# The role of health and safety coordinator in Sweden and Italy construction industry

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# The role of health and safety coordinator in Sweden and Italy construction industry

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## Abstract

Despite rigorous efforts to improve the construction working environment in the European Union, the fatal accident rate is approximately 13 workers per 100,000 as against 5 per 100,000 for the all sectors average. Although the accident rates have declined steadily and steeply since 1994, it still remains unacceptably high. Thousands of construction workers still suffer severe injury and even death every year that otherwise may have been preventable.

Hislop (1995) argued that one factor that provides the most effective and positive impact on a site is the definition of accountability and responsibility. Defining the line of accountability and responsibility on site is complex and often fuzzy. Debate on transferring the accountability and responsibility for safety to others are high on the main agenda. Therefore only by clearly defining the accountability and authorising responsibilities can injuries and other accident-related losses be controlled.

One of the key players on site is the health and safety coordinator (HSC) whose duty is to coordinate and manage health and safety from the planning through to the completion stage. Since both Sweden and Italy are bounded by the European Union Framework Directive (89/391/EEC) and the Construction Site Directive (CSD) (92/57/EEC), therefore it would be beneficial to examine how both countries define and interpret the roles of HSC on site. Since the directive is legally binding, the members had transposed this directive into their national law. In Sweden the appointment of HSC is stipulated in the Working Environment Act (AML 1/1 2009) while in Italy is established in Dlgs 81/08. This paper will examine and compare the role of HSC on site according to the legislation from both Sweden and Italy while simultaneously defining the responsibilities and establishing accountabilities. Results demonstrate how these two countries had transposed the CSD 92/57/EEC diligently into the national law and provisions. Both countries defined the responsibilities of HSC for two stages of construction project: during the planning and project preparation stage and during project execution stage.

Keywords: health and safety coordinator, legislation, planning stage, construction stage

# 1. Introduction

In many countries, construction industry continues to be one of the sectors with high accident rates. Some of the common contributing factors are obvious such as transient nature of the industry, constantly changing hazards as the projects is constructed, tight schedule, multiple operation and others. However non-direct factors such as pre-planning, inadequate selection of sub-contractor and poor coordination of various actors on the working site have often been overlooked. Furthermore, the nature of the project that involves multiple players such as designers, contractors, subcontractors, consultants has increased the complexity of coordinating health and safety on worksite. Therefore, by having a means in place, hazards can be identified and effectively controlled and safe work practices promoted (Hislop 1995). This function can be performed by coordinating various roles in ensuring health and safety at workplace through a health and safety coordinator.

Jha and Iyer (2006) had stated examples of projects that were successful with proper coordination and examples of failed projects that are without one. Generally, coordination means unifying, harmonising and integrating different agencies involved in any industry with multiple objectives (Jha and Iyer, 2006). In the construction industry, the central problem of coordination is due to the fact that the basic relationship between the parties to a construction project has the character of 'interdependent autonomy' where there is lack of match between technical interdependence and the organisational interdependence (Saram and Ahmed, 2001). Some authors even claimed that the function of coordination is ambiguous due to low tangibility of both the process and the results (Saram and Ahmed, 2001).

The European Union (EU) spelled out the role of coordination through appointed health and safety coordinators (HSC) as stipulated by the Construction Sites Directive (CSD) (92/57/EEC). The CSD 92/57/EEC was transposed into national law in most member countries of the EU with minor changes in the management or personnel structure and/or the safety measures advanced by the original Directive (Usmen et.al. 2001). Some countries worked this Directive creating the mechanism and means for an effective implementation, while other countries have made simple transposition with a few adaptations creating some ambiguity in interpreting the requirements (Alves Dias 2004). In Sweden the appointment of HSC is stipulated in the Working Environment Act (AML 1/1 2009) while in Italy is established in Dlgs 81/08. By examining these two countries will be able to demonstrate how clear the implementation by each country is.

This aim of this paper is to discuss how two member countries, Sweden and Italy translate and define the roles and responsibilities of HSC as stipulated in CSD 92/57/EEC into their working environment. The paper will also examine the similarities and differences in the defining the roles of HSC between these two countries.

