

GUIDE for IDENTIFYING CAUSAL FACTORS and CORRECTIVE ACTIONS

Answer questions by placing an X in the "Y" circle or box for YES or in the "N" circle or box for NO.
Reminder: An X in a circle identifies a causal factor. An X in a box indicates that the item is not a causal factor.

CASE NUMBER

PART 1-EQUIPMENT			
Y <input type="radio"/>	N <input type="checkbox"/>	1.0 WAS A HAZARDOUS CONDITION(S) A CONTRIBUTING FACTOR? If yes, answer the following. If no, proceed to Part 2.	
CAUSAL FACTORS		COMMENT	POSSIBLE CORRECTIVE ACTIONS
Y <input type="radio"/>	N <input type="checkbox"/>	1.1 Did any defect(s) in equipment/tool(s)/material contribute to hazardous condition(s)?	Review procedure for inspecting, reporting, maintaining, repairing, replacing, or recalling defective equipment/tool(s)/material used.
Y <input type="checkbox"/>	N <input type="radio"/>	1.2 Was the hazardous condition(s) recognized?	Perform job safety analysis. Improve employee ability to recognize existing or potential hazardous conditions. Provide test equipment, as required, to detect hazard. Review any change or modification or equipment/tool(s)/material.
Y <input type="checkbox"/>	N <input type="radio"/>	A. Was the hazardous condition(s) reported? If yes, answer A and B. If no, proceed to 1.3.	Train employees in reporting procedures. Stress individual acceptance of responsibility.
Y <input type="checkbox"/>	N <input type="radio"/>	B. Was employee(s) informed of the hazardous condition(s) and the job procedures for dealing with it as an interim measure?	Review job procedures for hazard avoidance. Review supervisory responsibility. Improve supervisor-employee communications. Take action to remove or minimize hazard.
Y <input type="checkbox"/>	N <input type="radio"/>	1.3 Was there an equipment inspection procedure(s) to detect the hazardous condition(s)?	Develop and adopt procedures (for example, an inspection system) to detect hazardous conditions. Conduct test.
Y <input type="checkbox"/>	N <input type="radio"/>	1.4 Did the existing equipment inspection procedure(s) detect the hazardous condition(s)?	Review procedures. Change frequency or comprehensiveness. Provide test equipment as required. Improve employee ability to detect and hazardous conditions. Change job procedures as required.

		CAUSAL FACTORS	COMMENT	POSSIBLE CORRECTIVE ACTIONS	RECOMMENDED CORRECTIVE ACTIONS
<input type="checkbox"/>	<input type="checkbox"/>	1.5 Was the correct equipment/tool(s)/material used?		Specify correct equipment/tool(s)/material in job procedures.	
<input type="checkbox"/>	<input type="checkbox"/>	1.6 Was the correct equipment/tool(s)/material readily available?		Provide correct equipment/tool(s)/material. Review purchasing specifications and procedures. Anticipate future requirements.	
<input type="checkbox"/>	<input type="checkbox"/>	1.7 Did employee(s) know where to obtain equipment/tool(s)/material required for the job?		Review procedures for storage, access, delivery, or distribution. Review job procedures for obtaining equipment/tool(s)/material.	
<input type="checkbox"/>	<input type="checkbox"/>	1.8 Was substitute equipment/tool(s)/material used in place of correct one?		Provide correct equipment/tool(s)/material. Warn against use of substitutes in job procedures and in job instruction.	
<input type="checkbox"/>	<input type="checkbox"/>	1.9 Did the design of the equipment/tool(s) create operator stress or encourage operator error?		Review human factors engineering principles. Alter equipment/tool(s) to make it more compatible with human capability and limitations. Review purchasing procedures and specification. Check out new equipment and job procedures involving new equipment before putting into service. Encourage employees to report potential hazardous conditions created by equipment design.	
<input type="checkbox"/>	<input type="checkbox"/>	1.10 Did the general design or quality of the equipment/tool(s) contribute to a hazardous condition?		Review criteria in codes, standards, specification, and regulations. Establish new criteria as required.	
<input type="checkbox"/>	<input type="checkbox"/>	1.11 List other causal factors in "Comment" column.			

