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Why Are Employers' Duties Relating to Health, Safety and Welfare Not Understood or Not Known?

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Abstract

There are company directors in the construction and manufacturing sectors in the Republic of Ireland who are unaware of their duties in relation to safety, health and welfare at work. Phrases such as hazard, specific risk assessment, control measures, hierarchy of control measures and safe system of work do not appear to be understood. This study focused on safety management of 10 limited companies located in the Republic of Ireland. The plant and equipment and processes used by all 10 companies result in high-risk activities that require specific control measures. There is a perception among company employers that the role of the Health & Safety Authority (HSA) is to tell and show them precisely what they need to do in terms of health and safety management; however, this perception is flawed. The HSA's remit is wide reaching including (but not limited to) promotion, inspection, investigations and the development of a myriad of extremely useful publications and short guides to help duty holders understand what is required. However, even with the work of HSA, there is a serious issue in terms of basic knowledge amongst employers. This paper proposes to address the gaps in knowledge by changing the process for becoming an employer for certain companies that carry out high risk activities by having a mandatory health and safety entrance exam before the directorship/permission to trade is approved. This study is unique in that there is no other study of this type reported to-date in terms of identifying such a significant knowledge gap.

Keywords

Employer, Duties, Health, Safety, Management, Welfare, Hazard, Risk, Safe System of Work

1. Introduction

In the Republic of Ireland (ROI), qualifying with a full driving licence for a car has mandatory requirements including age restrictions, a theory test to achieve a learner permit displaying their status as a "learner" by displaying "L" plates whilst using the services of an approved driving instructor. The learner driver must be accompanied by a driver who has a full driving licence for class of vehicle being driven, then a practical test successfully before a full licence is obtained and then periods of displaying status as a "novice" driver using an "N" plate. The rules of the road are shown on signage throughout the country to provide both advisory and regulatory information [1].

In the ROI, an individual aged 18 years or above can become a director of a company (or an employer) without any oversight or test whatsoever. It appears the only barrier to becoming a company director is being currently listed as restricted or disqualified as a company director by the Office of the Director of Corporate Enforcement (ODCE) and the individual is still within the disqualification period that was stipulated by the court(s) [2]. Therefore, an 18-year-old individual with no previous training, experience or knowledge in civil engineering/construction/manufacturing could become a director of a company and direct operations which may include a myriad of significant hazards including the use of explosives for blasting purposes, demolition of existing structures, deep excavations, tunnelling and marine operations. This situation is flawed given that there are company directors who do not understand or do not know their duties.

This research paper focused on the safety management of 10 limited companies located in the ROI from 2017 to 2019. All companies were small-to-medium enterprises (SMEs) as defined by the Central Statistics Office which reports an estimated 234,000 SMEs in the ROI with approximately 55,000 of these SMEs operating in the construction sector [3]. The study found that there is a perception among some employers that the role of the HSA is to both tell and show them precisely what they need to do in terms of health and safety management and that is simply health and safety done. This perception is flawed as health and safety never reaches a point where it is "done" unless the activity has been eliminated. Health and safety management involves continuous improvement. The HSA's remit is wide reaching including (but not limited to) promotion; inspection; investigations; research; developing and publishing codes of practice, guidance and information documents; providing an information service during office hours; developing new laws and standards on health and safety at work and promoting consultation. The HSA also holds information events such as webinars. Health and safety management in individual companies is not the HSAs duty, it's the employers who have the duties along with tool kits to help create/develop safety statement and risk assessments, the Business Electronic Safety Management and Risk Assessment Tool (BeSMART) being one example. The study also found that there are employers that are not aware that they have

any duties whatsoever that relate to health and safety. This situation is unacceptable as, without protocols being followed, people's lives are being put at uncontrolled and, therefore, unacceptable risk. Specific risk assessments (SRAs) as part of an overall Safe System of Work Plans (SSWPs) are critical in health and safety management [4]. This paper makes essential recommendations including a mandatory test for directors of specified companies/businesses along with changes to the HSA. Acknowledgements are not possible in this research as the companies are not being identified.

