

An Initiative of the American Staffing Association and National Safety Council

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.

| emino | der: An 2 | X in a circle identifies a causal factor. An X in a bo | | | CASE NUMBER | | |
|------------------|-------------|---|---------|--|--------------------------------|--|--|
| PART 1-EQUIPMENT | | | | | | | |
| Y O | z 🗆 | 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 | RECOMMENDED CORRECTIVE ACTIONS | | |
| O ≺ | z 🗌 | 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. | | | |
| □≺ | z () | 1.2 Was the hazardous condition(s) recognized? If yes, answer A and B. If no, proceed to 1.3. | | Perform job safety analysis. Improve employee ability to recognize existing or potential hazards. Provide test equipment, as required, to detect hazard. Review changes, modification or equipment/tool(s)/material. | | | |
| Υ | N | A. Was the hazardous condition(s) reported? | | Train employees in reporting procedures. Stress individual acceptance of responsibility. | | | |
| Y | N () | 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 supervisoremployee communications. Take action to remove/minimize hazard. | | | |
| Y | N () | 1.3 Was there an equipment inspection procedure(s) to detect the hazardous condition(s)? | | Develop/adopt procedures (ex. an inspection system) to detect hazardous conditions. Conduct test. | | | |
| _ \ | N O | 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 defects and hazardous conditions. Change job procedures as required. | | | |

| | | CAUSAL FACTORS | COMMENT | POSSIBLE CORRECTIVE ACTIONS | RECOMMENDED CORRECTIVE ACTIONS |
|----|-------------|---|---------|--|--------------------------------|
| Y | N O | 1.5 Was the correct equipment/tool(s)/material used? | | Specify correct equipment/tool(s)/material in job procedures. | |
| Y | N () | 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. | |
| Y | z () | 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. | |
| Y | z 🗌 | 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. | |
| YO | z 🗌 | 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. | |
| Y | N [| 1.10 Did the general design or quality of the equipment/tool(s) contribute to a | | Review criteria in codes, standards, specification, and regulations. | |
| 0 | | hazardous condition? | | Establish new criteria as required. | |
| 0 | | 1.11 List other causal factors in "Comment" column. | | | |

| | PART 2-ENVIRONMENT | | | | | | |
|----------|--------------------|---|-----------------------|---|--------------------------------|--|--|
| Υ | N | 2.0 WAS THE LOCATION/POSITION O | F EQUIPMENT/MATERIALS | S/EMPLOYEE(S) A CONTRIBUTING FACTOR | ₹? | | |
| 0 | | If yes, answer the following. If no, proceed to Part 3. | | | | | |
| | | CAUSAL FACTORS | COMMENT | POSSIBLE CORRECTIVE ACTIONS | RECOMMENDED CORRECTIVE ACTIONS | | |
| 0 < | N | 2.1 Did the location/position of equipment/material/employee(s) contribute to a hazardous condition? | | Perform job safety analysis. Change equipment location, position, or layout. Change employee(s) position. Provide guardrails, barricades, barriers, warning lights, signs, or signals. | | | |
| ~ □ < | N () | 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 hazards. Provide test equipment, as required, to detect hazard. Review change/modification of equipment/tools/materials. | | | |
| Y | N O | A. Was the hazardous condition reported? | | Train employees in reporting procedures. Stress individual acceptance of responsibility. | | | |
| Y | N | B. Was employee(s) informed of the job procedure for dealing with the hazardous condition as an interim action? | | Review supervisor responsibility and job procedures for hazard avoidance. Improve employee/supervisor communications. Remove/minimize hazard. | | | |
| | N O | 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. | | | |
| > □ | N | 2.4 Was the hazardous condition created by location/position of equipment/ material visible to employee(s)? | | Change lighting or layout to increase equipment visibility. Provide barriers, guardrails, barricades, warning lights, signs or signals, floor stripes, etc. | | | |
| Y | N O | 2.5 Was there sufficient workspace? | | Review workspace requirements and modify as required. | | | |
| Y () | N | 2.6 Were environmental conditions a contributing factor (vibration, ventilation, radiation, temperature extremes, noise levels, illumination, air contaminant)? | | Monitor/periodically check environ- mental conditions, as required. Check results against acceptable levels. Initiate action for unacceptable levels. | | | |
| 0 | | 2.7 List other causal factors in "Comment" column. | | | | | |

