4. Implement Controls
    a. Eliminate or mitigate each hazard whenever possible
        • Identify and mark
        • Avoid
        • Remove / eliminate
        • Brief personnel
5. Supervise/Monitor/Evaluate
    a. Observe and monitor
    b. Continue to evaluate
    c. Recycle to the beginning step

RISK MANAGEMENT THEORY

Risk management is a tool that helps determine sound decisions in a logical manner. The term is best applied generically, as leaders are confronted with a variety of risks: training risks, fiscal risks and safety risks.

Before personnel can effectively use risk management as an accident prevention tool, they must remember to:
1. Accept that some risk is inherent in carrying out any action.
2. Integrate risk management into all activities, but especially the planning process.
3. Accept no unnecessary risk.
4. Make risk decisions at the proper level.
5. Accept the risk only if benefits outweigh the cost.

Risk management can be a five-step cyclic procedure that is easily integrated into the decision-making process:
1. Identify the Hazards.
2. Assess the Hazards/Risk.
3. Make a Risk Decision.
4. Implement Controls.
5. Supervise/Monitor/Evaluate.

Risk management is a continual process, ingrained in planning, that should be applied to all operations, especially those that are unique, complex or high-risk.

1. Identify the Hazards

Hazards are the potential sources of danger that could be encountered while performing a job or task. Hazards must be described in their most tangible and descriptive form. Instead of just: "there is fire in the attic..." we can get more specific information from "there is a fire in the attic with blowing flames visible from the gable vent on the C side and dense, black smoke venting under pressure from the gable vent on the A side".

There may be multiple hazards, some presenting more risk than others. The process of identifying and researching one hazard may lead to the identification of others.

2. Assess the Hazards/Risk

Risk is a function of the probability of an untoward event caused by a hazard and the consequence(s) thereof:

Risk = Hazard Severity x Probability of Occurrence

Each identified hazard is analyzed to determine the **severity** of problems it may cause and the **probability** of it happening. Some subjectivity is inherent in assessing risk therefore each person may do it differently. A Risk Assessment Matrix is useful in assigning a relative risk value to identified hazards considering their probability of occurrence.

RISK ASSESMENT MATRIX			PROBABILITY OF OCCURANCE				
			Frequent	**Likely**	**Occasional**	**Seldom**	**Unlikely**
			A	B	C	D	E
HAZARD SEVERITY	**Catastrophic**	I	EXTREMELY HIGH	HIGH	HIGH		MEDIUM
	Critical	II		HIGH	HIGH	MEDIUM	
	Moderate	III	HIGH	MEDIUM	MEDIUM		
	Negligible	IV	MEDIUM	LOW	LOW	LOW	LOW

<u>**Hazard Severity**</u>: Severity of the possible outcome. If the hazard is encountered the effect may be:

<u>Catastrophic:</u>	Death or serious injury and/or total system/equipment loss.
<u>Critical:</u>	Serious injury and/or substantial damage to equipment.
<u>Moderate:</u>	Moderate injury and/or damage to equipment.
<u>Negligible:</u>	No injury and/or no damage.

<u>**Probability**</u>: The probability of encountering the hazard may be:

<u>Frequent:</u>	Continuously/often encountered while performing the task.
<u>Likely:</u>	Encountered several times while performing the task repetitively.
<u>Occasional:</u>	Encountered sporadically while performing the task repetitively.
<u>Seldom:</u>	Encountered infrequently, chances are remote.
<u>Unlikely:</u>	Encountered only rarely, chances are possible, but improbable.

The cumulative risk of all hazards must be determined. You may encounter several hazards that have all been individually assessed as low moderate risk; however, the cumulative risk of all these combined may create greater and unacceptable risk.

The assessment of hazards should include identifying risks associated with *not performing the intended job or task.* If a job or task is not completed, how will that affect other functions of the organization?

3. Make Risk Decisions

Leaders are expected to *weigh the costs and risks against the benefits* of performing a job or task. Will the benefits to be gained from completing the job or task outweigh the potential risks? Is there another safer or more efficient way to accomplish the objective?