2. Literature Review

There are a myriad of acts and regulations associated with safety, health and welfare in the ROI. Noteworthy examples include:

The Safety, Health and Welfare at Work Act 2005 (SHWWA 2005) repealed and replaced the Safety, Health and Welfare at Work Act 1989 as brought in to make further provision for the safety, health and welfare of persons at work. This Act clarifies and enhances the responsibilities of employers, the self-employed, employees and various other parties in relation to safety and health at work. The Act also details the role and functions of the HSA and provides for a range of enforcement measures that may be applied and specifies penalties that may be applied for breach of occupational safety and health [5].

In relation to the SHWWA 2005 on the HSA website, under "frequently asked questions", one of the questions is: *What are my duties as an employer under the* 2005 *Act*? The HSA answer, which is summarised from SHWWA 2005, is as follows:

Employers have extensive duties under the Act. The different requirements are split up into the following headings:

- a) General duties of Employers
- b) Information to Employees
- c) Instruction, Training & Supervision of Employees
- d) Emergencies and serious and imminent dangers
- e) Protective and Preventive Measures
- f) Hazard identification & Risk Assessment
- g) Safety Statement
- h) Co-operation
- i) Health Surveillance & Medical fitness to work
- j) Safety representative
- k) Employee Consultation
- 1) Penalisation

1) General duties of the employer (Part 2, section 8) include:

- To ensure the safety, health and welfare at work of his or her employees
- To manage and conduct work activities in such a way as to ensure the safety, health and welfare at work of all employees
- To manage and conduct work activities in such a way as to prevent any improper conduct or behaviour likely to endanger employees

- As regards the place of work concerned, the employer must ensure the design, provision and maintenance of:
- a safe, risk-free place of work
- safe means access to and egress from it
- plant and machinery that are safe and without risk to health
- To ensure safety and the prevention of risk arising from the use of articles or substances or the exposure to noise, vibration, radiation or any other ionizing agent
- To provide systems of work that are planned, organised, performed, maintained and revised as appropriate so as to be safe and risk free
- To provide and maintain facilities and arrangements for the welfare of employees at work
- To provide information, instruction, training and supervision, where necessary
- To implement the safety, health and welfare measures necessary for protection of employees, as identified through risk assessments and ensuring that these measures take account of changing circumstances and the general principles of prevention specified in Schedule 3
- To provide protective clothing and equipment where risks cannot be eliminated or adequately controlled
- To prepare and revise emergency plans and procedures
- To report accidents and dangerous occurrences to the relevant authority
- To obtain where necessary the services of a competent person for the purpose of ensuring safety and health at work
- To ensure that all safety measures take into account both fixed term and temporary workers and that that any measures taken do not involve financial cost to his or her employees

2) Information to employees include:

- When giving information to employees, employers must:
- Ensure that it is given in such appropriate form, manner and language that it is likely to be understood by the employees concerned
- Ensure that the information includes the workplace hazards and risks identified, the protective and preventive measures taken and the names of the safety representative and all other persons named in evacuation procedures etc.
- Where persons from other employment are engaged in work activities in an employer's undertaking, the employer must ensure that the person's employer receives the above information
- The employer must ensure that the safety representative and designated competent persons have access to:
- The Risk Assessment
- Information relating to reportable incidents and accidents
- Information arising from protective or preventative measures
- The employer must provide information relating to the following before a fixed term or temporary employee commences work:

- Any potential risks
- Health surveillance
- Any special occupational qualifications or skills required
- Any increased specific risks which the work may involve

3) Instruction, training and supervision of employees

The employer must ensure that:

- All instruction, training and supervision is provided in a manner, form and language that is reasonably likely to be understood
- Employees receive, during time off from their work but without loss of pay, adequate health, safety and welfare training including, in particular, information and instruction relating to the specific task to be performed and measures to be taken in an emergency
- The employee's capabilities in relation to safety, health and welfare are taken into account
- In the case of a class or classes of sensitive employees or groups of employees exposed to risks expressly provided for in the relevant statutory provisions, the employees are protected against the dangers that specifically affect them
- Training must be adapted to take account of new or changed risks in the workplace
- Training must be provided:
- on recruitment
- when an employee is transferred or tasks change
- on the introduction of new or changed work equipment or work systems
- on the introduction of new technology
- All contractors etc. carrying out work in the employer's premises must receive relevant safety instructions

4) Emergencies and serious and imminent dangers

The employer must provide adequate plans and procedures to be followed and measures to be taken in the case of emergency or serious and imminent danger.

