Step 1 – Establish a Planning Team

Form the Team

The size of the planning team will depend on the facility's operations, requirements and resources. Usually involving a group of people is best because:

1. It encourages participation and gets more people invested in the process.
2. It increases the amount of time and energy participants are able to give.
3. It enhances the visibility and stature of the planning process.
4. It provides for a broad perspective on the issues.

Determine who can be an active member and who can serve in an advisory capacity. In most cases, one or two people will be doing the bulk of the work. At the very least, you should obtain input from all functional areas.

- Upper management
- Line management
- Labor
- Human Resources
- Engineering and maintenance
- Safety, health and environmental affairs
- Public information officer
- Security
- Community relations
- Sales and marketing
- Legal
- Finance and purchasing

Have participants appointed in writing by upper management. Job descriptions could also reflect this assignment.

Establish Authority

Demonstrate management's commitment and promote an atmosphere of cooperation by "authorizing" the planning group to take the steps necessary to develop a plan. The group should be led by the chief executive or the plant manager. Establish a clear line of authority between group members and the group leader, though not so rigid as to prevent the free flow of ideas.

Issue a Mission Statement

Have the chief executive or plant manager issue a mission statement to demonstrate the company's commitment to emergency management. The statement should:

Define the purpose of the plan and indicate that it will involve the entire organization

Define the authority and structure of the planning group

Establish a Schedule and Budget

Establish a work schedule and planning deadlines. Timelines can be modified as priorities become more clearly defined.

Develop an initial budget for such things as research, printing, seminars, consulting services and other expenses that may be necessary during the development process.

Step 2 – Analyze Capabilities and Hazards

Where Do You Stand Right Now?

Review Internal Plans and Policies

Documents to look for include:

- Evacuation plan
- Fire protection plan
- Safety and health program
- Environmental policies
- Security procedures
- Insurance programs
- Finance and purchasing procedures
- Plant closing policy
- Employee manuals
- Hazardous materials plan
- Process safety assessment
- Risk management plan
- Capital improvement program
- Mutual aid agreements

Meet with Outside Groups

Meet with government agencies, community organizations and utilities. Ask about potential emergencies and about plans and available resources for responding to them. Sources of information include:

- Community emergency management office
- Mayor or Community Administrator's office
- Local Emergency Planning Committee (LEPC)
- Fire Department
- Police Department
- Emergency Medical Services organizations
- American Red Cross
- National Weather Service
- Public Works Department
- Planning Commission
- Telephone companies
- Electric utilities
- Neighboring businesses

While researching potential emergencies, one facility discovered that a dam -- 50 miles away -- posed a threat to its community. The facility was able to plan accordingly.

Identify Codes and Regulations

Identify applicable Federal, Provincial and local regulations such as:

- Occupational safety and health regulations
- Environmental regulations
- Fire codes
- Seismic safety codes
- Transportation regulations
- Zoning regulations
- Corporate policies

Identify Critical Products, Services and Operations

You'll need this information to assess the impact of potential emergencies and to determine the need for backup systems. Areas to review include:

- Company products and services and the facilities and equipment needed to produce them
- Products and services provided by suppliers, especially sole source vendors
- Lifeline services such as electrical power, water, sewer, gas, telecommunications and transportation
- Operations, equipment and personnel vital to the continued functioning of the facility

Identify Internal Resources and Capabilities

Resources and capabilities that could be needed in an emergency include:

- Personnel -- fire brigade, hazardous materials response team, emergency medical services, security, emergency management group, evacuation team, public information officer
- Equipment -- fire protection and suppression equipment, communications equipment, first aid supplies, emergency supplies, warning systems, emergency power equipment, decontamination equipment
- Facilities -- emergency operating center, media briefing area, shelter areas, first-aid stations, sanitation facilities
- Organizational capabilities -- training, evacuation plan, employee support system
- Backup systems -- arrangements with other facilities to provide for:
    - Payroll
    - Communications
    - Production
    - Customer services
    - Shipping and receiving
    - Information systems support
    - Emergency power
    - Recovery support

One way to increase response capabilities is to identify employee skills (medical, engineering, communications, foreign language) that might be needed in an emergency.