| | | | PART3-PEO | PLE | | | |
|---|---|--|-------------------------|--|--------------------|--|--|
| Υ | N | 3.0 WAS THE JOB PROCEDURE(S) U | JSED A CONTRIBUTING FAC | TOR? | | | |
| 0 | | _ | | | | | |
| | | CAUSAL FACTORS | COMMENT | POSSIBLE | RECOMMENDED | | |
| | | O.4.Weethers a street and | | CORRECTIVE ACTIONS | CORRECTIVE ACTIONS | | |
| Y | N | 3.1 Was there a written or known procedure (rules) for this job? | | Perform job safety analysis and develop safe job procedures. | | | |
| | 0 | procedure (rules) for this job! | | develop sale job procedures. | | | |
| | | If yes, answer A, B, and C. If no, | | | | | |
| Y | N | proceed to 3.2. A. Did job procedures anticipate the | | Perform job safety analysis and change | | | |
| | Ö | factors that contributed to the accident? | | job procedures. | | | |
| | | | | | | | |
| Y | N | B. Did employee(s) know the job procedure? | | Improve job instruction. Train employees in correct job procedures. | | | |
| | 0 | procedure? | | employees in correct job procedures. | | | |
| Υ | N | C. Did employee(s) deviate from the | | Determine why. Encourage all | | | |
| 0 | | known job procedure? | | 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 | N | 3.2 Was employee(s) mentally and | | Review employee requirements for job. | | | |
| | 0 | physically capable of performing the job? | | Improve employee selection. Remove or transfer employees temporarily | | | |
| | |]00: | | (either mentally or physically) incapable | | | |
| | | | | of performing the job. | | | |
| Y | N | 3.3 Were any tasks in the job procedure | | Change job design and procedures. | | | |
| 0 | | too difficult to perform (for example, excessive concentration or physical | | | | | |
| | | demands)? | | | | | |
| Υ | N | 3.4 Is the job structured to encourage or | | Change job design and procedures. | | | |
| 0 | | require deviation from job procedures | | | | | |
| | | (for example, incentive, piecework, work pace)? | | | | | |
| 0 | | 3.5 List other causal factors in | | | | | |
| | | "Comment" column. | | | | | |

| Υ | N | 3.6 WAS LACK OF PERSONAL PROTECT | TIVE FOLIIPMENT OR EMER | GENCY FOLIPMENT A CONTRIBUTING | FACTOR IN THE INJURY? | |
|---|--------|--|-------------------------|--|--------------------------------|--|
| 0 | | If you are small to fellowing the second to Dort A. NOTE: The fellowing are said feet as a slot to the fellowing | | | | |
| | | CAUSAL FACTORS | COMMENT | POSSIBLE CORRECTIVE ACTIONS | RECOMMENDED CORRECTIVE ACTIONS | |
| Y | N O | 3.7 Was appropriate personal protective equipment (PPE) specified for the task or job? | | Review methods to specify PPE requirements. | | |
| | | If yes, answer A, B, and C. If no, proceed to 3.8. | | | | |
| Y | N O | A. Was appropriate PPE available? | | Provide appropriate PPE. Review purchasing and distribution procedures. | | |
| Y | N O | B. Did employee(s) know that wearing specified PPE was required? | | Review job procedures. Improve job instruction. | | |
| Y | N O | C. Did employee(s) know how to use and maintain the PPE? | | Improve job instruction. | | |
| Y | N O | 3.8 Was the PPE used properly when the injury occurred? | | Determine why and take appropriate action. Implement procedures to monitor and enforce PPE use. | | |
| Y | N O | 3.9 Was the PPE adequate? | | Review/check PPE requirements, standards, specification, and certification. | | |
| Y | N O | 3.10 Was emergency equipment specified for this job (for example, emergency showers, eyewash fountains)? | | Provide emergency equipment as required. | | |
| | | If yes, answer the following. If no, proceed to Part 4. | | | | |
| Y | N O | A. Was emergency equipment readily available? | | Install emergency equipment at appropriate locations. | | |
| Υ | N O | B. Was emergency equipment properly used? | | Incorporate use of emergency equipment in job procedures. | | |
| Y | N O | C. Did emergency equipment function properly? | | Establish inspection/monitoring system for emergency/equipment. Provide for immediate repair of defects. | | |
| | 0 | 3.11 List other causal factors in "Comment" column. | | | | |

| | PART 4-MANAGEMENT | | | | | | |
|---|-------------------|---|---------|--|--------------------------------|--|--|
| Y | N | 4.0 WAS A MANAGEMENT SYSTEM DEFECT A CONTRIBUTING FACTOR? If yes, answer the following. If no, STOP. Your casual factor identification exercise is complete. | | | | | |
| | I | CAUSAL FACTORS | COMMENT | POSSIBLE CORRECTIVE ACTIONS | RECOMMENDED CORRECTIVE ACTIONS | | |
| Y | N | 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. | | | |
| Y | N | 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. | | | |
| Y | N O | 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. | | | |
| Y | N O | 4.4 Was supervisor responsibility and accountability adequately defined and understood? | | Define and communicate supervisor responsibility and accountability. Test for understandability and acceptance. | | | |
| | N O | 4.5 Was supervisor adequately trained to fulfill assigned responsibility in accident prevention? | | Train supervisors in accident prevention fundamentals. | | | |
| Y | N | 4.6 Was there a failure to initiate corrective action for a known hazardous condition that contributed to this accident? | | 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. | | | |
| 0 | | 4.7 List other causal factors in "Comment" column. | | | | | |

DEVELOPED BY THE NATIONAL SAFETY COUNCIL