These plans should:

- Provide measures for first aid, firefighting and premises evacuation taking into account of the nature of the work being carried out and the size of the place of work
- Arrange necessary contacts with appropriate emergency services (first aid, emergency medical care, rescue work and firefighting)
- Designate employees who are required to implement these plans, procedures
- Ensure that all designated employees have adequate training and equipment available to them

In the event of an emergency or serious and imminent danger the employer must:

- Inform all employees of the risk and steps taken to protect them
- Refrain from requiring employees to carry out or resume work where there is still a threat to their safety

- Ensure that, in the absence of appropriate guidance or instruction, based on the employee's knowledge and technical means at his or her disposal, the employee must take appropriate steps to avoid the consequences of the danger
- Take action and give instruction for employees to stop work and remove themselves to a safe place
- Ensure that an employee who leaves the place of work in the case of emergency is not penalised because of such action
- Ensure that access to specifically hazardous areas is restricted only to employees who have received appropriate training

5) Protective and Preventive Measures

The employer must:

- Appoint an adequate number of competent persons to perform the functions relating to the protection of employees and give them adequate time and means to perform those functions
- Make arrangements for co-operation between the competent person and the safety representative
- Give preference to competent persons within their employment when appointing a competent person

6) Hazard identification and Risk Assessment

The employer must:

- Identify all hazards in the workplace
- Keep a written assessment of the risks associated with each hazard (known as a Risk Assessment)
- Review the Risk Assessment if:
- There is a significant change to the matters it relates to or
- There is any other reason to believe that it is no longer valid
- Implement any control measures or improvements which are identified by the Risk Assessment

7) Safety Statement

Employers must have a written Safety Statement, based on the hazard identification and Risk Assessment carried out, which specifies how they are going to manage and secure the safety, health and welfare of all employees at work.

The Safety Statement should specify:

- The hazards identified and risks assessed
- The protective and preventive measures taken and the resources provided
- The emergency plans and procedures
- The duties of the employees
- The names, job titles and positions of anyone assigned with safety responsibilities

The Safety Statement should be brought to the attention of:

- Employees, at least annually or when there are any changes
- Newly recruited employees upon the commencement of employment
- Other persons at the place of work who may be exposed to any specific risk

The employer must review the Safety Statement if:

- There is a significant change to the matters it relates to
- There is any other reason to believe that it is no longer valid
- An inspector directs the Statement to be amended Every employer must ensure that:
- All contractors providing services to the employer have an up-to-date Safety Statement
- A copy of the Safety Statement is kept available for inspection at or near the place of work

If an employer who employs three or fewer employees is engaged in an activity for which there is a Code of Practice for that type of activity, they can fulfil their duty in relation to Safety Statements by complying with such Code of Practice.

- **8)** Duty of employers to co-operate. Where employers share a place of work, they must:
- Co-operate in complying with and implementing the relevant statutory provisions
- Co-ordinate their actions in relation to prevention and protection of employees
- Inform each other, respective employees, safety representatives etc. of all risks, including the exchange of Safety Statement and relevant extracts relating to hazards and risks

9) Health Surveillance and Medical Fitness to Work (Part 3, Sections 22 & 23)

Employers are required to ensure that health surveillance appropriate to the risks that may be incurred in the place of work is available to all employees. The Act requires an assessment of the medical fitness to work of employees involved in certain work activities or occupations.

These activities and occupations will be detailed in Regulations. Employees are required to inform their employer or their employer's Registered Medical Practitioner if they are unfit to carry out a prescribed work activity. If an employer is notified of the unfitness of the employee they must immediately take appropriate action to comply with the general duties of employers to ensure the safety, health and welfare of all employees at work.

