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Draft

REGULATORY IMPACT ANALYSIS

Draft Safety, Health and Welfare at Work (Mines) Regulations 2010
(S.I. No. ... of 2010)

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Foreword

The Health and Safety Authority has prepared this screening Regulatory Impact Analysis (RIA) under the terms of the RIA Guidelines “How to Conduct a Regulatory Impact Analysis” (Department of the Taoiseach, 2005).

This review of the mining legislation aims to ensure the maximum protection for workers in the modern mining industry through the consolidation and update of the relevant legal instruments. A number of options were considered in the analysis, including retaining the current legislative framework, producing new guidance on the application of the current Mines and Quarries Act, 1965 and its associated Mining Regulations, or introducing new Mines Regulations.

The preferred option is to introduce a new set of consolidated Mines Regulations which together with the Safety, Health and Welfare at Work Act 2005 and the Safety, Health and Welfare at Work (General Application) Regulations 2007 will provide a comprehensive legislative structure to ensure health and safety performance in the sector. This solution involves the repeal of all provisions of the Mines and Quarries Act 1965 (provisions relating to quarries are already revoked and covered in the Safety, Health and Welfare at Work (Quarries) Regulations 2008). Twenty-four full sets of Regulations made under the Act in the period 1965 to 1987 will be revoked, together with numerous exemptions. The proposed Regulations will also achieve the complete replacement of the Safety, Health and Welfare at Work (Extractive Industries) Regulations 1997 (S.I. No. 467 of 1997) as they apply to mines and quarries and will re-transpose, in relation to mines, the relevant provisions of 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 (OJ L404, 31.12.1992, p. 10).

It is the Authority’s view that the proposed Regulations will be welcomed by the mining industry. The Regulations were prepared in consultation with the Irish Mining and Exploration Group and were developed to facilitate health and safety management in the context of modern mining operations and to be consistent with the approach set out in the Safety, Health and Welfare at Work Act 2005 and the Safety, Health and Welfare at Work (General Application) Regulations 2007. There are no major new requirements for employers; in fact, requirements on employers to complete notification forms are substantially reduced. Those mining operations that are already compliant with the current legislation, and who are operating to recognised best practice in the industry should not incur any significant additional costs.

Robert Roe
Assistant Chief Executive Officer and Secretary to the Board

11 January 2010

1. POLICY CONTEXT

As part of the national policy to review and rationalise existing legislation, a Repeals/Revocations/Replacement/Consolidation process was provided for in the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005). The need for progress in this process was highlighted in the Oireachtas debates during the passing of the Act in 2005.

The Safety, Health and Welfare at Work Act 2005 together with the Safety, Health and Welfare at Work (General Application) Regulations 2007 provide a framework of core health and safety responsibilities for all sectors. It is intended that individual sectors should align and consolidate their regulations within this framework and draft supplementary regulations as required to address specific hazards in each sector.

This review of the mining legislation examined the Mines and Quarries Act 1965 and its twenty-four associated Regulations and numerous exemptions. (Appendix 1 lists the legal instruments included in the analysis.) The review also included the Safety, Health and Welfare at Work (Extractive Industries) Regulations 1997 (S.I. No. 467 of 1997) as they apply to mines and quarries and the relevant provisions of 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 (OJ L404, 31.12.1992, p. 10).

Other instruments relevant to mining safety are the ILO Safety and Health in Mines Convention, 1995 and Safety and Health in Mines Recommendation, 1995. Ireland has signed up to this Recommendation which is implemented by the current mining legislation. The Health and Safety Authority is required to provide a report on implementation every four years.

The mining industry has noted that the current Regulations do not reflect developments in engineering processes and equipment in the sector over the past forty years. The outdated provisions are inconsistent with the more modern approach to health and safety management outlined in the Safety, Health and Welfare at Work Act 2005 and the Safety, Health and Welfare at Work (General Application) Regulations 2007. To address this, considerable numbers of exemptions to the legislation have been requested by and acceded to the mining sector over the past four decades.

This review involved direct consultation with operating mines and the Irish Mining and Exploration Group (IMEG), the representative body of the mining and exploration industry in Ireland. All three lead zinc mines were represented and the group members provided their expertise to produce proposals on specific topics.