Identify External Resources

There are many external resources that could be needed in an emergency. In some cases, formal agreements may be necessary to define the facility's relationship with the following:

- Local emergency management office
- Fire Department
- Hazardous materials response organization

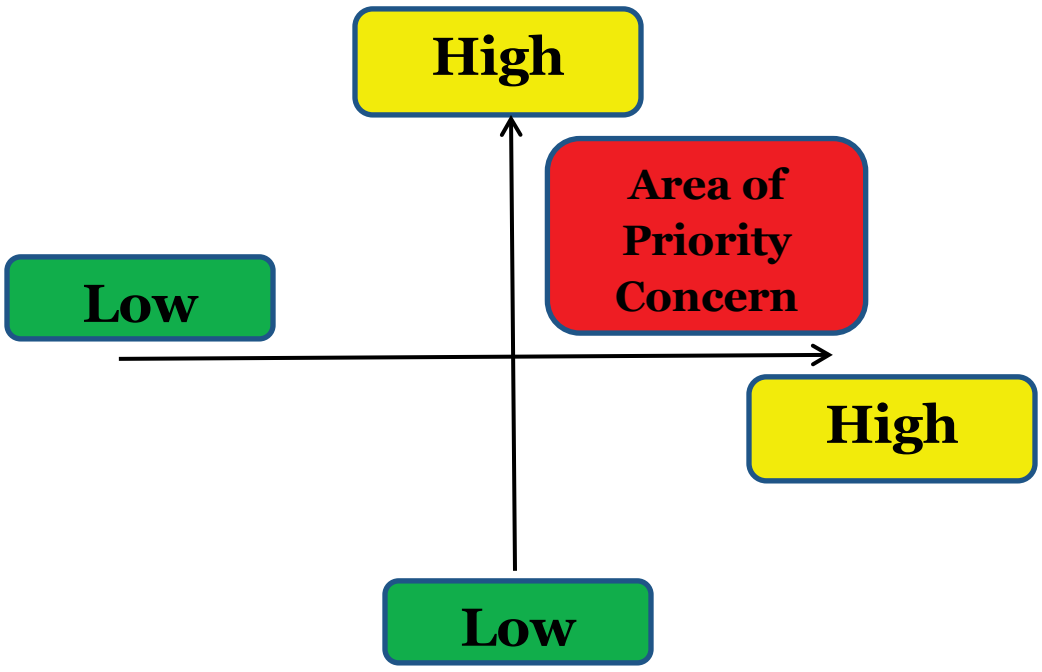
- Emergency medical services
- Hospitals
- Local and State police
- Community service organizations
- Utilities
- Contractors
- Suppliers of emergency equipment
- Insurance carriers

Have an Insurance Review Completed

Meet with insurance carriers to review all policies.

Conduct a Vulnerability Analysis

The next step is to assess the vulnerability of your facility -- the probability and potential impact of each emergency. Use the Vulnerability Analysis Chart to guide the process, which entails assigning probabilities, estimating impact and assessing resources, using a numerical system.



	Impact or Risk	Trivial or No Disruption	Low Disruption	Moderate Disruption	High Disruption	Health Safety	Life Threat
Probability		1	2	3	4	5	6
Unlikely	1						
Low	2						
Medium	3						
Likely	4						
High Almost Certain	5						

Using the Templates to Assess Event Probability and Risk

Using the graphs above to assist in completing the "Event Probability Risk Matrices" that is contained in Appendix 1 (Contained in assessment folder of your package) will assist in developing a better emergency response plan. It will identify hazards in your business and local area some of which you may not have thought of or been aware of. This information gathering tool may be used by your companies ERP Planning Team to assess the hazards associated with your business and build your ERP.