10) Safety Representative

The employer must:

- Agree with the safety representative the frequency of inspections to take place
- Consider any representations made to him or her by the safety representative
 and so far as reasonably practicable take any action that he or she considers
 necessary or appropriate with regard to those representations
- Allow the safety representative such time off from their work, without loss of
 pay, as is reasonable to enable the safety representative to acquire the knowledge and training and time to discharge their functions

- Inform the safety representative when an inspection is taking place
- Give the safety representative a copy of the written confirmation, required under the Act and sent to the inspector, that an Improvement or Prohibition Notice has been complied with

11) Consultation and participation with employees (Part 4, Section 26) Employers are required to:

- Consult with employees for the purpose of making and maintaining safety arrangements
- Consult with their employees and safety representatives in good time regarding:
- protective measures proposed
- the designation of employees with safety responsibilities
- activities arising from or relating to the protection from and the prevention of risks
- the hazard identification and risk assessment
- the safety statement
- the information to be provided to employees (as outlined above)
- the information required to be kept or notified to the Authority in respect of accidents or dangerous occurrences
- the appointment of competent persons
- the planning and organisation of training
- the planning and organisation of new technologies particularly in relation to the choice of equipment, working conditions and the work environment

12) Penalisation

Employers are prohibited from penalising (defined as dismissal, demotion, transfer, imposition of duties, coercion or intimidation) or threatening to penalise employees, who are performing any duty, exercising rights or who make any complaints relating to safety and health or who give evidence in enforcement proceedings.

The dismissal or penalisation in such manner can be deemed to be an unfair dismissal within the meaning of the Unfair Dismissals Acts of 1997 and 2001 and employees may also complain to the Rights Commissioner that their employer has penalised them for exercising their rights under the safety and health legislation [6] [7].

There is also a myriad of subordinate legislation through Statutory Instruments in the form of Regulations such as the Safety, Health and Welfare at Work (Quarries) Regulations 2008 and subsequent amendments that prescribe important duties to assist with the overall management of safety, health and welfare at quarries [8].

Safety Health and Welfare at Work (Construction) Regulations 2013 and subsequent amendments also contain further "extensive" duties on contractors with the word contractor being defined as 1) "a contractor or an employer whose employees, carry out or manage construction work 2) a person who a) carries out or manages construction work for a fixed or other sum, and b) supplies mate-

rials, labour or both, whether the contractor's own labour or that of another, to carry out the work" [9]. Thus, the definition of contractor is wide ranging. For example, for a quarry operator who also carries out construction work, there are substantial duties that must be followed and which could necessitate referring to in excess of 5 statutory instruments/acts depending on the type of work being engaged.

The Health and Welfare at Work (General Application) Regulations 2007 and subsequent amendments which refer to a "safe system of work". But what is a safe system of work? The law, requires employers to provide systems of work that are planned, organised, performed, maintained and revised as appropriate so as to be, so far as is reasonably practicable, safe and without risk to health. A system of work is a set of procedures according to which work must be carried out. Safe systems of work are required where hazards cannot be eliminated and some risk still exists. When developing your safe systems of work, consider how the work is carried out and the difficulties that might arise and expose workers to risk. Then, develop a set of procedures detailing how the work must be carried out to minimise or reduce the risk of accident or injury.

Systems of work must be communicated and understood by the relevant employees. The detail of the system of work, for example, whether it is oral or written will depend on the level of risk and the complexity of the work involved. For example, high risk activities where there is a risk of serious injury or death, will need to have documented systems of work which are strictly supervised and enforced. The Health and Welfare at Work (General Application) Regulations 2007 clearly set out the need for "thorough examination" by a "competent person" of specific plant and equipment and the production of a "certificate of test and examination" [10] [11] [12] [13].

The phrase "so far as is reasonably practicable" is stated 43 times in the Health and Welfare at Work (General Application) Regulations 2007, this is an important phrase when considering the definition:

"For the purposes of the relevant statutory provisions, "reasonably practicable", in relation to the duties of an employer, means that an employer has exercised all due care by putting in place the necessary protective and preventive measures, having identified the hazards and assessed the risks to safety and health likely to result in accidents or injury to health at the place of work concerned and where the putting in place of any further measures is grossly disproportionate having regard to the unusual, unforeseeable and exceptional nature of any circumstance or occurrence that may result in an accident at work or injury to health at that place of work." [7]

