



Critical Pass & Imminent Danger

HASAS Version 1.4

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Outline

1. HASAS Ver 1.4 introduction
2. Performance of Critical Pass in Q1 2009
3. Imminent Danger observed in Q1 2009



Background

- **Housing Authority Safety Audit Scheme (HASAS)** since December 1996
- **Consists of 2 parts with totally 14 elements**
 - Part A : Elements 1-13 (Establishment of SMS)
 - Part B : Element 14 (Implementation of SMS)
- ***HASAS Version 1.0*** introduced in 1996, coverage and safety standards regularly reviewed
- ***HASAS Version 1.1*** had been adopted since Apr 1998 to Dec 2002
- ***HASAS Version 1.2*** had been adopted since Jan 2003 to Feb 2007
- ***HASAS Version 1.3*** has been adopted since Mar 2007 to Dec 2008
- ***HASAS Version 1.4*** has been adopted since Jan 2009 to present



Critical Pass in HASAS V1.4

- Part A: Key Elements
 - Element 6 Safety Inspection
 - Element 7 Job Hazard Analysis
- Part B: High Risk Subsections
 - 14.1.3 Working at Height
 - 14.1.4 Housekeeping
 - 14.1.5 Falling Objects
 - 14.3.3 Lifting Operations



Rationale for Critical Pass

Part A

1. The 2 selected elements are the fundamental structure of the SMS (14 elements totally for SMS) in the Code of Practice in Safety Management

Element 6 Safety Inspection

- monitoring mechanism under SMS (provisions in OSH reg. e.g. scaffold inspection-CSSR; LALG reg. SO & SS Reg., etc)

Element 7 Job Hazard Analysis

- related to risk assessment- coping with modern management-risk management approach (provisions in OSH legislation, e.g. confined space, working at height, noise at work, etc.)



Critical Pass in HASAS V1.4

Part B:

High Risk Subsections

- ◆ 14.1.3 Working at Height
- ◆ 14.1.4 Housekeeping
- ◆ 14.1.5 Falling Objects
- ◆ 14.3.3 Lifting Operations

Refer to activities/conditions which are of relatively high risk and will cause issues of concern
e.g. Causes serious accidents or arouses public concern



Working at height (section 14.1.3)

High risk activity causing majority of the fatal accidents

Year	Industry Wide Accident Statistics	
	Fatal Cases	Total Fatal Cases
2003	9 (36%)	25
2004	8 (47%)	17
2005	14 (56%)	25
2006	9 (56%)	16
2007	9 (47%)	19
2003-2007	49 (48%)	102



Protection against falling objects (section 14.1.5)

Most of the cases were serious

Year	Industry Wide Accident Statistics			
	Fatal Cases	Total Fatal Cases	Accident Cases	Total Acc Cases
2003	3 (12%)	25	237 (5.4%)	4367
2004	0	17	139 (3.6%)	3833
2005	3 (12%)	25	151 (4.2%)	3548
2006	1 (6%)	16	131 (3.9%)	3400
2007	3 (16%)	19	114 (3.7%)	3042
2003 - 2007	10 (9.8%)	102	772 (4.2%)	18190

Year	HA Sites Accident Statistics			
	Fatal Cases	Total Fatal Cases	Accident Cases	Total Acc Cases
2003	0	1	15 (7.7%)	195
2004	1 (100%)	1	20 (15.6%)	128
2005	0	0	2 (3.3%)	61
2006	0	0	0	37
2007	0	0	2 (3.5%)	57
2003 - 2007	1 (50%)	2	39 (8.2%)	478



Housekeeping (section 14.1.4)

High incidence rate

(a) Slip, trip or fall on same level

(b) Stepping on objects

Year	Industry Wide Accident Statistics		HA Sites Accident Statistics	
	Accident Cases	Total Acc Cases	Accident Cases	Total Acc Cases
2003	868 (20%) 1 Fatal Acc (4%)	4367	47 (24%)	195
2004	695 (18%)	3833	20 (16%)	128
2005	687 (19%)	3548	21 (34%)	61
2006	640 (19%)	3400	13 (35%)	37
2007	539 (18%)	3042	16 (28%)	57
2003 - 2007	3429 (19%)	18190	117 (24%)	478



Lifting Operation (section 14.3.3)

Increase use as a result of change of construction method (pre-cast construction-façade walls, etc)

- Involving heavy machinery and very heavy load leading to
(a) “striking against or struck by moving object” and (b) “struck by falling object”
- Majority of serious nature

Year	Industry Wide Accident Statistics			
	Fatal Cases	Total Fatal Cases	Accident Cases	Total Acc Cases
2003	4 (16%)	25	984 (23%)	4367
2004	6 (35%)	17	896 (23%)	3833
2005	1 (4%)	25	825 (23%)	3548
2006	2 (13%)	16	736 (22%)	3400
2007	3 (16%)	19	698 (23%)	3042
2003 - 2007	16 (16%)	102	4139 (23%)	18190

Year	HA Sites Accident Statistics	
	Accident Cases	Total Acc Cases
2003	47 (24%)	195
2004	38 (30%)	128
2005	9 (15%)	61
2006	7 (19%)	37
2007	12 (7%)	57
2003 - 2007	113 (24%)	478



Rationale for Critical Pass

Part A

1. SM Reg since 1999 , Enforced since 2002
2. Fundamental elements of COP
3. Crucial to success of SMS

Part B

1. Mandatory
2. Full compliance
3. High Risk Items

HASAS

1. Scheme aimed at higher standards
2. HASAS more than 13 yrs since 1996
3. Continuous Improvement
4. Leading in industry



