

# SAFE-T-CERT: AN IRISH SOLUTION TO THE UNIVERSAL PROBLEM OF ASSURING CONSTRUCTION SAFETY

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The construction industry places unique demands upon employers to ensure the occupational health and safety of its employees and of everyone associated with their activities. Consequently over recent years occupational Health and Safety Management System standards have emerged, along with audit schemes related to particular industries. The primary purpose of such schemes is to bring about a culture of continual safety improvement across the construction industry. The work described in this paper explores the development of Safe-T-Cert in the Irish construction industry, charting its rise to prominence, particularly in Northern Ireland. Setting safety audit schemes in the context of global initiatives, the research found that many factors in the current climate, such as integrated management systems and UKAS accreditation, threaten the stronghold position enjoyed by the Safe-T-Cert scheme. The authors conclude that while there is merit in construction-specific certification schemes, caution is needed in their implementation, since the drivers for success are government and clients' support.

Keywords: construction safety, management systems, assurance scheme.

## INTRODUCTION

In the early part of this century the construction employers in Ireland were lobbying Government for policy changes that would yield safety improvements across the industry. In Northern Ireland, the Government response was to launch Buildsafe NI (2003-08), a 5 year initiative, which set out to engage all parts of the industry in a series of actions that would yield a 50% reduction in reportable major injuries. Cable and Haupt (1999) proposed that Governments can play a role in promoting that safety and health management systems be integrated into the entire construction process. One specific action taken by the NI Public Sector was to require all of its principal contractors to have an independent 3rd Party audit of the their safety management systems before being able to tender for work. Safe-T-Cert emerged at that time, as an occupational health and safety (OHS) management system audit scheme owned and operated by the Construction Employers Federation (CEF) in NI and its sister body in the Republic of Ireland the Construction Industry Federation (CIF). This was not entirely coincidental, since the CEF had been lobbying Government to take some positive action to improve the industry's safety record. And while the Government cannot be seen to endorse commercial products, their direct involvement in the

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development and ongoing monitoring of the Safe-T-Cert scheme, and specific reference to it in their literature (2004) gives tacit approval to the product.

This gave contractors using Safe-T-Cert confidence that it is a sufficiently robust approach to certification. The Institution of Occupational Safety and Health (IOSH) and Roads Service NI (a public sector client body) assisted in the development of the Scheme. IOSH continues to oversee the competence and integrity of its auditors. Additionally HSENI and HSA (RoI), trade unions, clients, contractors and professional bodies are represented on Safe-T-Cert's Joint Standards Advisory Panel (JSAP).

## **DEVELOPMENT OF THE SCHEME**

Initially conceived as an idea culled from the Petrochemical industry in Holland and elsewhere, Safe-T-Cert addresses the diverse needs of construction contractor companies in both parts of Ireland. This certification scheme takes account of the best practice guidelines for Occupational Health and Safety (OHS) management systems of relevant national and international bodies, including the International Labour Organization (ILO-OSH 2001) and BS OHSAS 18001. Certification of a contractor to the scheme requires proof of compliance with all current regulations and evidence of measures being taken towards continual improvement. The scheme, which is also recognized under the Construction Safety Partnership in RoI, assures clients that certified contractors operate effective OHS practices. It provides 3<sup>rd</sup> party evidence for contractors in pre-qualification and selection. Development of the scheme's protocols was also assisted by the EU Adapt Initiative – which aimed to support the acceleration of adaptation to industrial change (Burke 2005). This cross-border initiative has facilitated the sharing of experience and expertise in refining procedures, and the sharing of resources such as the panel of auditors who can alternate between jurisdictions. The scheme has undergone gradual improvement since its inception. Early teething problems, which are common in the introduction of innovative systems, required a detailed management review. In 2007 an independent consultant was appointed to provide a review of the scheme and to provide detailed advice on the training of the scheme's auditors. The report has not been made public.