The events have been broken into three categories: human events, technological events and natural events. The first rating will show the probability of such an event happening in your community, the second rating will determine the risk it posses and the third, the preparedness level will be adjusted as the plan is developed, exercised and reassessed. There are empty spaceson the evaluation matrices to allow more events to be **added as necessary. Evaluate every potential event in each of the three categories of probability, risk and preparedness.**

Issues to consider for Probability include but are not limited to:

- Known risk
- Historical data
- Manufacturers or vendors statistics
- Future growth of population and industry

Issues to consider for risk include but are not limited to:

- Threat to life or health
- Multiple properties

- Environment
- Economy
- Overwhelming local resources
- Require provincial or federal assistance
- Disruption of services
- Damage or failure possibilities
- Loss of community trust
- Financial impact
- Legal issues

Issues to consider for preparedness include but are not limited to:

- Status of current plans
- Training status
- Insurance
- Availability of backup systems
- Community resources
- Mutual aid agreements

Another useful assessment matrics that explains the levels is contained in Appendix 2

List Potential Emergencies

In the first column of the chart, list all emergencies that could affect your facility, including those identified by your local emergency management office. Consider both:

- Emergencies that could occur within your facility
- Emergencies that could occur in your community

Below are some other factors to consider:

Historical: What types of emergencies have occurred in the community, at this facility and at other facilities in the area?

- Fires
- Severe weather
- Hazardous material spills
- Transportation accidents
- Earthquakes
- Hurricanes
- Tornadoes
- Terrorism
- Utility outages

Geographic: What can happen as a result of the facility's location? Keep in mind:

- Proximity to flood plains, seismic faults and dams
- Proximity to companies that produce, store, use or transport hazardous materials
- Proximity to major transportation routes and airports
- Proximity to nuclear power plants

Technological: What could result from a process or system failure? Possibilities include:

- Fire, explosion, hazardous materials incident
- Safety system failure
- Telecommunications failure
- Computer system failure
- Power failure
- Heating/cooling system failure
- Emergency notification system failure

Human Error: What emergencies can be caused by employee error? Are employees trained to work safely? Do they know what to do in an emergency? Human error is the single largest cause of workplace emergencies and can result from:

- Poor training
- Poor maintenance
- Carelessness
- Misconduct
- Substance abuse
- Fatigue

Physical: What types of emergencies could result from the design or construction of the facility? Does the physical facility enhance safety? Consider:

- The physical construction of the facility
- Hazardous processes or by-products
- Facilities for storing combustibles
- Layout of equipment
- Lighting
- Evacuation routes and exits
- Proximity of shelter areas

Regulatory: What emergencies or hazards are you regulated to deal with?

Analyze each potential emergency from beginning to end. Consider what could happen as a result of:

- Prohibited access to the facility
- Loss of electric power
- Communication lines down
- Ruptured gas mains
- Water damage
- Smoke damage
- Structural damage
- Air or water contamination
- Explosion
- Building collapse
- Trapped persons
- Chemical release

Estimate Probability

In the Probability column, rate the likelihood of each emergency's occurrence. This is a subjective consideration, but useful nonetheless. Use a simple scale of 1 to 5 with 1 as the lowest probability and 5 as the highest.

Assess the Potential Human Impact

Analyze the potential human impact of each emergency -- the possibility of death or injury. Assign a rating in the Human Impact column of the Vulnerability Analysis Chart. Use a 1 to 5 scale with 1 as the lowest impact and 5 as the highest.

Assess the Potential Business Impact

Consider the potential loss of market share. Assign a rating in the Business Impact column. Again, 1 is the lowest impact and 5 is the highest. Assess the impact of:

- Business interruption
- Employees unable to report to work
- Customers unable to reach facility
- Company in violation of contractual agreements
- Imposition of fines and penalties or legal costs
- Interruption of critical supplies
- Interruption of product distribution

Assess the Potential Property Impact

Consider the potential property for losses and damages. Again, assign a rating in the Property Impact column, 1 being the lowest impact and 5 being the highest. Consider:

- Cost to replace
- Cost to set up temporary replacement
- Cost to repair

e.g.: A business's vulnerability analysis could potentially conclude that a "small" fire could be catastrophic to the business as a computer system failure. A planning group may discover that employees did not know how to use fire extinguishers, and that the business lacked any kind of evacuation or emergency response system.