3. Method

A safety statement was completed for each company which included a method to compete a risk assessment along with "sample generic risk assessments" as a basic starting point. The companies were informed (where applicable) that they need assistance in the form of competent person(s), examples of which were

safety consultant (to inspect and advise on safety management including (but not limited to) statutory duties, SSWPs, SRAs and Standard Operating Procedures (SOPs); Professional Geologist (for geological assessment of quarries and mines); fire safety consultant; Inspector as thorough examiner (for plant and equipment); Operator (in the case of a quarry where the Employer is not competent or does not have sufficient resources to operate the quarry); Shotfirer (in the case of a quarry using blasting) and Designers (to advise on design requirement under all relevant statutory instruments) who have an important role when considering that both temporary and permanent works need to be designed by competent persons(s).

All companies were provided with a draft SSWP procedure and a safety guidance report as initial actions to be taken, all these actions included the appointment of competent persons and the requirement for SSWPS. From the guidance report, **Table 1** was developed to establish the overall level of undertaking of or access to employers' duties.

The results from the study were presented under 6 basic safety management related criteria with a yes (\checkmark) or no (\mathbf{x}) answer a shown in **Table 1** for the initial visit at the start of the study. The companies were revisited at 6 months, 12 months and 18 months after the initial visit with **Table 2** identifying changes in the safety management system against the 6 criteria at the 18-month point which was the end of the study.

It was decided to anonymise the companies with identification herein by number only.

4. Results

The study provided the following results as shown in Table 1 & Table 2, with Table 1 reporting at the start of the study and Table 2 reporting results from the end of the study.

Table 1. Results from each company at the start of the study.

Company		assessments in	(3) The requirement for specific risk assessment for each activity known?	of Work Plans	(5) Competent Persons Currently Engaged?	(6) Aware of the HSA role?
1	X	x	x	x	x	x
2	x	✓	x	x	✓	✓
3	x	x	x	x	x	x
4	X	x	x	x	x	x
5	x	x	x	x	x	x
6	X	✓	x	x	x	✓
7	x	x	x	x	x	x
8	x	x	x	x	x	x
9	x	x	x	x	x	✓
10	x	x	x	x	✓	✓

Table 2. Results from each company at the end of the study.

Company	(1) Health & Safety Duties understood by Director(s)?	-	(3) Specific risk assessment for each activity in place?	(4) Safe System of Work Plans in place?	(5) Competent Persons Currently Engaged?	(6) Aware of the HSA role?
1	X	✓	x	x	✓	✓
2	x	✓	x	x	✓	✓
3	x	✓	x	x	✓	✓
4	x	x	x	x	x	x
5	x	x	x	x	x	✓
6	x	✓	x	x	x	✓
7	x	x	x	x	x	✓
8	x	✓	x	x	✓	✓
9	x	✓	x	x	✓	✓
10	x	✓	x	x	✓	✓

Along with the information reported in **Table 1** and **Table 2**, the main findings in the study is that it was not known by 80% of the companies of what action was required in terms of hazard identification, The meaning of the following common health and safety related phrases "principles of prevention", "hierarchy of control measures", "SSWP", "SoPs" and "reasonably practicable" were unknown by 90% of the employers in this study, the requirement for instruction and training relating to employees was known by 20% of the employers.

While the following was not the focus of the study, the findings are noteworthy. The safety guidance report as well as highlighting the requirement for SSWPs also highlighted hazards that could be seen by a "walk around" of the business premises. While appointed competent persons given their experience would highlight further hazards, there were over 100 "high risk hazards" identified at 40% of the companies. The following reports 10 of these hazards all of which can lead to death or serious injury:

- 1) Moving parts: Unguarded moving parts such as return rollers and tail drum rollers on conveyor systems.
- 2) Working at height: Designated and designed access and egress missing form areas that access and egress is required, this access may be short terms to inspect or maintain for example a motor which is in an elevated position, however whether short term or not, the hazards must be identified and a SSWP put in place. Attention to working at heights was not addressed by any of the companies in terms of written procedures.
- 3) Stationery plant and equipment: no SoP in place, this was the case for all the companies, including "pressure systems" or pressurised equipment, for example 100% of the companies had "air compressors" and 0% had a "thorough examination" of the air compressor in terms of a "certificate of test and examination".