Safe-T-Cert is accepted by the International Register of Certified Auditors (IRCA) as an acceptable alternative to BS 18001(2007); in 2007 Safe-T-Cert was recognized as providing full qualification for registration with the UK's Construction Health and Safety Scheme (CHAS) without the need for further assessment. CHAS has more than 400 purchasing organizations such as councils, housing organizations, NHS Trusts and private companies who employ sub-contractors. Its aim is to prevent duplication in assessment of competence in safety management, so that recognition by it affords contractors and others equal status for pre-qualification for construction contracts in Great Britain. The SAFEContractor Certification Scheme, based in Wales, provides a similar status to Safe-T-Cert across Great Britain and is also recognized by CHAS. It is worth noting that at present the owners of these two schemes are not members of the Safety Schemes in Procurement (SSIP) Forum (2010). The Olympic Delivery Authority (ODA) for London 2012 also recognizes Safe-T-Cert (2010), stating; "The ODA gives equal recognition to organizations with systems accredited to HSG65...OHSAS 18001, BS 8800, ILO-OSH 2001, ANSI Z10, AS/NZS 4801 and Safe-T-Cert". Constructionline, set up by UK Government and managed on their behalf by management consultants Capita, is a UK register of pre-qualified local and national construction and construction-related suppliers, used by public sector clients

as a data base of qualified organizations. Possession of Safe-T-Cert certification exempts contractors from having to complete the Constructionline OHS questionnaire. Almost every significant British contractor is registered with Constructionline. While it is often argued that insurance companies look favourably on contractors who have taken a pro-active approach to safety management through obtaining certification such as Safe-T-Cert, there is no empirical evidence of this.

## **AN INTERNATIONAL PERSPECTIVE**

Steven (2010) referred to a new standard for international risk management, ISO 31000: 2009, which primarily details the principles, framework and process to improve the identification of opportunities and threats, and increase the likelihood of achieving the health and safety objectives for the project. ISO has stated that ISO 31000: 2009 is intended to be used to harmonize risk management processes, not to replace the standards, and is not intended for the purpose of certification. Internationally, there are many standards for which certification is an option and which IRCA consider to be acceptable alternatives to OHSAS 18001 for the purposes of compliance with their OHSMS auditor certification criteria. These include national schemes in USA, Australia, Singapore, South Africa, Hong Kong, Japan and Indonesia, most of which, like Safe-T-Cert, use OHSAS 18001 or ILO OSH 2001 as the basis of their standards development. This recognition is not intended as a technical review of the equivalence of a standard to OHSAS 18001, but it does confirm the validity of the auditing processes within each of the schemes. Redinger and Levine (1998) strongly advocated the use of 3rd party certification approaches and proposed an assessment model, similar to what evolved as OHSAS 18001: 1999. Davis (2000) expanded their work and examined the relationship between quality and safety as integrated subsets of TQM.

Specifically the Japan Construction Occupational Safety and Health Association (JCOSHA) have produced Construction Occupational Health and Safety Management System (COHSMS) guidelines, a ‘self-concluding’ system directly linked to ILO-OSH 2001. While there is no 3<sup>rd</sup> party certification, there is what is referred to as ‘External System Evaluation’, providing support for contractors seeking an objective view of their reliability. The goal of the USA’s ANSI Z10 standard, according to Abrams (2006), is to use recognized management system principles, compatible with quality and environmental management system standards such as the ISO 9000 and ISO 14000 series (as well as with principles adopted by the ILO), to encourage integration of safety into other business management systems. At the present time, there is no apparent Z10 certification scheme.