# 2. European Union construction health and safety

Generally all workers within the EU are bounded by the Council Directive 89/391/EEC - Introduction of Measures to Encourage Improvements in the Safety and Health of Workers at Work or better known as the Framework Directive. This Directive introduces measures to encourage improvements

in the safety and health of workers at work; contains general principles concerning the prevention and elimination of occupational risks, the informing, consultation and training of workers; contains minimum rules regarding the safety and health of workers at work. However due to the recognition that the construction industry is a high hazardous industry, has lead the EU to publish in 1992 a special directive changing the way health and safety is being considered (Alves Dias, 2004). The CSD 92/57/EEC requires the construction sector to make efforts towards a continuous and sustained reduction of occupational accidents and diseases. The CSD 92/57/EEC was designed to guarantee the safety and health of workers on construction sites in the European Community whenever building or civil engineering works were carried out. The Commission recognised that large number of accidents resulted from poor coordination especially where various undertakings worked simultaneously or in the succession on the same construction site. Article 3-6 of the CSD 92/57/EEC introduced the new concept of safety and health coordination based on a new chain of responsibilities (including the owner and the designer), new safety and health documents (the prior notice, the safety and health plan, and the safety and health file) and new safety and health stakeholders (the safety and health coordinators for the design phase and for the construction phase) (Hughes and Ferrett, 2007; Alves Dias, 2004). In particular, these requirements must be taken into account as early as possible during the project namely the preparation stage.

This recognition represented a major paradigm shift where previously all responsibility for health and safety were borne upon by the contractors. The CSD 92/57/EEC brings about a cultural change prevalent within the industry (Usmen et.al. 2001). The introduction of the CSD 92/57/EEC had caused architects, in particular, across Europe to feel uncomfortable with this change in responsibility from the contractor to the client, who was required to take appropriate steps with respect to safety and health in the planning and execution of construction project. Furthermore, concerns are growing about the additional costs to implement the revised structure embodied in the provisions of the CSD 92/57/EEC (Usmen et.al. 2001). This cost has been estimated to range between 0.2 – 2% of the total project cost distributed on the basis of 35% for coordination during the project preparation phase and 65% during the project execution phase (Usmen et.al. 2001). There is also confusion in some counties about the need for the health and safety documents content till example the safety and health plan. A final concern revolves around the poorly defined competence and qualification requirements of the safety coordinator with mutual recognition of training and development programs and qualifications (Usmen et.al. 2001).

# 3. Role of construction health and safety coordinators

## 3.1 Sweden

The function of coordination is stipulated in both the old and new versions of the Work Environment Act - AML 1997:1160 and AML 1/1 2009. The older version (AML 1997:1160) defines the function of coordination in Chapter 3 Section 7 ambiguously. It states that the client is responsible for coordination measures for the prevention of ill-health and accidents on a common worksite for the activity. The coordination function may be transferred to some other company or employer carrying on activities on the common worksite and usually it’s the main developer or the building contractor. Nevertheless, the client is never legally free from his responsibility on health and safety on the

project. The person responsible for the coordination (mainly during the execution stage) function shall ensure that: the work of preventing risks of ill-health or accidents are coordinated at the common worksite; work is planned accordingly to avert risk of ill-health or accidents due to different activities being in progress at the worksite; general safety devices are established and maintained and general safety regulations for the worksite issued; responsibility for the special safety devices which may be needed for a particular job or jobs is made clear, and personnel facilities and sanitary devices are established at the worksite satisfactorily.

However, in April 2006, the European Commission has some criticism against the Swedish implementation of the CSD (92/57/EEC). Among the critique is about the accident statistic, definition of construction works, the role of the client and the coordination measures. Therefore the Swedish Work Environment Authority had taken these criticisms and reformulated the existing AML and the related provisions which came in force in January 2009. The changes concerning the coordination measures are discussed below are for both the AML 1/1 2009 and the applicable provision that is the Building and Civil Engineering Works Provisions 2008:16 (older version is 1999:3).