Assess Internal and External Resources

Next assess your resources and ability to respond. Assign a score to your Internal Resources and External Resources. The lower the score the better. To help you do this, consider each potential emergency from beginning to end and each resource that would be needed to respond. For each emergency ask these questions:

- Do we have the needed resources and capabilities to respond?
- Will external resources be able to respond to us for this emergency as quickly as we may need them, or will they have other priority areas to serve?

If the answers are yes, move on to the next assessment. If the answers are no, identify what can be done to correct the problem. For example, you may need to:

- Develop additional emergency procedures
- Conduct additional training
- Acquire additional equipment
- Establish mutual aid agreements
- Establish agreements with specialized contractors

Add the Columns

Total the scores for each emergency. The lower the score the better. While this is a subjective rating, the comparisons will help determine planning and resource priorities -- the subject of the pages to follow.

When assessing resources, remember that community emergency workers -- police, paramedics, firefighters -- will focus their response where the need is greatest. Or they may be victims themselves and be unable to respond immediately. That means response to your facility may be delayed.

Step 3 – Develop the Plan

Plan Components

Your plan should include the following basic components.

Executive Summary

The executive summary gives management a brief overview of: the purpose of the plan; the facility's emergency management policy; authorities and responsibilities of key personnel; the types of emergencies that could occur; and where response operations will be managed.

Emergency Management Elements

This section of the plan briefly describes the facility's approach to the core elements of emergency management, which are:

- Direction and control
- Communications
- Life safety
- Property protection
- Community outreach
- Recovery and restoration
- Administration and logistics

Emergency Response Procedures

The procedures spell out how the facility will respond to emergencies. Whenever possible, develop them as a series of checklists that can be quickly accessed by senior management, department heads, response personnel and employees.

Determine what actions would be necessary to:

- Assess the situation
- Protect employees, customers, visitors, equipment, vital records and other assets, particularly during the first three days
- Get the business back up and running.

Specific procedures might be needed for any number of situations such as bomb threats or tornadoes, and for such functions as:

- Warning employees and customers
- Communicating with personnel and community responders
- Conducting an evacuation and accounting for all persons in the facility

- Managing response activities
- Activating and operating an emergency operations center
- Fighting fires
- Shutting down operations
- Protecting vital records
- Restoring operations

Support Documents

Documents that could be needed in an emergency include:

Emergency Action Plan (EAP):

An appendix which can be broken down into various departments including incoming mutual aid outlining the basic need to do elements of the larger Emergency Response Plan (ERP). This portion of the plan is a much smaller document outlining critical procedures and contacts. This document may include many of the support documents contained in the larger ERP.

Emergency call lists:

Lists (wallet size if possible) of all persons on and off site who would be involved in responding to an emergency, their responsibilities and their 24-hour telephone numbers

Building and site maps that indicate:

- Utility shutoffs
- Water hydrants
- Water main valves
- Water lines
- Gas main valves
- Gas lines
- Electrical cut-offs
- Electrical substations
- Storm drains
- Sewer lines
- Location of each building (include name of building, street name and number)
- Floor plans
- Alarm and enunciators
- Fire extinguishers
- Fire suppression systems
- Exits
- Stairways
- Designated escape routes
- Restricted areas
- Hazardous materials (including cleaning supplies and chemicals)
- High-value items

Resource lists:

lists of major resources (equipment, supplies, and services) that could be needed in an emergency; mutual aid agreements with other companies and government agencies.

In an emergency, all personnel should know:

- What is my role?
- Where should I go?

Some facilities are required to develop:

- Emergency escape procedures and routes
- Procedures for employees who perform or shut down critical operations before an evacuation
- Procedures to account for all employees, visitors and contractors after an evacuation is completed
- Rescue and medical duties for assigned employees
- Procedures for reporting emergencies
- Names of persons or departments to be contacted for information regarding the plan

The Development Process

The following is guidance for developing the plan.