## **REGISTRATION, CERTIFICATION AND POTENTIAL INTEGRATION**

Companies certified to Safe-T-Cert have undergone detailed scrutiny and demonstrated that they meet minimum requirements. Upon registration as an applicant for certification, they are provided with detailed guidance on the certification criteria. The application will clearly state the scope of the audit and specify which aspect of the company’s safety management system is to be considered. The description of activities must be based on the Common Procurement Vocabulary (CPV) of the European Commission. Contractors are normally required to submit themselves for audit within 9 months of registration with the scheme, during which time they measure their safety management system against the scheme criteria and make improvements as appropriate. When the Contractor is ready the scheme manager will

appoint an auditor from its approved panel of auditors. The initial audit will combine a detailed examination of the company's OHS management documentation and procedures with interviews, site inspections and other verifications. A positive auditor report (greater than 51% compliance) will result in the contractor achieving Safe-T-Cert recognition. Continued Safe-T-Cert certification is subject to annual verification audits and random inspections of company sites, selected by the auditors. At the annual verification, the company must demonstrate that their H&S practices have improved, and that all benchmark targets set at the previous audit have been implemented or achieved. After three years of Safe-T-Cert certification, each company must undergo a complete audit. This is akin to the normal practice in management system auditing, where every third year a full re-certification visit takes place, with two surveillance visits having been made in the intervening years.

Underlying the scheme is the principle of continuing improvement, whereby a company uses a combination of internal audit and review, implementation of corrective and preventive actions, setting measurable objectives annually and monitoring of improvement towards these objectives. Again, this is normal management system practice, as in the Plan / Do / Check/ Act cycle adopted in BS EN ISO 9001 (2008) and BS EN ISO 14001 (2004), as well as in BS OHSAS 18001 (2008). There is a case to argue that companies aspiring to hold certificates for all three of these compatible standards could easily combine them allowing a firm to develop an integrated management system (IMS). McAleenan (2010) posits that an effective management programme will integrate quality, safety, environment, resources, etc. into a unified structure where the key decision makers act in unison to meet the project objectives. Lingard and Rowlinson (2005) proffered the idea that for many construction organizations, "launching an OHS management system on the back of a pre-existing quality management system is likely to be the easiest route to the implementation of a systematic approach to managing OHS". Manzella (1997) promoted the applications of Total Quality Management (client satisfaction, system focus, zero defects and measurement of performance) to the management of OHSAS. Alves Dias (1999) argued that all systems applicable to construction sites (environment, quality and safety) should follow similar methodology and suggested that their systems could be integrated. He took the existing 20 sections of ISO 9001 (Quality Systems) and adapted each to OHS applications – before the initial publication of OHSAS 18001.

### **COMPARISON OF SAFE-T-CERT WITH BS OHSAS 18001 (2008)**

Safe-T-Cert is clearly a simpler and more construction-related approach to certification than BS OHSAS 18001, since the scheme requirements allow certification when the company has demonstrated it is partially in compliance with the standard. An initial assessment score of 51% of the possible score is enough for entry to the scheme, although in subsequent audits firms are required to demonstrate continuing improvement in the company system – as evidenced by an increased grade. This is justified by the proponents of the scheme on the grounds that it is better to have organizations signed up to a programme of improvement through membership, rather than excluding them until a very high level of performance has been achieved. Operators of stricter quality, environmental and safety management schemes would strongly disagree, claiming that a scheme is only as good as its lowest performing member. They would argue that it is easier to enforce prior improvement in order to gain entry to a scheme, rather than to try to persuade existing members to make the necessary effort once they have gained entry.

Some Irish construction organizations already had certification to the three management standards above, so did not change their IMS. However, many companies did see merit in going for Safe-T-Cert certification alongside or instead of BS OHSAS 18001, because of its practical construction-adapted approach. What was initially viewed by some as “OHSAS for Dummies” was rapidly seen to be a company-friendly, practical approach to the management of construction safety. However, there is no detailed, published standard for the scheme, so its effectiveness depends very largely upon the competence of the auditors. Auditors have to be as well qualified as auditors to the three international standards for OHSAS, QMS and EMS, and the auditing process is seen by IRCA as no less rigorous.

There is a perception that Safe-T-Cert is more appropriate than BS OHSAS 18001:2008 for smaller firms. Given that more than 90% of construction companies can be classed as SMEs, it is not surprising that the former has a much greater take-up than the latter. Companies as small as one-man operations have been awarded certification to Safe-T-Cert; so have very large contractors with a wide spread of activities, including the manufacture of construction-related materials such as pre-cast concrete units and timber frames. Smaller firms do not need to have detailed manuals or documented procedures, so long as they can demonstrate compliance with all relevant legislation and statutory requirements, including the production of a safety policy.