- 4) Gas (including liquified petroleum gas): 70% of the companies had gas storage at their premises, 0% of the companies had evidence relating to the implementation of the mandatory requirements and not even the basics in place such as SoP or risk assessment covering the receiving, storage and use of the gas in question.
- 5) Liquid Fuel (Petrol, diesel or other oils): 100% of the companies stored fuel in vans, 10% of the companies had a risk assessment that dealt with the storage of petrol, 90% of the companies had no evidence of the mandatory procedures for dealing with fuel storage. 20% of the companies stored spent liquid fuels on site after depolluting vehicles, the storage facilities did acknowledge even the basic mandatory requirements and are an explosion/fire hazard in the opinion of the author.
- 6) Mobile plant and equipment: no SoP in place, this was the case for all the companies.
- 7) Environmental conditions: No procedures for monitoring for explosive and harmful atmospheres, this is significant in the next point.
- 8) Confined Spaces: 60% of the companies had what are referred to as "inspection pits", these pits are normally located in a garage, are formed as an open channel below ground or floor level. The noun "inspection pit" is a misnomer, these pits are used to action much more than inspections including repairs and maintenance of plant and equipment such as articulated vehicles (tractor units and trailers). When working in a pit, this location becomes a confined space. The "hierarchy of control measures" must be considered including: Elimination, can the operation be eliminated? If the answer is no, then substation, is an above ground method such as a lift a suitable replacement for a pit? If the answer is no, then here is a non-exhaustive list of control measures associated with the use of pits in the opinion of the author: designed by a competent person who takes connivance of all relevant regulations and guidance; eliminate vehicles with engine running to be over the pit; adequate ventilation; gas monitors (including carbon dioxide); multiple emergency escape routes as well as the necessary access and egress; adequate firefighting equipment/fire suppression system; confined space training (this will also provide a myriad of additional control measures); guarding around the pit at floor level; signage warning and information; adequate task lighting and emergency backup lighting; an emergency plan; pit rules (including no lone working); SRAs in place for the overall operation, including the position of vehicles; Documented Personal Protective Equipment; SoP as part of an overall SSWP of the pit and inspected for compliance.
- 9) Quarry face: There are many hazards associated with a quarry face including falling objects and the collapse of the face through several factors including overburden forces that have not been managed. Inadequate security fencing that permits unauthorised access. The risk(s) associated with the quarry face and inadequate designing when not managed adequately can increase significantly.
- 10) Lifting Operations: 0% of the companies had lift plans and 100% of the companies carried out lifting operations as part of their operations, with lifting

operations featuring as one of the main daily operations for 30% of the companies.

- 11) Deep excavations: deep excavations existed with either no or inadequate support which can lead to collapse and burial, stockpiled material can and does also present a significant hazard in terms of burial.
- 12) Lagoons or Ponds: 40% of the businesses had either temporary or permanent lagoons or ponds for the storage of or treatment of water, 75% of these companies had no SoP, security fencing, rescue equipment or warning signage associated with their pond(s) or lagoons.

5. Discussion of Results

Table 3 summaries the results from **Table 1** and **Table 2** showing start, end and the differences in the areas considered.

The results show positive improvements in 50% of the areas considered, each area is considered as follows:

- Area 1: At the Start of the study 0% of Director(s) understood their health and safety duties, there was no evidence of any change in this situation at the end of the study. It is the opinion of the author the reason for this is that the duties are wide ranging and contained in multiple publications.
- Area 2: At the Start of the study 20% of companies had specific risk assessments in place, at the end of the study this had increased to 70% of the companies, it is the opinion of the author the reason for this change was simply being told that specific risk assessments are required.
- Area 3: This is the only area considered where the question at the end was revised from the question at the start. At the Start of the study 0% of the companies had, there was evidence of change in this situation at the end of the study, however 0% of the companies demonstrated that they had completed a comprehensive gap analysis to assess what activities were not risk assessed. At the end 1 of the companies had started the gap analysis but had not completed. It is the opinion of the author the reason for 0% official change in the status was that this type of gap analysis takes time, effort and adequate competent resources.
- Area 4: At the Start of the study 0% of Director(s) understood what a safe system of work was, there was evidence of a change in knowledge at the end of the study, however the situation at the end of the study was that 0% of the companies had a comprehensive safe system of work in place for all their activities. It is the opinion of the author that this type of change requires a gap analysis and significant time, effort and adequate competent resources.
- Area 5: At the Start of the study 20% of the companies had at least 1 "competent person" engaged on a continual/rolling part time basis, at the end of the study 90% of the companies had at least 1 "competent person" engaged on a continual/rolling part time basis.
- Area 6: At the Start of the study 30% of Director were aware of the role of the HSA, by the end of the study 90% were aware of the HSA role.

