



**Designing for Construction Health and Safety (H&S) Seminar,  
Port Elizabeth, Monday, 20 August 2018  
East London, Tuesday, 21 August 2018  
(Version 31 July 2018)**

**The need for the Seminar**

In terms of 'Structures 6(1)', the Construction Regulations require a range of health and safety (H&S) interventions by designers. Furthermore, there is a need in South Africa for holistically educated clients, project managers, architects, engineers, interior designers, landscape architects, quantity surveyors, construction managers, and construction H&S consultants. Currently, most tertiary built environment programmes, particularly designer related, do not address construction H&S, and if so, then to a limited or cursory extent.

A further aspect is that of performance. International research indicates that optimum construction H&S provides the catalyst for improving overall performance on construction sites - cost, environmental, productivity, quality, time, and client, designer, and worker satisfaction included.

Furthermore, the International Labour Office (ILO) specifically states that designers should:

- receive training in construction H&S;
- integrate the H&S of construction workers into the design and planning process;
- not include anything in a design which would necessitate the use of dangerous structural or other procedures or hazardous materials, which could be avoided by design modifications or by substitute materials, and
- consider the H&S of workers during subsequent maintenance.

**The Construction Regulations' Designer Related Requirements**

In terms of Regulation 'Duties of Designer 6', the Construction Regulations require that designers, inter alia:

- take the H&S specification into consideration, and include in a report ('designer report') to the client before tender stage: all relevant H&S information about the design that may affect the pricing of the work; the geotechnical-science aspects, and the loading that the structure is designed to withstand;
- inform the client of any known or anticipated dangers or hazards relating to the construction work, and make available all relevant information required for the safe execution of the work upon being designed or when the design is changed;
- modify the design or make use of substitute materials where the design necessitates the use of dangerous procedures or materials hazardous to H&S, and
- consider hazards relating to subsequent maintenance of the structure and make provision in the design for that work to be performed to minimize the risk.

However, in terms of Regulation 'Duties of Client 5', the Construction Regulations require that clients, inter alia:

- prepare a baseline risk assessment (BRA), prepare an H&S specification based on the BRA, and provide the designer with the H&S specification;
- provide the principal contractor (PC) with an H&S specification for the construction work. Given that designers may specify materials that are hazardous due to the non-availability of alternative non-hazardous substance containing materials, or require hazardous processes, for which there are no alternatives, a 'designer report', and an H&S specification constitute the appropriate medium in which to record the hazards;
- ensure that PCs have made provision for H&S costs in their tenders. A design may require a specific method and sequence of construction as scheduled by the designer, and therefore the designer may need to assess the contractors' financial provision at tender or bidding stage. A 'designer report' and / or an H&S specification constitutes the

appropriate medium in which to record such a specific method and sequence of construction;

- provide PCs with any information that might affect H&S. A 'designer report' and / or an H&S specification constitute the appropriate medium in which to record say the actual position of a high voltage cable, and
- ensure that sufficient H&S information and resources are available to the PC where changes to the design or construction are made - designers may need to supplement the design change details with H&S information, particularly if the design change entails the use of hazardous materials or hazardous processes.

## Features

The 17-module course will: provide background knowledge relative to construction H&S and ergonomics; address the role of designers in construction H&S; address client, project manager, quantity surveyor, and materials manufacturer inputs into designing for construction H&S; address constructability; address the relationship between hazard identification and risk assessment (HIRA), and both the 'designer report, and 'H&S specification; empower in terms of HIRA, the H&S specification, 'design and construction' method statements, and 'H&S' method statements; address the identities of work in terms of designing for construction H&S, and address designing for construction H&S models.

The course will include pre- and immediate post-assessment of the delegates' culture in terms of perceptions relative to the course content, and a longitudinal assessment of the impact of the course in terms of delegates' 'designing for H&S' in practice.