The mining sector contributes significantly to the Irish economy. Mining and its related ancillary activities currently employ about 1,500 people in Ireland working in three lead zinc mines and one gypsum mine and there is substantial associated employment through material supply companies. Irish mining companies account for 39% of European zinc and 20% of European lead mine production. Ireland is the largest producer of zinc in Europe and the ninth largest producer in the world. Five of the western world's top ten zinc miners are currently exploring in Ireland.

The mining and quarrying sector frequently has the highest annual fatal incident rate in Ireland – see Table 1.1. There were six fatalities in the sector in 2005, two in 2006, two in 2007 and one in 2008. There were a total of 15 fatalities in the sector since 2002. Table 1.1 compares fatality rates for the mining and quarrying sector with other sectors and the overall fatality rate.

Table 1.1 Fatality rate per 100,000 employed

	2002	2003	2004	2005	2006	2007	2008
Agriculture, Forestry and Fishing	12.2	13.0	13.3	14.7	15.5	17.7	15.5
Mining and Quarrying	30.0	10.0	0.0	60.0	20.0	20.0	10.0
Construction	11.0	8.0	6.6	8.3	4.3	5.0	5.6
All sectors	3.0	3.2	2.5	3.3	2.2	2.8	2.5

Almost six hundred non-fatal injuries were reported to the Authority by employers in the mining and quarrying sector since 2002 (an average of 75 non-fatal injuries reported each year). This is likely to be an underestimate of the number of non-fatal accidents in the combined mining and quarrying sector. However, it is recognised that there has been a major improvement in the number of non-fatal accidents in the Mining and Quarrying sector over the last two to three years.

2. OBJECTIVES

The primary objective of reviewing the Mines and Quarries Act 1965 and the associated Mines Regulations is to protect the health, safety and welfare of those working in the mining

industry through the provision of an updated, simplified and consolidated legislative framework.

Other objectives to be achieved by the review include:

- introducing a clear framework of responsibilities in every mining workplace
- making specific obligations on the provision of welfare facilities for employees
- updating specific requirements for high-risk elements, e.g. vehicles, explosives, ground control
- re-transposing relevant provisions of Council Directive 92/104/EEC into national legislation
- taking account of *Better Regulation* policies concerning the review and update of legislation, so that obsolete provisions are removed, unnecessary administrative demands are reduced and the legislation is comprehensible to those who must comply
- taking account of the ILO Convention and Recommendation on Mines 1995

3. OPTIONS

Regulation of health and safety in the mining sector is an EU obligation and an extensive body of legislation for the sector has already been developed in Ireland. The purpose of this exercise is to review the current legal instruments and to assess what further needs to be done to ensure that the Irish legislation is fully effective.

The impacts of each of the following options are considered in detail:

Option 1 Do nothing

Option 2 Produce new guidance on the application of the current Regulations

Option 3 Introduce new Mining Regulations and revoke all previous Regulations

4. IMPACT ASSESSMENT

4.1 Option 1- Do nothing

Retaining the current arrangements involves no extra benefits or costs over and above those currently prevailing. However, in the longer term, this option means that the sector must continue to operate under outdated and prescriptive legislation. Ultimately, this could place

the Irish mining industry at a competitive disadvantage when selling products into the global market place.

4.2 Option 2 – Produce new guidance on the application of current Mining Regulations

Health and safety benefits: The current health and safety legislation for the mining sector already affords a significant level of protection to those working in the industry, and these health and safety benefits would continue under Option 2. Updated guidance should facilitate the improvement of safety management systems in the mining sector, so that some level of improved health and safety performance could be expected to follow.

Health and safety costs: This option could create confusion for mine safety managers if the updated guidance document is at odds with the provisions in the current Regulations, many of which are outdated in the context of modern mining operations. Also, workers may suffer injuries or ill-health as a result of hazards associated with modern mining practice which are inadequately addressed in the current legislation.

Business benefits: Current mining legislation is complex and fragmented across many legal instruments, with extensive amendments and exemptions provided over the years. Employers must therefore allocate significant resources to identifying and cross-referencing all relevant provisions, including amendments and exemptions. New guidance would reduce these business costs by summarising all relevant provisions and their application in a single document.

Business costs: The consequences of potential errors due to the disparity between the guidance and the existing Regulations may lead to additional business costs. New guidance is also likely to result in staff time costs associated with studying the new guidance and training staff and updating systems to correspond to revised best practice.