In most instances, only construction organizations which also operate compatible systems to ISO 9001 and ISO 14001 see benefit in the more comprehensive OHSAS 18001 approach (within an IMS), compared to the construction-specific Irish scheme.

## PERFORMANCE FIGURES

It is now over 10 years since Safe-T-Cert was conceived. Growth was initially very slow until the publication of the Government Construction Clients Group’s Action plan for Buildsafe NI (2004). The requirement for certification for public sector contracts led to a rapid growth of interest in the scheme in the NI jurisdiction. In RoI, many firms already held certification to OHSAS 18001 or operated safety management systems to BS8800, and decided that there was no immediate need to change from these. Despite the reference to certification (and in particular to Safe-T-Cert as an example) in the HSA’s guidance, the scheme has not gained the prominence in the Republic that was originally envisaged.

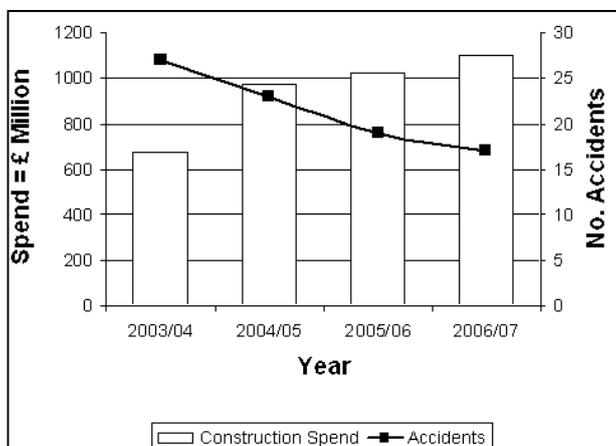


Figure 1: No. of accidents on public sector projects compared to spend. Source: Buildsafe-NI (07)

There has been a welcome decline in the rate of reportable, serious and fatal accidents throughout Ireland (in terms of number per 100,000 workers). Whilst it is impossible to relate this drop directly to the growth of Safe-T-Cert membership, it doubtless played a part, alongside better training and management practices. Increased awareness of H&S issues can be identified by the fact that the most frequently visited section of CEF's website is that for Health and Safety. Most importantly, of course, is the reduction in accidents and near-misses on site which result from improved management practices, procedures, training and documentation. Towards the end of the 5 year Buildsafe NI initiative the Government reported that the record of H&S performance on public sector projects had improved since the introduction of the initiative. This improvement (Figure 1) shows that despite significant increases in the levels of public sector expenditure, the number of accidents reduced.

#### **COMPANY EXPERIENCES.**

It is enlightening to learn how experience with Safe-T-Cert has been viewed by member companies. Benefits seen include reduced complexity, improved consistency and the development of an effective safety culture. Firms based in the Republic of Ireland, cited on <http://www.safe-t-cert.i.e./Testimonials.htm> (accessed 26/6/2010), commented.

*"In 2007, we requested the Safe-T-Cert auditor to visit our group companies (including a manufacturer of pre-fabricated modules) in both UK and Ireland, thus gaining accreditation for the group's activities throughout Ireland and the UK."*

*"The certification is a great way of assuring our clients and employees that we are fully intent on operating a safe working environment, with continuous assessment and improvement."*

*"Acquiring the Safe-T-Cert was a very thorough process, which has left us with an excellent safety management system to ensure the well-being of our employees."*

*"We like the balanced approach to document management and physical safety on site, allowing site management to effectively implement the written procedures without undue concentration on paperwork, important though this may be"*

It is clear that the tri-partite nature of the Safe-T-Cert approach, involving the endorsement of Government as well as employer and employee organizations, has laid the foundation for an effective safety scheme which operates in the best interests of all involved. In particular, the companies feel that it is their scheme, which works in their interests without excessive red-tape and bureaucracy.

