



A comprehensive Industrial Environmental Crisis Response approach

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Abstract: A crisis is defined as any occurrence that has the ability to intervene a negative effect on firm activities, performance results, legal liabilities, and reputation.

A crisis management approach details how a business will respond in the event of an emergency.

This case study aims to ensure that all predicted occurrences are adequately planned, reviewed, and the appropriate equipment and resources are kept publicly available immediately to protect and mitigate environmental threats in the case of an environmental incident.

The environmental crisis Approach is a wide key strategy for responding to circumstances that may develop at a business or in the local neighborhood. Provisions could be developed to increase excellent practices. This will allow lives to be saved and property damage to be minimized in the case of an industrial environmental event.

Key Words: Emergency, Crisis, environmental threats, business, incidents.

1. INTRODUCTION:

The strategy should specify who will react and what its responsibilities will be. A crisis management plan's aim is to limit harm and get business back up and running as quickly as practical.[1]

A crisis is defined as "an unanticipated incident that challenges critical stakeholder interests and can have a serious influence on a company's productivity and result in undesirable results." [2]

The Fundamentals program, the Public Relations Planning and Management courses all have units on crisis management. As innovation and consumers keep producing new crises and put pressure on how companies should react to crises, the need for crisis management in practice grows every year. [3]

Environmental crises are a severe danger to public health and the protection of the environment. The major goals of environmental emergency response are to recognize and minimize hazards as soon as is practicable owing to the difficulty and urgency of a sudden environmental disaster. [4]

The causative factors of different individual environmental concerns in industrial facilities, and also the emergency response to these happenings, were revealed by[5], who explored that the main causes are the overaggressive drive for rapid urbanization and industrialization, as well as the inadequate location of industry segments.

Our research goes further by developing a comprehensive approach for the industry to consider in order to efficiently address an unplanned crisis and mitigate the consequences of such an emergency.[6]

The goal of crisis strategic planning, according to this study, is to collect and assess potential emergencies in order to identify acceptable actions and mitigation measures in the case of an environmental crisis.

2. METHODOLOGY:

2.1 Crisis roles and responsibilities



The crisis committee is in charge of formulating a strategy and making choices about how to handle the issue. The basic purpose is to control the effects of a significant occurrence, collaborate to return the circumstances to ordinary, and then implement the learning recommendations. This committee member should include the senior management, crisis department, and finance, IT, legal HR, and health safety departments. The size and form of the crisis management committee changes depending on the intensity and type of crisis. Despite this, a core staff is often on standby. The senior management should designate the Crisis coordinator based on the sort of crisis and the location and availability of potential Crisis Directors. The chosen Crisis coordinator's mandate provides him complete authority overall membership of the Crisis Management Committee, as well as a full delegation by each industry's senior management, to take all actions necessary for managing the crisis and minimize its effects.

2.2 Crisis Management Approach

Large amounts of data for possible areas of danger is part of detecting a crisis. An assessment of the crisis event and the series of related crisis response tactics are required for the initial reaction. The phases establish a never-ending cycle. The evaluation process of a crisis management attempt (the final phase) is used to enhance performance in the process's initial stages.

Crisis management must be viewed as a collection of interconnected concepts and abilities. A crisis leader needs to be able to recognize when creative options and talents are required. The continuing improvement overall how the periods' varied needs interact to build a coherent crisis management strategy.

2.3 Crisis Management concept

The company's crisis navigation system for gathering information about possible crises is known as the crisis sensing element. If an organization loses an efficient program for gathering and assessing information about possible crises, it will miss out on the opportunity to prevent them.

Three parts can be used to create a crisis process: problems control, risk mitigation, and customer engagement.

Each of the three must be identified and evaluated by practitioners. As a result, practitioners must be familiar with strategic decision-making, risk mitigation, and customer engagement. The construction of the crisis set of specialized is based on a clear understanding of problems management, risk management, and relationship management.[2]

Businesses should choose crisis entire team with caution. The team must optimize the needed technical capabilities (e.g., regulatory understanding, public relation expertise, management aptitude, and so on) as well as acting skills (e.g., ability to communicate in meetings, capacity to work despite the stress, ability to critically assess material, and so on).

2.4 Competencies and qualification

A crisis leader needs to be able to identify and assess possible crises, as well as identify crisis weaknesses. Every risk should be assessed in terms of probability and consequences by crisis management. The possibility of a risk turning into a crisis is known as likelihood. The influence of a crisis on an organization is referred to as its impact.

Most crisis response planning revolves around the crisis management strategy. Industry employees need to understand the components that are included in the plan and then exhibit their ability to build a crisis for a company. To be efficient, the emergency team must practice utilizing it and evaluating their actions as part of the strategy. As a result, estimation techniques such as evaluative questionnaires or standings should be included in the crisis strategy.

Whenever presented with a fundamental situation of crisis, the emergency team must exhibit their ability to determine what more information is required and why, as well as alternative sources of that knowledge and how they might communicate crucial information to the public. Communication is essential for effective crisis management.

The emergency response team should be created at all times to handle all potential adverse effects, and it must be made public and approachable to all employees. Key personnel will be capable of understanding their jobs completely and coordinating their replies with their followers.



This strategy will be used to organize a quick and efficient response to any crisis that affects or is able to injure the project's surroundings, as well as to ensure readiness, response, and monitoring in the case of an emergency.

2.5 Crisis Preparedness

The measures listed below may be valuable throughout the preparations process.

