Otis Tool Box Talk No 30

Introduction to Job Hazard Analysis (2011)

Objective: Trainees will understand why, when and how to perform a JHA		
Teaching Instructions	Main Points	
What is a JHA?	 JHA is a structured process that systematically reviews a work task to Identify the hazards associated with that task Assess the risks those hazards present Determine control measures to reduce risk to an acceptable level Periodically review the effectiveness of the proposed actions in managing risk It is a continuous process because of the continually changing environments where we work. 	
Purpose of JHA. Generally incident statistics show that most incidents could be prevented if the hazard had been identified and controlled by completing an adequate JHA prior to commencing work.	 By completing a JHA we will Improve our awareness (stoping and thinking) of hazards by more thorough hazard identification and better communication of hazards Improve our ability to manage risk by properly planning to control risk – providing correct tools, training etc. Ultimately resulting in reduced number and severity of incidents and injuries. 	
When is a JHA required? Standard Work Review the SWMS prepared for standard work activities, add site hazards and implement controls. Mo existing SWMS/Site Specific Conditions / Non Standard work Complete JHA if not available, add site specific hazards and implement control using From ZS5838 Job Hazard Analysis Site Specific Conditions /Standard Work	 JHA must be completed Prior to commencing any job or Task AND Whenever circumstances might change Standard Work On Construction/ Mod. review & sign off standard work SWMS for the site On Construction/ Mod/ Repairs daily review the section of SWMS for the Tasks then complete the Quick JHA using NE, Mod, Repair JHA booklet to identify any hazards that may not be noted in the existing SWMS On Service/ Escalators review the machine room hazard signs for site specific hazards/ conditions then complete the JHA booklet 	
Day-to-day Dynamics Daily review for continually changing work environments	 Non-standard work Same JHA process applied with variations or additional controls identified and documented to accommodate site peculiarities If gloves are to be removed to complete a specific task e.g. fitting tiny screws, drilling a separate JHA must be completed –JHA booklet can be used. 	
Special requirements SWMS for re-roping jobs must be reviewed and approved by a person at a higher level in the organisation than the employee performing the re- roping work at the jobsite. Communications must be a part of the control measures	 Day-to-day Dynamics Daily Hazscan / Quick check to identify changing conditions that may impact on planned work Review your JHA each time you return to the site, as site conditions could have changed 	

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How to complete a JHA.	List the basic steps involved in the task.
Step 1 – Brief Job Description	Describe briefly what the task will be. E.g. Fit landing doors or Replace car roller etc
Step 2 – Identify the hazards A hazard is anything that has the potential to cause injury or illness, equipment damage or environmental harm. Refer to the Hazscan package for a refresher on the six common hazard types.	 Work systematically through the job and consider whether there is the potential for hazards to arise. Run through the common hazards listed in the JHA booklet. Consider all persons who may be impacted – employees, sub-contractors, public. Consider every possible scenario – apply some reasonable "what if" scenarios. Consider issues such as housekeeping, water around the site, and other issues affecting general site safety. When listing the hazards, be specific – don't <i>just</i> use the common hazards as this might not provide adequate information to ensure all instances of the hazard type are effectively managed. NOTE: If the hazard is Sharp Edges or any other case where a cut can result; the <i>MINIMUM</i>
Step 3 – Identify the Control Measures Refer to the risk-ranking table in the JHA Template ZS5606A	 control is to be Grade 2 Cut resistant gloves. Use the risk-ranking table to assess the risk presented by each hazard identified. Consider the likelihood of the incident occurring and the consequences to establish the risk rating. Think about the hazard initially without any controls Consider injury, environmental harm and equipment damage
 Step 4 – Control the risk Hierarchy of controls 1. Eliminate - remove the hazard altogether 2. Substitute – replace the hazard with a material or process that is less hazardous eg. use of a less harmful chemical, utilise low voltage power, use of lifting equipment 3. Engineering – design a new tool, modify some equipment 4. Isolation - involves things like machine guarding, sound proofing and removing power. 5. Administration - Procedures and training 6. PPE - the last line of defence – the least effective type of control although often still necessary to achieve minimum risk. 	 Propose and implement controls to reduce the risk to an acceptable level for each hazard. Apply the hierarchy of controls. A number of different controls may be required to achieve an acceptable level of risk. A practicality and cost effectiveness check should also be applied Once controls are identified re-assess the risk rating to check that adequate risk reduction will be achieved – this time giving consideration to the effect of the control measures.

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The following example illustrates how applying the hierarchy of control makes for better risk reduction.	Example:
	If a HV controller is unguarded and we elect to implement a procedure requiring mechanics to isolate the controller if they are "working in close proximity to the controller", then the likelihood of the mechanic falling inadvertently into a live controller is reduced. However, the potential still exists for the mechanic to suffer an electric shock injury if he fails to follow the isolation procedure correctly.
	If a fixed barrier or door was installed on the controller, then the likelihood of falling onto a live controller (and therefore also the risk) is reduced even further because the reliability of the guarding solution is greater than the procedural solution.
	i.e. GUARDING beats PROCEDURES.
	The procedural option, supported with training etc may however be an appropriate interim solution whilst the practicality and cost issues of addressing the risk across the entire portfolio are addressed.
Step 5 - Review the effectiveness of controls	Even the best planning can overlook something so we need to monitor the effectiveness of our control measures to be sure that they
	 Achieve the desired outcome without introducing new risks Are able to be implemented – are supported by adequate tools, training etc Continue to be effective over time Are updated whenever changes to processes or technology allow improvements
Communication of hazards and controls	To gain the most benefit from the JHA process we need to communicate the hazards and control measures identified to everybody who may be involved in the work task.
	We can do this by:
	 Discussing the requirements at team tool box sessions Posting site specific JHAs in site safety plans / in machine rooms/ on machine room hazard signs etc for ready reference to all
Remind participants to:	
	ork. Be aware of the changing hazards on each site.
Hand out the attendance record and ask participants to PRINT and SIGN their name. Send attendance record back to your Region EHS&Q Manager	
Approved by:	Revised by:
Rob D'Silva	Wayne Day
General Manager EHS&Q	EHS&Q Systems Manager

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