## The Programme

**Table 1: Session details**

Session	Time	Minutes
1	08:30 – 10:30	120
2	10:45 – 12:45	120
3	13:30 – 15:00	90
4	15:15 – 16:30	75

**Table 2: Presentation schedule**

Module	Module title
1	Introduction
2	Occupational safety
3	Occupational health (OH)
4	Hazardous chemical substances (HCSs)
5	Construction ergonomics
6	Role of designers in construction H&S
7	Client, project manager, quantity surveyor, and materials manufacturer inputs into designing for construction H&S
8	6 Stages and Identities of Work and designing for construction H&S
9	Client 'designer' H&S specifications
10	Design hazard identification and risk assessments (HIRAs)
11	Constructability
12	'Design and construction' method statements
13	Designer reports
14	Designing for construction H&S models
15	Client 'contractor' H&S specifications
16	H&S method statements
17	Financial provision for construction H&S

## Outcomes

The primary outcome is to enable designers to fulfil their H&S functions in terms of the OH&S Act and the Construction Regulations. However, the Construction Regulations have scheduled a range of requirements relative to clients and designers. These requirements have also indirectly resulted in requirements relative to project managers and quantity surveyors. Furthermore, these requirements have implications for the client provided 'designer' H&S specification, which is firstly responded to in the form of the 'designer report',

a pre-requisite for both being hazard identification and risk assessments (HIRAs). With respect to clients, a baseline risk assessment (BRA) is required. By implication, the client provided 'designer' H&S specification should be revised to incorporate the 'designer report', and then presented to the potential principal contractors in the form of a client provided 'contractor' H&S specification, which must be responded to in the form of an H&S plan.

In terms of specific outcomes, upon completion of the course, delegates should have an increased ability to:

- Understand and appreciate the importance of a multi-stakeholder approach to construction H&S;
- Understand and appreciate the importance of addressing construction H&S during the design, planning, and documentation stages of a project;
- Understand the nature and appreciate the importance of planning relative to construction H&S;
- Understand and appreciate the hazards and risks involved in construction;
- Conduct a constructability review;
- Understand and appreciate the nature and importance of designing for H&S;
- Understand and appreciate the nature of designing for H&S models and systems;
- Review a client provided 'designer' H&S specification;
- Prepare a 'designer report' for a client;
- Prepare / Review a design HIRA;
- Prepare / Review 'design and construction' method statements;
- Review a client provided 'contractor' H&S specification;
- Prepare / Review the H&S section of the Preliminaries section;
- Review an H&S plan (principal contractor and contractor), and
- Review 'H&S' method statements.

#### **Stakeholders that should attend**

The seminar is suited to a multi-stakeholder audience comprising:

- Client organisations (public and private);
- Property developers;
- Construction Project Managers;
- Architects;
- Engineers (civil, electrical, mechanical, process, and structural);
- Quantity Surveyors;
- Construction Managers;
- Construction H&S Agents, Managers, and Officers;
- Contractors (general and co-contractors / specialist contractors);
- Consultants (Construction Management);
- Union representatives;
- Government (Construction Industry Development Board, Department of Labour etc.);
- Tertiary built environment educators;
- Tertiary built environment students, and
- Insurers (Compensation Commissioner, and FEM).

#### **The Seminar presenters**

**Claire Deacon** is the Managing Member of OCCUMED cc trading as claire deacon and associates (cd&a). Claire has practiced as an Occupational Health Practitioner (OHNP) since 1982. Claire is registered as a Professional Construction Health and Safety Agent, actively practicing in the field (Pr. CHSA No: CHSA010/2013). Claire currently works as an associate of Coalition Trading 517, trading as CREATE.

Claire obtained her PhD (Construction Management) at NMMU (now Nelson Mandela University) in 2016. Her career commenced with a General Nursing Diploma at Groote Schuur Hospital, where after she qualified in Occupational Health at the University of Stellenbosch. Other post graduate education includes a BTech in Occupational Health at Peninsula Technikon, a BSc Med (Honours) in Biomedical Engineering / Ergonomics at the University of Cape Town, and a Masters in Nursing (MCur) (by research) at the then

University of Port Elizabeth (now Nelson Mandela University). Claire was admitted to the prestigious Research Capacity Initiative (RCI) with the South African Netherlands Partnership for Alternative Development (SANPAD), which was completed cum laude.