Client's coordination responsibility

The client alone is responsible for the overall initial planning and project preparation and project execution. He/she must take into considerations the issues of health and safety for the workers performing the work and also the users of the finished building/product. This overall planning differs from such planning which normally belongs to the job's execution as stipulated in the older version where all involved during this stage must take into consideration of other on-going activities themselves (Prevent, 2009). The changes mean that the consideration for health and safety must be accounted for as early as possible right during the planning stage and through the execution of construction work (Andersson et. al, 2009).

The client shall appoint a suitable HSC for planning and project preparation stage as well as for the execution stage. The HSC can be the client himself/herself. There is no formal requisition in order to appoint someone as HSC. It must on the other hand a conscious and qualified decision by the client. (Prevent, 2009).

The appointments of HSC by the client must be for two stages: HSC for the planning and project preparation stage (HSC-P) and HSC for the execution stage (HSC-E). These appointments are valid for projects that have high risk activities as stipulated in Section 12a in AFS 2008:16 which basically cover main construction activities. These appointments are not bounded contractually but rather a normal appointment of an employee with specific task concerning health and safety (Prevent, 2009).

Transferring the health and safety responsibility

As mentioned above, the client is never free from his/her responsible for health and safety of the worksite. In such case, the client can surrogate the responsibility to an independent employee (uppdragstagare). This person will take over the client's health and safety legal responsibility and information in accordance with Capital 3 Section 7c in AML. In order to legalize the transfer, two conditions must be fulfilled that are: the independent employee bear total responsibility for either the whole construction process

(planning and project preparation and project execution) or only during the execution stage and the agreement must be made in writing. This can be applicable to turnkey project where the independent employee is the main turnkey contractor (planning and project preparation and project execution) and to a traditional project where the independent employee is the main contractor (project execution). It is important to remember that only the full co-ordination responsibility at the entire common worksite can be transferred. If only a part of the responsibility is transferred this transfer is not valid and consequently null and void. Then the responsibility falls on the client's shoulder.

HSC

Since the HSC is a new role being introduced at the construction worksite, the Work Environment Authority has drawn out the specific requirements for the appointment of such person. HSC can either be a legal person or a natural person that has the right qualifications, competencies and experiences to perform the specified duties for each role. When a legal person is appointed as a HSC, it usually means the company bears the health and safety responsibilities and not the individual. The coordination responsibility for HSC does not only apply for a common worksite where there are many contractors working simultaneously but also for worksites where only one contractor running the show.

HSC-P must be involved during the planning and managing of project preparation. Besides that he/she must coordinate with various actors, prepare a health and safety plan and other necessary documentation on building operation, repair works, renovation and demolition. On the other hand HSC-E must coordinate the work with preventing risks for ill-health and accidents on the worksite and implement the coordination of the application of relevant health and safety rules when technical or organisational questions about the planning of building operations which shall be executed at the same time or after each other and when the time allocation should be accounted for. Furthermore, HSC-E shall coordinate the application of relevant health and safety rules in order to ensure that workers operating the activities at the worksite apply these rules in a systematic way as well as following the work environment plan, coordinate measures to supervise the execution of the building or construction work with respect to health and safety in a correct manner, take necessary measures to ensure that only authorised persons have access to the worksite, and organise information for workers. During this stage he/she must update the health and safety plan when any changes have been made. HSC-E must also check that all technical equipment are inspected and tested.

## 3.2 Italy

Italy has the highest rate of workplace accidents and deaths of any European Union (EU) country. According to Giaccone M (2009), the reported work-related accidents for manufacturing and construction sector for the year 2008 is 367,132 cases. Despite the large figure, the work-related accidents declined by a quarter in comparison to the year 2000. The fatal accidents statistic shows a stronger decline for the same sector where 554 cases reported in 2008 in comparison to 766 cases in

2000. Giaccone (2009) claimed that these figures do not include work-related accidents among undeclared workers, who account for 13.4% of the total labour force which would contribute to a much higher figure.

