apparatus;
 - Expansion on the requirement to provide two ways out from places of work;
 - Intake airways required to be, so far as is reasonably practicable, free from the risk of fire;
 - The appointment of a surveyor;
 - The management of tips.
22. The EID applies to mines involved in the extraction, prospecting and preparation of minerals. However, following consultation with a number of tourist mines who wanted to be within the scope of the new Regulations, it was agreed mines now used for other purposes should fall within the scope including tourist and storage mines. The new consolidated statutory instrument would not extend the scope of the current requirements that apply to tourist and storage mines. The duties in the new Regulations to control certain hazards would have effect only where the specific hazard is present. This would ensure that no mine is required to do more than at present.
23. All of the provisions detailed in Annex 1 that have been retained are where there is a higher standard in GB legislation and where not retaining those standards would constitute an overall reduction in safety standards. Given that these provisions are within the existing mining legislation, there would be no additional costs to industry (compared with the 'do nothing' baseline) as a result.
24. There has been no call from the sector to remove these domestically derived requirements from the legislative framework and they support their retention. The rationale and analysis for retaining these provisions is provided in Annex 1.

Options considered but not taken forward

25. A more radical approach would be to develop a new major hazard regulatory regime for underground mines based on a permissioning element. This could be a regime under which the start or continuation of particular work activities are conditional upon acceptance of a safety case or safety report by the health and safety regulator. This would be consistent with the regulatory approach for other major hazard industries, i.e. those with potential for catastrophic events and/or multiple-fatality events (for instance, offshore installations, chemical plants).
26. However, permissioning would be a significant step further than our preferred option; one the industry is unlikely to support at this time and which goes beyond the EID.

Key changes

27. The major structural change is the replacement of deeply prescriptive and voluminous provisions with a more goal-setting approach. This does present a challenge to industry in shifting its culture from one to the other, but one they accept.
28. Aside from the reduction in volume and prescription, the main areas where distinct changes are imposed are:
- The primary duties moving from mine manager to mine operator. However, there would be no significant change in what the mine operator would be required to do to operate the mine safely. The person or corporate entity running the mine at present is currently legally responsible under the Health

and Safety at Work etc. Act 1974 (HSWA) and treated as such by HSE Mines Inspectorate.

- Little or no need in the future for the mine operator to seek exemptions, consents, approvals, etc, or to submit notifications to HSE in respect of specific activities. There are some modest savings in this and it should also promote a greater dutyholder competence in the assessment and management of risks, but this positive effect on competence cannot be robustly quantified.
- Ceasing the need for certain post holders to hold HSE certificates of attestation of qualifications. This does not preclude the need for qualifications in safety-critical posts where it is a key element of competence – the mine operator would not need to do anything more than at present when considering qualifications and competency of potential employees. There already exists a system for obtaining qualifications through the Mineral Products Qualifications Council.
- Removing the need for coal mines to participate in a Secretary of State-approved rescue scheme. All mines would remain under a clear legal duty to ensure that effective rescue provision is available to be deployed in the event of underground incidents, but they would have flexibility to choose how they acquire that provision.

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

Key assumptions and risks

29. A principal assumption is that the proposed Regulations would require the mine operator to do nothing significantly more than the current regulatory regime requires by way of meeting necessary safety standards. Neither will the Regulations allow lower standards to be implemented. They would reduce administrative burdens in connection with exemptions, notifications and consents.
30. The number of active mines is hard to predict; for example, some may cease production and move to a programme of care and maintenance and abandonment, while others may move from care and maintenance back to production. However with the announcement of the intended closure of two of the larger coal mines in 2015 it is assumed that the number of existing mines would show some variation over ten years.
31. As we are not able to accurately model this variation at this stage, we will adopt the same simplifying assumption as in the consultation stage IA that the number of active mines (presently 73) will remain constant over the appraisal period, with the number coming into operation being balanced by those moving out on average. The exception is the four large coal mines, two of which are expected to close in 2015. Once these have closed, they are not assumed in this analysis to reopen, reflecting the expected contraction of this sector of the mining industry. The remaining two are assumed to continue operation over the remainder of the appraisal period, with the same caveat as above that this is a simplifying average and that they may move out of operation or closed large coal mines may resume operations. This is summarised in Table 1.

