# **REGULATORY IMPACT ANALYSIS (RIA)**

# SAFETY, HEALTH AND WELFARE AT WORK (GENERAL APPLICATION)(AMENDMENT)(NO. 3

# **REGULATIONS 2010**

(Re. Use of Work Equipment)

(S.I. No. ... of 2010)

22 September 2010

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#### Foreword

The Health and Safety Authority, herein after referred to as the Authority, has prepared this Regulatory Impact Analysis (RIA) in line with the *Revised RIA Guidelines*, (Department of the Taoiseach, 2009).

This legislative review, and the resultant proposals for the draft Safety, Health and Welfare at Work (General Application)(Amendment)(No. 3) Regulations 2010 (Re. the Use of Work Equipment) has two objectives. Firstly, to ensure that national legislation for the use of work equipment reflects the most recent EU Directive 2009/104/EC. A second objective is to address provisions of Regulation 55 of the General Application Regulations (S.I. No. 299 of 2007) as amended by the Safety, Health and Welfare (General Application) (Amendment) Regulations 2007 (S.I. No. 732 of 2007) which are inconsistent with the application of the European Communities (Machinery) Regulations 2008 (S.I. No. 407 of 2008).

The transposition of the codified Directive is a straightforward exercise given that all of the provisions were already transposed and consolidated in domestic law through the Safety, Health and Welfare (General Application) Regulations 2007 (S.I. No. 299 of 2007) as amended by Safety, Health and Welfare (General Application) (Amendment) Regulations 2007 (S.I. No. 732 of 2007). The proposed Regulations will simply align provisions and references with those in Directive 2009/104/EC. The Authority recommends that the proposed Regulations to transpose the codified Directive should be approved.

The impacts of amendments to Regulation 55 concerning the use of excavators for object handling are examined in greater detail. The requirement to equip all such excavators above a certain size with an acoustic or visual warning device is expected to bring health and safety benefits and to increase the efficiency of both compliance and enforcement processes. The amendments will also prevent any legal challenge by the European Commission and should improve the competitiveness of Irish firms by allowing excavators to move across the border with Northern Ireland without risk of being challenged as to their technical specifications. On the costs side, employers who need to fit the devices are expected to incur costs of approximately  $\in$ 3,600 per excavator. The number of machines that will require retro-fitting is likely to be low

because the devices have been fitted as standard on all new excavators with object handling capability, sold in the past ten years.

Taking all of the impacts into account, in particular the expected increase in the level of worker safety, the Authority recommends that the amendments to provisions for the use of excavators for object handling should be approved.

22 September 2010

## **1** POLICY CONTEXT

The European Commission, since 2006, has been working on a codification of the Use of Work Equipment at Work Directives. The purpose of a codification is to bring together a number of instruments into one codified text, not to make substantive amendments. In this case, the codified Directive replaces the Directive 89/655/EEC of 30 November 1989 concerning the minimum safety and health requirements for the use of work equipment by workers at work (second individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC) and other instruments (95/63/EC, 2001/45/EC and 2007/30/EC) which made subsequent changes to the original Directive. The text of the codified Directive 2009/104/EC was agreed between the European Parliament and the Council on 16 September 2009.

The codified Directive consolidates the minimum health and safety requirements for the use of work equipment at work. It places obligations on employers to take into account potential dangers to operators and other persons using or affected by machines and equipment.

The main benefits of the codified Directive have already been achieved in Ireland through Chapter 2 of Part 2 of the Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007) as amended Safety, Health and Welfare at Work (General Application) (Amendment) Regulations 2007 (S.I. No. 732 of 2007) (hereafter referred to as the Use of Work Equipment Regulations). These Regulations already consolidate all the provisions of the codified Directive.

The Use of Work Equipment Regulations combine the European requirements for the use of work equipment, together with provisions related to lifting equipment which were imported from other national regulations, including those for docks, construction and ship-building.

Under the Machinery Directive's requirements for loading control, as transposed by the European Communities (Machinery) Regulations 2008 (S.I. No. 407 of 2008), and its associated standards, excavators used for object handling must have safety devices for object handling fitted. However, Regulation 55(2)(h) of the Use of Work Equipment Regulations may be interpreted to mean that such a device is not necessary in certain circumstances:

'unless a machine is fitted with an automatic safe load indicator or a rated capacity indicator, the safe working load is the same for all radii at which the jib or boom is operated and is not greater than the load which the machine in its least stable configuration is designed to lift with that jib or boom.'