The development of safety and health at work Italian laws

The first rules regarding safety and health were issued in 1942 within the Civil Code *(Codice Civile),* whereas the first specific laws are of the '50s and in particular the most important are the Decreto del Presidente della Repubblica (D.P.R.) 1955 n. 547 a general act for all kind of working situation and il D.P.R. 1956 n**.** 164 a specific act for construction. These laws were really well conceived and detailed, but unfortunately they were insufficiently applied and practically unconsidered. The adaptation of the EU Directive has started a period of a big issues and changes of acts and laws on the matter. The first general act Dlgs (Decreto Legislativo) 626/94 prescribes measures for the improvement for the protection of health and safety of workers at work while the D.lgs 494/1996 took in the Construction Site Directive 92/56/EEC through the framework legislation on the implementation of minimum safety and health requirements on temporary or mobile construction sites. According to this regulation, clients, project supervisors, employers, individual contractors and self-employed persons all have responsibilities to ensure safety (Baldacconi and Santis, 2000).

The proxy to the government for the enactment of the Act on the protection of health and safety at works considers both the reorganization of the law, and the reform of the provisions existing before decree 626. At this point, the situation was complex due to the numerous laws issued without continuity even with the European provision guiding as a base. Therefore, it was necessary to rearrange the matter, to be implemented in full compliance with the European provision and the balance of powers between state and regions, ensuring, at the same time, the uniformity of protection throughout the country. Italy drops the former Act 626, better known as the law on occupational safety. The Council of Ministers approved a decree giving effect to the Act concerning the protection of health and safety in the workplace. The Act D.lgs 81/08 covers 12 titles and over 300 articles. This was a lengthy and complex matter that reorders and innovated in terms of prevention, training, enhancement and coordination of supervision and the role of social partners and representatives of workers for the safety and security, ensuring a balanced system of sanctions.

The client and the responsible of the works

The client is defined as the person on whose behalf the work is done. In the case of public work, the client is the subject of decision making and spending on the management of the contract. The responsible of the works instead is the person charged, by the client to monitor the realization of the works and in the case of a private work to delegate his own duties and responsibilities. This subject may also coincide with the designer on the design phase and with the director of the works on the execution phase. The client or the responsible of the works, in the design phase of the work, and in particular at the time of the technical choices, during the implementation of the project and organising the operations of the worksite, shall comply with the principles and general measures to protect Article 15 through the risk analysis, prevention programming, etc. In order to allow the planning of execution in safety of the works or stages of work that have to be realised simultaneously or successively with one another, the client or the responsible of the works includes in the project the duration of the works or stages of works. The client is relieved from responsibility for payment of the

obligations conferred only upon the controller of the works. In any case, the assignment of responsibility for the work shall not relieve the developer from responsibility for verification of the compliance of the obligations listed above.

HSC

The coordinator that controls for safety and health during the project preparation (HSC-P) is referred to as the coordinator for the design phase. He is the person charged by the client or from the responsible for the works, of the following tasks: prepare the safety and health plan and coordinate the contents of which are within the addendum XV and prepare a dossier containing useful information for prevention and protection from the risks to which workers are exposed during maintenance work, taking into account the specific rules of good technique. The file is not in the case of routine maintenance work.

HSC-P works closely with the designer in order to integrate design choices and the setting of the site that concerns the health and the safety on the worksite. The coordinator of safety at the execution stage (HSC-E) is the person responsible of excursions of the tasks. The coordinator can not be identified with the employer or with one of his employees or by the service of prevention and protection (RSPP) appointed by him. Such role is essential and so it is important that the client makes a conscious and qualified decision. In the first place he will have to verify the compliance with the security plans, operational plans (to be considered as a detailed plan of the security plan and coordination) and the correct procedures on the part of businesses and independent employed, making any changes in relation to the evolution of work with evaluating proposals from contractors. He organises among employers, including the independent ones, cooperation and coordination of activities and their mutual information. He suggests the client and the responsible for the suspension of the works, removal of business by the worksite or the termination of the contract in case there are serious deficiencies in terms of safety. In cases where the client or the responsible of the works does not take any action on the report, without providing adequate justification, the coordinator for implementation of such will give communication to the company local health units and to the direction of the provincial work territorially competent.