Table 1: Estimated number of mines over the appraisal period

Calendar Year	Appraisal Period	Total number of mines
2014	Year 0	73
2015	Year 1	71
2016	Year 2	71
2017	Year 3	71
2018	Year 4	71
2019	Year 5	71
2020	Year 6	71
2021	Year 7	71
2022	Year 8	71
2023	Year 9	71

32. The assumptions around familiarisation costs are based on HSE discussions with industry (including those operating tourist mines) and the analysis of HSE's public consultation about how many people might familiarise themselves per mine, how long this would take, and who is likely to be involved. For more information on familiarisation costs see paragraphs 37 to 43.
33. The current legal requirement for coal mines to participate in an approved rescue scheme guarantees support, if necessary, for a coal mine in terms of additional rescue personnel - for example during a protracted rescue scenario. The coal operators are discussing with Mines Rescue Service Limited (MRSL – the current provider of the scheme) the arrangements for commissioning this support if required in future. HSE interventions would ensure that the mine operator continues to make adequate rescue provision in future.
34. Where an individual or company is required to spend time doing something identified in this impact assessment, the value of their time to industry (referred to as the opportunity cost of time) is approximated using wage data from the Annual Survey of Hours and Earnings (ASHE)⁶. The wage data extracted from ASHE is then uprated by 30% to reflect non-wage costs such as employer pension or National Insurance contributions, in line with guidance from the HM Treasury Green Book.⁷ The exception is where time spent by HSE is valued, in which case an internal source of data, the Global Ready Reckoner, is used. The wage data extracted from this source is not uprated by 30% as it already contains the relevant non-wage costs. There are assumed to be 7.5 hours in a working day.
35. This IA considers costs and benefits that extend into the future. Consequently, it is important that any monetised impacts are expressed in present values to enable comparison between policy options. The discount rate used to generate these present values is defined in the Green Book as 3.5% for any appraisal period of less than 30 years.
36. Guidance issued by the Department for Business, Innovation and Skills states that where a policy has costs and benefits that extend into the future and the policy has no identifiable end point, the impacts of the policy should be appraised over ten years. As

⁶ <http://www.ons.gov.uk/ons/rel/ashe/annual-survey-of-hours-and-earnings-pension-tables/2013-provisional-results/index.html>

⁷ http://www.hm-treasury.gov.uk/d/green_book_complete.pdf

this is the case for this policy, an appraisal period of ten years is used when considering the impact of costs and benefits in the future.

COSTS

Familiarisation

37. The proposed Regulations provide a more focused set of provisions that retain the necessary protection in a form which is simpler and clearer for business to understand. There would however be some familiarisation costs as industry becomes accustomed to the new Regulations. Familiarisation costs have been estimated following the consultation process.
38. There would be limited one-off familiarisation costs to business as the new legislation would not fundamentally alter any longstanding approaches to safety standards. Industry is aware of the changes due to the extensive consultative approach taken by HSE in formulating the proposals and this is expected to minimise the amount of time taken for familiarisation when the new legislation is produced. As the number of employees varies from mine to mine, so too does the number of staff in key roles required to participate in the initial familiarisation phase of the new Regulations. However, there are a handful of companies operating more than one mine. For the purpose of this IA, the number of people required to be familiar with the new legislation is based upon the size of the operating company.
39. Of the 10 businesses employing 50+ people, it is assumed on average roughly 18 people would need to be involved in the initial familiarisation for each business. For those employing up to 49 employees of which there are 12, HSE have assumed that on average just over two people at each business would require the initial familiarisation. Of the remaining 40 businesses, where up to 10 people may be employed, it is assumed on average, just over one person per business will need to be familiar with the new Regulations in the initial phase. These assumptions are based on consultation with the HSE Mines Inspectorate and have been tested with industry stakeholders and give a total of 256 people.
40. HSE has assumed that on average it would take each person two to four days to familiarise themselves with the changes (noting it could be less than this for some mines if the changes are limited but an average of three days is thought to be reasonable). This is an increase on the average of two days assumed in the consultation stage IA and is based on HSE judgement and consultation responses. This is the biggest review of mining legislation that stakeholders have ever faced and so this length of time is thought to reflect the time taken to read, understand, update relevant documents (such as health and safety documents and managers'/owners' rules), discuss the changes where appropriate and become familiar with general health and safety legislation where it applies.
41. The full economic cost of time for corporate owners of the mines has been estimated at £65.62 per hour⁸; for corporate managers £34.40 per hour⁹; and for middle managers around £26.12 per hour.¹⁰ It has been assumed that the key roles of those familiarising