1. Identify Challenges and Prioritize Activities

   Determine specific goals and milestones. Make a list of tasks to be performed, by whom and when. Determine how you will address the problem areas and resource shortfalls that were identified in the vulnerability analysis.

2. Write the Plan

   Assign each member of the planning group a section to write. Determine the most appropriate format for each section.

   Establish an aggressive timeline with specific goals. Provide enough time for completion of work, but not so much as to allow assignments to linger. Establish a schedule for:

   - First draft
   - Review
   - Second draft
   - Tabletop exercise
   - Final draft
   - Printing
   - Distribution

3. Establish a Training Schedule

   Have one person or department responsible for developing a training schedule for your facility. For specific ideas about training, refer to Step 4.

4. Coordinate with Outside Organizations

Meet periodically with local government agencies and community organizations. Inform appropriate government agencies that you are creating an emergency management plan. While their official approval may not be required, they will likely have valuable insights and information to offer.

Determine Provincial and local requirements for reporting emergencies, and incorporate them into your procedures.

Determine protocols for turning control of a response over to outside agencies. Some details that may need to be worked out are:

- Which gate or entrance will responding units use?
- Where and to whom will they report?
- How will they be identified?
- How will facility personnel communicate with outside responders?
- Who will be in charge of response activities?

Determine what kind of identification authorities will require to allow your key personnel into your facility during an emergency.

Determine the needs of disabled persons and non-English-speaking personnel. For example, a blind employee could be assigned a partner in case an evacuation is necessary.

In Canada we define a disabled person as anyone who has a physical or mental impairment that substantially limits one or more major life activities, such as seeing, hearing, walking, breathing, performing manual tasks, learning, caring for oneself or working.

Your emergency planning priorities may be influenced by government regulation. To remain in compliance you may be required to address specific emergency management functions that might otherwise be a lower priority activity for that given year.

5. Maintain Contact with Other Corporate Offices

Communicate with other offices and divisions in your company to learn:

- Their emergency notification requirements
- The conditions where mutual assistance would be necessary
- How offices will support each other in an emergency
- Names, telephone numbers and pager numbers of key personnel

Incorporate this information into your procedures.

6. Review, Conduct Training and Revise

Distribute the first draft to group members for review. Revise as needed.

For a second review, conduct a tabletop exercise with management and personnel who have a key emergency management responsibility. In a conference room setting, describe an emergency scenario and have participants discuss their responsibilities and how they would react to the situation. Based on this discussion, identify areas of confusion and overlap, and modify the plan accordingly.

7. Seek Final Approval

Arrange a briefing for the chief executive officer and senior management and obtain written approval.

8. Distribute the Plan

Place the final plan in three-ring binders and number all copies and pages. Each individual who receives a copy should be required to sign for it and be responsible for posting subsequent changes.

Determine which sections of the plan would be appropriate to show to government agencies (some sections may refer to corporate secrets or include private listings of names, telephone numbers or radio frequencies). Distribute the final plan to:

- Chief executive and senior managers
- Key members of the company's emergency response organization
- Company headquarters
- Community emergency response agencies (appropriate sections)

Have key personnel keep a copy of the plan in their homes. Inform employees about the plan and training schedule.

Consolidate emergency plans for better coordination. Stand-alone plans, such as a spill prevention control and countermeasures plan, fire protection plan or safety and health plan, should be incorporated into one comprehensive plan. Having said that, those portions of the plan that are specific for frontline staff and Emergency Services to carry out their tasks unencumbered by the full document should be placed in user friendly binders for distribution.

Step 4 - Implement the Plan

Integrate the Plan into Company Operations

Emergency planning must become part of the corporate culture.

Look for opportunities to build awareness; to educate and train personnel; to test procedures; to involve all levels of management, all departments and the community in the planning process; and to make emergency management part of what personnel do on a day-to-day basis.