Implementation

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- Along with the various enhancement measures introduced under HASAS, performance in “Critical Pass” provides insight snapshots for the degree of compliance of key elements and activities with potentially high risk implications.
- alert on failure in “Critical Pass” threshold (namely at 70% currently under HASAS version 1.4) will only be captured at “project” level within the one-year grace period in 2009
- from January 2010 and onwards, two consecutive failures in any “Critical Pass” in a contract will trigger the contractor’s performance report to the respective Contractors Review Committee for review



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- Accredited Safety Auditors (ASA) should inform the contractor at the end of exit meeting of audit findings
- highlight deficiencies relating to imminent danger and/or critical pass (if any) with a written summary copied to HA site representative



Overall results of Critical Pass in Q1 2009

Section	Critical pass items	Performance of 12 projects
6	E6 - Programme for Inspection of Hazardous Conditions	no project with score below 70
7	E7 - Job Hazard Analysis	8 projects with score below 70
14.1.3	SS 14.1.3 - Working at Height	4 projects with score below 70
14.1.4	SS 14.1.4 - Housekeeping	8 projects with score below 70
14.1.5	SS 14.1.5 - Protection against Falling Objects	6 projects with score below 70
14.3.3	SS 14.3.3 - Lifting Operations	1 project with score below 70



Highlight of common failures in Critical Pass elements/sub-sections

- *E7 - Job Hazard Analysis*
- *SS 14.1.3 - Working at Height*
- *SS 14.1.4 – Housekeeping*
- *SS 14.1.5 - Protection against Falling Objects*



Job Hazard Analysis

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Item	Question	Number of failures
7.1.1	Have a list of all anticipated work activities covering premises, plant, people and procedures, and information? (Weighting = 3)	5
7.2.2	Is there written specification of the control measures for each hazard, which includes safe systems of work, protective clothing/equipment and training? (Weighting = 3)	5
7.2.3	Is there written specification of managers and supervisors or personnel responsible for ensuring the implementation of the control measures for each hazard? (Weighting = 3)	7
7.2.4	Have the developed safety working procedures/method statements/permit to work been communicated to the relevant personnel? (Weighting = 3)	5
7.2.5	Are there arrangements to ensure plant, personal protective equipment, and training provided in accordance with safety procedures/method statements/permit to work? (Weighting = 3)	6



Management should take safety concerns in controlling exposure to hazards on how employees in their worksites interact with the organization's technology.

Remember the equipment doesn't simply malfunction, independently of how it has been designed and maintained, and the employee doesn't simply behave unsafely, independently of the system.



Working at Height

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Item	Question	Number of failures
14.1.3.2	Is a safe means of access (and egress) to the work area, taking into account the conditions on site such as gangways, stairs and ladders etc. provided? (Weighting = 9)	4
14.1.3.3	Has every worker been provided with a safe place of work such as provision of proper working platforms or if not practicable, the use of the fall-arresting system etc. for all activities? (Weighting = 9)	4



Safe means of access and egress to the work area is the top priority of all priorities



There are four ways of preventing falls of people:

- edge protection, eg toe boards, guard rails;*
- safety harnesses;*
- maintaining a safe distance from an edge;*
- safety nets.*



Housekeeping

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Item	Question	Number of failures
14.1.4.3	Are appropriate steps taken to ensure good housekeeping and proper waste disposal? (Weighting = 9)	6
14.1.4.4	Are appropriate steps taken to ensure no timber or other material with projecting nails or other sharp objects are used or left on the site? (Weighting = 9)	6



5 S Management System

Good order in the workplace has many other positive knock-on effects. These include: more time spent productively and not used up in, for example, finding tools and equipment; less money spent on equipment if better care is taken of it; enhanced company image; enhanced working environment and better fire and safety management.

Industrial housekeeping is therefore a concrete area, which both management and employees should aim to improve (Laitinen et al, 1997).



Protection against Falling Objects

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Item	Question	Number of failures
14.1.5.3	Is there a system for monitoring the frequency of inspections to these arrangements to ensure that there are no gaps, holes or accumulated debris? (Weighting = 9)	4
14.1.5.7	Are suitable safety helmets properly worn by all workers? (Weighting = 9)	4



To prevent objects falling onto people we need a proper management system which:

- *provides barriers, eg a toe boards or mesh guards to prevent items from slipping or being knocked off the edge of a structure;*
- *secures objects to the structure, eg lashing of scaffold boards;*
- *ensures that there are no loose objects and that any tools are properly secured;*
- *creates an exclusion zone, where necessary, beneath areas where work is taking place.*



Imminent Danger observed during the HASAS audit





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Deteriorated nylon webbing sling should be disposed.



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Compressed air line joints should be provided with proper whip check device to prevent accidental dislodge.



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Timber with projecting nails left unattended should be removed.



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No guard-rails observed at the end of the temporary working platform



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Unguarded fire service pump



Unsafe working platform



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Unfenced temporary loading platform



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Unsafe access to façade



Use of unsafe scaffold



Defective fencing of working platform



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Improper protection of electric cables of builders' lift



220V portable tools



Unguarded grout mixer



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Defective interlocking gate



Defective pressure gauge and regulator



Improper insulation and protection of welding cables



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Storage of pipes on slope



Storage of sheet piles on edge of slope



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- Tripping hazard



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Fencing provided at the edge of pile cap was found not up to the required height



Flimsy tape erected at the edge of lift well opening was considered not rigid



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Electric cable to portable circular saw damaged with live part exposed.



Any imminent danger must be rectified by the contractor immediately without delay.





End