4.3 Option 3 – Introduce new Mining Regulations

Health and safety benefits: The proposed Regulations should afford additional protection to workers through the update or removal of outdated provisions, and the inclusion of new provisions to reflect the hazards associated with modern mining systems and equipment. Examples of new provisions include Regulation 14 on co-ordinated measures, Regulation 59 on geotechnical assessments, and new provisions in relation to emergency planning in Part 9.

Business benefits: Currently, there are twenty-four different legal instruments relevant to health and safety in the mining sector, spanning the period from 1965 to 1987. Option 3 would see all of these instruments being revoked. This should reduce the resources, particularly in terms of time, that mining companies will need to allocate for identifying and complying with the relevant legislative requirements. Business should also see specific benefits for their clerical workload due to the reduced number of notifications. There are 37 different notification forms under the current legislation; this will be reduced to seven forms under the proposed Regulations. These benefits are presented in further detail in Section 5.

Business benefits should also accrue from improved health and safety performance. Any reductions in accident and illness cases through the implementation of the proposed Regulations should lead to a reduction in the costs associated with workplace injury and illness (lost time costs, fines, liabilities, legal costs, shutdowns/site closure costs, dealing with inquiries etc). These cost savings can be expected to be greater for Option 3 than for Option 2 on the basis that new Regulations will support modern health and safety management systems and address relevant hazards.

Business costs: The implementation of the proposed Regulations will require one-off investment by mining operators in terms of employee time for the following tasks – familiarisation with the Regulation, training requirements and updated control measures. These costs are presented in further detail in Section 5.

4.4 Other impacts

(a) National competitiveness

A safe and healthy workforce is more productive. In this context, legislation addressing safety, health and welfare at work can be seen as a measure to protect national competitiveness. Reducing the costs associated with regulatory and administrative demands should also have a positive impact on national competitiveness.

(b) Impacts on socially excluded or vulnerable social groups

The current and proposed Regulations require employers to have regard to the legislative requirements concerning pregnant or breastfeeding mothers, children and young persons at work. Non-Irish nationals working in the mining industry will experience the same health and safety benefits as Irish workers from the implementation of either Option 2 or Option 3.

(c) Human health and environmental issues

None of the options has a significant impact on the environment. However, a number of the preventive measures (e.g. geo-technical assessments) in the proposed Regulations may have positive impacts on the environmental performance of the industry.

(d) Impacts on consumers and competition

Mining products are sold into downstream manufacturing processes. Any decrease in operating costs through the reduction in administrative demands should allow mining companies to maximise the extraction of Ireland's mineral resources and ultimately lead to benefits for customers and the economy.

(e) Impacts on the rights of citizens

There is no impact upon the rights of citizens in general. The health and safety of those citizens who are in employment will be maintained by Option 1 and improved by both Option 2 and Option 3.

4.5 Summary of impacts and preferred option

Impacts	Option 1	Option 2	Option 3
Health and safety	~	+	++
Business	~	~	+

Key:	—	negative impact
	+	positive impact
	~	neutral

Option 1, to do nothing, allows a situation to prevail where the large body of prescriptive and outdated legislation imposes a significant burden on mine operators and their mine safety departments. Valuable resources must be allocated to reconcile the outdated provisions in the Regulations with modern health and safety management systems.

Option 2 offers the potential for some level of improved health and safety performance, but is limited by the fact that any new guidance may in many respects be inconsistent with the outdated Regulations.

Option 3 introduces a set of Regulations which, combined with Safety, Health and Welfare at Work Act 2005 and the Safety, Health and Welfare at Work (General Application)

Regulations 2007, fully address the nature and range of hazards in modern mining operations, and which should ultimately lead to a reduction in the number of accidents and illnesses in the sector. This option is also consistent with the Authority's efforts to reduce regulatory demands on business, by bringing about a situation where all relevant provisions are contained within a smaller number of legal instruments. Specific provisions within the proposed Regulation in relation to mandatory notification forms should also ease administrative demands on mining employers.

Option 3, the introduction of the proposed consolidated Regulations, is the recommended option. Details of expected compliance and enforcement costs associated with this option are outlined below.

5. COMPLIANCE COSTS AND BENEFITS OF PREFERRED OPTION

The estimated costs and benefits of complying with the proposed Mining Regulations are presented in Table 1.2 at the end of this section. The following points should be noted:

- a) Costs and benefits are calculated only for Year 1 of the proposed Regulations. Costs relating to familiarisation with the Regulations are one-off costs, while some training would be repeated for new or promoted staff. The benefits in terms of clerical days spent on processing notification forms apply on an annual basis.
- b) The number of safety department personnel, senior management and supervisors in the costings are estimates. The number of supervisors is used as an indicator for the size of the mining operation. The figures in Table 1.2 are calculated on the basis of a mine with ten supervisors.

