

IN ORDER OF EFFECTIVENESS, THE CONTROL METHODS RECOMMENDED BY THE HIERARCHY OF HAZARD CONTROL ARE:

ELIMINATION - IS THE MOST EFFECTIVE HAZARD CONTROL METHOD AS THE HAZARD IS PHYSICALLY REMOVED FROM THE WORKPLACE. ELIMINATING TASKS PERFORMED IN HIGH AREAS WOULD ELIMINATE FALLS, FOR INSTANCE, WHILE PERFORMING LINEWORK IF FEASIBLE DE-ENERGIZE THE LINE TEST AND GROUND THIS WILL REMOVE THE HAZARD AND THE EMPLOYEES CAN PERFORM THE TASK IN A CONTROLLED MANNER. WHILE EFFECTIVE, ELIMINATING HAZARDS IS NOT ALWAYS POSSIBLE. MANY PIECES OF ELECTRICAL EQUIPMENT CARRY THE RISK OF ARC FLASH. IF SO, THE OTHER TYPES OF CONTROL MEASURES ON THE HIERARCHY OFFER SOLUTIONS.

SUBSTITUTION - THE SECOND CONTROL METHOD ON THE HIERARCHY OF HAZARD CONTROL, SUBSTITUTION REPLACES HAZARDOUS EQUIPMENT, MATERIALS, OR PROCESSES WITH SAFER ALTERNATIVES. CARE MUST BE TAKEN TO ENSURE THE HAZARD CONTROL METHODS INTRODUCED AS SUBSTITUTIONS DO NOT INTRODUCE OTHER HAZARDS TO THE WORKPLACE. ALL RISKS ASSOCIATED WITH THE NEW EQUIPMENT OR PROCESS MUST BE CONSIDERED.

ENGINEERING CONTROLS - DESCRIBE STRATEGIES TO PREVENT CONTACT BETWEEN HAZARDS AND EMPLOYEES. MOVING DANGEROUS EQUIPMENT TO AN ISOLATED ROOM, ERECTING PHYSICAL BARRIERS TO ENCLOSE THE HAZARD, OR LOCKING

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THE HAZARD IN SECURE LOCATIONS ARE ALL EXAMPLES OF ENGINEERING CONTROLS. ENGINEERING CONTROLS ARE CONSIDERED MORE EFFECTIVE THAN ADMINISTRATIVE CONTROLS AND PPE BECAUSE THEY PHYSICALLY DISTANCE EMPLOYEES FROM HAZARDS. THE UPFRONT COSTS OF ENGINEERING CONTROLS CAN BE HIGH BUT REDUCE FUTURE COSTS OF ASSOCIATED WITH THE HAZARD.

ADMINISTRATIVE CONTROLS – HAZARD CONTROL METHODS REDUCE THE RISK OF INJURY THROUGH EMPLOYEE TRAINING, PROCEDURAL CHANGES, AND INSTALLING SIGNS AND WARNING LABELS. CLEARLY LABELING THE HAZARDS, USING LOCKOUT/TAGOUT EQUIPMENT, PROVIDING ELECTRICAL SAFETY TRAINING TO EMPLOYEES, AND LABELING ARC-FLASH HAZARDS ARE ALL ADMINISTRATIVE HAZARD CONTROL METHODS. ADMINISTRATIVE CONTROLS DO NOT REMOVE THE TREAT, SEEKING INSTEAD TO EDUCATE EMPLOYEES ON THE RISK. AS SUCH, THEY ARE NOT AS EFFECTIVE AS THE FIRST THREE TYPES OF CONTROL MEASURES.

PPE - Is considered the least effective solution on the Hierarchy of Hazard Control, which surprises many people because PPE is one of the most highly visible Hazard control methods. PPE efficiency is only effective if the wearer is trained in the proper use of protective gear, understands the limitations of PPE, and actually wears PPE (Hearing Protection is a good example of PPE that is often ignored by employees, who find it interferes with the communication). PPE can also be damaged either with routine use or if contact is made with a hazard, reducing its ability to protect the wearer.

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