⁸ ASHE 2013(p), Table 14.5a, SOC Code 111: Chief executives and senior officials, uprated by 30% to account for non-wage costs

⁹ Ibid, SOC Code 1123: Production managers and directors in mining and energy, also uprated by 30%

¹⁰ Ibid, SOC Code 212: Engineering professionals, also uprated by 30%

in each mine are split evenly between the three possibilities (corporate owners, corporate managers and safety managers). Obviously, for some mines only one person would be involved with the familiarisation. However, we do not know for such mines which grade of staff that person would be, and so the average value across the staff already mentioned is thought to be the best approximation for this, valued at £42.05 per hour. It is assumed that any awareness training deemed necessary for remaining staff would be included into any ongoing training events and therefore present no additional costs to the industry.

42. The **total one-off cost of familiarisation to the mining industry**, which will take place in Year 0 of the appraisal period, is estimated to have a present value of between around £161 thousand and £323 thousand, with a **best estimate of around £242 thousand**.
43. There are no familiarisation costs estimated for future new entrants to the sector. This is because the changes to the regulations proposed are essentially a modernisation and integration of existing regulations. New entrants would only be interested in the situation when they enter the market, not what has changed over time. If anything, new entrants would have to spend a lot less time familiarising themselves with the new Regulations, compared to the time they would have spent under the baseline, familiarising themselves with more detailed and, in some cases, duplicated regulatory requirements. We will not quantify these savings, however, as we are not able to estimate how many new entrants there will be, but are expecting the number (and therefore the savings) to be small.

BENEFITS

Mines rescue

44. The current requirement for a coal mine to participate in a Secretary of State-approved rescue scheme is no longer tenable, largely due to the significant reduction in the coal sector since its introduction. The public consultation resulted in an 83% approval for proposals (20 out of 24 respondents) to remove the scheme. The business stakeholders HSE has consulted support clearer, shorter duties centred on a clear requirement for all mine operators to ensure effective specialist provision is available.
45. The coal mines rescue scheme was introduced when the coal sector was privatised in 1995 as a means to ensure that an equivalent level of rescue provision as had been available previously under the British Coal Corporation would be available to coal mines. This scheme has been provided by MRSL, a private not-for-profit company, since 1996.
46. The scheme was designed to be funded by fees from member mines. However, the significant contraction of the coal sector that has taken place since 1996 means that this arrangement is no longer tenable. Fees for 2013/14 covered only 20% of the actual cost of providing the scheme, with the remainder funded by MRSL's commercial activity (which includes activities such as delivering courses and training).
47. Removal of this requirement would give coal mines the flexibility to seek out new arrangements that better fit their working practices and risk profile, if they chose to do so. For example, the Secretary of State-approved scheme requires 24-hour rescue coverage, even though many mines do not operate around the clock and therefore do not require it. However, if they want to continue engaging MRSL for rescue services, they would be able to do so. HSE concludes that this amounts to a permissive change – the removal of a duty to be part of the Secretary of State-approved scheme grants coal

mines the ability to change their rescue provision provider or renegotiate the level of provision with MRSL, but only if they wish. As such, no coal mine is expected to make changes unless it is in their business interest to do so. HSE is not able to estimate what business solutions may be found and so is unable to quantify this impact. However, it is reasonable to assume that the impact on coal mines will at least be zero net cost as, if no more attractive arrangements are available, coal mines may retain their current provisions with MRSL.

48. The impact on MRSL is also estimated to be through a permissive change. Regulation 13(3) of the Escape and Rescue from Mines Regulations 1995 requires that the Secretary of State-approved scheme be “reasonably practicable for every owner of a mine of coal who is required to do so to participate, on reasonable terms”. The removal of this requirement would allow MRSL greater flexibility in delivering and pricing its services. Although MRSL may face financial pressures in the future to raise its prices for rescue provision this is expected to be the case under the baseline and so is not an additional cost of the regulatory change.