Test How Completely The Plan Has Been Integrated By Asking:

- How well does senior management support the responsibilities outlined in the plan?
- Have emergency planning concepts been fully incorporated into the facility's accounting, personnel and financial procedures?
- How can the facility's processes for evaluating employees and defining job classifications better address emergency management responsibilities?
- Are there opportunities for distributing emergency preparedness information through corporate newsletters, employee manuals or employee mailings?
- What kinds of safety posters or other visible reminders would be helpful?
- Do personnel know what they should do in an emergency?
- How can all levels of the organization be involved in evaluating and updating the plan?

Conduct Training, Drills and Exercises

Everyone who works at or visits the facility requires some form of training. This could include periodic employee discussion sessions to review procedures, technical training in equipment use for emergency responders, evacuation drills and full-scale exercises. Below are basic considerations for developing a training plan.

1. Planning Considerations

Assign responsibility for developing a training plan. Consider the training and information needs for employees, contractors, visitors, managers and those with an emergency response role identified in the plan. Determine for a 12 month period:

- Who will be trained?
- Who will do the training?
- What training activities will be used?
- When and where each session will take place?
- How the session will be evaluated and documented?

Use the Training Drills and Exercises Chart in the appendix section to schedule training activities or create one of your own. Consider how to involve community responders in training activities.

Conduct reviews after each training activity. Involve both personnel and community responders in the evaluation process.

2. Training Activities

Training can take many forms:

- Orientation and Education Sessions - These are regularly scheduled discussion sessions to provide information, answer questions and identify needs and concerns.
- Tabletop Exercise - Members of the emergency management group meet in a conference room setting to discuss their responsibilities and how they would react to emergency scenarios. This is a cost-effective and efficient way to identify areas of overlap and confusion before conducting more demanding training activities.
- Walk-through Drill - The emergency management group and response teams actually perform their emergency response functions. This activity generally involves more people and is more thorough than a tabletop exercise.
- Functional Drills - These drills test specific functions such as medical response, emergency notifications, warning and communications procedures and equipment, though not necessarily at the same time. Personnel are asked to evaluate the systems and identify problem areas.
- Evacuation Drill - Personnel walk the evacuation route to a designated area where procedures for accounting for all personnel are tested. Participants are asked to make notes as they go along of what might become a hazard during an emergency, e.g., stairways cluttered with debris, smoke in the hallways. Plans are modified accordingly.
- Full-scale Exercise - A real-life emergency situation is simulated as closely as possible. This exercise involves company emergency response personnel, employees, management and community response organizations.

3. Employee Training

General training for all employees should address:

- Individual roles and responsibilities
- Information about threats, hazards and protective actions
- Notification, warning and communications procedures
- Means for locating family members in an emergency
- Emergency response procedures
- Evacuation, shelter and accountability procedures
- Location and use of common emergency equipment
- Emergency shutdown procedures

The scenarios developed during the vulnerability analysis can serve as the basis for training events.

4. Evaluate and Modify the Plan

Conduct a formal audit of the entire plan at least once a year.

Among the issues to consider are:

- How can you involve all levels of management in evaluating and updating the plan?
- Are the problem areas and resource shortfalls identified in the vulnerability analysis being sufficiently addressed?
- Does the plan reflect lessons learned from drills and actual events?
- Do members of the emergency management group and emergency response team understand their respective responsibilities? Have new members been trained?
- Does the plan reflect changes in the physical layout of the facility? Does it reflect new facility processes?
- Are photographs and other records of facility assets up to date?
- Is the facility attaining its training objectives?
- Have the hazards in the facility changed?
- Are the names, titles and telephone numbers in the plan current?
- Are steps being taken to incorporate emergency management into other facility processes?
- Have community agencies and organizations been briefed on the plan? Are they involved in evaluating the plan?

In addition to a yearly audit, evaluate and modify the plan at these times:

- After each training drill or exercise
- After each emergency
- When personnel or their responsibilities change
- When the layout or design of the facility changes
- When policies or procedures change
- Remember to brief personnel on changes to the plan.

Conduct a formal audit of the entire plan at least once a year.