PART 2-ENVIRONMENT

Y <input type="radio"/>	N <input type="checkbox"/>	2.0 WAS THE LOCATION/POSITION OF EQUIPMENT/MATERIAL/EMPLOYEE(S) A CONTRIBUTING FACTOR? If yes, answer the following. If no, proceed to Part 3.	CAUSAL FACTORS	COMMENT	POSSIBLE CORRECTIVE ACTIONS	RECOMMENDED CORRECTIVE ACTIONS
Y <input type="radio"/>	N <input type="checkbox"/>	2.1 Did the location/position of equipment/material/employee(s) contribute to a hazardous condition?	Perform job safety analysis. Review job procedures. Change the location, position, or layout of the equipment. Change position of employee(s). Provide guardrails, barricades, barriers, warning lights, signs, or signals.			
Y <input type="checkbox"/>	N <input type="radio"/>	2.2 Was the hazardous condition recognized? If yes, answer A and B. If no, proceed to 2.3.	Perform job safety analysis. Improve employee ability to recognize existing or potential hazardous conditions. Provide test equipment, as required, to detect hazard. Review any change or modification of equipment/tools/materials.			
Y <input type="checkbox"/>	N <input type="radio"/>	A. Was the hazardous condition reported?	Train employees in reporting procedures. Stress individual acceptance of responsibility.			
Y <input type="checkbox"/>	N <input type="radio"/>	B. Was employee(s) informed of the job procedure for dealing with the hazardous condition as an interim action?	Review job procedures for hazard avoidance. Review supervisory responsibility. Improve employee-supervisor communications. Take action to remove or minimize hazard.			
Y <input type="checkbox"/>	N <input type="radio"/>	2.3 Was employee(s) supposed to be in the vicinity of the equipment/material?	Review job procedures and instruction. Provide guardrails, barricades, barriers, warning lights, signs, or signals.			
Y <input type="checkbox"/>	N <input type="radio"/>	2.4 Was the hazardous condition created by the location/position of equipment/material visible to employee(s)?	Change lighting or layout to increase visibility of equipment. Provide guardrails, barricades, barriers, warning lights, signs or signals, floor stripes, etc.			
Y <input type="checkbox"/>	N <input type="radio"/>	2.5 Was there sufficient workspace?	Review workspace requirements and modify as required.			

	CAUSAL FACTORS	COMMENT	POSSIBLE CORRECTIVE ACTIONS	RECOMMENDED CORRECTIVE ACTIONS
Y <input type="radio"/>	N <input type="checkbox"/>	2.6 Were environmental conditions a contributing factor (for example, illumination, noise levels, air contaminant, temperature extremes, ventilation, vibration, radiation)?	Monitor, or periodically check, environmental conditions as required. Check results against acceptable levels. Initiate action for those found unacceptable.	
Y <input type="radio"/>	N <input type="checkbox"/>	2.7 List other causal factors in "Comment" column.		

PART3-PEOPLE

3.0 WAS THE JOB PROCEDURES(S) USED A CONTRIBUTING FACTOR? If yes, answer the following: If no, proceed to Part 3.6.				
	CAUSAL FACTORS	COMMENT	POSSIBLE CORRECTIVE ACTIONS	RECOMMENDED CORRECTIVE ACTIONS
Y <input type="checkbox"/>	N <input type="radio"/>	3.1 Was there a written or known procedure (rules) for this job? If yes, answer A,B, and C. If no, proceed to 3.2.	Perform job safety analysis and develop safe job procedures.	
Y <input type="checkbox"/>	N <input type="radio"/>	A. Did job procedures anticipate the factors that contributed to the accident?	Perform job safety analysis and change job procedures.	
Y <input type="checkbox"/>	N <input type="radio"/>	B. Did employee(s) know the job procedure?	Improve job instruction. Train employees in correct job procedures.	
Y <input type="radio"/>	N <input type="checkbox"/>	C. Did employee(s) deviate from the known job procedure?	Determine why. Encourage all employees to report problems with an established procedure to supervision. Review job procedure and modify if necessary. Counsel or discipline employee. Provide closer supervision.	
Y <input type="checkbox"/>	N <input type="radio"/>	3.2 Was employee(s) mentally and physically capable of performing the job?	Review employee requirements for the job. Improve employee selection. Remove or transfer employees who are temporarily, either mentally or physically, incapable of performing the job.	