5.1 Familiarisation with the regulations

The Authority expects that familiarisation with the proposed Regulations will take place in two stages. Firstly, Mine Safety Department will study the regulation text in detail – this is estimated to take five person days. This will be followed by a half day familiarisation session with an estimated four senior management personnel. Using these personnel estimates and the CSO hourly labour cost for managers, professionals and associated professionals' in the

mining and quarrying sector¹, it is estimated that the one-off costs for the familiarisation process are in the region of €2450.

5.2 Training

It is likely that a one-day in-house training session with the mine supervisors will be necessary to explain how the new and updated content in the Regulation will impact on mining operations. On this basis of the CSO hourly labour cost for ‘production, transport, craft and other manual workers’ in the mining and quarrying sector², the training session could cost in the region of €1800. Note that in smaller mines (approximately three supervisors) the training cost is approximately €540 while in larger mines (approximately 40 supervisors) training could cost €7235.

5.3 Control measures

The only new control measure required by the proposed Regulations is the update of notification forms. A review of existing forms and replacement with new forms is expected to take one person day. Using the CSO hourly labour cost for ‘clerical, sales and service employees’ in the mining and quarrying sector³, there will be a one-off cost of €190 to each mine for this process.

Under the current legislation, where mines are required to make notifications on up to thirty-seven different forms clerical staff in mines are estimated to spend five person days per year on processing of notifications. With the reduction in the number of forms to seven, a proportionate reduction of four days in the time allocated to notifications is expected. This could bring savings in the order of €757 to each mine on an annual basis.

5.4 Summary of compliance costs and benefits

For a medium-sized mining operation with ten supervisors, it is estimated that the average net cost of fully implementing the proposed Regulations in Year 1 is expected to be in the region of €3700. This involves one-off costs in the region of €4450 set against benefits of €757. The benefit of €757 will accrue on an annual basis.

¹ 43.78 at Q2, 2009 – CSO Earnings Hours and Employment Costs Survey

² 22.61 at Q2, 2009 – CSO Earnings Hours and Employment Costs Survey

³ 23.67 at Q2, 2009 – CSO Earnings Hours and Employment Costs Survey

The four mining operations in Ireland are different sizes and compliance costs and benefits can be expected to vary accordingly. The costs of the familiarisation phase are likely to be similar regardless of the size of the organisation, but the training costs will increase with the number of supervisors (from €542 for three supervisors to €7235 for forty supervisors). The expected benefit from the reduced notifications workload will be greater for a larger mine that completes more notifications. Overall, the net costs of implementing the Regulation are expected to range from €2426 for smaller mines with three supervisors up to €9119 for a larger mine with as many as forty supervisors.

Table 1.2 Summary of compliance costs and benefits of proposed Regulations

Implementation of proposed Mining Regulations	
(based on mine with ten supervisors)	€
Costs	
Familiarisation	2451.68
Information and training	1808.80
Control measures	
- Notification form updates	189.36
	4449.84
Benefits	
Control measures	
- Notification form updates	757.44
Net Cost	3692.40

6. ENFORCEMENT COSTS OF PREFERRED OPTION

The introduction and enforcement of the proposed Regulations will be cost neutral for the Authority. In recent years there has been an annual target of 500 inspections for the mines and quarries sector and inspections will continue at current levels under the proposed Regulations, at no additional cost. The requirement to update inspectors on the new Regulations will be incorporated in the annual training programme.

The Authority's existing advocacy programme in the mining sector will be utilised to support the implementation of the proposed Regulations. Workshops will be organised by the Authority's mining inspectors to explain the content of the Regulations and to outline the implementation policy of the Authority. These workshops could be held with management teams at individual mines, with worker representatives such as mine safety representatives, or hosted centrally with the various unions and IMEG.

It is not planned to produce specific guidelines to accompany the proposed Regulations. The Regulations are intended specifically for Mine Managers and personnel in Mine Safety Departments who are a small group with very high levels of technical competence based on their engineering qualifications and many years of professional experience in the mining industry. The target group are also very familiar with the provisions and requirements of the current legislation.