# 4. Discussions

Table 1 compares the implementation of the directive between these two countries against the EU Construction Site Directive

*Table 1: A comparative analysis on the role of HSC between Sweden and Italy as stipulated in Construction Site Directive 92/57/EEC*

| ***Factors*** | ***EU*** | ***Sweden*** | ***Italy*** |
|---|---|---|---|
| *Statutory requirements* | *Construction Site Directives 92/57/EEC* | *AML 1/1 2009*<br>*AFS 2008:16* | *D.Lgs 81/08 (framework law)*<br>*Title IV- Temporary and mobile ,*<br>*Chapter 1- measures for health and safety at temporary or mobile* |
| *Client's role* | *Article 3:*<br>*Appoint one or more coordinator for h&s matters*<br>*Submit a prior notice before work begins to competent authority* | *AML cap 3 sec 6;AFS 2008:16 Sec 4-5 & 7*<br>*Responsible for h&s during every stage of the project.*<br>*Select a suitable HSC for p&p and design*<br>*Select a suitable HSC for execution*<br>*Can select oneself as the HSC*<br>*Submit a prior notice before work begins to competent authority* | *Article 90*<br>*In the design phase - assessing of the plan and evaluate the security coordination and the technical file prepared by the coordinator for security.*<br>*Appoint coordinators for safety for the design and for work execution*<br>*To verify the suitability of the technical-professional carer, the contractors and the self-employed according to the functions or work to be entrusted*<br>*Submit a prior notice before the work start* |

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|---|---|---|---|
| *Transfer of responsibility* | *No special mention except in the definition of project supervisor in Article 2 which states that the person can act on behalf of the client during p&p and/or during the execution stage* | *AML cap 3 sec 7c*<br><br>*Transfer to an independent employee who bears total responsibility for either the whole construction process (p&p and project execution) or only during the execution stage and the agreement must be made in writing.* | *No specific mention about transfer of responsibility* |
| *Who can be HSC* | *No special mention except in the definition of HSC in Article 2e and 2f that HSC can be either a natural or legal person* | *AFS 2008:16 sec 6*<br><br>*HSC can either be a legal or a natural person* | *Not mention except in Article 89 (e) that HSC must be appointed by the client* |
| *Qualifications of HSC* | *Not mentioned* | *AFS 2008:16 sec 6*<br><br>*Knowledgeable, competent, experience to perform the HSC tasks according to AML and all relevant Provisions.* | *Article 91*<br><br>*Degree in engineering, architecture, geology, agriculture or forestry with at least one year experience*<br><br>*A recognised university degree in engineering or architecture as well as at least two years work experience*<br><br>*Qualified surveyor or valuer, or industrial or agricultural expert agronomic with at least three years experience*<br><br>*Apart from the formal education, the coordinators are expected to attend specific courses organised by the regions in the field of prevention and training.*<br><br>*The costs must be borne by the participants.* |

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|---|---|---|---|
| *HSC-P- duties and responsibilities* | *<u>Article 5</u>*<br>*Coordinate when architectural, technical & organisational aspects are decided and time estimation for work or work stages*<br>*Draw up a h&s plan*<br>*Prepare a file containing relevant h&s information for future use.* | *<u>AFS 2008:16 sec 9 & 11-12</u>*<br>*Participate in the planning and lead the preparation and design of project.*<br>*Coordinate the preparation and design of project with regard to h&s to allow participants involved during this stage to take into consideration each other planning and solutions.*<br>*The coordination should lead to the execution of different parts of the project together with the construction, installation and others that occurs at different time and stage of the project where the risk of ill-health and accident could arise.*<br>*Draw up a h&s plan if it is required before the site is set-up.*<br>*Compile a file. This shall be completed when the works are concluded. It shall describe the design and construction of the object together with the building products used, to the extent material to safety and health in connection with work on the operation, maintenance, repair, alteration and demolition of the object.* | *<u>Article 91</u>*<br>*Establish a security plan and coordination of high risk work*<br>*Prepare a dossier containing useful information for the prevention from the hazards faced by the workers.* |