Single statutory instrument

49. Having a single set of new Regulations containing all mines-specific safety legislation would be much simpler for those operating in the mining sector. This creates a potential cost saving as it is expected to reduce the amount of time that business in the sector spend reading or referencing health and safety legislation as and when the need arises. Following consultation responses, it is estimated there would be ongoing savings to the mine operator (and any staff who have health and safety responsibilities) from the reduction in time spent referring to legislative instruments, although assessment of these savings vary considerably from mine to mine.
50. The ten Approved Codes of Practice (ACOPs) supporting the law being revoked would no longer have effect. HSE intends to replace them with a single new supporting guidance document that would give practical advice on compliance with the requirements in the new legislation. HSE proposes to prepare this guidance during 2014, working with stakeholders, and to publish it before the proposed date for the new Regulations to come into force. This collaborative approach is expected to minimise the one-off familiarisation costs of these proposals, as discussed in paragraphs 37 to 43.
51. Responses to HSE’s consultation indicated that the amount of time spent referencing the legislation and guidance would be reduced by an average of between 1 and 3 days per year per mine following the initial familiarisation phase, with a best estimate of 2 days.
52. The cost of this time is estimated to be less than that discussed under familiarisation in paragraph 41 as it is not expected that corporate owners would be involved in the day-to-day running of the mine in this manner. Therefore, the cost of time is based on the average of the corporate manager and the middle manager, which is £30.26 per hour. This gives an annual saving per mine of between £230 and £680, with a best estimate of around £450.
53. This means that across the 71 mines, operating from Year 1 to Year 9, the average annual saving would be between around £16 thousand and £48 thousand, with a best estimate of around £32 thousand.
54. Starting in Year 1, this gives a **present value saving to industry over ten years** of between around £123 thousand and £368 thousand, with a **best estimate of around £245 thousand**.

Principal dutyholder

55. The current legislation places most duties on the individual mine manager rather than the business that operates the mine. This is an anomaly and a legacy from coal nationalisation, when the state was effectively the employer. The main duties under the new Regulations would be on the mine operator; i.e. the person or corporate body in overall day-to-day control of the undertaking. The mine manager as an employee would continue to be subject to the duties under section 7 and section 37 of HSWA.
56. HSE expects the mine manager to continue in the role of senior person in charge of the mine as appointed by the mine operator. There could be time savings from having clearer responsibilities for risk control within the management structure, which would be more consistent with existing duties under HSWA, but they are expected to be small and it is not possible to quantify them in a proportionate manner as they could be different for each mine.

Savings related to notifications and consents

57. The current legislation contains a significant number of requirements for HSE to be notified of various activities or events. These have tended in practice to add little or nothing to the mine manager's duty to assess risks and implement proportionate risk control measures and so will mostly be removed. However, there are some important requirements to notify HSE in certain circumstances, for example before the start of and the end of mining operations, which would remain. This notification ensures engagement with the regulator at an early stage of development.
58. Of the 18 notification requirements identified for removal, there were 181 notifications received by HSE from industry in 2011/12. Adding a margin of +/- 10% for uncertainty, it is estimated that between 163 and 199 notifications per year would continue on average over the next ten years; but would drop to zero under the new regulatory framework.
59. Based on information from industry, HSE's best estimate is that they require on average two people for approximately two days each to prepare a notification or consent, plus an additional day for one of them, spent accompanying the HSE inspector on site to discuss it. HSE time spent on notifications and consents involves one inspector spending an average of two days on the activity, including a site visit.
60. The total cost of this time for industry per notification is estimated to be around £1.3 thousand, based on the full economic cost of time for a corporate manager at about £34.40 per hour (see paragraph 41).
61. The total cost to HSE per notification is estimated to around £1.1 thousand, based on the full economic cost of time for an HSE Band 2 Regulatory Inspector being £74.30 per hour.
62. The total annual cost savings to industry from Year 1 to Year 9 are estimated to be between around £210 thousand and £257 thousand, with a best estimate of around £233 thousand. This gives a **present value saving to industry over ten years** of between about £1.6 million and £2.0 million, with a **best estimate of just under £1.8 million**.

63. The total annual cost savings to HSE from Year 1 to Year 9 are estimated to be between around £182 thousand and £222 thousand, with a best estimate of around £202 thousand. This gives a **present value saving to HSE over ten years** of between around £1.4 million and £1.7 million with a **best estimate of just over £1.5 million**.

Savings related to exemptions

64. The very prescriptive nature of the existing law means businesses must apply for exemptions when they need to do something that may be reasonable, but is outside the restrictive boundaries of the current, often out-of-date, law. Mining technologies have developed over the years and the legislation has at times been an obstacle to more modern and safe working practices. The proposed Regulations are less prescriptive but provide a clear requirement for risks to be managed and would promote greater dutyholder competence in the assessment and management of risks. This means the mine operator would have scope for novel, alternative solutions as long as the risks are adequately managed.