7. CONSULTATION

In the drafting of proposals for regulations and codes of practice, the Authority is obliged under Section 57 (2) of the Safety, Health and Welfare at Work Act, 2005 to consult “any other person or body that appears to the Authority to be appropriate having regard to the proposals to be submitted or as directed by the Minister”.

The draft Regulations, together with this RIA, will be made available for public consultation on the Authority’s website for a one month period in accordance with the Authority’s standard public consultation policy. Selected stakeholders may be contacted directly by the Authority and invited to make submissions. Submissions received during the public consultation will be collated and considered by the Authority and relevant additions or amendments may be incorporated in the Regulations and in this RIA.

The revised proposals for Regulations and RIA will be submitted to the Legislation and Guidance Sub-Committee of the Board and the Board of the Authority for consideration and approval. Subject to approval, the proposed Regulations will be submitted to the Minister for Labour Affairs at the Department of Enterprise, Trade and Employment for his consideration with a view to formal legal settlement of the Regulations by the Office of the Parliamentary Counsel to the Government.

8. REVIEW

The Authority will maintain records of incident reports and inspection and enforcement actions in the mining industry. This data will be monitored on an annual basis to assess if any further preventive action is required.

References

Revised RIA Guidelines – How to conduct a Regulatory Impact Analysis, Department of the Taoiseach, June 2009

http://www.betterregulation.ie/eng/Publications/Revised_RIA_Guidelines.pdf

Industry News from Ireland, Minerals Ireland, Department of Communications, Energy and Natural Resources, March 2009

http://www.mineralsireland.ie/NR/rdonlyres/B68D8627-17EB-4F87-8EAE-2707B6F51359/0/Industry_News_February2009_final.pdf

C176 Safety and Health in Mines Convention, 1995

<http://actrav.itsilo.org/actrav-english/telearn/osh/legis/c176.htm>

R183 Safety and Health in Mines Recommendation, 1995

<http://actrav.itsilo.org/actrav-english/telearn/osh/legis/r183.htm>

Appendix 1 – List of legal instruments to be repealed and revoked

S.I. No. 85 of 1987	Mines (Safety Training) Regulations, 1987
S.I. No. 176 of 1985	Employment Equality Act, 1977 (Employment of Females in Mines) Order, 1984
S.I. No. 369 of 1983	Mines (Employment of Women) (Exemption) Regulations, 1983
S.I. No. 279 of 1979	Mines (General) (Amendment) Regulations, 1979
S.I. No. 125 of 1979	Mines (Electricity) (Amendment) Regulations, 1979
S.I. No. 356 of 1978	Mines (Employment of Women) (Exemption) Regulations, 1978
S.I. No. 331 of 1975	Mines (General) Regulations, 1975
S.I. No. 97 of 1974	Mines and Quarries (General Register) Regulations, 1974
S.I. No. 153 of 1973	Mines (Mechanically Propelled Vehicles) Regulations, 1973
S.I. No. 226/1972	Mines (Fire and Rescue) Regulations, 1972
S.I. No. 123 of 1972	Mines (Explosives) Regulations, 1972
S.I. No. 51 of 1972	Mines (Electricity) Regulations, 1972
S.I. No. 238 of 1971	Mines (Locomotives) Regulations, 1971
S.I. No. 219 of 1971	Mines and Quarries Inquiries (Draft Regulations) Rules, 1971
S.I. No. 61 of 1971	Mines and Quarries (Notification of Diseases) Order, 1971
S.I. No. 110 of 1970	Mines and Quarries Act, 1965 (Birth Certificates) Regulations, 1970
S.I. No. 78 of 1970	Mines (Surveyors and Plans) Regulations, 1970
S.I. No. 77 of 1970	Mines and Quarries (Notification of Accidents) Regulations, 1970
S.I. No. 76 of 1970	Mines and Quarries (Notification of Dangerous Occurrences) Order, 1970
S.I. No. 75 of 1970	Mines and Quarries (References) Rules 1970
S.I. No. 74 of 1970	Mines (Managers and Officials) Regulations, 1970
S.I. No. 73 of 1970	Mines and Quarries Act, 1965 (Commencement) Order, 1970
S.I. No. 183 of 1966	Mines and Quarries Act, 1965 (Section 151) (Commencement) Order, 1966
No.7 of 1965	Mines and Quarries Act, 1965

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