Table 3. Summary of results.

Area Considered		Start of the Study (%)	End of the Study (%)	Difference (Nr of Companies)	
1.0	Health & Safety Duties understood by Director(s)?	0	0	0	
2.0	Specific Risk assessments in Place?	20	70	+5	
3.0	Start: The requirement for specific risk assessment for each activity known? End: Specific risk assessment for each activity in place?	0	0	0	
4.0	Safe System of Work Plans in place?	0	0	0	
5.0	Competent Persons Currently Engaged?	20	60	+4	
6.0	Aware of the HSA role?	40	90	+6	

In the 6 areas considered, there were positive improvements in 3 of the areas, with an average of 5 companies in areas 2.0, 5.0 and 6.0 improving safety management. There were informal positive changes in areas 1.0, 3.0 and 4.0 for 90% of the companies, however these changes could not be substantiated. Given these findings, there are significant failings in the safety management of companies and urgent action is required to educate employers and sole traders. The ROI has an opportunity to lead the way yet again in terms of setting new standards. In 2002, the ROI was the first county to introduce a plastic bag levy in order to reduce environmental impact [14]. In 2004, the ROI was the first country to ban smoking in the workplace [15]. Stakeholder engagement is essential in this situation [16].

6. Conclusions

In this study, it was found that the "extensive" duties referred to by the HSA in relation to employers with examples in the literature review [5]-[13] not known at any level whatsoever by some employers in charge of companies who are involved in high-risk activities. These companies are operating without Safe system of work in place in terms of specific method statements and risk assessments. This situation shows there are major hazards that are not being identified and therefore the associated risks are not being assessed. Therefore, lives are being put at risk including employees and members of the public. The phrase "*Trust, but Verify*" should be considered in terms of employers' duties, there appears to be too much trust and not enough verification by the HSA and other government bodies. The HSA should be given additional resources to verify compliance.

One of the basic actions that employers are required to perform is to "Identify all hazards in the workplace", in other words every activity must be risk assessed, in this situation there are employers who do not understand what is being asked. The use of risk assessment is invaluable, it provides controls to help reduce the risks associated with the hazards.

The meaning of common health and safety related phrases including "principles of prevention", "hierarchy of control measures", "SSWP", "SoPs" and "reasonably practicable" were unknown by 90% of the employers in this study. In terms of the phrase reasonably practicable the word "foreseeable" in the definition relates to what could happen or what could have reasonably been foreseen. This is an important consideration, as work activities are normally dynamic. This study found that there is a failure to note that construction work involves activities within activities when considering operating; loading/unloading; transporting; modifying processes; repairing; maintaining, unblocking, cleaning and other associated activities. There are situations that employers do not see as hazardous, one basic example is "inspection pits" which are confined spaces that employees are repairing vehicles, as opposed to inspecting, this operation has many risks and may require more than 20 specific control measures if the operation was not eliminated in the first place.

A mandatory test must be put in place for employers. This test should not require an outcome that employers can recall and demonstrate competence in executing all required duties. A good start to this process would for employers to know where to find their duties, and to know that if they do not have the required competence that they must engage competent person(s) along with the importance of method statements, SoPs and risk assessment as part of safe system of work in the overall safety management. Employer's need to be educated in terms of health, safety and welfare.

With circa 234,000 SMEs in the ROI and approximately 55,000 of these operating in the construction sector it is time to change the way company directors/employers are approved, the do-nothing approach is not an option, intervention is required. This paper makes essential recommendations for further work.