65. As in other health and safety regulations, HSE has the power to grant exemptions from any of the provisions in the new Regulations subject to being satisfied that there would be no detriment to health and safety.

66. Based on HSE records, it is estimated that HSE receives on average about 46 exemption requests per annum¹¹. In the period considered, no requests were rejected. It is assumed that on average all of these 46 exemptions per annum over the 10-year appraisal period would be avoided as a result of the removal of the legal requirement for such exemptions.

67. Based on information from the Mines Inspectorate and industry, HSE estimates that an exemption can take industry between two and four days to complete, with a best estimate of three days. The HSE time involved in the process would include a Band 6 Administrative Officer at between 20 and 30 minutes; and a Band 2 Regulatory Inspector at between two and three days.

68. The total cost to industry per exemption is estimated to be between around £520 and £1 thousand, with a best estimate of around £775. This is based on the cost of time of the corporate manager at £34.40 per hour (see paragraph 41).

69. It is estimated that the cost to HSE of each exemption is between around £1.1 thousand and £1.7 thousand, with a best estimate of around £1.4 thousand. This is based on the Band 6 Administrative Officer's cost of time of £19.48 per hour and the Band 2 Regulatory Inspector at £74.30.

70. Based on there being 46 fewer exemptions each year from Year 1 to Year 9 of the appraisal period, the average annual savings to industry are estimated at between about £24 thousand and £48 thousand, with a best estimate of around £36 thousand. This gives a **present value saving to industry over ten years** of between about £182 thousand and £364 thousand, with a **best estimate of around £273 thousand**.

71. The annual saving to HSE is estimated at between about £52 thousand and £78 thousand, with a best estimate of around £65 thousand. This gives a **present value**

¹¹ Based on an average of three years data as follows: 2011/12: 40 exemptions; 2010/11: 40 exemptions; 2009/10: 59 exemptions

saving to HSE over ten years of between around £395 thousand and £593 thousand, with a **best estimate of around £494 thousand**.

Savings related to qualifications

72. The Management and Administration of Safety and Health at Mines Regulations 1993 (MASHAM) provide for HSE to approve qualifications. HSE has done so with respect to various posts in coal mines only – people in such posts must possess such a qualification and hold a certificate from HSE attesting that they do so. We propose that HSE no longer has a direct role in approval, specifying or attesting qualifications.
73. The last few years have seen the introduction of a new qualification framework based on National Occupational Standards. The framework, developed in consultation with industry and with input from HSE, covers specific mining roles and can assist in determining the competencies for a particular job. Whilst qualifications are not the only means of demonstrating competence, they remain a vital factor of it, and where they are necessary to carry out a specific role, mine operators will have a duty to ensure that workers have the appropriate qualifications. Although HSE will no longer have a direct role in approving qualifications, examining an operator's arrangements for ensuring competency will be an integral part of HSE's interventions.
74. Under the new Regulations, the mine operator would have a duty to ensure all workers are competent for the jobs they do. If the mine operator deems it necessary for workers to hold qualifications as part of being competent, it will be the mine operator's duty to ensure that the qualifications are appropriate. Qualifications would remain a vital element of competence and there is a structure in place through the Mineral Products Qualifications Council for qualifications appropriate to a range of mining posts to be obtained – HSE has an input to this at present and would continue to do so. An employer would not be required to do anything more than they do now when assessing the competency and suitability of potential employees. There would not be any expected impact on HSE in terms of oversight time because HSE specialists would continue to attend the committees that work on these qualifications, but HSE would no longer officially approve the course.
75. At consultation this proposal received approval from the Mineral Products Qualifications Council and was considered a logical approach in 'allowing individual mine operators to develop arrangements appropriate to their size, function and specific standards.'
76. There would be a small saving in terms of time and cost from individuals not having to seek a certificate from HSE attesting their qualifications. HSE receives few applications, and our best estimate is approximately 12 per year, with a range of between around 11 and 13. Each qualification attestation is estimated to require the following resources to process:
- around 1 hour of Band 6 Administration Officer time at £19.48 per hour)
 - around 1 hour of Band 2 Regulatory Inspector time at £74.30 per hour)
 - around 5 minutes of Band 4 Administration Officer time at £32.27 per hour
77. This gives total annual savings to HSE of between around £1.0 thousand and £1.3 thousand, with a best estimate of around £1.2 thousand. This gives a **present value saving to HSE over ten years** of between about £7.9 thousand and £9.7 thousand, with a **best estimate of around £8.8 thousand**.