CAUSAL FACTORS		COMMENT	POSSIBLE CORRECTIVE ACTIONS	RECOMMENDED CORRECTIVE ACTIONS
<input type="radio"/> Y	<input type="checkbox"/> N	3.3 Were any tasks in the job procedure too difficult to perform (for example, excessive concentration or physical demands)?	Change job design and procedures.	
<input type="radio"/> Y	<input type="checkbox"/> N	3.4 Is the job structured to encourage or require deviation from job procedures (for example, incentive, piecework, work pace)?	Change job design and procedures.	
<input type="radio"/> Y	<input type="checkbox"/> N	3.5 List other causal factors in "Comment" column.		
3.6 WAS LACK OF PERSONAL PROTECTIVE EQUIPMENT OR EMERGENCY EQUIPMENT A CONTRIBUTING FACTOR IN THE INJURY?				
If yes, answer the following. If no, proceed to Part 4. NOTE: The following causal factors relate to the injury.				
CAUSAL FACTORS		COMMENT	POSSIBLE CORRECTIVE ACTIONS	RECOMMENDED CORRECTIVE ACTIONS
<input type="checkbox"/> Y	<input type="radio"/> N	3.7 Was appropriate personal protective equipment (PPE) specified for the task or job? If yes, answer A, B, and C. If no, proceed to 3.8.	Review methods to specify PPE requirements.	
<input type="checkbox"/> Y	<input type="radio"/> N	A. Was appropriate PPE available?	Provide appropriate PPE. Review purchasing and distribution procedures.	
<input type="checkbox"/> Y	<input type="radio"/> N	B. Did employee(s) know that wearing specified PPE was required?	Review job procedures. Improve job instruction.	
<input type="checkbox"/> Y	<input type="radio"/> N	C. Did employee(s) know how to use and maintain the PPE?	Improve job instruction.	
<input type="checkbox"/> Y	<input type="radio"/> N	3.8 Was the PPE used properly when the injury occurred?	Determine why and take appropriate action. Implement procedures to monitor and enforce use of PPE.	
<input type="checkbox"/> Y	<input type="radio"/> N	3.9 Was the PPE adequate?	Review PPE requirements. Check standards, specification, and certification of the PPE.	

		CAUSAL FACTORS	COMMENT	POSSIBLE CORRECTIVE ACTIONS	RECOMMENDED CORRECTIVE ACTIONS
<input type="checkbox"/>	<input type="radio"/>	3.10 Was emergency equipment specified for this job (for example, emergency showers, eyewash fountains)?		Provide emergency equipment as required.	
<input type="checkbox"/>	<input type="radio"/>	If yes, answer the following. If no, proceed to Part 4.			
<input type="checkbox"/>	<input type="radio"/>	A. Was emergency equipment readily available?		Install emergency equipment at appropriate locations.	
<input type="checkbox"/>	<input type="radio"/>	B. Was emergency equipment properly used?		Incorporate use of emergency equipment in job procedures.	
<input type="checkbox"/>	<input type="radio"/>	C. Did emergency equipment function properly?		Establish inspection/monitoring system for emergency/equipment. Provide for immediate repair of defects.	
<input type="checkbox"/>	<input type="radio"/>	3.11 List other causal factors in "Comment" column.			
PART 4-MANAGEMENT					
<input type="checkbox"/>	<input type="checkbox"/>	4.0 WAS A MANAGEMENT SYSTEM DEFECT A CONTRIBUTING FACTOR? If yes, answer the following. If no, STOP. Your causal factor identification exercise is complete.			
		CAUSAL FACTORS	COMMENT	POSSIBLE CORRECTIVE ACTIONS	RECOMMENDED CORRECTIVE ACTIONS
<input type="checkbox"/>	<input type="checkbox"/>	4.1 Was there a failure by supervision to detect, anticipate, or report a hazardous condition?		Improve supervisor capability in hazard recognition and reporting procedures.	
<input type="checkbox"/>	<input type="checkbox"/>	4.2 Was there a failure by supervision to detect or correct deviations from job procedure?		Review job safety analysis and job procedures. Increase supervisor monitoring. Correct deviations.	
<input type="checkbox"/>	<input type="checkbox"/>	4.3 Was there a supervisor/employee review of hazards and job procedures for tasks performed infrequently? (Not applicable to all accidents.)		Establish a procedure that requires a review of hazards and job procedures (preventive actions) for tasks performed infrequently.	
<input type="checkbox"/>	<input type="checkbox"/>	4.4 Was supervisor responsibility and accountability adequately defined and understood?		Define and communicate supervisor responsibility and accountability. Test for understanding and acceptance.	

	CAUSAL FACTORS	COMMENT	POSSIBLE CORRECTIVE ACTIONS	RECOMMENDED CORRECTIVE ACTIONS
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	4.5 Was supervisor adequately trained to fulfill assigned responsibility in accident prevention? 4.6 Was there a failure to initiate corrective action for a known hazardous condition that contributed to this accident?		Train supervisors in accident prevention fundamentals. Review management safety policy and level of risk acceptance. Establish priorities based on potential severity and probability of recurrence. Review procedure and responsibility to initiate and carry out corrective actions. Monitor progress.	
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	4.7 List other causal factors in "Comment" column.			

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