If one or more of the individual hazards is rated as a high or extremely high risk, or if the cumulative risk is high or extremely high, some leaders may decide to not assign and/or complete the objective; no-go is always an alternative! However, after mitigating controls are included (see Step 4) a second risk assessment can be performed. It may be that enough of the hazards will be reduced or eliminated so that the over-all risk is then acceptable.

Risk decisions should be made at a level of command that is appropriate to the degree of risk and complexity. Commanders should train subordinate leaders to 1) recognize hazardous situations and to 2) elevate decision-making to the appropriate command level. Getting the chain-of-command involved in the *entire* risk management process enhances the chances of completing the objective(s) safely; in addition, all levels of command are informed and have a stake in the outcome.

4. Implement Controls

This step is tied closely with Steps 1 through 3 in a cyclic process. As hazards are identified and assessed, controls are proposed to mitigate or eliminate the risk, *regardless of the risk level.* Even low risks should be mitigated whenever possible. When controls have been planned or implemented, an adjusted risk assessment should be performed using Steps 1 through 3. The purpose of this re-assessment is to ensure that the completion of the job or task still falls within acceptable limits, or that identified hazards/risks have been mitigated to an acceptable level.

Each control measure must address and mitigate specific hazards. Some hazards may be physically eliminated. Performing the job or task during low periods of danger may reduce the hazard. A very common mitigating control is the marking of identified hazards so they may be avoided. In some cases, a short safety briefing may be the only measure required. In other instances, a comprehensive special safety plan may have to be developed and implemented. Higher complexity controls are required for higher complexity risks. This may mean a comprehensive change in personnel training and qualification requirements or even changes in policy or procedures.

In every scenario, the leader must provide the crew with a briefing on the specifics of mitigating controls and operating procedures. A brief-back is then required to ensure that all is understood. Controls should be in place to ensure that personnel have a clear understanding of when the situation requires re-assessment. Some times that may mean aborting the job or task until the situation changes or conditions improve.

5. Supervise/Evaluate

The last step in managing risk is to supervise operations to ensure that mitigation measures are being implemented. Direct supervision of crews and progress may be

delegated; however, the risk decision-maker must also be involved in monitoring operations and performance. This includes follow up during and after an action to see if all went according to plan, re-evaluating the plan or making adjustments as required to accommodate unforeseen issues or situations, and incorporating lessons learned for future use.

ALL RISK DECISION MAKING CHECKLIST

1. Identify Incident Priorities
   a. Life Safety
   b. Incident Stabilization
   c. Property Conservation
   d. Environmental Concerns
2. Select & Prioritize Tactical Objectives
3. Determine Resource Requirements
4. Factor in the Hazards
5. Make assignments that are congruent with the strategic priorities and tactical objectives that have acceptable risk and definite benefit.

UTILIZATION OF LCES ON ALL INCIDENTS

Lookouts
What is the hazard/threat and who is monitoring it?
Do they have contact with you?

Awareness
Know what is happening around you – Look Up, Look down, Look Around

Communications
Are you in contact with lookout/supervisor/adjacent crews/dispatch?
Do you know the communications plan?

Escape Routes
If your position becomes untenable, do you have an escape route?
Is your escape route known to all and clear of obstructions?
Revise and relocate, as necessary, to adjust to changes in conditions.

Safety Zones
Have you identified a safe refuge to retreat to/gather at prior to taking action?
Have barriers/safety zones/shelters been identified?
Is it adequate based on the threat (fire, HazMat, collapse, WMD, people)?

SPOKANE COUNTY FIRE AGENCY MUTUAL AID FIREFIGHTER ACCOUNTABILITY

It is the policy of Spokane County Fire Mutual Aid Agencies to establish an accountability system on all incidents to ensure the tracking of assignment, function and location of all assigned personnel and resources. Accountability systems and tools will be maintained in a safe, retrievable location and format.