Health and safety benefits

78. The less prescriptive nature and greater clarity of the proposed Regulations would help ensure that the mine operator focuses on the assessment and control of major risks and would support them becoming more competent at major hazard management. HSE expects the overall impact of the proposals on health and safety outcomes to be positive, though it is not possible to quantify this impact.

79. The proposed Regulations lay down;

- An overarching duty to ensure the adequate management of safety;
- A requirement for a management structure to be in place to deliver this; and
- A duty to provide a documented demonstration that risks have been assessed and control measures are in place.

80. The focus of the proposed Regulations is on the control of major hazards in mines. The reduced prescription would encourage the mine operator to move away from using compliance with detailed requirements as a measure of their health and safety performance, towards an approach based on proactive identification, assessment and control of risk. The mine operator would need to be able to demonstrate for themselves, the workers and the regulator that risks are as low as reasonably practicable (ALARP).¹²

Summary of Costs and Benefits of Option 2

81. Table 2 summarises the costs and benefits of Option 2 to business, Government and society as a whole.

¹² “Reasonably practicable” involves weighing a risk against the trouble, time and money needed to control it. Thus, ALARP describes the level to which HSE expects to see workplace risks controlled. For more guidance, please see: <http://www.hse.gov.uk/comah/alarp.htm>

Table 2: Summary of costs and benefits of Option 2 (present values over ten years, £ thousands)

	Low	Best Estimate	High
Costs - Industry			
Familiarisation	£323	£242	£161
Total Costs - Industry	£323	£242	£161
Savings - Industry			
Exemptions	£182	£273	£364
Notifications	£1,599	£1,776	£1,954
Single Statutory Instrument	£123	£245	£368
Total Savings - Industry	£1,903	£2,294	£2,685
Savings - Government			
Exemptions	£395	£494	£593
Notifications	£1,381	£1,535	£1,688
Qualifications	£8	£9	£10
Total Savings - Government	£1,784	£2,037	£2,291
Net Saving			
Industry	£1,580	£2,052	£2,524
Government	£1,784	£2,037	£2,291
TOTAL	£3,364	£4,089	£4,814

Note: Totals may not sum due to rounding

82. The total quantified net saving to industry is estimated to be between around £1.6 million and £2.5 million in present values over ten years, with a best estimate of around £2.1 million. This translates to a best estimate Equivalent Annual Net Saving to Business (or 'OUT') in 2009 prices of around 0.19 million.
83. The total quantified net saving to Government is estimated to be between around £1.8 million and £2.3 million in present values over ten years, with a best estimate of around £2.0 million.
84. This gives a total quantified net saving to society estimated to be between around £3.4 million and £4.8 million in present values over ten years, with a best estimate of around £4.1 million.
85. In addition to these quantified costs and benefits, Table 3 summarises the unquantified impacts.

Table 3: Summary of unquantified costs and benefits of Option 2

Impact	Description	Estimated scale
Mines rescue (paragraph 44)	Simpler, clearer duties on all mine operators are expected to deliver benefits in terms of business flexibility.	This is expected to deliver a small ongoing benefit to business.
Mines rescue (paragraph 47)	Allowing coal mines the flexibility to arrange rescue provisions away from the current Secretary of State-approved scheme may lead to operational or cost savings.	HSE expects little change in practice, but this may deliver a small ongoing saving to business.
Principal dutyholder (paragraphs 55 to 56)	Placing the duties on the mine operator rather than the mine manager may deliver some small time savings for business through greater clarity.	This is expected to be a small ongoing benefit for business.
Removal of HSE approval of qualifications (paragraph 76)	As the postholder no longer has to apply to HSE for certificates attesting to the approval of qualifications, this would save some time.	This is expected to deliver a small ongoing saving to individuals.
Health and safety benefits (paragraphs 78 to 80)	The less prescriptive, more goal-setting, Regulations are expected to focus dutyholders on risk assessment and ensure they become more competent at major hazard management.	This is expected to deliver a small ongoing benefit to business, workers and Government.