#### **AUDITOR EXPERIENCES**

In NI auditors and the Scheme Manager meet quarterly to develop consistent approaches to the operation of audits. Auditors do not yet use common check-lists, but it is expected that these will be developed soon. The meetings discuss acceptability of standards and practices, changes in legislation, reporting processes and inspection experiences. Hence auditors are becoming more knowledgeable and consistent each year.

As might be expected, auditors vary in both their experience and approach; hence JSAP has a role to play in trying to ensure consistency. However auditors are rotated annually, to ‘ensure fairness’. Whilst this has its merits, there are disadvantages since auditors do not return the following year to verify the implementation of previously agreed improvements. Interviews with auditors revealed that, despite regular meetings which attempt to develop consistent procedures, there is a perception of “sheep and goats” in some auditors’ views of their colleagues’ abilities and practices. Perhaps this is inevitable with a person-to-person process such as auditing (or World Cup refereeing!).

## **CROSS-BORDER COMPARISON**

There is a marked difference between the take-up of the scheme north and south of the border. In NI the Buildsafe NI initiative gave great impetus to the fledgling scheme by making 3<sup>rd</sup> party certification a mandatory pre-qualification requirement for all government related projects. This led to the present level of membership of 620 certified companies, with a further 120 applicants presently preparing for membership. These numbers compare very favourably compared with the growth of certification in the Republic of Ireland. Presently there are 105 certified companies listed on the CIF website, with a further 140 applicants in the process of gaining certification. Considering RoI is around 3 times the size of NI, a pro-rata growth in RoI would have seen around 2,000 members and applicants. This imbalance is even more marked when one considers that the construction sector in RoI, at the height of the construction boom [2006] was almost 24% of GDP, twice the average for Western Europe (O’Toole, 2009). At that time it directly accounted for 19% of the entire workforce.

A primary reason for the low take-up may be the lack of explicit Government support for the scheme. While there is no pre-qualification requirement for certification on Government contracts in RoI, the scheme is included under the Competence of Contractor criteria in the HSA guidelines to the Construction Regulations 2006 (the Irish equivalent of the UK CDM Regulations). There is a Construction Safety Partnership in the Republic, but its 2008-2010 Plan sets 6 goals for improvement, none of which refer to promotion of the Safe-T-Cert scheme, or its equivalent.

Another reason for the relative shortfall in membership south of the border may lie in that region’s traditional dislike of regulation of industrial activity. This is the philosophy that gave rise to the unfettered growth of the Celtic Tiger, and to its equally spectacular demise. Builders were encouraged to go for growth in supply (O’Toole, 2009), with unprecedented rise in property prices and contractor/developer profitability. This growth in construction was not accompanied by a rise in demand for safety certification, although mercifully there was no significant increase in construction accident statistics. The improved statistics here may owe more to the growth of the Construction Skills Certification Scheme and the award of Safe Pass qualifications to individual operatives and managers.

In summary, there does not appear to be the same enthusiasm for Safe-T-Cert in the Southern construction industry as there is in Northern Ireland. The work of JSAP has not yet been able to drive the scheme in the Republic at anything approaching the rate in NI. It would appear that the only thing that will accelerate growth in certification is enforcement by the Irish Government for it as a pre-qualification requirement on public sector contracts, as exists in NI.

## **LIMITATIONS OF THE SCHEME**

The scheme depends almost entirely upon the calibre of its auditors and, in the absence of a clearly documented standard or standardized audit check lists, there are limited official means of ensuring consistency. Auditors have to carry their own professional indemnity insurance, so there may be little likelihood of them risking claims from applicants or members who feel that they have been unfairly treated. The pool of auditors is small (only one in the RoI), so there is a fair likelihood of conflict of interest (or at least the appearance of bias) when they may have been involved in some capacity with the companies that they are auditing, possibly as consultants or trainers. The scheme managers try to prevent this through their allocation of auditors to companies on a rotating basis.