This allows excavators to be used for object-handling without an automatic safe load indicator or rated capacity indicator fitted, as long as certain load restrictions are adhered to. This provision must be changed to recognise that since 1996, a relevant harmonised standard under the Machinery Directive has required the fitting of a warning device to deal with the risk of overloading /overturning. There is currently a hiatus in this requirement since the end of last year but this is expected to be resolved along lines which will retain this requirement.

The opportunity should also be taken to clarify the distinction between a crane and an excavator used for object handling so that operators can be clear about which provisions apply in which case. Currently, an excavator used for object handling may be considered to be a 'crane of variable operating radius' and therefore Regulation 43(1)(a) of the Use of Work Equipment Regulations 2007 applies. However, these machines are built to different standards and the associated safety requirements should reflect these differences. A clarification is required to ensure that Regulation 43 is clearly applicable to cranes and that Regulation 55 applies to excavators used for object handling.

## **2 OBJECTIVES**

The first objective of this legislative review is to make certain that Irish law is fully aligned with European requirements in codified Directive 2009/104/EC.

A second objective is to increase the protection of workers who work on or near excavators used for object handling, by ensuring that the technical requirements in domestic law reflect the intentions of the Machinery Directive and relevant harmonised standards.

A third objective is to clarify requirements for operators by distinguishing between provisions that apply to cranes and provisions that apply to excavators used for object handling.

#### **3** OPTIONS

The only impact expected to arise from the transposition of codified Directive 2009/104/EC is a requirement to update the relevant guidance document to reflect the exact wording of the new Directive. Therefore, it is not considered necessary to examine additional options and it is recommended to proceed with the revocation and replacement of the current Use of Work Equipment Regulations.

The options for addressing the issue of requirements to fit devices on excavators used for object handling are as follows:

#### Option 1 Do nothing

This option means that the national legislation in relation to the use of excavators for object handling continues to be inconsistent with both the application of the Machinery Directive since 1996 and Regulation 28(a) of the Safety, Health and Welfare at Work(General Application) Regulations 2007 which requires that any work equipment provided for use by employees at a place of work complies, as appropriate, with the provisions of any relevant enactment implementing any relevant Directive of the European Communities relating to work equipment with respect to safety and health.

Option 2 Put in place provisions to reflect the requirements of the European Communities (Machinery) Regulations 2008 implementing the Machinery Directive and which are consistent with Regulation 28(a) of the Safety, Health and Welfare at Work(General Application) Regulations.

Under this option, Regulation 55 would be amended to clarify that an overload detection and warning device must be fitted to excavators which are used for object handling. The specific changes to be made under this option are summarised:

- Amendment of title of Regulation 55 from 'Safe working loads for excavators, draglines, telehandlers, loaders or combined excavators and loaders when used as cranes' to 'Safe working loads for excavators, draglines, telehandlers, loaders or combined excavators and loaders when used <u>for object handling</u>'

- Amendment of wording of Regulation 55(2)(f) so that provision to fit an overload warning device applies to all excavators used for object handling where appropriate.

Option 1, to do nothing, would leave Ireland vulnerable to legal challenge by way of complaint to the Commission. Already, an industry organisation in another EU member state formed the view that Irish legislation did not reflect the requirements of a Directive and its harmonised standards and has brought it to the Commission's attention by way of complaint. This option also has the disadvantage of continuing to provide a lower level of protection for Irish workers than that required for workers in other member states. On this basis it is recommended to proceed with option 2, to put in place provisions that will meet the application of the Machinery Regulations 2008. The impact of this option is assessed in detail in the following section.

## **4** IMPACT ANALYSIS

# 4.1 Benefits of putting in place provisions to reflect the requirements of the European Communities (Machinery) Regulations 2008

**Health and safety benefits:** Amending Regulation 55 of the Use of Work Equipment Regulations to reflect application of the Machinery Regulations 2008 and the regulations that preceded it, will have a positive impact on health and safety on the basis that all excavators used for object handling will be properly equipped in line with the Machinery Directive. The fitting of the required devices will improve the level of protection afforded to workers compared to the current situation where these devices are not required under certain load restrictions.

**Compliance benefits:** Those involved in managing the use of excavators for object handling will benefit from consistent requirements across the proposed Use of Work Equipment Regulations and the Machinery Regulations 2008. The updated provisions should also create a more level playing field for operators – those that already have the devices fitted to their excavators are no longer disadvantaged. The clear distinction between cranes and excavators in the proposed Regulations could also lead to savings for some operators who had previously applied the requirements in Regulation 43 to their excavators used for object handling. Under the

proposed Regulations it will be clear that less onerous requirements are applicable to excavators used for object handling than for cranes.