Rationale and evidence that justify the level of analysis used in the IA (proportionality approach)

86. The level of analysis in the IA reflects the fact that there are not expected to be significant changes in current practice and standards. In this final stage IA we have made amendments to some assumptions to take account of consultation responses, including amending our assumptions about the number of mines operating over the appraisal period and the time and numbers of staff necessary to familiarise with the changes. In other areas, such as updating procedures we have more clearly explained how these fit into our notion of familiarisation costs and improved the clarity of the impact of the proposals would have on non-extracting mines.

87. The main cost savings are expected to arise as a result of a reduction in exemption applications, the removal of administrative notifications and consents and a simpler legal framework to understand. The savings calculated are based on HSE knowledge of the industry, internal records and information gathered from industry.

Direct costs and benefits to business calculations (following OITO methodology)

88. It has been estimated that the equivalent annual net cost to business (expressed in 2009 prices, as indicated in the OITO methodology) is a saving of around £0.19 million. This would class as an OUT for OITO purposes.

89. The total net present value for society as a result of the regulations is a net saving of between around £3.4 million and £4.8 million in present values over ten years, with a best estimate of around £4.1 million.

Small and micro business

90. HSE intends that the proposed Regulations would apply to small and micro business, as they seek to clarify duties and so could benefit such firms. If hazardous mining activity were placed outside of this specific legislative control they would pose a significant hazard by way of their potential to give rise to catastrophic events. It is not thought the proposals would have a disproportionately negative impact on small firms and micro business. There would be no material changes to the standards industry are expected to comply with. Changes are not being made to the substance of the regulations. Being part of the Löfstedt delivery programme, which places them directly on the fast track¹³, these proposals do not require a small and micro business assessment (SMBA).

91. There are 12 known businesses operating in the mining industry in GB employing under 49 FTE employees and a further 40 micro businesses with up to 10 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 and others, e.g. members of the public visiting tourist mines. The hazards inherent to working at mines would exist regardless of the size of the business. Costs and benefits for small and micro businesses are included within the estimates provided in this IA.

Health and well-being

92. Where the placing of the safety duties on the mine operator rather than the mine manager and the introduction of goal-setting regulations lead to a greater clarity and focus on risk management, these changes are expected to have a positive impact on health and well-being in the workplace. HSE is not able to quantify this impact.

Equalities

93. No negative impact on equality of any groups are expected as a result of the new Regulations. However, HSE would monitor to determine whether any group is detrimentally affected. An Equalities Analysis has been completed.

94. It is thought that that the proposals will have a positive impact on health and safety at work with businesses having clarity of what they need to do to comply with the regulations, which could potentially reduce the number of accidents in the work place. Regulators will also have more clarity and should be able to enforce the regulations more consistently.

Other impacts

¹³ Measures identified on the Löfstedt delivery programme have been notified as part of the Red Tape Challenge programme and they therefore automatically qualify for the fast track.

95. There are no negative impacts expected on environmental issues, human rights, the justice system, rural proofing or sustainable development.

Summary and preferred option with description of implementation plan

96. The preferred option is Option 2, to repackage all relevant and necessary provisions into shorter, more contemporary regulation. HSE expects that this could have a net present value saving of around £4.1 million over a ten-year appraisal period.

97. The net present value of savings to business over the same period is estimated to be around £2.1 million with equivalent annual saving to business (an OUT) of around £0.19 million in 2009 prices.

Implementation

98. HSE has engaged with key stakeholders to ensure they are informed about the proposed Regulations and expect this to continue in the lead up to the Regulations coming into force and beyond. This has already involved participating in a number of meetings to discuss the proposals and to support dutyholders in understanding the transition to the new arrangements. The HSE website would be updated to provide an introduction to and overview of the new Regulations.

99. It is unclear at this stage how many further meetings would be needed to ensure the required coverage. However, it is envisaged that the meetings would involve the range of trade unions and mine operators and owners affected by the changes.

100. Enforcement of the new Regulations would form part of HSE's normal inspection work and reactive investigations. There would be no extra costs or additional time spent inspecting mines as a result of these new Regulations – mines would be inspected on a risk-basis as presently.

