



## **Mishap Prevention & Hazard Abatement Program** **Definitions & Acronyms**

### **Abatement Plan**

An activity's written plan identifying program deficiencies, a timetable for correction, the individual(s) responsible for correction, the steps to be taken in the interim, and an explanation of the circumstances causing any delay in abatement.

### **Abatement Priority Number (APN)**

A two-part calculation that is product of the RAC multiplied by the Calculated CEI. The expression allows the MPHA PM to assess the priority for funding for abatement.

### **Administrative Control**

Procedures and practices that limit exposure to harmful conditions by control or manipulation of work schedule or the process by which work is performed. If you are unable to alter the process or workplace to reduce the physical stressors, administrative controls should be used to reduce the risk exposure on the work force. Administrative controls are most effective when used in combination with engineering controls.

### **Cost-Benefit Analysis**

A quantitative procedure comparing costs and benefits of a proposed project or act under a set of pre-established rules. To determine a rank ordering of projects to maximize rate of return when available funds are unlimited, the quotient of benefits divided by costs is the appropriate form; to maximize absolute return given limited resources, benefits-costs is the appropriate form.

### **Cost Effectiveness Index (CEI)**

A measure that represents in a single value the ratio between the cost of an abatement project and the potential effectiveness (measured in terms of reduced frequency and severity of mishaps) to be derived from implementing the abatement project. The CEI is a measure that is based on estimated risk assessment and cost of abatement, as calculated per DoDI6055.1.

### **Cumulative Trauma Disorders**

Health disorders arising from repeated biomechanical stress. Other terms that have been used for such disorders include: "work-related musculoskeletal disorders", "repetitive motion injury", "occupational overuse syndrome" and "repetitive strain injury". CTDs are a class of musculoskeletal disorders involving damage to the tendons, tendon sheaths, and related bones, muscles, and nerves of the hands, wrists, elbows, shoulders, spine (neck and back), and lower extremities. Examples of disorders in this class include carpal tunnel syndrome, tennis elbow, tendonitis, tenosynovitis, De Quervain's Disease, and low back strain.

### **Damage**

Damage is the severity of injury or the physical, functional, or monetary loss that could result if control of a hazard is lost.

### **Death from mishap**

A death which occurs within one year of the mishap causing the injury.

### **Disabling injury**

An injury causing permanent disability, or any degree of temporary total disability beyond the day of the accident.

### **Engineering Control**

Engineering controls are physical changes to design, work stations, equipment, materials, manufacturer

processes, production facilities or any other relevant aspect of the work environment that reduces or prevents exposure to work place risk factors.

### **Ergonomics**

The field of study that involves the application of knowledge about physiological, psychological and biomechanical capacities and limitations of the human body. This knowledge is applied in the planning, design, and evaluation of work environments, jobs, tools and equipment to enhance worker performance, safety and health and reducing the potential for fatigue, error, or unsafe acts. Ergonomics is essentially fitting the workplace to the worker.

### **Exposure**

Being placed within an environmental condition or in the immediate area of a hazard that has a harmful effect. Occupational exposure is all exposure of workers expected to occur under the normal operating conditions of a facility or activity incurred in the course of their work.

### **Facility**

An establishment, workplace, building, structure, construction site or other work environment.

### **Fatal mishap**

A mishap which results in one or more deaths within one year.

### **Hazard**

Anything which causes danger, peril, or risk to persons or property.

### **Hazard Abatement**

Prevention, mitigation, elimination or control of a hazard. Any measure or set of measures designed to permanently eliminate hazards, including worker personal protection and safe work practices.

### **Hazard Assessment**

An objective overall assessment for measuring the relative priority of hazard abatement projects in terms of a 3-digit dimensionless number. This assessment will be used as part of prioritization of centrally funded projects.

### **Hazard Control Hierarchy**

The methods of intervention (in order of priority) to be used are: elimination, engineering controls, substitution, work practices and administrative controls and finally PPE; e.g. adjust work-rest cycles, slowing work pace, task rotation.

### **Hazard Severity**

An assessment grading of the worst potential consequence, defined by degree of occupational injury, illness or property damage which is likely to occur as a result of the deficiency.