Another weakness is that, unlike the certifying organizations that are accredited by the United Kingdom Accreditation Service (UKAS), the scheme is run by employers' federations, who cannot be considered as completely independent bodies (a normal requirement within the NI public sector's procurement strategy). Whilst membership of the local federation is not a requirement for certification, it may be considered unlikely that the scheme managers will act in a way which upsets their own members.

There have been very few instances where the scheme's appeals procedures have been invoked. Indeed, the fairly low level of compliance required for initial entry, and the relatively benign stance taken with companies who are not improving at the desired pace, has meant that there are very few occasions where companies feel a need to appeal. One of the few appealed cases known to the authors involved a firm who were graded at a level lower than that specified by a particular client as a pre-qualification requirement for a major contract.

## **CONCLUSIONS**

The development of the Safe-T-Cert scheme holds many lessons for the construction industry. Its example of a locally-operated, construction specific, safety management certification scheme should provide food for thought for the construction industry worldwide. Despite the limitations outlined above (which may well be rectified in the future), the principles of the scheme could usefully be adapted to suit the local market in most parts of the world. The principal requirement is the availability of experienced safety auditors, with a comprehensive knowledge of the local safety legislation to monitor compliance with the scheme.

There is no specific requirement for a scheme to be operated through a trade association such as an employers' federation, although the motivation to establish such a system is most likely to initiate from one. There is a parallel in the establishment of the Quality Scheme for Ready Mixed Concrete (QSRMC) as a separate certification body in 1984, to provide much clearer evidence of total independence than its predecessor, the Authorization Scheme of the British Ready Mixed Concrete Association, which had been operated by this trade association since 1968 (Gunning, 1987). Perhaps in the fullness of time, Safe-T-Cert will seek full accreditation from UKAS as a certifying body, in the way that QSRMC did in 1987. Failure to achieve independent status could, in time, lead to the decline of the Safe-T-Cert scheme.

The attraction of a scheme like Safe-T-Cert for a small organization is clear. There is no requirement for a quality manual as such, but merely for the establishment of an OHS policy and appropriate hazard identification/risk assessment procedures. A firm

with only a single “owner/employee” has been certified to the scheme. Equally, a number of large contractors and other organizations have seen merit in Safe-T-Cert, rather than pursuing certification to OHSAS 18001. Both set out to enable an organization to control its OHS hazards and improve its performance, but the latter is viewed by many as being unduly bureaucratic and less flexible than Safe-T Cert. Both Safe-T-Cert and OHSAS 18001 may be accused of failing to address product safety, property damage or environmental impact, but there are other certification schemes (as well as local legislation) which may cover these issues. Of course there is nothing in either to preclude the inclusion of any of these in a safety management system.

Many safety management audit schemes exist now within and outwith the construction industry, which potentially threaten to erode Safe-T-Cert’s stronghold in the NI market. With the proliferation of such schemes and the lack of mutual recognition, in 2007 the HSE (UK) engaged with various bodies offering independent safety management systems auditing services with a view to establishing a common approach and the avoidance of duplication of effort. The result was the establishment of the Safety Scheme in Procurement Forum (SSIP), which does offer mutual recognition to its member schemes. Crick (2009) commented

*“do not think of a CHAS or NHBC or EXOR or SMAS assessed supplier, think of an SSIP assessed supplier. In this way clients have a larger pool of suppliers to choose from and contractors only have to undergo one assessment process”.*

At the time of writing the Safe-T-Cert scheme is not a member of SSIP, neither are its owners, CEF/ CIF, UKAS accredited. Effectively this means that for Safe-T-Cert there are no existing benchmarking comparisons of national or international schemes. This situation, if not rectified, could impact negatively on the long-term commercial viability of the scheme.

In conclusion, it is hoped that this review of the Safe-T-Cert scheme may provoke the readership to consider if there is merit in the establishment of a local, construction-specific certification scheme to identify, confirm and improve the quality of OHS management in their region. As can be seen from this paper, it is possible for a single scheme to operate across legislative jurisdictions. The support of local client organizations, particularly in the public sector, may be considered an essential driver, and an independent overseeing body should be established to monitor and regulate the performance of the scheme.

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