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|---|---|---|---|
| *HSC-E duties and responsibilities* | *Article 6*<br><br>*Coordinate implementation of general principles of prevention of safety*<br><br>*Coordinate implementation of relevant provisions for the protection of workers*<br><br>*Update the h&s plan and the files*<br><br>*Organise cooperation between employers, coordinating their activities to prevent accidents.*<br><br>*Ensure working procedures are being implemented accordingly*<br><br>*Allow only authorise person on site* | *AFS 2008:16 sec 1315*<br><br>*Participate in the planning of the work and ensure that common safety and health conditions are being addressed when choosing working methods and material during coordinating of work and during planning of work schedule.*<br><br>*Organise safety activities on construction sites. If there is more than one enterprise that performs the work activities on the construction sites, then the HSC shall organise a mutual safety activities with them.*<br><br>*Ensure that a h&s plan is available at the worksite as soon as the site has been set-up.*<br><br>*Make any adjustment to the h&s plan if necessary to the progress of the work and any changes which may occur on site.*<br><br>*Ensure the suitability of the plan to suit the working methods that are being used on construction site or the condition sets to perform the work. Update working methods periodically. With every change that takes place to suit the conditions or h&s conditions, adjustments must be made.*<br><br>*Update the file which may be needed according to the progress of the work and any changes occurring during the project execution stage.*<br><br>*Supervise measures to verify that technical devices are duly inspected and tested and also that the operators have sufficient competence or whenever applicable requires permit.* | *Article 92*<br><br>*Check with proper coordination and control, the application by the party companies and self employed with regard to security plan and coordinate work with high risk and its enforcement.*<br><br>*Assessing the suitability of the Operational Safety Plan as a supplement to the detailed security plan*<br><br>*Evaluating the proposal of the party companies to improve safety on site and verify that the sub-contractors adjust them accordingly to their plan and operations*<br><br>*Organise among employers including self-employed cooperation and coordination of activities and their mutual information.*<br><br>*Verify the implementation of the provisions between the social partners to achieve coordination between the representatives of the security to improve safety on site.*<br><br>*Notify the client or project supervisor of any non-compliance and propose the suspension of work, remove companies or self-employed from the project or terminate the contract.*<br><br>*If no action is taken by the client, the coordinator may report the failure to the local health authority and the Head of the department of Labour*<br><br>*Suspend any work in case of grave and imminent danger, directly observed the individual working to verify the adjustments made by the companies concerned.* |

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|---|---|---|---|
| *Documents* | *<u>Prior notification - Article 3</u>*<br>*On site where work is scheduled to last longer than 30 working days and >20 persons are occupied simultaneously at any time or the volume of work is scheduled to exceed 500 person-days, the client/project supervisor must draw prior notice to competent authority before work begin*<br>*<u>Work environment plan – Article 5b</u>*<br>*The plan shall contain rules applicable to the construction site concerned, taking into account the industrial activities taking place including specific measures for high risk works*<br>*<u>h&s file – Article 5c</u>*<br>*Prepare a file appropriate to the characteristic of the project containing relevant h&s information to be taken into account during any subsequent works.* | *<u>Prior notification AFS 2008:16 Sec 7</u>*<br>*Notification to Authority before work begins on site where work is scheduled to last longer than 30 working days and >20 persons are occupied simultaneously at any time or the volume of work is scheduled to exceed 500 person-days*<br>*<u>Work environment plan AFS 2008:16 Sec 12</u>*<br>*The plan shall also contain a description of the h&s measures to be taken during the project execution stage including risk assessment for high risk works*<br>*<u>h&s file – AFS 2008:16 Sec 9</u>*<br>*The file described the design and construction of the object together with the building product & material in connection to h&s with work in connection to operation, maintenance, repair, alteration and demolition of the object.* | *<u>Prior notification Article 99</u>*<br>*Notification to Authority on a common worksite where the volume of work is scheduled to exceed 200 person-days.*<br>*<u>Work environment plan Article 100</u>*<br>*The plan shall also contain a description of the h&s measures to be taken during the project execution stage including risk assessment for high risks works*<br>*<u>h&s file 91(b)</u>*<br>*The file described the design and construction of the object together with the building product & material in connection to h&s with work in connection to operation, maintenance, repair, alteration and demolition of the object.* |
| *Others* | *<u>Article 7</u>*<br>*The appointments of HSC do not relieve the client of his responsibility for h&s for the whole project.* | *<u>AML kap 3 sec 6</u>*<br>*The Client is never free from his/her responsible on h&s for the project.*<br>*<u>AFS2008:18 sec 16</u>*<br>*If HSC-E is unavailable on site, contact person(s) should be made available to disseminate required information.* | *<u>Article 157</u>*<br>*The client or the project supervisor upon violation of safety and security may be punished in the form of imprisonment or fines*<br>*<u>Article 158</u>*<br>*The coordinator for the design and execution upon violation of safety and security may be punished in the form of imprisonment or fines* |