7. Recommendations for Further Work

The following recommendations are regarded as essential:

- 1) The Irish Government in conjunction with HSA and other stakeholders must amend current Regulations to include a mandatory test for Directors of specified companies/businesses and should look at action to deal with scenarios where the employer is a sole trader.
 - 2) The HSA should consider the following:
- a) Set up a dedicated team that focus on companies/contractors that carry out high risk activities including but not limited to: The extractive industry, manufacturing, construction and civil engineering.
- b) A "let us help you understand your duties" campaign to assist in the education of employers in terms of their duties.
- 3) The Planning authorities should consider making part of the overall planning application include demonstration of consideration of SSWPs for specified developments.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- [1] Road Safety Authority (2019) Rules of the Road.

 https://www.rsa.ie/docs/default-source/services/s1.8-learner-driver-resources/rules-of-the-road-2020.pdf?sfvrsn=6d948b39_2
- [2] Office of the Director of Corporate Enforcement (2021) Directorship of a Company. https://www.odce.ie/en-gb/faq/directorshipofacompany.aspx
- [3] Central Statistics Office (2017) Business in Ireland 2015. https://www.cso.ie/en/releasesandpublications/ep/p-bii/bii2015/sme
- [4] Health and Safety Authority (2021) Role of the HSA. https://www.hsa.ie/eng/About_Us/Role_of_the_HSA
- [5] Health and Safety Authority (2021) Safety, Health and Welfare at Work Act 2005.
 https://www.hsa.ie/eng/Topics/Managing_Health_and_Safety/Safety,_Health_and_Welfare_at_Work_Act_2005
- [6] Health and Safety Authority (2021) What Are My Duties as an Employee under the 2005 Act? Part 2, Section 13. https://www.hsa.ie/eng/Topics/Managing_Health_and_Safety/Safety,_Health_and_Welfare_at_Work_Act_2005/#employeeduties
- [7] Law Reform Commission (2021) Number 10 of 2005 Safety, Health and Welfare at Work Act 2005.
 https://revisedacts.lawreform.ie/eli/2005/act/10/front/revised/en/html
- [8] Irish Statute Book (2008) S.I. No. 28 of 2008 Safety, Health and Welfare at Work (Quarries) Regulations 2008. https://www.irishstatutebook.ie/eli/2008/si/28
- [9] Health and Safety Authority (2013) S.I. No. 291 of 2013 Safety, Health and Welfare at Work (Construction) Regulations 2013.
 https://www.hsa.ie/eng/Legislation/New_Legislation/SI_291_2013.pdf
- [10] Health and Safety Authority (2021) Safe Systems of Work.

 https://www.hsa.ie/eng/Your_Industry/Fishing/Management_of_Health_and_Safety/Safe_Systems_of_Work
- [11] Irish Statute Book (2007) S.I. No. 299 of 2007 Safety, Health and Welfare at Work (General Application) Regulations 2007. https://www.irishstatutebook.ie/eli/2007/si/299/made/en/print
- [12] Irish Statute Book (2016) S.I. No. 36 of 2016 Safety, Health and Welfare at Work (General Application) (Amendment) Regulations 2016.

 https://www.irishstatutebook.ie/eli/2016/si/36/made/en/print
- [13] Health and Safety Authority (2012) General Application Amendment Regulations Pressure Systems.

 https://www.hsa.ie/eng/Publications_and_Forms/Publications/General_Application_aegulations/General%20Application%20Amendment%20Regulations%20Pressure%20Systems.html
- [14] Irish Environment (2015) Plastic Bag Levy. https://www.irishenvironment.com/iepedia/plastic-bag-levy
- [15] The Irish Times (2014) A History of Smoking Bans: Ireland and the World. https://www.irishtimes.com/life-and-style/a-history-of-smoking-bans-ireland-and-t

he-world-1.1733943

[16] Osei-Asibey, D., Ayarkwa, J., Adinyira, E., Acheampong, A. and Amoah, P. (2021) Roles and Responsibilities of Stakeholders towards Ensuring Health and Safety at Construction Site. *Journal of Building Construction and Planning Research*, **9**, 90-114. https://doi.org/10.4236/jbcpr.2021.91008