- Ensure that environmental aspects and impact assessments, as well as hazard control and risk monitoring, are performed on a routine basis, as well as those suitable systems are in place, during change process and upkeep. verify that people/coworkers have the required skills and that their credentials/certificates are current and easily available when choosing a Response Team.
- Every staff will receive initial training and guidance on what to do if a crisis happens.
- Make sure that the people participating in the business are familiar with the current procedure, including emergency numbers, facilities locations, and other vital information.
- A variety of tools and protective clothing may be necessary to respond to an environmental crisis.

2.6 Crisis Response

- An crisis reaction is a set of strategies to be adopted in the case of a catastrophe.
- In the event of a crisis, the following steps will be taken:
 - required For specific senior management as well as the crisis department.
 - Remove flammable substances near the incident area
 - Evacuate staff and neighborhood if they are in threat.
 - At such a respectful distance from the spill, set up a perimeter and create boundary control.

2.7 Crisis investigation

In case of a crisis, the divisional head and site supervisor will start investigating the direct incident origin and root cause as per each industry's internal Incident Investigation Process and produce a report to senior management in discussion with the inquiry group assembled by the incident investigator.

2.8 Crisis assessment

The industry should give a brief overview of their industry and what the business produces, in addition, they should make a list of the locations, individuals, and mediums they look for crisis-related knowledge and make a brief note of the detailed information that each source may supply. The business should make a list of and define the main potential crises that each company might encounter. It's also mandatory to evaluate every crisis in terms of its probability of occurring and the severity of its impact on the company.

2.9 Crisis Analysis

During the analysis step, the following should be determined:

- Determine the extent of the damage
- Determine the forms of damage (Injuries, Deaths, environmental damage, physical damage to structures or equipment organization reputation...etc)

In order to well analyze the crisis, it will be good to make a list of the various sorts of damage caused by the crisis. Then Indicate if there is no damage, slight damage, or major damage for each category of harm. Each sort of harm has its own set of rules. It's very important to include financial amounts, numbers of injured/dead, and any other valuable information (table 01)

When describing a crisis, a news analysis report may include information on an organization's past.

Check to see if: a. Previous crises in the organization were addressed.

a. Previous accomplishments or mistakes of the organization are highlighted.

b. There is no reference of any relevant prior history.

If previous crises or excellent works are referenced, make a list of what they were.



Table 1. Crisis analysis matrix approche

Damage	severity	likelihood	Financial loses
Injuries	Low, medium, major	unlikely, possible, likely	Low, medium, major
Fatalities			
Environmental damage			
Asset damage			
Business reputation or image			
Ecological threat			

2.10 Crisis Emergency contacts

To well manage crisis emergency contacts, it's important to include the essential emergency contact info to expedite the reaction in the event of a crisis that necessitates outside assistance. Local authorities, medical emergency rescuers, and the fire brigade, as well as electricians, poisoning prevention, and any other services linked to the hazards each industry found in its research, may be included on the crisis contact list.

2.11 Crisis communication and Reporting

Everybody employed in a factory who witnesses an environmental problem must be responsible for reporting it to the relevant authority.

The crisis department is in charge of filing a report explaining the incident's source, the action being taken, the event, and specific activities to prevent it from happening any more.

2.12 Communication Framework for external crises

Whenever a crisis strikes, business controls aren't always the first element that suffers. When a crisis has reached a critical mass, the business must convey the issue to important external stakeholders and customers. Details regarding who will distribute information and who will handle feedback should be included in the external crisis communication framework.

2.13 Crisis management plan

Whereas no firm can forecast all crisis, it can categorize different sorts of crises and establish plans depending on what might occur. Here are some instances of crisis situations[7]:

- Whenever a corporation has a financial loss, it may be forced to declare liquidation or lay off staff. This could manage for this eventuality even if it doesn't know what caused the financial crisis in the first place.
- Clients may be without connection for a longer length of time if there is a technological malfunction. This type of crisis has a negative impact on a company's brand and bottom line, so it's critical to be prepared.
- Environmental disasters: Depending on where the firm is situated, each company needs to plan for some natural catastrophes. If a company is located in a hurricane-prone area, for example, it should develop a storm crisis plan that includes evacuations, client service, recovery procedures, and other measures.
- Administrative changes: While this may not appear to be a typical crisis, the company should have a strategy in place to deal with an unexpected big leadership challenge. Furthermore, if the company has to lay off a large number of personnel, your operations process may be impacted, and the public may need to be informed.

3. CONCLUSION:

A crisis is defined as any incident that has the potential to have a significant negative impact on a company's usual operations, financial performance, legal responsibility, or name and image. A crisis is also likely to create a lot of media attention, which will lead to increased government attention.



The goal of this approach is to establish the critical event warning system, assess its impact, and describe how each industrial Crisis Response Committee mobilizes, organizes, and functions. It outlines the role and duties of members who have been engaged.

A business emergency crisis strategy sets out skills to cope with unexpected or unplanned events. The purpose is to be prepared to preserve people and assets from harm, minimize widespread destruction, and equipment, and protect people and the planet in the community.

To ensure that all recognized environmental crises are successfully managed, assessed, and the appropriate facilities are useful to protect and mitigate sustainability and regulatory consequences in the event of a crisis. This study intended to guarantee that, in the case of an emergency crisis, all necessary risks and hazards are properly managed and controlled by using administrative and technique methods to save, the environment, surrounding communities, assets as well as the business staff.

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