Claire is currently one of two construction H&S (CHS) council members appointed to the SACPCMP for the 5th term council. Roles within the SACPCMP include the CPD Chair, HR Chair, and Registrations Committee, and CHS. Other roles include examiner and moderator for the CHS Officer and Manager categories, as well as any other roles required in terms of the duties of the Council.

Claire is a member of several voluntary associations, which include the SA Society of Occupational Health Nurses (SASOHN), the Chartered Institute of Building (CIOB), the Institute of Safety and Health (IOSH) in the UK, and the Ergonomics Society of South Africa (ESSA). She also serves on the council of ESSA.

Claire has worked in construction since 1995, on projects ranging in value from R500 000 to R3billion. She has conducted research, published, and presented a range of construction H&S, ergonomics, and related courses, lectures, programmes, seminars, and workshops.

**John Smallwood** is Professor of Construction Management, Nelson Mandela University. Both his MSc and PhD (Construction Management) addressed H&S, and he has conducted extensive research in the fields of construction H&S, ergonomics, and occupational health. He has been researching and publishing relative to 'designing for construction H&S' since 1995.

Publication outputs include papers in international journals, conference proceedings and reports, chapters in books, and articles, interviews and an H&S column in industry magazines. Completed chapters for books include the H&S chapter for the Royal Institute of British Architects (RIBA) Architect's Handbook of Construction Project Management in the capacity as principal co-author in 2004.

He has developed, organised, and co-presented a range of H&S courses, programmes, seminars, and workshops, and initiated and co-organised numerous construction H&S conferences.

He has 35 years of diverse H&S experience, including as a Contracts Manager, and is registered as a Pr CM, and a Pr CHSA, is a Member of the Association of Construction Project Managers (ACPM), Association of Construction Health and Safety Management (ACHASM), a Fellow of the Chartered Institute of Building (CIOB), and a member of the Ergonomics Society of South Africa (ESSA), International Commission on Occupational Health (ICOH), Institute of Safety and Health (IOSH), Institute of Safety Management (IOSM), and South African Institute of Occupational Safety and Health (Saioh). He is a Past-Councillor of the Council, South African Council for the Project and Construction Management Professions (SACPCMP). Other leadership contributions include, Coordinator, Africa and Middle East, International Council for Research and Innovation in Building and Construction (CIB) Work Group 99 (Safety and Health in Construction).

### **Continuing Professional Development (CPD)**

The Association of South African Quantity Surveyors (ASAQS) will award 6 CPD hours in Category 1.

The South African Council for the Project and Construction Management Professions (SACPCMP) will award 6 CPD hours in Category A - Core.

The South African Institute of Occupational Safety and Health (Saioh) will award 2 CPD points.



## Fees

Include refreshments, lunch, and manuals. As ACHASM is a Section 21 company (not for gain) i.e. VAT is not applicable.

**Table 3: Schedule of fees.**

<b>Delegate category</b>	<b>Rand</b>
Standard	<b>R 2 100.00</b>
Standard early bird (up to 10 August)	<b>R 1 950.00</b>
ACHASM / ASAQS / SaioSh / SACPCMP / Student	<b>R 1 800.00</b>

## Payment

If your employer is responsible for payment and you need an invoice, please provide us with the employer's name, contact person, and e-mail address, Purchase Order No., VAT number, correct postal address, and contact numbers (these are crucial).

If the Government is responsible for payment, we will need the Purchase Order No. on the registration form, as well as a copy of the purchase order.

Fees are payable strictly in advance, and in the case of cancellations:

- Within 5 working days of the workshop(s), a cancellation fee of 50% will be applied, and
- Within 2 working days of the workshop(s), a cancellation fee of 100% will be applied.

## Logistics

<b>Date</b>	:	20 August 2018 (Port Elizabeth) 21 August 2018 (East London)
<b>Venue</b>	:	Summerstrand Hotel, Marine Drive, Port Elizabeth East London Golf Club, East London
<b>Time</b>	:	Refer to Table 1 above

## Web Site

[www.achasm.co.za](http://www.achasm.co.za)

## For further information:

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