**Enforcement benefits:** Removing the ambiguities in the current Use of Work Equipment Regulations should enhance the efficiency of the Authority's inspection and enforcement activities. Inspectors can expect to find automatic overload/overturning warning devices fitted to all excavators used for object handling; appropriate enforcement action can be taken where this is not the case.

# 4.2 Costs of putting in place provisions to reflect the requirements of the European Communities (Machinery) Regulations 2008

**Compliance costs:** There is no data available to the Authority to indicate how many excavators are used for object handling or how many already have the devices for overload detection and warning fitted. The devices have been required by the European Standard EN 474-5 [Earth –Moving Machinery-Safety-Requirements for hydraulic excavators] which was a harmonized standard under the previous Machinery Directive since October 1996 until December 2009. Currently it is not a harmonized standard under the present Machinery Directive due to a formal objection by France with regard to nonreturn valves. However, it is expected that these particular requirements relating overload/overturning hazards will be left in place once the objection has been resolved; the only difference being that the requirements will apply at 1000 kg and 40000 Nm rather than above these thresholds. Many of the excavators currently in use may have been purchased within the last ten years, during the increase in construction activity. Plant suppliers have also advised that excavators without the devices are likely to have built-in provision for them. Therefore the requirement to retro-fit may apply to a limited number of excavators and the process of retro-fitting may be less onerous due to the builtin provision. A sample cost of retro-fitting the devices on a per excavator basis is estimated in Table 1:

#### Table 1 Cost estimate of proposed amendments per excavator

Cost element	€
Familiarisation and research	70.90
Purchase and installation of device	3500.00
Training	28.71
Cost per excavator	3599.61

Companies who must fit devices on their excavators will need to allocate time to familiarising with the relevant section of the Regulations and to sourcing appropriate devices. The hourly rate for a managerial role in the construction sector is  $\in 35.45^{1}$  and it is estimated that two hours should be allocated for this task.

The cost of purchasing and installing the required devices is estimated at  $\notin$ 3500, based on estimates of between  $\notin$ 3,000 and  $\notin$ 4,000 obtained from plant suppliers. It should also be noted that some employers may find a reduction in equipment costs once it is clarified that provisions for cranes in Regulation 43 are not applicable to excavators used for object handling.

The training costs are calculated on the basis that a manager and an operator (CSO estimate an hourly labour cost of  $\notin$ 21.97 for manual workers in construction) will need to allocate 30 minutes each for the training session. In practice, several operators may be trained by a single manager.

#### 4.3 Other Impacts

**National competitiveness:** The proposed amendments will have a positive effect on national competitiveness by ensuring that Irish legislation corresponds closely with the Directive and that of other EU Member States. In particular, the amendments should facilitate the movement of machinery for use in Northern Ireland.

No impacts on the rights of citizens, human health or environmental issues, consumers and competition, socially excluded or vulnerable groups of north-south east-west relations are anticipated to arise from the proposed amendments.

#### 4.4 Summary of impacts

<sup>&</sup>lt;sup>1</sup> Central Statistics Office, Earnings, Hours and Employment Costs Survey (EHECS), Q2, 2009

The impact analysis indicates that the proposed amendments to Regulation 55 will bring benefits in terms of health and safety outcomes, efficiency of compliance and enforcement processes and national competitiveness. The proposed provisions will also avoid any legal challenge by the European Commission and the significant costs associated with processing such a challenge.

There will be a compliance cost for employers who need to equip their excavators with the required devices and this cost is estimated at  $\notin$ 3,600 per excavator. There is no available data to indicate how many excavators may need to have the devices fitted but any excavators sold in the past ten years already have the devices fitted in compliance with marketing legislation.

It is the Authority's view that the potential benefits, particularly to health and safety, justify the amendment and it is recommended to proceed with this option.

# 5 CONSULTATION

The proposed Regulations will be made available 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 will be collated and considered by the Authority and relevant additions or amendments may be incorporated in the proposed Regulations and this RIA.

The proposed 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. Any resultant proposals for legislative change will be submitted to the Minister for Labour Affairs at the Department of Enterprise, Trade and Innovation for his consideration with a view to formal legal settlement by the Office of the Parliamentary Counsel to the Government.

#### **6 REVIEW**

The Authority will review the impact of the proposed Regulations through monitoring of enforcement statistics, requests for information, incident and dangerous occurrence data and complaints received. The Authority's annual reports and statistics summaries will continue to provide an update on health and safety performance in relation to the use of work equipment.

## References

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