**Legend:**

- *h&s – health and safety* *p&p –planning and project preparation*

# 5. Conclusions

Generally the noble idea of the introduction of HSC in Sweden is relatively new. One small study performed by Andersson et.al (2009) indicated that the new changes are accepted positively by both the clients and the project managers. Currently, all appointed HSCs need to attend at least a 50hr course to acquire the certificate to prove their competencies in health and safety. The question is that who should bear for the cost. Furthermore there is no rule about the provider of the courses being certified by the Swedish Work Environment Authorities. Till date, after a year of implementation, no studies have been made examining the implementation of HSCs on construction sites. On the other hand, the HSCs' role in Italy has been well structured especially in specifying their qualifications, responsibilities and accountabilities. With the new legislation (D.Lgs 81/08) it is hope the accident statistic will decline and the safety situation will improve positively. Overall, Italy had transposed the CSD 92/57/EEC as early as in 1996 in adopting the HSC role. Contrary, Sweden despite having a good accident record had only transposed the CSD 92/57/EEC early 2009 and all these while had interpreted the importance of coordination ambiguously. No mention of accountability was written in either the law or the provisions. It is hope with these changes in both legislation in Sweden and Italy will contribute to a better health and safety work environment.

# References


Alves Dias L-M (2004) *Occupational safety and health coordination in the construction industry in European Union Countries*. Technical University of Lisbon.

Andersson K, Gustafsson A and Nilsson F (2009) *Implementering av arbetsmiljölagens ändringar, gällande från 090101 på byggarbetsplatser.* Tekniska Högskolan, Jönköping.

Baldacconi A & Santis P.D (2000) *Risk assessment in construction field in Italy*. National Institute for Insurance Against Injuries at Work (INAIL).

European Statistics of Accident at Work (ESAW) (2009) (available online http://osha.europa.eu/en/sub/riskobservatory/osm/reports/european_system_004.stm [access on 2009-10-11]).

Giaccone M (2009) Significant decline in rate of construction, *European Working Conditions Observatory*, Eurofound (http://www.eurofound.europa.eu/ewco/2009/05/IT0905039I.htm [assess at 2009-12-15]).

Hislop R D (1995) *Construction Site Safety: A Guide for Managing Contractors*. CRC Press, USA.

Hughes P and Ferret E (2007) *Introduction to health and safety at work*. Butterworth-Heinemann, Oxford.

Jha K N and Iyer K C (2006) Critical determinants of project coordination. *International Journal of Project Management* **42**: 314-322.

Prevent (2009) *Arbetsmiljölagen med kommentarer, 7:e*. Sjuhäradsbygdens Tryckeri AB, Stockholm.

Sharam D D and Ahmend SM (2001) Construction coordination activities, What is important and what consumes time. *Journal of Management in Engineering.* **17**: 202-213

Stancich R (2004) *Action urged to cut construction industry accidents in Europe*. Ethical Corporation.

Usmen M.A, Brandan S and Dikec T (2001) *Creative system in structural and construction engineering*. Singh (ed), Balkerna, Rotterdam.