Annex 1 Summary of retained gold plating

The Mines Regulations 2014	Extractive Industries Directive	Reasoning
The Regulations will apply to all mines as defined in regulation 3. The definition of a mine, which is being retained, includes tourist and storage mines that are no longer involved in mineral extraction activities since they were 'made for the purpose of...' the extraction of minerals.	The purpose of the Directive is to lay down the minimum requirements for the safety and health protection of workers in the surface and underground mineral-extracting industries.	Tourist mines were consulted when considering the proposal of scope. The general consensus was that they wished to remain within the scope of specific mines legislation. Many of these mines also retain the risks associated with shafts and winding and ground movement that continue to exist despite mineral extraction activities ceasing.
Regulation 6 - Provision to notify HSE before the intended commencement of the mining operation, the use of a mine other than for mineral extraction and the abandonment of a mine.	The duty to notify HSE of various mining operations is not specifically mentioned in the Directive.	Regulation 6 requires that HSE are notified at significant times of mining operations or when events affecting them would require a revision of the safety and health document. This provision is considered essential to ensure engagement with the regulator happens in the early stages of development and following major events.
Regulation 37(3) & (4) –Specific provisions to ensure a written scheme for the specification, selection and use of a rope in connection with winding apparatus. There are also provisions to ensure that the life expectancy of a rope is not exceeded unless further conditions are fulfilled.	Annex A 3.1 - A suitable scheme should be set up providing for the systematic examination, maintenance and, where appropriate, testing of mechanical and electrical equipment and plant.	These provisions give essential detail in relation to ropes used in winding apparatus. They are in current law and are well established safety provisions considered essential for a single critical line component.
Regulation 20 of the Workplace Regulations requires that sanitary conveniences be provided at readily accessible places. The Mines Regulations apply this regulation below ground at mines. However, the requirement in regulation 20 that sanitary conveniences be at readily accessible places applies only if reasonably practicable.	The EID cites that sanitary conveniences may be sited on the surface. The Workplace Directive is transposed in GB by the Workplace (Health, Safety and Welfare) Regulations 1992 but do not apply below ground at mines.	Regulation 20 will apply below ground at mines. Unlike the current mine specific law, regulation 20 does not require sanitary conveniences to be below ground, just in readily accessible places. In certain mines, this might mean on the surface. The requirement is qualified, so it will only be necessary for mine operators to locate sanitary conveniences in readily accessible places underground if reasonably practicable to do so.
Regulation 49 expands on the concept of the Directive by ensuring that workplaces sited below ground have two separate ways out leading to different exits from the mine.	Annex C 3 - Workplaces below ground must have access to the surface via two separate outlets	This regulation delivers the Article 5 and Annex Part A 9 of the Directive which require workers to be able to leave workplaces quickly and safely in the event of an emergency. The requirement to have two ways out is considered gold plating but is considered justified. It is a long standing and sensible measure to ensure the prompt evacuation of persons working below ground at a mine in an emergency.
Regulation 52 requires that intake airways for the mine are, so far as is reasonably practicable, free from the risk of fire.	Intake airways are not specifically mentioned in the Directive	In the event of a fire, the atmosphere in a mine may be jeopardised by smoke and fumes. Additionally, smoke from a fire in an air intake could compromise emergency routes and exits.

		This provision although gold plating is considered essential to ensure that people can work in a healthy atmosphere and leave safely and promptly in an emergency.
Regulation 58 requires that a suitably qualified and competent person be appointed as a surveyor at the mine.	The Directive has no requirement to appoint a surveyor	<p>This requirement goes beyond the requirements of the Directive but having a competent person compile, interpret and manage data (to ensure people are aware exactly where they are working) during a mine's development is considered vital.</p> <p>A surveyor is required under current mining legislation. However the burden is lessened in that a surveyor is only required to be appointed when necessary.</p>
Regulations 61-67	Annex Part A – 15 Overburden dumps, spoil heaps and other tips, as well as settling lagoons, must be designed, constructed, operated and maintained in such a way as to ensure their stability, as well as the safety and health of workers	<p>These regulations go beyond the requirements of the Directive. However, mine tips have the potential to create major off site risks to the public as well as mine workers. Detailed provisions relating to planning, working, management and supervision, expert inspection and record keeping stem from the Government, response to the 1966 Aberfan disaster. The new regulations are based on well established, long standing provisions which have ensured that all mine tips have, in effect, been treated as structures and have been engineered to secure their stability during operation and into the very long term.</p> <p>They are considered proportionate, in that for a large number of tips, the more onerous regulations will not apply. They also bring requirements to manage tips at mines in line with the provisions in the Quarry Regulations 1999.</p>