### **Human Factors**

Human factors examines the relationship between human beings and the systems with which they interact by focusing on improving efficiency, creativity, productivity, job satisfaction and safety, with the goal of minimizing errors and accidents.

### **Illness**

Any abnormal physical condition or disorder, other than one resulting from an injury, caused by exposure to conditions associated with the occupational environment.

### **Injury**

Traumatic bodily harm, such as a cut, muscle strain, fracture, burn, or poisoning, caused by an acute or chronic exposure to an external force, toxic substance, or physical agent.

### **Industrial Hygiene**

An occupational health science involving the identification, evaluation, and control of environmental factors or stresses arising in or from the workplace that causes sickness or impairs health.

### **Interim Controls**

A set of measures designed to temporarily reduce human exposure or likely exposure to a hazard.

### **Mishap**

An occurrence in a sequence of events which usually produces unintended injury, death or property damage.

### **Mishap Probability**

The likelihood that a hazard will result in a mishap or loss, based on an assessment of such factors as location, exposure (cycles or hours of operation), affected populations, experience, or previously established statistical information.

### **Musculoskeletal Disorders**

Injuries and illnesses that affect muscles, nerves, tendons, ligaments, joints, spinal discs, skin, subcutaneous tissues, blood vessels, and bones.

### **Nonfatal injury mishap**

A mishap in which at least one person is injured but no injury causes a fatality within a year.

### **Permanent disability**

Any degree of permanent impairment of the body such as amputation, permanent impairment of vision and other permanently crippling nonfatal injury ranging from the permanent stiffening of a joint or a finger amputation, to permanent, complete crippling.

### **Probability**

The likelihood that an event will occur or the extent to which something is likely to happen, often expressed as the ratio of the number of favorable outcomes in the set of outcomes divided by the total number of possible outcomes.

### **Risk**

The potential for realization of unwanted, adverse consequences to human life, health, property, or the environment; estimation of risk is usually based on the conditional probability of the event occurring compared to the severity of the event if it were to occur.

### **Risk Assessment Code (RAC)**

A matrix derived number representing the degree of risk associated with a hazard considering the elements of hazard severity and mishap probability. The RAC is expressed as a single Arabic number that is used to help determine hazard abatement priorities.

### **Risk Assessment**

A detailed examination performed to understand the nature of unwanted, negative consequences to human life, health, or property; an analytical process to provide information regarding undesirable events; the process of quantification of the probabilities and expected consequences for identified risks.

### **Safety**

Freedom from danger: protection from, or not being exposed to the risk of harm or injury.

## **Work-related Musculoskeletal Disorders**

Musculoskeletal Disorders (MSDs) are injuries and illnesses that affect muscles, nerves, tendons, ligaments, joints, spinal discs, skin, subcutaneous tissues, blood vessels, and bones. Work-related Musculoskeletal Disorders (WMSDs) are: Musculoskeletal disorders to which the work environment and the performance of work contribute significantly, or Musculoskeletal disorders that are aggravated or prolonged by work conditions

### **Acronyms**

<b>ANSI</b>	American National Standards Institute
<b>ASSP (E)</b>	American Society of Safety Professionals (formerly Engineers)
<b>BBP</b>	Bloodborne Pathogens
<b>CDC</b>	Centers for Disease
<b>CFR</b>	Control Code of Federal Regulations
<b>CTD</b>	Cumulative Trauma Disorder
<b>GOCO</b>	Government-Owned Contractor Operated
<b>HAZCOM</b>	Hazard Communication
<b>IH</b>	Industrial Hygienist
<b>JHA</b>	Job Hazard Analysis
<b>LSC</b>	Life Safety Codes
<b>MPHA</b>	Mishap Prevention & Hazard Abatement Program
<b>MSD</b>	Musculoskeletal Disorders
<b>NFPA</b>	National Fire Protection Association
<b>NIOSH</b>	National Institute of Occupational Safety and Health
<b>OHP</b>	Occupational Health Physician
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PEL</b>	Permissible Exposure Limit
<b>PPE</b>	Personal Protective Equipment
<b>RAC</b>	Risk Assessment Code
<b>TLV</b>	Threshold Limit Values
<b>WMSD</b>	Work-related Musculoskeletal Disorder

